# International Federation of Clinical Chemistry and Laboratory Medicine

Advancing excellence in laboratory medicine for better healthcare worldwide

www.ifcc.org

# Annual Report 2022



# **Highlights of the Year**



# EuroMedLab Congress - Munich (DE) April 10th-14, 2022

24<sup>th</sup> IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine https://cms.ifcc.org/wp-content/uploads/2023/06/Munich-2022\_Final-Programme-Web.pdf

# WorldLab Congress - Seoul (KR) June 26th - 30th, 2022

24<sup>th</sup> International Congress of Clinical Chemistry and Laboratory Medicine In conjunction with the 16<sup>th</sup> Asia-Pacific Congress of Clinical Biochemistry (APFCB Congress) https://cms.ifcc.org/wp-content/uploads/2023/05/Scientific-programme\_Final.pdf

## IFCC General Conference – Brussels (BE) October 28th-31st, 2022

https://ifcc.org/ifcc-congresses-and-conferences/ifcc-general-conference-brussels-belgium/

# IFCC 70th Anniversary Celebrations:

- IFCC Milestones 2022: golden Achievements: https://cms.ifcc.org/media/479832/ifcc\_milestones\_2022.pdf
- Video on the IFCC membership: https://www.youtube.com/watch?v=GCyGnfnpGPs
- Art Competition: https://ifcc.org/about/ifcc-celebrates-70-years/art-competition/
- Greetings Videos:

https://ifcc.org/about/ifcc-celebrates-70-years/ifcc-celebrates-70-years-greetings/

• 70th Anniversary Magazine:

https://anmys.com/magazines/DIAGNOSTICO\_IN\_VITRO/2022-70th/

#### Global Lab Week celebrations - April 2022 - https://globalmedlabweek.org/

- IFCC live webinars 2022 Series (60 modules):
  - Neurofilament Light Chain (NfL), Troponin for the Brain: Measurement and Applications in Multiple Sclerosis and other neurological conditions (click here to attend)
  - Impact of SARS-CoV-2 variants and mutations on COVID-19 diagnostics
  - Laboratory & Analytical Aspects of High-Sensitivity Cardiac Troponin Assays
  - COVID -19 and Laboratory Medicine Role in Georgia
  - High-Sensitivity Cardiac Troponin Assays Clinical Applications
  - Analytical and Clinical Aspects of Natriuretic Peptides
  - A Global Perspective on Health Inequities in Laboratory Medicine
  - Data-driven Operations and Machine Learning Applications in Clinical Laboratories
  - Reliable biological variation estimates where to find them and how can they safely be applied?
  - Experts' insights and experiences for clinical laboratory investigators: building translational research programs
  - D-dimers and its different clinical applications / Dímero D y sus diferentes aplicaciones clínicas
  - Traceability of measurements, quality and laboratory accreditation. Three topics

of interest for clinical laboratory professionals in Ibero-America / Trazabilidad de medidas, calidad y acreditación del laboratorio clínico. Tres temas de interés para los profesionales del laboratorio clínico en Ibero- America

- Importance of the Preanalytical Phase in different areas of the Laboratory / Importancia de la Fase Preanalítica en diferentes áreas del Laboratorio
- Challenges in laboratory diagnosis of endocrine diseases
- Aspects of Newborn Screening
- From Data to Decisions: Data and Analytics Leadership in Clinical Laboratory Management;
- Single Cell and Spatial Transcriptomics: clinical application
- Personalized oncology: present and future
- The role of key laboratory tests in the investigation and management of metabolic bone disease
- Challenges in implementing Pharmacogenetics in routine Clinical Practice
- New Working Groups formed:
  - Neonatal Bilirubin (WG-NB) cooperation between Scientific Division (SD) and Emerging Technologies Division (ETD)
  - Natriuretic Peptides (WG-NP)
  - Method Evaluation Protocols (WG-MEP)

New name for the Committee on Internet and Distance Learning (C-IDL), now Committee on Internet and Digital Communications (C-IDC) to reflect the new focus of the Functional Unit

- IFCC-AACC Pearls, translation in Spanish https://eacademy.ifcc.org/topics/c%C3%A1psulas-de-la-medicina-de-laboratorio-pearls/
- e-Academy, open educational resources (http://eacademy.ifcc.org/)
- Adaptive Learning Program, open educational resources
   (https://ifcc.org/ifcc-education-division/adaptive-learning-program/)
- IFCC Flow cytometry courses
  - **2022 FC Course in Leipzig (DE)** https://cms.ifcc.org/media/479313/programm-ifcc-kurs-2022-f.pdf
  - 2022 FC Course in Bucharest (RO)
     https://cms.ifcc.org/media/479511/summer-school-civis-bucharest-july-2022.pdf
- IFCC C-CMBC courses
  - 2022 2<sup>nd</sup> Advanced Course in Molecular Diagnostics in Adana (TR) http://moldiagnosticscourse2022.com/
  - 2022 11<sup>th</sup> Beginners Course in Molecular Diagnostics in Niğde (TR) http://moldiagnosticscourse2022.com/
- IFCC Expert Database http://www.ifcc.org/ifcc-education-division/experts/
- IFCC Milestones 2022 https://cms.ifcc.org/media/479832/ifcc\_milestones\_2022.pdf
- IFCC Professional Scientific Programmes (PEP)
  https://ifcc.org/ifcc-education-division/pep-professional-exchange-programme/
- IFCC VLP programme supported by Abbott (http://www.ifcc.org/ifcc-education-division/emd-special-projects/)

Implement cooperation and agreements with IFCC Regional Federations and International Organizations

Roche / IFCC Scholarships granted for EuroMedLab and WorldLab Congresses



- Young Scientists Forum first edition held in Seoul at the WorldLab Congress https://ifcc.org/ifcc-news/archive/2022/ifcc-forum-for-young-scientists-25-26-june-2022-2/
- IFCC Task Force on Global Lab Quality (TF-GLQ)
   1st Year EQA Pilot Program involving 5 labs in 10 selected countries to participate in the 1-year pilot phase
- IFCC FEN Foundation for Emerging Nations (http://www.ifccfoundation.org/)
- IFCC 2020 Distinguished Awards conferred in 2022:

**IFCC Distinguished Clinical Chemist Award,** sponsored by Yashraj Biotechnology Ltd. **Prof. Nader RIFAI** (United States)

IFCC Henry Wishinsky Award for Distinguished International Services, sponsored by Siemens

Dr Ghassan SHANNAN (Syria)

**IFCC Award for Distinguished Contributions in Education**, sponsored by Abbott Diagnostics **Dr Thomas ANNESLEY** (United States)

IFCC Award for Significant Contributions in Molecular Diagnostics, sponsored by Abbott Molecular Dr Andrea FERREIRA-GONZALEZ (United States)

IFCC Distinguished Award for Laboratory Medicine and Patient Care, sponsored by Sekisui Diagnostics

Dr David B. SACKS (United States)

IFCC-Robert Schaffer Award for Outstanding Achievements in the Development of Standards for Use in Laboratory Medicine, co-sponsored by NIST and CLSI. Dr Gary L. MYERS (United States),

IFCC Distinguished Award for Contributions to Cardiovascular Diagnostics, sponsored by HyTest

Dr Fred S. APPLE (United States)

IFCC-Gérard Siest Young Scientist Award for Distinguished Contributions in Pharmacogenetics, sponsored by Biologie Prospective Dr Jean Baptiste WOILLARD (France)

IFCC Distinguished Women Scientist Award For Contribution To In Vitro Diagnostics, sponsored by Yashraj Biotechnology Ltd.

Dr Sandra QUIJANO (Colombia)

**IFCC Young Investigator Award**, sponsored by IFCC **Dr Livia S. EBERLIN** (United States)



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# Message from the President of IFCC



IFCC was incredibly active in 2022 working productively towards "advancing excellence in laboratory medicine for better healthcare worldwide". We held two major conferences in Europe (EuroMedLab in Munich) and Asia (WorldLab) as well as a very successful IFCC General Conference in Brussels. The WorldLab and EuroMedLab Congresses were postponed from 2020 and 2021 respectively due to the COVID-19 pandemic and despite all of the challenges faced by the organizing committees, they both turned out highly successful and brought people together from the world in safe and enjoyable

settings. I would like to take this opportunity to extend my heartfelt appreciation to the hosting national societies in Germany and Korea, the Conference Organizing Committees, the Scientific Programme Committees, and MZ Events. Their relentless efforts and exceptional collaboration played a pivotal role in surpassing our initial expectations and ensuring the resounding success of these events, despite the challenging circumstances posed by the pandemic. Their hard work is truly commendable.

IFCC General Conference 2022 & 70th Anniversary Celebrations: A major highlight of 2022 was the IFCC General Conference in Brussels on October 28-31, 2022. In recognition of IFCC's 70th anniversary, we gathered to celebrate seven decades of contributions to scientific and educational advances in the field of laboratory medicine, and the meeting was a great success! The conference was held at the Radisson Collection Hotel in Brussels, which set the perfect backdrop for a collaborative event. Representatives from every corner of the globe were in attendance, including IFCC Officers, Members of Committees and Taskforces, as well as Presidents of National Societies and Regional Federations. For those who could not attend in person, we implemented the IFCC Virtual Platform for the first time to broadcast the entire conference. On the first day of the General Conference (Friday, October 28th). IFCC Functional Groups conducted productive meetings, assessing progress, and planning for the future of various Committees, Task Forces, and Working Groups. All IFCC divisions as well as most IFCC committees and taskforces were able to participate in person or in hybrid format, bringing together about 300 IFCC Officers, national representatives, and corporate members from around the world to discuss many ongoing projects and preparing for their presentations at the General Conference on Sunday. This was followed by a special welcome presentation by a representative of the European Commission, Dr. Loukianos Gatzoulis, Director-General, Health and Food Safety, European Commission, Health Technology Assessment. The day ended with a welcome dinner for all IFCC Officers, National Representatives, and invited guests/accompanying persons. The 70th Anniversary Celebrations started on the Saturday with presentations from the IFCC Executive Board and IFCC Past Presidents, including Dr. Matthew McQueen, Dr. Matthias Muller, Dr. Graham Beastall, and Dr. Maurizio Ferrari, highlighting major IFCC milestones/achievement during their tenure as president. This was followed by presentations by Regional Federation Presidents, Dr. Tomris Ozben (EFLM), Dr. Rajiv Erasmus (AFCC), Dr. Alvaro Justiniano Grosz (COLABIOCLI), Dr. Osama Najar (AFCB), Dr. Stephen Hill/ David Kinniburgh (NAFCC), and Dr. Endang Hoyaranda (APFCB). In the afternoon, a special 70th Anniversary Symposium was organized focusing on the Critical Role of Clinical Laboratories in Patient Care and Public Health, with excellent presentations by Khosrow Shotorbani (Lab 2.0), Dr. David Grenache (AACC/TriCore), Dr. Francis Mousy (Director, IVD, WHO), and Dr. Christa Cobbaert (Vice-Chair, Scientific Division, on IVDR). A Special Industry Forum was then held on the future of IVD over the next decade with presentations by Dr. Anne Skurup (Radiometer), Dr. Frank Vitzthum, Siemens Healthineers, Els Melis (QuidelOrtho), and Dr. Brendan Meyer (Becton Dickinson). Special guests from other organizations, including WASPALM, Balkan Federation,



EQALM, and Francophonie, were also invited to break silos and encourage collaboration between laboratory medicine organizations around the world. To finish off the day, all participants attended a special dinner with live jazz music to celebrate the 70<sup>th</sup> Anniversary of IFCC. It was a great opportunity for the IFCC community to come together and celebrate the many achievements of the organization over the past 70 years. On Sunday, updates were provided by the IFCC Executive Board, Division Chairs (SD, EMD, ETD, CPD), Conference & Congresses Committee, as well as the five new IFCC Task Forces. These included the Task Forces on Global Newborn Screening, Global Lab Quality, Global Reference Interval Database, Outcome Studies in Lab Med, and Global eLearning/eAcademy. The vast number of ongoing and new projects undertaken by the IFCC functional groups were manifest with significant progress being made on a number of important fronts, working towards the IFCC's new vision and mission to be more proactive and implement the current IFCC strategic plans.

To conclude the meeting, I provided an update on new priorities for IFCC over the coming year including: 1) Breaking silos by working with other groups/organizations in the field of laboratory medicine, 2) Enhancing IFCC presence online through a new updated website and web/mobile tools, 3) Developing and publishing IFCC clinical laboratory practice guidelines to support clinical laboratories globally, and 4) Accreditation of all IFCC educational programs including webinars and conferences to support education of clinical laboratory professionals around the world.

Following the General Conference, we have received highly positive feedback from the attendees both informally as well as through a formal survey of the participants. Over 98% were either satisfied or highly satisfied with the General Conference and found it highly enjoyable and productive.

IFCC Global MEDLAB Week: Aside from these successful events, I would also like to highlight the official launch of the IFCC Global MEDLAB Week in 2022, which we inaugurated in Munich on April 10 and celebrated during the Lab Week from April 18-24. Many national societies and regional federations participated in this celebration and we had over 30,000 lab professionals and others around the world joining in the Social Media Campaign in support of the Global MEDLAB Week. It is crucial that we continue to recognize and celebrate the Vital Impact of Laboratory Medicine and the Critical Role of Laboratory Professionals in Public Health & Patient Care around the world. This includes laboratory technicians, managers, scientists, clinicians, and so many more individuals, as we all play an important part in the delivery of laboratory medicine. To find out more about this initiative and get involved in our campaign, visit our website: www.globalmedlabweek.org

**IFCC Taskforces:** Several new taskforces created in 2020 and 2021 continued their important work in 2022 focusing on several key projects including Global Lab Quality, Global Newborn Screening, Global eLearning/eAcademy, Global Reference Interval Database, COVID-19, and Outcome Studies in Laboratory Medicine. Major progress has been made by most taskforces and most are expected to complete their initial objectives by the end of 2023. A new taskforce was also proposed in 2022 focusing on Environmental Impact of Laboratory Medicine and IVD. In 2023, this task force will embark on a crucial global mission: evaluating the environmental consequences of clinical laboratory services and offering comprehensive guidelines to mitigate laboratory waste and its adverse effects on the environment.

In essence, the year 2022 proved to be a momentous period for the IFCC Organization, marked by a multitude of activities following the challenging era of the COVID-19 pandemic. Looking ahead, I am optimistic about the substantial potential that lies ahead for this global federation, as it persists in expanding, thriving, and providing unwavering support to our members across the globe. I would like to thank the IFCC community for their unwavering commitment and dedication in driving forward the field of laboratory medicine, and for their direct contributions to enhancing public health and patient care on a global scale.

Prof. Khosrow Adeli

# **EXECUTIVE BOARD (EB)**

With the reduction in COVID-19 restrictions in many parts of the world in 2022, the IFCC was able to once again hold in-person meetings. The Executive Board (EB) was very productive, conducting seven meetings (three virtual and four in person). The 158<sup>th</sup> EB meeting in Milan in February included a strategic planning session with the IFCC Division Chairs. The 159<sup>th</sup> EB meeting in Munich in April was held in conjunction with the EuroMedLab Congress. The IFCC Council Meeting was also held in Munich. The 160<sup>th</sup> EB meeting in Seoul in June/July was held in conjunction with the WorldLab Congress. The 162<sup>nd</sup> EB meeting in Brussels in October was held in conjunction with the IFCC General Conference. The minutes of all the meetings are available on the IFCC Website.

The IFCC Divisions, Committees, Working Groups and Task Forces have also resumed their in-person meetings in addition to regular virtual meetings, and the details of their activities are noted elsewhere in this Annual Report. Going forward all functional groups will meet once per year in person and at least three times via virtual meetings. One again I extend my thanks to all the IFCC volunteers from our member societies around the world, serving on IFCC Committees, Working groups and Task forces, for their excellent work and their commitment to the IFCC. It is the dedicated efforts of the many volunteers that make the IFCC the successful organization that it is.

The IFCC membership continues to grow, and as of December 31, 2022, included 95 Full Members, 22 Affiliate Members and 56 Corporate Members. During 2022 three Affiliate Member Societies joined: the Asociación Española de Biopatología Médica- Medicina de Laboratorio (AEBM-ML) Spanish Association of Medical Biopathology-Laboratory Medicine, Botswana Institute of Clinical Laboratory Professionals (BICLP) and the National Federation of Clinical Chemistry Schools AC - Federación Nacional de Colegios Profesionales de la Química Clínica, A.C. (FENACQC), Mexico. We also welcomed eight new Corporate Members: Autobio Diagnostics Co. Ltd., SYNLAB International GmbH, DiaSorin SpA, Biomasterclin Laboratorios Venezuela, Sansure Biotech Inc., Quality Academics, S.C., Jiangsu BioPerfectus Technologies Co., Ltd. and ARKRAY, Inc. A warm welcome to all the new members joining the IFCC family. 2022 was the second year of my second term as Secretary for the IFCC Executive Board and I would like to thank all the IFCC officers, members and colleagues who I have worked with for their cooperation and assistance. With the relaxation of COVID restrictions in many parts of the world it was great to be able to see many of you again in-person at meetings/congresses. The IFCC also continued to host many virtual meetings which were enthusiastically attended by delegates from around the world. The EuroMedLab and WorldLab congresses were also made available (at least in part) to virtual delegates, and the IFCC has committed to make all future congresses hybrid events, so that members who are not able to attend the congresses in person can benefit from the excellent education provided.

Special thanks to the IFCC Office staff in Milan, Paola Bramati, Silvia Cardinale, Silvia Colli Lanzi, Smeralda Skenderaj, Elisa Fossati and Sofia Giardina who have worked so hard to keep our many activities moving forward.

David Kinniburgh - Executive Board Secretary



# 2022 TREASURER'S ANNUAL REPORT

During the second year of my term as the IFCC treasurer, until the end of May along with the IFCC staff the annual dues of Full, Affiliate and Corporate Members were received, the adherence of IFCC operating units to their allocated budgeted were monitored and detailed records of all transactions were kept, reimbursements were processed immediately after the receipt of the claims from the IFCC office. Close collaboration was achieved with the IFCC investment bank (Credit Swiss) to optimise the financial return on IFCC investments. The annual accounts and financial actions will be reviewed by the KPMG auditors in order to finalize the actual income and expenses at 31st December 2022

#### 1. COMPARISON OF 2021 PROPOSED BUDGET WITH ACTUALS AT 31st DECEMBER 2022

The 2022 budget was expected to be closed with a deficit of CHF -824,834.59. Instead, it was closed with a surplus of CHF 529,328.50 (Fig. 1a). The main reasons for this difference were the decreased expenses (travel etc) during the final year of the pandemic as also as the profit from the IFCC webinars and mostly from the WorldLab of Seoul (CHF 233,568) and of EuroMedLab at Munich (CHF1,241,000).

# **IFCC Summary budget 2022**

	Proposal 2022	Actual 2022
Total Income	2,083,407.62	2,236,516.00
Total Expenses	2,908,242.21	1,707,187.50
Net Income	-824,834.59	529,328.50

Figure 1a. 2022 proposed budget versus to actual at 31st December 2022.

If we readjust the budget separating the sponsorship budget with utilization of previous years balances carried over to the year actually used we have a more balanced picture (Fig 1b).

# **IFCC Summary budget 2022**

SUMMARY BUDGET	Proposal 2022	Actual 2022
Total Income	2,009,100.00	2,140,787.00
Total Expenses	2,055,680.00	1,535,721.50
Net Income	-46,580.00	605,065.50

SPONSORSHIP BUDGET ONLY	Proposal 2022	Actual 2022
Total Income	74,307.62	95,729.00
Total Expenses	852,562.21	171,466.00
Yearly possible difference	-778,254.59	-75,737.00

**Figure 1b.** 2022 proposed budget versus to actual at 31<sup>st</sup> December 2022 separating the sponsorship budget.

Here the proposed sponsorship deficit of CHF -778,254.59 is balanced by previous year rolled over sponsorship balance readjusting the proposed year balance to CHF -46,580.00. At the actuals column the profit of the year 2022 of CHF 605,065.50 is lowered to the final actual profit of CHF 529,328.50 subtracting the real 2022 sponsorship deficit of CHF -75,737.00.

# 2. TOTAL OPERATIONAL REVENUES AND FINANCIAL INCOME

The actual total operational revenues and financial income were CHF 2,236,516.00 (Fig. 2).

REVENUES & INCOME 2022	Budget 2022	Actual 2022
Full members (National Societies)	175,000.00	170,161.00
Corporate members	250,000.00	392,566.00
Affiliate members	4,500.00	5,261.00
Income from CLSI rovalties	2,000.00	686.00
Revenue ICHCLR for Secretariat suooort	4,500.00	0.0 0
Worldlab Seoul 2020	500,000.00	233,568.00
EuroMedlab Munich 2022	1,000,000.00	1,241,000.00
Income for Scientific Division ISDI Eurooean Comm lex IRMMI	40,000.00	65,043.00
Elsevier suooort AACC	3,000.00	0.00
Income from Com. Pubi. div. (CPD) Endorsement - includina ADV	30,000.00	29,300.00
FEN expenses reimbursed	100.00	0.00
Overhead on soonsorshio oroiects	0.00	3,202.00
Profits on exchange	0.00	0.00
TOTAL REVENUES & INCOME	2,009,100.00	2,140,787.00

PROJECTS' SPONSORSHIP ONLY - INCOME 2022	Budget 2022	Actual 2022
JCTLM database project sponsorship	0.00	19,528.00
Revenue ICHCLR - subaccount	0.00	1,415.00
IFCC-AACC Pearls IEMD C-DII	0.00	11 700.0 0
Abbott VLP sponsorship	0.00	0.0 0
ICPLM virtual satellite meetina Munich	8,046.62	0.00
Abbott Univants Proiect	0.00	0.00
Task Force YS - Webinar suooort	0.00	0.00
Task Force Global el earning/eAcademy sponsorship	66 261.00	63,086.00
Income for (Roche) travel scholarships	0.00	0.00
TOTAL SPONSORSHIP INCOME	74,307.62	95,729.00
TOTAL INCOME	2,083,407.62	2,236,516.00

Figure 2. The expected and actual INCOME at 31st December 2021.

Thanks all the member Societies and Corporate members that supported IFCC throughout the years. Their continuous contribution has made possible the accomplishment of numerous IFCC tasks and projects. IFCC is grateful to the IVD industry for their support and active participation in the IFCC scientific events and the endorsement of the new form of virtual events. We also thank the members for their loyalty and attention in paying dues at the start of the year, which helps the cash flow.

Divisions and some Functional Units raise some sponsorships funds which give them a certain flexibility in conducting projects. These sponsorships are used for the specific projects in due time. The unspent sponsorship funds are carried over to the next years.



# 3. TOTAL OPERATIONAL COSTS AND FINANCIAL CHARGES

The actual total operational costs and financial charges in 2022 were CHF 1,707,187.50 (Fig.5).

# IFCC GENERAL EXPENSES - 2021 Budget to 31 December 2021 Actuals



	Budget 2022	Actual 2022
Organisations Affiliated with IFCC		
TOTAL	350,000.00	383,772.00
IFCC International/Regional Organisations		
TOTAL	53,680.00	50,112.50
IFCC Congresses and Conferences Committee (C-CC)		
TOTAL	40,000.00	10,278.00
IFCC Scientific Division (SO)		
TOTAL	153,000.00	34,251.00
IFCC Education and Management Division (EMD)		
TOTAL	116,500.001	57,858.00
IFCC Communication Publication Division (CPD)		
TOTAL	121,000.00	105,682.00
IFCC Emerging Technologies Division (ETD)		
TOTAL	68,000.00	14,981.00
IFCC Special Projects		
TOTAL	509,500.00	212,849.00
IFCC Statutes & Rules		
TOTAL	27,000.00	5,000.00
IFCC Financial Report		
TOTAL	28,000.00	27,675.00
16. IFCC Organisational Matters		
TOTAL	274,000.00	227,050.00
19. IFCC Executive Board (EB)		
TOTAL	315,000.00	406,213.00
GENERAL TOTAL	2,055,680.00	1,535,721.50

	ORGZANIZATIONS PROJECTS' SPONSORSHIP ONLY	Budget 2022	Actual 2022
06 02 02	JCTLM web site support sponsorship	4,945.05	3,325.00
06 39 00	ICHCLR subaccount carry over	228,304.00	11,425.00
07 07 03	EMD Symposium • WorldLab Seoul 2020- Abbott	18,576.00	9,398.00
	TOTAL	251,825.05	24,148.00
	SO PROJECTS' SPONSORSHIP ONLY	Budget 2022	Actual 2022
08:05:02	Standardisation of Thyroid Function Tests (WG-STFT) - Sponsorship Phase IV	98,516.53	0.00
08:05:03	Standardisation of Carbohydrate-Deficient Transferrin (WG-SCDT) - Sponsorship	24,188.25	4,907.00
08:05:04	Standard of PAPP A (WG-PAPP A) - Sponsorship	41,952.30	12,967.00
08:05:05	Standardisation of Insulin (WG- SIA) - Sponsorship	9,000.00	0.00
08:05:07	WG-PTH Project - Sponsorship (to be used by C-BM)	35,624.00	24,579.00
08:05:08	WG-TNI Project - Sponsorship	14,667.00	0.00

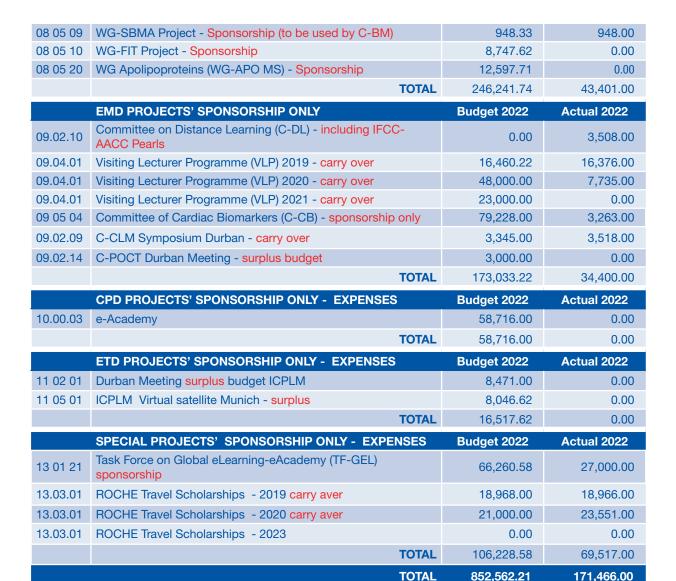


Figure 3. IFCC General Expenses 2022

#### 4. TOTAL BALANCE AT CREDIT SUISSE ON 31 DECEMBER 2022

Total amount of cash available on December 31<sup>st</sup>, 2020, when converted into CHF currency was CHF 2,856,404 and total amount of our safekeeping accounts (investments) was CHF 3,657,044

# **5. TOTAL BALANCE AT CREDIT SUISSE ON 3 JUNE 2023**

Total amount of cash available on June 3<sup>rd</sup>, 2023, when converted into CHF currency was CHF 4,565,898 and total amount of our safekeeping accounts (investments) was CHF 3,672,090.



# **6. IFCC INVESTMENTS AT CREDIT SUISSE**



Figure 4. Return of IFCC investments between 2017 to 04.06.2023 was -1.13%

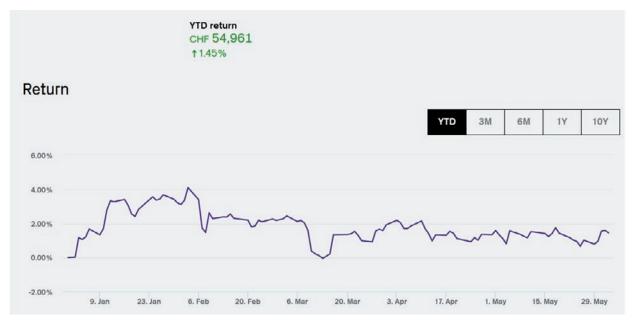


Figure 5. Return of IFCC investments between 01.01.2023 to 04.06.2023 was +1.45%

The important issues of the agreement with Credit Swiss are outlined as below:

- Investment strategy: Income oriented
- Risk Profile: Moderate
- Risk Budget: Moderate
- Reporting currency: CHF (with investments in three currencies: CHF, EUR, USD)

Ticket fee model: 0.20% for the safekeeping fee (no investment fee).

Dr. Alexander Haliassos, IFCC Treasurer

# **CORPORATE MEMBERS' REPORT**

# Joseph Passarelli (Roche)

Corporate Representative at IFCC Executive Board (1st term 2021-2023)

In 2022 IFCC was pleased to welcome Autobio Diagnostics (China) Synlab International GmbH (Germany), DiaSorin S.p.A (Italy), Biomasterclin Laboratorios (Venezuela), Sansure Biotech Inc. (China), Quality Academics (Mexico), Jiangsu Bioperfectus Technologies Co. (China), and Arkary, Inc. (Japan) as new Corporate Members. Regrettably, in 2022 the following Corporate Members left IFCC: GenScript Biotech Corporation (Singapore), Nova Biomedical (United States), Shanghai Zhicheng Biological Technology Co., Ltd (China), and Sekisui Diagnostics (United Kingdom). By the end of 2022, the total number of IFCC's Corporate Members was 56, an increase of 4 companies from the previous year.

Interest in new IFCC Corporate Membership comes mainly from China (10 Corporate Members, followed by UK, 7 Corporate Members, USA, 6 Corporate Members, Germany, Italy, Japan 5 Corporate Members and Finland 4 Corporate Members each). Not all IFCC Corporate Members are manufacturers but several are distributors. In 2022, Corporate Members contributed with annual fees of ~330.000 CHF to approximately 50% of IFCC's total direct annual income from its members (which comprise National Societies and Affiliate Member Societies as well). On top of this, IFCC received sponsorship for scientific or educational projects, awards, travel of students and lecturers, and congresses (e.g. contribution to WorldLab 2022 was over 1.3 m CHF).

To enhance corporate membership, the Task Force Corporate Members (TF-CM), continues to be very active under the leadership of the chair, Tricia Ravalico – Abbott. At the end of 2022, in addition to its 7 full members, the TF had 6 active corresponding members, representing 13 companies in total. The TF-CM is reported separately but in brief, it was established to ensure that Corporate Members' interests are better addressed within IFCC (i.e. better representation of Corporate Members, more efficient discussion among Corporate Members, identification of common topics and interaction with the direct report to the IFCC Executive Board) and to increase the engagement of Corporate Members in IFCC since many Corporate Members are not actively involved in IFCC activities. (See the respective website for details of the Task Force.) The Corporate Members make additional important contributions to IFCC activities: Numerous delegates from Corporate Members are actively engaged in most of the Task Forces, Committees, and Working Groups in all IFCC divisions and in their Executive Committees, either as full members or as corresponding members, as well as in the Congresses & Conferences Committee.

The following are the contact information for Corporate Representatives who were / are members of the Executive Committees of IFCC's 4 divisions and the Congresses & Conferences Committee. Please feel free to reach out to them in case you have questions:

- **Scientific Division:** Michael Rottmann (Roche) (1st term Mar 2020-2022); Michael retired at the end of 2022 and Christian Vogl (Roche) was appointed (1st term Jan 2023-2025)
- Emerging Technologies Division: This division has two Corporate Representatives: Markus Roessler (Roche) (2<sup>nd</sup> term 2021-2023), and Yan Liu (Mindray Medical International Corporation) (1<sup>st</sup> term 2023-2025)
- Education & Management Division: André Ziegler (Roche) (2<sup>nd</sup> term 2021-2023)
- Communications & Publications Division: Tricia Ravalico (Abbott) (2nd term 2021-2023)
- Congresses & Conferences Committee: Cheryl Jackson (Beckman Coulter) (2<sup>nd</sup> term 2021-2023).



The following persons were / are Corporate Members of the respective Congress Organizing Committees (COCs):

- IFCC / EuroMedLab 2021, Munich, Germany: Abir Alhelou (Abbott) (postponed due to Covid from 2021 and took place in April 2022)
- IFCC / WorldLab 2022, Seoul, South Korea: Douglas Chung (Abbott) (postponed due to Covid until June 2022 and merged with the APFCB meeting which had been planned 3 months later in the same region)
- IFCC-EFLM WorldLab + EuroMedLab 2023, Rome, Italy: Angel de la Fuente (Roche);
   will take place in May 2023
- IFCC / WorldLab 2024, Dubai, United Arab Emirates: Vincent Chen (Snibe) and Angel de la Fuente (Roche); will take place in May 2024

#### Conferences in 2022:

As noted above, the COVID-19 pandemic required postponement of several IFCC conferences. According to the contracts between the professional conference organizer MZ Events and the exhibiting companies, the companies have to accept postponements and relocations (but not cancellations) of IFCC conferences and cannot renegotiate their participation. This should be carefully reconsidered before signing future sponsorship contracts.

In addition to the conferences noted above, the IFCC hosted its **General Conference 2022** (October 28 – 31 in Brussels, Belgium) with the theme: *Celebrating 70 years of Global Leadership in Laboratory Medicine*. At the GC, corporate members within the TF- CM organized the following:

# INDUSTRY FORUM: The Future of IVD over the next decade

- 1. Meeting the demand for clinical studies for regulatory approval: how can IFCC and the IVD industry collaborate to meet the need? Anne Skurup (Radiometer)
- 2. Emerging trends Dr. Frank Vitzthum (Siemens Healthineers)
- 3. What have we learned from the experience of COVID Els Melis (QuidelOrtho)
- 4. IVD industry partnership with IFCC Brendan Meyer (BD)
- 5. Open Discussion / Q & A

Moderators:

Tricia Ravalico (Abbott)

Joe Passarelli (Roche)

The next Corporate Members Meetings will be held during the IFCC-EFLM WorldLab + EuroMedLab 2023, Rome, Italy on Monday, May 22, 2023. I would like to encourage all members to take part in the meeting. The respective meeting details will be communicated later. Finally, I want to sincerely thank all Corporate Members and all IFCC officers for the engaged

Finally, I want to sincerely thank all Corporate Members and all IFCC officers for the engaged and constructive support that I have received. Special thanks goes to all those that actively participating on the Task Force – Corporate Members. I am looking forward to continuing our collaboration and moving forward the IFCC and its corporate member's interests.

Joseph Passarelli, Corporate Member Representative



# **COMMITTEE ON CONGRESSES AND CONFERENCES (C-CC)**

#### **CHAIR & MEMBERSHIP/TERMS OF OFFICE**

The C-CC decided in the meeting to increase the number of Members of C-CC, according to the recommendation of IFCC EB. The call for nominations was sent out on September 13, 2022. C-CC received 9 nominations from the National Societies. The candidates were evaluated and scored by C-CC Members and C-CC recommendation was sent to EB for approval. Two new Members of C-CC are Vladimir Palicka and Woei-horng Fang, The other candidates were invited to join C-CC as Corresponding Members. The terms of the new members start on Jan 1, 2023.

#### **TERMS OF REFERENCE**

#### Term of reference 1

The C-CC formulates and updates as required the guidelines, procedures and practices for IFCC-designated meetings and also monitors compliance throughout the planning and organizational stages. The C-CC assists the organizing groups in the administration and promotion of conferences, and helps these conferences obtain support, and achieve financial efficiency in the various economical aspects of their meetings.

The C-CC reviews all existing meeting guidelines every three years to ensure their continued applicability and will write new guidelines for those meetings not covered by existing procedures.

## List 2022 accomplishments for this Term of Reference

Auspices Guidelines and Application Forms current versions April 2022

ICCCLM Congress Guidelines and Application Form current versions September 2021

EuroMedLab Congress Guidelines and Application Form current versions December 2021

ICCCLM and EuroMedLab Congress – Evaluation and Scores Template current version December 2021

# List planned activities in 2023 for this Term of Reference

Guidance for National and International Congresses current version May 2019

Scientific Program Guidelines for ICCCLM (WorldLab) current version May 2019

Scientific Program Guidelines for EuroMedLab current version August 2017

Satellite Meeting Guidelines for an IFCC-sponsored Congress / Conference current version May 2019

IFCC Guidelines for Compliance with Applicable Codes of Ethical Business Practice current version May 2019

#### Term of reference 2

The C-CC maintains a current 5-year listing of congresses and conferences of professional interest to the members of the IFCC, including both IFCC related conferences and those outside the IFCC. This allows members to be aware of these meetings and allows potential conference organisers to plan the dates of their meetings with care.



## List 2022 accomplishments for this Term of Reference

IFCC Office updates the list of forthcoming and held congresses. This list can be found on the IFCC website (https://ifcc.org/ifcc-congresses-and-conferences/). Below a list of congresses held in 2022.

#### **IFCC General Conference**

14th IFCC General Conference was held on October 27-31, 2022.

## List planned activities in 2023 for this Term of Reference

Guidance for National and International Congresses current version May 2019

# International Congresses of Clinical Chemistry & Laboratory Medicine (WorldLab) IFCC ICCCLM (WorldLab) Seoul, Korea 2020 (May 24-28) - Revised 2022 (June 26 - 30)

Congress President: Prof. Won-Ki Min; Congress Chair: Prof. Junghan Song

This Congress was postponed on account of the COVID-19 pandemic. Adjustments to the scientific program will be made as required.

The 24th ICCCLM was held jointly with the 16th Asia-Pacific Congress of Clinical Biochemistry

A full report of WorldLab Seoul can be found in the September issue if IFCC eNews (https://cms.ifcc.org/wp-content/uploads/2022/10/ifccenewsseptember2022.pdf).

# Regional Congresses of Clinical Chemistry & Laboratory Medicine APFCB, Sydney, Australia, 2022 (October 15-18) - Revised 2022 Seoul, Korea (June 26 - 30)

Congress Chair: Helen Martin

The APFCB Congress 2022 was held jointly with the ICCCLM Seoul 2022.

# EuroMedLab, Munich, Germany, 2021 (May 16 – 20) – Revised 2021 (November 28 – December 2) – Revised 2022 (April 10-14, 2022)

Congress Chair: Dr. Karl Lackner

On November 23, 2021 the congress was cancelled due to worsening corona situation. EuroMedLab Munich was finally held on April 10-14, 2022.

Congress Chair Dr Karl Lackner has provided the final report of EuroMedLab Munich 2021. The number of attendants was quite good even though the pandemic situation was still somewhat alarming. There were 1756 delegates, 2770 visitors. For the first time the congress was held as hybrid meeting and there were 252 hybrid attendants. In the exhibition there were 3 Platinum Sponsors, 3 Gold Sponsors, 4 Silver sponsors, 7 Bronze Sponsors and 45 exhibitors.

## COLABIOCLI, Leon, Mexico 2022 (March 30 - April 2)

Congress Chair: Dr. Marie Jezebel Vite Casanova.

#### **AFCB, Beirut, Lebanon, 2021 (May 27 – 29)**

Congress Chair: Dr. Christian Haddad

Planning for the congress has been delayed on account of the recent events in Beirut (the explosion) and Lebanon (financial collapse). The congress location has not been decided. May 2021 has been cancelled due to COVID and political problems. The congress was finally held on Sept 9-10, 2022.



# List planned activities in 2023 for this Term of Reference IFCC ICCLM (WorldLab) Rome, Italy 2023 (May 21-25)

Congress Chair: Prof. Sergio Bernardini

The XXV IFCC WorldLab / XXV IFCC-EFLM EuroMedLab Rome 2023 will be held in Rome from 21 to 23 May 2023. The venue is Roma Convention Center La Nuvola. The general organization of the congress has progressed as planned and scheduled.

# IFCC ICCCLM (WorldLab) Dubai, UAE 2024 (May 26-30)

The revised ICCCLM Congress Guidelines have been approved by EB. Due to revision of the guidelines the schedule of WorldLab was changed to 2-year cycle. Thus, WorldLab will take place on even years (2022, 2024, 2026, 2028, 2030). EuroMedLab will take place on uneven years (2021, 2023, 2025, 2027, 2029, 2031).

The call for bids to host WorldLab 2024 has been distributed on October 1, 2021 with the deadline of November 25, 2021. The deadline was extended to December 15, 2021 on November 26, 2021. The venue of WorldLab 2024 is Dubai, but the National Society responsible for the organization is the Saudi Society or Clinical Chemistry together with the Arab Federation of Clinical Chemistry.

Congress Organizing Committee held the first meeting in Dubai on site on Dec 5, 2022 and visited also the venue of the congress. Scientific Program Committee has also been established and they have had the first meeting in January 2023.

The IFCC Executive Board (EB) has agreed to support 5 IFCC symposia. IFCC Divisions - Education and Management Division, Scientific Division, Communications and Publications Division and Emerging Technologies Division and IFCC Task Forces are invited to submit proposals according to the educational goals of the Congress. The Letter of invitation has been sent on March 6, 2023 with the deadline of April 12, 2023.

#### IFCC ICCCLM (WorldLab) 2026

The call for bids to host WorldLab 2026 has been distributed on January 30, 2023 with the deadline of April 30, 2023.

## EuroMedLab, Rome, Italy 2023 (May 21-25)

See above - IFCC ICCCLM (WorldLab) Rome, Italy 2023 (May 21-25) A separate EuroMedLab will not be held in 2023.

## EuroMedLab, 2025

The call for bids to host EuroMedLab 2025 has been postponed due to revision of EuroMedLab Congress Guidelines. Due to revision of the guidelines the schedule of EuroMedLabs and WorldLabs were changed to 2-year cycles. Thus, EuroMedLab will take place on uneven years (2021, 2023, 2025, 2027, 2029, 2031). WorldLab will take place on even years (2022, 2024, 2026, 2028, 2030).

The call for bids of EuroMedLab 2025 was distributed on May 2, 2022. We received four bids, (Brussels, Istanbul, London, Prague). The bids were independently evaluated and scored by IFCC C-CC Members and Corresponding Members as well as EFLM C-ET (Committee on Education and Training). The Chairs of C-CC and C-ET joined the evaluations and wrote a joint report to the IFCC EB and EFLM EB. Both committees reached the same conclusion to grant the congress to Brussels and recommended the EBs to approve this recommendation. IFCC EB and EFLM EB approved Brussels as the venue for EuroMedLab 2025. This decision was sent to the bidding societies as well as National Societies on Dec 1, 2022.

COLABIOCLI, Cartagena, Colombia 2024 (August 28 – August 31)

APFCB, Sydney, Australia, 2024 (October 31-November 11)

#### Term of reference 3

The C-CC designates as official IFCC approved meetings those conferences that conform to the requirements of the IFCC as a professional organisation, in order to promote the field of clinical laboratory sciences and protect the interests of the IFCC. Within the framework of the IFCC designated meetings, the C-CC will promote the IFCC and its functional units and discuss the possibility of integration of IFCC units and members in the programme of the conference.

## List 2022 accomplishments for this Term of Reference

C-CC received 81 applications for IFCC auspices, which all were granted. The list of these meetings can be found on the IFCC website (https://ifcc.org/ifcc-congresses-and-conferences/calendar-of-past-events/). The meetings are listed in three categories:

- 1. IFCC and Regional Federation Events
- 2. Corporate Member Events with IFCC Auspices
- 3. Other Events with IFCC Auspices

# List planned activities in 2023 for this Term of Reference

C-CC will continue handling applications for IFCC Auspices for national, corporate and other events. C-CC has granted 25 auspices for events by March 15.

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

The thirty-eighth (38th) meeting of the IFCC Executive Board Committee on Congresses and Conferences was held on June 28, 2022 during the WorldLab Seoul on June 26-30, 2022. The meeting was a hybrid meeting, where some members were in person on site and others attended via Teams.

The second meeting was held on Oct 28, 2022 as a hybrid meeting, in connection to the IFCC General Conference.



#### **MEETING SCHEDULE IN 2023**

C-CC will have a meeting during the WorldLab Rome in May 28, 2023.

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

C-CC Chair Päivi Laitinen gave a report of C-CC activities at the IFCC General Conference in Brussels.

P. Laitinen, C-CC Chair



# **SCIENTIFIC DIVISION (SD)**

## During 2022, the following members served on the SD Executive Committee:

Chair: Philippe Gillery (France)

**Vice-Chair:** Christa Cobbaert (the Netherlands) **Secretary:** Garry John (United Kingdom)

Members: Barnali Das (India), Konstantinos Makris (Greece), Mario Plebani (Italy), Michael

Rottmann (Corporate representative; Germany).

**Invited Representatives of International Organizations:** Ian Young (ICHCLR), Karen Phinney (NIST), Chris Burns (NIBSC), Yang Zhen (NIFDC), Greg Miller (JCTLM), Ralf Josephs (BIPM), Liesbet Deprez (JRC).

## Relationship with International Organizations

The SD continues to pursue the expansion of its activities to collaborate with international organizations to promote the implementation of the concept of traceability in laboratory medicine and the implementation of reference measurement systems.

No reports have been submitted on relationships with international organisations. Information given in this report is drawn from SD-EC minutes.

## **BUREAU INTERNATIONAL DES POIDS ET MESURES (BIPM)**

BIPM have been very busy preparing for their general conference which happens every four years; this happened 15 – 18th November 2022. This is important as it is the meeting of the member states and has the voting for planning for the next four years, and approving the work program. GM presented the work and visions of the JCTLM.

There is the latest version of the JCTLM database on the BIPM website; and this has been promoted along with promoting the JCTLM workshop in Milan on CRP. It is important to discuss specific analytes to get agreement on difficult issues.

# Joint Committee on Traceability in Laboratory Medicine (JCTLM)

The new database is now available which is so much easier to use than the previous version; additionally, the JCTLM is collaborating with IFCC to develop a new web presence. The JCTLM WG on traceability and education has had a website hosted by the IFCC for a number of years; the project when completed, hopefully next year, will have this as the landing page. So if you search JCTLM you will be guided there and there will be links from the IFCC hosted website to the JCTLM managed database and managed processes. The design has been agreed. This will make information about the JCTLM far easier to access. The 2021 workshop was published

in Clinical Chemistry and Laboratory Medicine. It is satisfying that these recommendations have been published within 10 months of being discussed. There will be links to these recommendations from other websites soon.

The key outcome from the workshop in terms of IFCC SD is to increase the SD engagement of regulators, going forward engaging the regulatory world is central to standardisation implementation.

There was a meeting between ICHCLR, IFCC and JCTLM to improve collaboration. The IFCC EB has had close links for a number of years; and it has been decided to invite the SD chair to participate in the executive committee meeting of JCTLM. PG and CC attended the last board meeting. GM stated he welcomed this improved collaboration, this will help the review teams and the whole JCTLM process. This collaboration will hopefully improve the understanding of ISO standards by the WGs.

Another outcome of the workshop was for JCTLM to collaborate with the SD to develop an educational programme, the details of which are still to be defined. And also collaborative activity developed to explain ISO requirements for reference materials and reference procedures so that WG chairs and members can become confident in processes so can improve the processing through to JCTLM approval.

# **Joint Research Center (JRC)**

Status report on the CRM projects of the JRC in collaboration with the IFCC (October 2022).

# CRMs for auto immune disorders [IFCC Committee on Harmonization of Autoimmune Tests (C-HAT)]

CRM for IgG anti-B2GP (antiphospholipid syndrome (APS)): ERM-DA477/IFCC. One large RM batch was split into two: NIBSC 21/266 and ERM-DA477/IFCC. NIBSC 21/266 is established as the first WHO standard for Anti- $\beta$ 2 Glycoprotein I Immunoglobulin G in Serum with an assigned potency of 200 IU per vial. The International Standard is stored at NIBSC and only intended as a calibrant for the production of new working standard when needed.

ERM-DA477/IFCC is the first working standard with a certified value of 200 +/- 11 IU/mL. The uncertainty comes from the homogeneity and stability studies. ERM-DA477/IFCC is available via the catalogue of the JRC and intended to be used to calibrate and harmonise methods used to measure antibody levels against β2GP1 IgG in serum.

1.2 CRM for IgG and IgA anti tissue transglutaminase (anti-tTG) (Coeliac disease): EURM-487/IFCC

Homogeneity and short term stability studies finished and confirmed sufficient homogeneity and stability at 4 °C. Calibrator solutions produced based on purified anti-tTG IgA and IgG antibodies from same donor as EURM-487/IFCC. The production of a highly purified calibrator solution of anti-tTG IgA is challenging due to the low concentrations of IgA antibodies in human serum.

Discussion on the establishment of a WHO international standard for anti-tTG IgA and IgG on human serum have started with NIBSC.

IgG anti-GBM (Anti-glomerular basement membrane disease): ERM-DA484/IFCC

Draft paper on the commutability study of the pilot batches prepared. Most suitable starting material was selected and delivered to JRC. Processing will be done in the upcoming months.

# CRMs for CSF proteins [IFCC Working Group on CSF proteins (WG-CSF)]

CRM for A\(\beta\)1-40 in CSF: ERM-DA480/IFCC, ERM-DA481/IFCC, ERM-DA482/IFCC





Studies to evaluate if the existing CRMs (ERM-DA480/IFCC, ERM-DA481/IFCC and ERM-DA482/IFCC) can also be certified for A $\beta$ 1-40 are ongoing. Homogeneity, short and long-term stability have been tested and results are good. The levels of A $\beta$ 1-40 in all three CRMs are close to each other making the standardisation of the ratio 42/40 possible but not the A $\beta$ 1-40 alone. Therefore, it should be evaluated if making a separate set of material for with different levels of A1-40 would more suitable.

A calibrant peptide has been selected and quantified with amino acid analysis (AAA) by LNE, LGC and JRC. Purity assessment performed by LNE and LGC. The final value assignment ongoing.

## **Development of CRM for Neurofilament light (Nfl) in serum**

From the WG, the second commutability study is in preparation with the aim to find the most appropriate format for the future CRM. We have been consulted to give advice on how best to proceed.

# CRMs for Haemoglobin A2 [IFCC Working Group on Standardisation of Haemoglobin A2 (WG-HbA2)]: ERM-DA485/IFCC and ERM-DA486/IFCC

For the matrix CRM: 2 lyophilised materials have been processed: 1 with normal HbA2 levels and 1 with elevated HbA2 levels and confirmed sufficient homogeneity and stability at -20 °C. First checks with several commercial assays show good results. Homogeneity and short term stability studies are finished. Long-term stability, certification studies and commutability study are being planned for end of 2022-beginning 2023.

# CRMs for apolipoproteins [IFCC Working Group on apolipoproteins by Mass Spectrometry (WG-APO MS)]

For the peptide calibrators for Lp(a): The JRC has produced the batches of peptides solutions that can be used as calibrators in the candidate RMP. The purity checks and AAA measurement on the peptides calibrators is done by the JRC and LNE. The first results show that the purity of the primary peptide materials is high, and therefore it is anticipated that not much effort has to be put into analysis of impurities.

For the serum CRM for Lp(a): several candidate RM have been investigated in a commutability study. Results of this study indicate that a CRM based on unspiked pools of human serums have the best commutability profile. Publication on the correlation/commutability study is prepared and submitted to Clin Chem. The preparation of the secondary reference materials has started with the search for suitable donors. Sera from 90 donors have been screened for apo(a) concentration through the cRMP as well as one immunoassay (ITA, Roche Tinaquant LPA2). Moreover, these samples were typed for their number of KIV-2 repeats. Based on their characteristics, the suitable donors will be selected and subdivided into five groups, each group to produce one pooled secondary reference material.

# Work on standardisation/harmonisation faecal immunochemical testing [IFCC working group in Faecal Immunochemical Testing [WG-FIT)]

Publication on the first correlation/commutability study is currently being drafted. The results of 4 frequently used FIT methods correlated quite well but there is a significant bias. Using a common threshold for these 4 methods is currently not feasible. The 7 commercially available RMs were tested for their possible use for standardising FIT assays and their commutability. Two of the RMs showed a good commutability profile. These 2 RMs consist of Hb from human blood diluted in the specific buffers of each FIT method. Addition feasibility studies are needed to test if these RM can be produced in larger stable batches. The value assignment will also be difficult given the low Hb concentration: 1000 times lower than in blood.

# CRMs for enzymes [IFCC working Group on Pancreatic Enzymes (WG-PE)]

The project for the production of a CRM for the catalytic activity of alkaline phosphatase (ALP) is started. Three pilot batches will be checked for their commutability.

The CRM for the catalytic activity of aspartate aminotransferase (AST) will need to be replaced within 3 years so the search for suitable starting material has started. A commutability study with four pilot batches has started.

#### **CRM** for Estradiol in human serum

The sales stocks of the CRMs BCR-576-578 are running low. These materials will be replaced with new batches, which will be tested for their commutability for several IVD methods. The collection of the starting material (human serum with different concentration of estradiol) is currently ongoing. Discussions ongoing to include these new materials in the upcoming CCQM study on estradiol in 2024-2025.

# National Institute of Standards and Technology (NIST)

NIST's lab activities are returning to normal. Acquisition of candidate SRM materials has been delayed in some cases because of supply chain issues. NIST now has the option to develop Research Grade Test Materials (RGTMs) that do not have the same level of characterization as SRMs but can be disseminated more quickly. RGTMs may be useful for interlaboratory studies or as a precursor to future SRM development.

# Specific projects relevant to the IFCC Scientific Division include:

**SRM 2921a Human Cardiac Troponin Complex:** This is a replacement material for SRM 2921 which is out of stock. We expect that the new material will be very similar to the previous one, and certification measurements should be completed by the end of 2022. Release of SRM 2921a is anticipated in the first quarter of 2023.

**RM 8121 Cardiac Troponin I in Frozen Human Plasma:** Material preparation is in progress. We are finalizing scheduling for the blending and aliquoting of this material by Solomon Park Research Labs.

**SRM 3666 Albumin and Creatinine in Frozen Human Urine:** Certification measurements are complete and documentation is in review. A commutability study is being planned.

Additional status information on RM/SRM projects that may be of interest is included in the table.

NIST Clinical Certified Reference Materials; October 2022 update reflecting changes within the last 12 months.

Analyte	NIST Identifier	Release Date	Description
Glucose in Frozen Human Serum	SRM 965c	2023	Renewal material     Material acquisition in progress



Analyte	NIST Identifier	Release Date	Description
Creatinine in Frozen Human Serum – Low Level	SRM 967b	2023	<ul><li>Renewal material</li><li>Material acquisition in progress</li></ul>
Bovine Serum Albumin (7% solution)	SRM 927g	Mid 2023	Renewal of SRM 927f
Human Cardiac Troponin Complex	SRM 2921a	Early 2023	Renewal of SRM 2921
Albumin and Creatinine in Fro-zen Human Urine	SRM 3666	Early 2023	Certification measurements in review
Homocysteine in Frozen Human Serum	SRM 1955a	2023	Material acquisition in progress
Cardiac Troponin I in Frozen Human Plasma	RM 8121	2023	Material acquisition in progress
Electrolytes in Frozen Human Serum	SRM 956e	2023	Certification measurements in progress
Glucose	SRM 917d	Late 2022	<ul><li>Renewal of SRM 917c</li><li>Documentation in review</li></ul>
Tripalmitin	SRM 1595a	2023	<ul><li>Renewal of SRM 1595</li><li>Procurement of material in progress</li></ul>
JC Virus DNA Quantitative Standard	SRM 2367	January 2022	New material
MPXV Synthetic DNA PCR Standards	RGTM 10223	August 2022	PCR assay targets from Monkeypox genome

# The International Consortium for Harmonization of Clinical Laboratory Results (ICHCLR)

ICHCLR will continue to work independently but in close collaboration with IFCC SD. The committee will focus on measurands according to medical / clinical need and ensuring measurands are kept up to date by review.

ICHCLR are looking to funding investigation of non-harmonised measurands over a three-year time period; the SD chair will be involved in deciding which projects are taken forward.

ICHCLR lists a number of measurands that require work and should be prioritised.

# **European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)**

The EFLM Task force on European Regulatory Affairs has observers in the Medical Device Coordination Group (MDCG) who may interact with representatives of the European Commission. The EFLM TF ERA comments on guidance documents produced by the MDCG and periodically investigates whether there is a realistic understanding of the risks associated with implementation of this EU regulatory infrastructure; the concern is that they don't. If this had been implemented at the date of application, there would have been a diagnostic collapse. It would have been a disaster for many existing tests; We have already lost 22% tests in transition. There is now a phased role out, starting with the highest risk classes. There is a 10-fold increase in tests that have to be evaluated under the IVDR as compared to the former IVDD. There is much concern over academically derived tests. There are significant differences in how EU member states are responding to this regulation. We need to find a way to deliver testing in a sustainable and affordable way.

# **World Health Organization (WHO)**

Communication with WHO remains limited despite the efforts of Chris Burns. Although WHO have in recent months sought assistance from IFCC with disseminating draft technical

specifications for IVDs listed in the WHO Model list of Essential In vitro Diagnostics (EDL) as part of a public consultation process

# **Activities of Committees and Working Groups**

The Committees (Cs), which are theme-oriented, carry out much of the scientific and professional activities of the SD. Their work is often in close collaboration with other international organizations. For more specific tasks, the activities are usually accomplished through Working Groups (WGs).



# **COMMITTEES**

C-Nomenclature, Properties and Units (C-NPU) Chair: Young Bae Lee Hansen (DK)

#### **Term of reference 1**

To continuously provide advice for the management, updating and publishing of the NPU terminology

# List 2022 accomplishments for this Term of Reference

The NPU Steering Committee website continues to act as the main governance site (http://www.npu-terminology.org), while the NPU terminology itself can be searched from (http://www.ifcc.org/ifcc-scientific-division/sd-committees/c-npu/npusearch/). The NPU also holds a Wikipedia page at https://en.wikipedia.org/wiki/NPU\_terminology

# List planned activities in 2023 for this Term of Reference

- Continue teleconference and face-to-face meetings of both the C-NPU and NPU SC.
- Publish the IUPAC project Online Dynamic Manual and continue on developing the homepage, www.labterminology.com.
- C-NPU continues to review terminological issues around use of the NPU terminology from users and national release centres.
- C-NPU continues in planning of having a symposium at the IFCC WorldMedLab congress in Dubai 2024

#### Term of reference 2

To make recommendations on NPU for reporting clinical laboratory data that conform to or adapt current standards of authoritative organizations, and that will improve their utilization for health care.

#### List 2022 accomplishments for this Term of Reference

NPU Steering Committee continues to administer and update its strategic plan and work on the international release centres.

#### List planned activities in 2023 for this Term of Reference

C-NPU will continue to work in order to broaden the international use of NPU terminology and to demonstrate how NPU terminology may be used with other terminologies and open standards, for example SNOMED CT and FHIR messaging.

C-NPU will work on an international communication standard for a laboratory information model, and establish NPU terminology as an integral component of laboratory messaging.

#### Term of reference 3

To provide a connection with other organizations concerned with NPU such as the Bureau International des Poids et Mesures (BIPM), the European Committee for Standardization (CEN) and the International Organization for Standardization (ISO), and, by extension, clinical laboratory science societies such as the International Union of Pure and Applied Chemistry (IUPAC), and the in vitro diagnostics industry, to ensure that problems encountered by health care professionals in the area of NPU are considered by those organizations.



## List 2022 accomplishments for this Term of Reference

- C-NPU is representing IFCC as Liaison A member in the ISO working group, TC215.
- C-NPU has begun a cooperation with a subgroup of JCTLM, chaired by Dr Elvar
  Theodorsson in discussing the need of information about measurement procedures and
  how to establish a standardized description of measurement procedures.
- Titular member Koh Furuta (KF, JPN) participate in the revision of ISO 15189
- Gunnar Nordin participate in BIPM WG2 meetings and provide input into the upcoming VIM4 (International Vocabulary of Metrology).
- Daniel Karlsson reports to the NPU on IHTSDO/SNOMED-CT related matters.

# List planned activities in 2023 for this Term of Reference

Continuation of activities described above

#### Term of reference 4

To act as a consultant group on NPU in clinical chemistry and, by extension, in the rest of clinical laboratory sciences to international scientific panels, regional and national clinical laboratory sciences organizations, editors of scientific journals, manufacturers of clinical laboratory instrumentation and products, and to individual clinical laboratory professionals and other health care professionals.

# List 2022 accomplishments for this Term of Reference

Chair and individual NPU members continue to be active with their societies, particularly in the informatics and terminology arenas. NPU connected members are active as members of their respective national NPU release centres (NRCs)

Gunnar Nordin continues to be active within the Joint Committee for Guides in Metrology Working Group 2 (JCGM WG2)

# List planned activities in 2023 for this Term of Reference

Continuation of activities described above

#### Term of reference 1

Provide reports about the current status quo in Molecular Diagnostics. We use surveys in English and Spanish to gather information as a method.

## List 2022 accomplishments for this Term of Reference

Publication of the results. Organization, evaluation and publication of an international survey on the diagnostics of SARS-CoV2.

Preparation and implementation of an international survey on the diagnostics of ctDNA in IFCC member states. The C-MD of the IFCC conducted a survey among international laboratories performing ctDNA analysis. Questions on analytical techniques, test parameters, quality assurance and the reporting of findings were included in the survey. A total of 58 laboratories from 24 countries participated in the survey. The results have just been submitted to Clin Chem Acta after approval by the SD.

## List planned activities in 2023 for this Term of Reference

- Generation of two additional surveys addressing:
- Quality assurance probably with a focus on Mpox and SARS CoV2/infectious diagnostics
- Diagnostics of tuberculosis

#### Term of reference 2

To produce guidelines on molecular techniques and their validation for routine diagnostics

# List 2022 accomplishments for this Term of Reference

- The committee has not generated any demonstrable data on this in 2022.
- List planned activities in 2023 for this Term of Reference
- To produce guidelines on quality assurance in molecular diagnostics techniques.
- If possible, we will try to develop a guideline for PCR set-up and primer design in cooperation with the C-CMBC.

#### Term of reference 3

To create a network of locus-specific IFCC Molecular Diagnostics Centres

## List 2022 accomplishments for this Term of Reference

Currently, the current Molecular diagnostic centres (Expert and network) Laboratories have been asked to give an update/feedback on their activities in 2022, so that an inventory can be made of what activities actually exist in real life through these types of centres. A current list of the labs can be found here:

https://www.ifcc.org/ifcc-scientific-division/sd-committees/c-md/moleculardiagnosticcentresoftheifcc/

and

https://www.ifcc.org/ifcc-scientific-division/sd-committees/c-md/molecular-diagnostic-network-laboratories/.

List planned activities in 2023 for this Term of Reference



The purpose of the query is to evaluate whether the IFCC MDC concept is actually working and what the benefits to the regions are. The data generated will be discussed and evaluated at the upcoming C-MD meeting on 5/22/2023.

#### **Comments from Committee Chair:**

Not only the Corona pandemic, but also the steadily advancing development and performance of molecular genetic tests has in recent years placed ever more complex demands on the laboratories performing them, and also presents the C-MD with ever new challenges.

The question arises whether the entirety of molecular genetic diagnostics in its complexity can be addressed by the C-MD one committee at all. The preconditions have certainly been made more difficult by the fact that the former pharmacogenetics working group has been embedded in the C-MD and other topics such as liquid biopsy or MDX diagnostics of infectious diseases can be addressed less effectively (because with less technical expertise).

Against this background, I think it makes sense to initiate a discussion that addresses the splitting and reorientation of the committee. It might be useful to establish at least two working groups/Committees. One working group/committee should address the molecular genetic testing of infectious diseases and another group should address molecular genetic analysis in the oncological context (NGS/ liquid profiling).

# C-Traceability in Laboratory Medicine (C-TLM) Chair: Anja Kessler (DE)

#### **Term of reference 1**

To support activities regarding Traceability in Laboratory Medicine, permitting IFCC to continue its international role in this area and providing an operating link between the SD and the WGs of the Joint Committee on Traceability in Laboratory Medicine (JCTLM), concerning identification of reference measurement procedures, reference materials and reference laboratories.

#### List 2022 accomplishments for this Term of Reference

A. Kessler participated in the annual meeting of JCTLM Executive Board. The results of the annual survey RELA for calibration laboratories are discussed and were among other factors responsible for the decision of listing nominated calibration laboratories in the JCTLM Database.

#### List planned activities in 2023 for this Term of Reference

C-TLM will contribute to the next JCTLM Members' and Stakeholders' Meeting, Sevres, December 2023. The title of the presentation will be "Higher order EQA schemes".

#### Term of reference 2

To support reference laboratories in the context of complete reference systems (accepted reference measurement procedures of higher order, reference materials, and reference laboratories) by establishing an External Quality Assessment Scheme (EQAS) for reference laboratories in order to monitor their competence.



## List 2022 accomplishments for this Term of Reference

The results of RELA 2022 have been published (http://www.dgkl-rfb.de:81). The large number of participation (82 labs, 680 results) underlines the importance of this survey program for the calibration laboratories. Participation is an essential part of both accreditation of the calibration laboratories and the listing of the services in the JCTLM database.

For HbA1c, a joint project between NMIs and C-TLM has been organized. The participants of the CCQM comparison and RELA received the same samples. 20 labs in total provided results which have to be evaluated and discussed. 10 used the IFCC HbA1c method and 10 used ID/LC/MSMS. So, the comparison between different levels of the traceability hierarchy as well as different reference measurement procedures is possible.

Discussions were held with the NMIs (PTB, LNE, LGC) in order to optimize cooperation and comparison studies similar to the HbA1c project. RELA key measurands for hormones and enzymes were defined jointly for the next RELA surveys so that NMIs have enough time to plan their measurement capacities for this.

## List planned activities in 2023 for this Term of Reference

RELA 2023 has been announced. Due to logistical reasons the shipment has been in delay and the deadline for submission of results will be postponed to mid of July 2023. The evaluation will be published in August 2023.

#### **Term of reference 3**

To promote establishment and maintenance of IFCC reference laboratory networks for clinically relevant measurands (e.g. the IFCC HbA1c network).

#### List 2022 accomplishments for this Term of Reference

As IFCC HbA1c Network we have been able to organise the standard two intercomparison studies in 2022 (Kotten study). However, due to the COVID pandemic we had to postpone the collection of blood and thus the study a couple of months like last year.

The approved network laboratories, one of the two candidate laboratories and the designated comparison method networks in the US and Japan participated.

The study is just finished. All approved network laboratories kept their approval. The participating candidate lab (India) passed in both Kotten studies and according to the rules thus gained its approval. We now have 20 approved network laboratories.

The master equations between the IFCC RMP and the designated comparison methods were again confirmed. The IFCC RMP SOP is validated for fresh whole blood only. To investigate matrix effects, additional frozen and lyophilized samples were added to the 2022 study. The results are under investigation and outcome will be reported next time.

The face-to-face meeting was scheduled to be held at IFCC Worldlab in Seoul in June. However, because of the COVID rules for travelling to South Korea this meeting had to be cancelled. The next network meeting will be held during IFCC WorldLab/EuroMedlab Rome, May 2023. For educational activities the network is part of the IFCC C-EUBD. In June 2022 a symposium was held at the IFCC WorldLab in Seoul where the lectures were given virtually.

EurA1c was organised for the sixth time in 2021. In this multinational project, in which the national EQA organisers share two samples we had 25 EQA organisers from 21 countries participating. Due to COVID-19 we saw a slight reduction in the number of laboratories but still more than 4000 labs participated. Currently the 2022 trial is running. 26 EQA organisers from 21 countries registered for this year's trial.



# **Report CDT Network**

# **Carla Siebelder, Network Coordinator**

The CDT network of reference laboratories yearly organises an intercomparison study. In 2022, we had participation of four approved network laboratories and one of the two candidate laboratories. One approved lab unfortunately had to stop operating the method and the second candidate lab was not ready yet to participate. All approved labs kept their status of approval. The candidate laboratory passed for the second time (in two consecutive studies) and according to the rules of the network gained the status of approved lab.

Last week, on 19 October, the WG/network had its annual meeting at Schiphol airport where the 2022 intercomparison study was discussed.

# List planned activities in 2023 for this Term of Reference

Expansion of the network by recruitment of new reference laboratories was also again discussed and in 2023 a new candidate lab from the UK is expected to participate. Focus of the WG continues to be on global implementation of standardised results and promotion of the CDT IFCC test.

# C-Reference Intervals and Decision Limits (C-RIDL) Chair: Thomas Streichert (DE)

NO report received for Annual Report; section extracted from most recent report presented to SD-EC (October 2022)

They are working on three different aspects:

- Characterise reference intervals in relation to their clinical validity where direct studies are not possible.
- Continuous reference intervals reviewing methods and options for presentations.
- Pregnancy related reference ranges. They are reviewing the literature overview and calculation by indirect methods.
- How can these be communicated to clinicians?
- There is discussion ongoing about global reference ranges.

C-Bone Metabolism (C-BM)
Chair: Etienne Cavalier (BE)

Term of reference 1
PTH Standardization

# List 2022 accomplishments for this Term of Reference

- Presentation of the commutability results during the C-BM meeting in Munich.
- List planned activities in 2023 for this Term of Reference
- Participation to the Joint meeting on Reference Measurement Systems for PTH 1-84 (Paris, February 8<sup>th</sup>)



- Build-up of a reference laboratory network with CHU LC-MS/MS and CDC HR-MS/MS (when available)
- · Publication of commutability study results.
- Seek opportunity to help in standardization of the peptide



# Term of reference 2: Biomarkers assays

#### List 2022 accomplishments for this Term of Reference

- Regarding PINP:
  - A manuscript on the opportunity to harmonize PINP has been accepted in CCLM
  - An equation allowing harmonization has been proposed
  - A commutability study has been performed
  - A study on biological variation of PINP and other markers on remaining samples from EuBIVAS has been run, and a paper has been published.
  - An Editorial on PINP has been written.
  - A commutable calibrator has been defined.
- Regarding CTX:
  - Manufacturers should work to improve the issues we observed on the multicentre study. This is mandatory for the future of the marker.
  - List planned activities in 2023 for this Term of Reference
- Regarding both CTX and PINP:
  - We are waiting for potential development of higher-order methods or for any improvement in manufacturer's standardization (IVDR?); Then we will work to help improving the situation.
  - We will discuss potential studies for other biomarkers during our meeting in Rome
  - A review of the nomenclature of bone turnover biomarkers will be proposed

# Term of reference 3 Vitamin D

#### List 2022 accomplishments for this Term of Reference

- Preparation of the multicentre study to evaluate measurement uncertainty according to our paper published in Nutrients.
- Collection of samples from pregnant women
- Writing a paper on 24.25(OH)2D biological variation with EuBIVAS.

# List planned activities in 2023 for this Term of Reference

- Publication of the paper on 24.25(OH)2D BV
- Measure and analyse the results of the MU study
- Complete the collection of pregnant women

# C-Standardisation of Thyroid Function Tests (C-STFT) Chair: Dr. Hubert Vesper (US) / Dr. Katleen Van Uytfanghe (BE)

Term of reference 1

Establish a system to maintain traceability of free thyroid hormone and TSH measurements.

List 2022 accomplishments for this Term of Reference

#### Maintaining the reference system for fT4:

The main focus for this item is the creation of reference laboratory capacity and the coordination of activities conducted by the reference laboratories to leverage synergies and minimize duplication. Success is indicated in having a functional network of reference laboratories that are active in standardizing FT4 measurements performed in clinical and research settings. Furthermore, it is indicated in new organizations being interested in joining the network and in publications being available or currently under review.

A network of reference laboratories was established consisting of the following laboratories: Ref4U (Belgium), CDC Clinical Reference Laboratories (USA), Radboud University Medical Center of Nijmegen (The Netherlands), and Reference Material Institute for Clinical Chemistry Standards (Japan). Interest for joining the network was indicated by 2 organizations located in China and Australia. Communications are ongoing.

The Network completed a second method comparison study (MC2). Initial data evaluation indicates good agreement among laboratories. This study also included characterization of reference materials from the assists U.S. National Institute for Standards and Technology (NIST). A final report and related publication is currently being created by Dr Van Uytfanghe.

While Ref4U is already registered in the JCTLM database, the CDC and Radboud laboratories submitted manuscripts about their methods for publication, which is a required step for JCTLM review. It is planned to have all reference methods and labs either be listed in the JCTLM database or being ISO accredited.

CDC laboratory is providing reference measurements to the U.S. Collage of American Pathologists Accuracy-based surveys. Furthermore, it is providing technical assistance to manufacturers related to assay recalibration. CDC Clinical Standardization Programs put in place a formal standardization program for FT4 with reference measurements linked to the IFCC- C-STFT reference system.

CDC and Radboud University submitted manuscripts on their RMP and its application, these are both in the second round of revision.

CDC and UGhent laboratories created manuscript on preanalytical parameters for FT4 measurements by mass spectrometry. Manuscript is submitted and under revision (second round).

The laboratory at Radboud University provided measurements for FT4 in a research study to assess the impact of pregnancy on FT4 measurements done by immunoassay.

# Maintaining the reference system for TSH:

The main focus on this item is on ensuring continuation and consistency of harmonization by creating a follow-up panel for TSH. At the same time, the C-STFT is assisting with coordinating harmonization activities conducted by manufacturers and national/regional organizations.

The study design to create and characterize the next TSH harmonization panel according to ISO 21151 was completed, Ethics approvals and Material Transfer Agreements for collecting



and processing sera are in place. Specimen collection is ongoing with specimens already being collected (about a 120 samples from different donors are collected to at this point).

Once sufficient samples were received, the study to characterize the follow up panel will start. CDC Clinical Standardization Programs agreed to store and handle the samples for this study.

C-STFT provides assistance to NIBSC with characterization of new WHO International standards material. The current WHO material is almost depleted. The material is needed to link TSH measurements to International Units. Once linked to International Units, the assays can be recalibrated to be linked to the IFCC C-STFT harmonization panel. NIBSC provided the WHO International Standard, C-STFT follow up panels are provided by C-STFT, CDC Clinical Standardization Programs is conducting the shipments and is assisting with data collection. The characterization study is currently ongoing: 15 participants in 9 countries participate in this study. Samples are planned to be shipped end of October/beginning of November 2022.

In practice, the above will be combined in a 2 phase study.

- In the first phase (2023 IFCC TSH Study Phase 1, 2023 ITS Phase 1), a set of samples from the TSH follow-up panel, which was certified along with the initial TSH harmonization panel (see DOI: 10.1373/clinchem.2016.269456) will be measured. In addition, some ampules of the current 3rd WHO International Standard for human TSH (81/565) and the candidate 4th WHO International Standard for human TSH (81/615) will be measured. These measurement haven been done; all participants have reported their results. Data-analysis is ongoing and will be discussed at the next C-STFT meeting in May 2023.
- The TSH follow-up panel is intended to be used to recalibrate your assay against its targets. Once your assay is recalibrated, values are assigned to the 3rd TSH harmonization panel, which will be provided in a second shipment. The work conducted in the second shipment is considered phase 2 of the 2023 IFCC TSH Study (2023 ITS Phase 2) and will be conducted in the second half of 2023.

TSH harmonization based on the IFCC C-STFT reference system is officially implemented in Japan and assay manufacturers are now using the harmonization panel to adjust assay calibration.

#### List planned activities in 2023 for this Term of Reference

- Formalize the operational rules for the fT4 network of reference laboratories. This includes network protocols and ISO compliant SOPs.
- Continue to build laboratory capacity by supporting laboratories with establishing reference measurement procedures
- Continue support to develop and characterize reference materials developed by metrological organizations
- Establish new follow-up harmonization panel for TSH and explore development of formal matrix-based reference materials for TSH

#### Term of reference 2

Coordinate programs to evaluate free thyroid and TSH assays with regards to their analytical performance.

#### List 2022 accomplishments for this Term of Reference

Coordinate national/regional programs related to FT4 standardization and TSH harmonization

The C-STFT strategy is to ensure consistent calibration to the IFCC C-STFT system globally and to coordinate their implementation on a national/regional level. This allows regional and national



organizations to customize activities to meet regional needs and requirements as outlined in relevant regulations and clinical practice guidelines ("Calibrate globally – Implement locally").

B1: FT4

CDC Clinical Standardization Programs launched in 2021 a new program to standardize FT4 measurements. CDC ensures that the program is linked to the IFCC C-STFT by being a successful member of the reference laboratory network.

CDC Clinical Standardization Programs, as part of its internal program requirements, conducted an interlaboratory comparison study of FT4 and TSH assays in 2022. FT4 measurements were compared to the IFCC reference method operated at CDC. Results were presented at scientific meetings and made available to the IFCC C-STFT.

Japan is working on a national program to standardize FT4 measurements. Relevant stakeholders are working with the Japanese reference laboratory.

Accuracy-based EQA providers in the Netherlands and the U.S. use the IFCC C-STFT reference laboratory network for fT4 for target value assignments.

B2: TSH

The TSH harmonization in Japan is linked to the IFCC C-STFT harmonization panel. Harmonized measurement are now used in patient care.

Reference material providers such as NIBSC (UK) and NIST (USA) collaborate with the IFCC C-STFCT reference system for reference material characterization.

## List planned activities in 2023 for this Term of Reference

Assist with the development and establishment of national/regional programs to standardize/harmonize TSH and FT4 through formal standardization programs and/or by supporting accuracy-based EQA programs.

Ensure national/regional efforts are linked to the IFCC C-STFT reference system by making that system available to those efforts

# Term of reference 3

Develop reference intervals for free thyroid hormones and TSH.

#### List 2022 accomplishments for this Term of Reference

IFCC C-STFT is supporting the generation of regional/local reference intervals using methodologies that are standardized/harmonized to the IFCC C-STFT reference system. Because harmonized and standardized assays have not been available until recently. The development of reference intervals linked to the C-STFT reference system has been slow.

The reference intervals established in Japan as part of TSH harmonization are as of 2021 officially been used.

CDC is working with national surveys and other studies to assess the feasibility for establishing reference interval in the U.S. population.

C-STFT continues communications with researchers to assess the possibility of using existing study and patient data as well as analysing samples in new reference interval studies.



#### List planned activities in 2023 for this Term of Reference

Coordinate with principal investigators and organizations work related to developing reference intervals to ensure new reference intervals are generated with standardized and harmonized assays. Continue to try to work with the IFCC C-RIDL.



#### Term of reference 4

Liaise with key stakeholders to promote the use of the standardized assays in routine clinical practice and public health, to ensure analytical performance requirements meet clinical needs, and to help with developing and establishing reference intervals.

## List 2022 accomplishments for this Term of Reference

- The approach for this task is to have C-STFT members inform stakeholders about C-STFT activities and to assist stakeholders with replicating the information in an audience appropriate manner.
- Dr Van Uytfanghe represents the C-STFT in an American Thyroid Association (ATA)
  working group that prepares a manuscript about current practices on thyroid hormone
  measurements. Manuscript currently under internal review
- Dr Vesper presented the work of the IFCC C-STFT at the annual ATA meeting October 2022. As a result, the ATA is considering providing more information about standardization to its membership.
- Dr Vesper presented the work of IFCC C-STFT at the annual meeting of the Partnership for the Accurate Testing of Hormones, a stakeholder organization promoting standardization of hormones. PATH will support standardization of thyroid function tests to the IFCC C-STFT reference system.
- Dr Danilenko provided an update about the IFCC reference method, pre-analytical criteria and the interlaboratory comparison study at the CDC Form in conjunction with the annual AACC meeting Chicago July 2022
- Dr Van Uytfanghe presented the work of IFCC C-STFT at the Annual Meeting of the European Thyroid Association in September 2022
- Dr Van Uytfanghe presented the work of IFCC C-STFT at the "PAOKC schildklier" (post academic continuing education) from the Dutch Society of Clinical Chemistry and Laboratory Medicine
- Dr Van Uytfanghe maintained and updated the IFCC C-STFT website.

# List planned activities in 2023 for this Term of Reference

- Educate stakeholders, such as those conducting reference interval studies, about the
  importance of using standardized/harmonized assays. This is achieved by reaching out
  to principal investigators of large epidemiological studies and those using data form
  electronic health records.
- Continue to work with professional organizations such as the ATA to increase awareness about the importance of standardization in patient care and public health.
   This is achieved by publishing and continuing the work conducted by the ATA working group mentioned above.
- Continue to publish and present work conducted by IFCC C-STFT members and other
  organizations performing or supporting work of thyroid function test standardization.
  This is achieved by conducting scientific sessions at national meetings such as the
  AACC and other organizations.
- Update website to better communicate changes associated with fT4 standardizing and TSH harmonization.

#### **Additional planned activities**

Follow-up on suggestions by stakeholders to standardize or harmonize thyroid antibodies. This is done by conducting a feasibility assessment. Promote and support research to develop new reference materials and methods for thyroid hormones and antibodies.



# **WORKING GROUP**

# WG-Standardization of Haemoglobin A2 (WG-SHbA2) Chair: Andrea Mosca (IT)

Joint Working Group with ICSH (International Council for Standardization in Haematology)

#### **Terms of reference**

To promote the standardization of haemoglobin A2 measurement through the definition of an international reference system, including a reference measurement procedure and primary and secondary reference materials.

## List 2022 accomplishments for this Term of Reference

The lyophilized materials with normal and elevated level of HbA2 prepared by the EU-JRC in July 2021 (ERM DA-485/IFCC and ERM DA-486/IFCC) have been tested for homogeneity and short-term stability. The results were satisfactory. Details will be presented in the final report distributed with the CRMs.

The commutability of these materials has been studied by an ad-hoc protocol with 9 different laboratory methods. Results by three Bio-Rad Laboratory methods (D10, Variant II beta-thal and Variant II dual kit), one Helena method (V8 ultrascreen) and one Trinity method (Premier HR) obtained between August and November 2022 seemed to indicate good commutability of the above-mentioned materials. Details will be presented in the final report distributed with the CRMs.

Value assignment of the two ERM materials was planned but not accomplished due to problems with Chinese customs for shipping under dry ice the necessary reagents, and because one of the two Reference laboratories in China was not available to run the method due to other priorities related to COVID pandemic.

## List planned activities in 2023 for this Term of Reference

- To complete the commutability study of the two ERMs materials.
- To complete the activities to list the RMP for HbA2 in the JCTLM database.
- To assign the target values to the ERMs materials by running four independent analytical runs in the two German laboratories, in order to avoid shipping the reagents to China.

# WG-Standardization of Carbohydrate-Deficient Transferrin (WG-CDT) Chair: Jean Deenmamode (UK)

#### Term of reference 1

Promoting the use of the HPLC reference measurement procedure (RMP) as the accuracy base for CDT test standardisation

# List 2022 accomplishments for this Term of Reference

- Italian laboratory successfully completed two rounds of the yearly IFCC CDT blind study and was fully approved as IFCC CDT network laboratory in Oct 2022.
- Active members of the CDT WG contacted local QA organisers, as well as distributors and HPLC manufacturers operating in the diagnostics environment to seek potential interested laboratories from different countries.
- The WG members planned to meet with such interested parties via video call or, if permitted, face to face

#### List planned activities in 2023 for this Term of Reference

- All active members will continue discussion and support laboratories interested in establishing the HPLC reference method.
- UK WG member in active collaboration with a private UK laboratory in re-establishing a CDT service comprising of two commercial platforms and the HPLC reference method.

# Term of reference 2 Maintaining sustainability of an international network of laboratories

#### List 2022 accomplishments for this Term of Reference

- Sustainability and performance of network laboratories and participating commercial manufacturers are assessed by the yearly distribution of IFCC calibrators, controls and blind samples from the MCA Winterswijk NL laboratory overseen by the IFCC network coordinator, Carla Siebelder.
- Laboratory performance is assessed on a pass/fail criterion and HPLC RMP.
- Performance results are also further scrutinised by Drs J. Wielders and F Schellenberg.
- The 2022 Cycle took place with participants' results submitted by. Performance and participation were presented and discussed during the CDT WG's annual meeting in Schiphol on 19th Oct 2022.
- JW and FS reviewed chromatographic patterns submitted.
- There were five successful IFCC networked laboratories this year, with one manufacturer not participating this time and another manufacturer working towards improving their performance.
- Manufacturers' contribution towards this study do not form part of the CDT WG's funds.

#### List planned activities in 2023 for this Term of Reference

Cycle of blind IFCC samples will take place during spring 2023, following prior invitation which will be sent to all prospective participants (network labs and manufacturers). Results will be presented and discussed during the WG CDT meeting on 21st May 2023.



#### Term of reference 3

### Supporting the worldwide standardisation of commercial methods against the RMP

#### List 2022 accomplishments for this Term of Reference

- Most participating commercial CDT manufacturers achieved positive results towards CDTIFCC and have launched respective assays.
- A further CDT manufacturer participated in the standardisation process and did not accomplish the required results with the 2022 blind study.
- While WG members have been in active discussion and support with the manufacturer towards reviewing their approach to improve alignment closer to CDTIFCC
- List planned activities in 2023 for this Term of Reference
- Continue to assist the remaining commercial participants in successfully achieving the CDTIFCC goal. Monitor performance and adherence.
- The WG will endeavour to support the definitive transition from classical CDT to CDTIFCC.

#### **Term of reference 4**

Offering consultation concerning use of biomarkers of alcoholism towards national and international agencies

#### List 2022 accomplishments for this Term of Reference

Generally, a local or extended activity initiated primarily by a member of the WG. The process has been in place with better success in Sweden and the Netherlands. Similar efforts are progress in the UK with certain agencies, aviation Medicine and government advisors abroad.

#### List planned activities in 2023 for this Term of Reference

To maintain the above activities ongoing in other countries

#### **Additional Information:**

Two further terms:

#### Providing scientific support for the production and delivery of authorised RMP

Actively supporting other sites interested towards introducing the RMP as part of the network laboratories

## Supporting the development of guidelines for clinical use of CDT assays

Work in progress

## **JCTLM** nomination

Work in progress, mediated by Steven Westwood and overseen by C.Cobbaert and previously, P.Gilllery

# **WG Membership**

Cas Weykamp retired. from the CDT WG on 31Dec21.

Franco Tagliaro (IT) was invited to join the CDT WG during the Schiphol CDT meeting on 19<sup>th</sup> Oct 2022.

## **Comment from WG Chair:**

- Standardisation and establishment of CDT-IFCC has been accomplished.
- The WG's function was maintained to provide support for one or two manufacturers still working towards standardisation.



- JCTLM matters are still in progress through mediation (mediator sadly experienced unexpected double bereavement during summer 2022).
- Most of the members in the current WG have either fully or part retired from their actual employment roles and not fully attached to an active laboratory.
- Upon eventual dissolution of the CDT WG (by the Scientific Division), an advisory expert group (previous + current WG members) working together with the IFCC QA coordinators had previously been proposed to maintain the standards achieved and continuity of the successful yearly blind studies.
- The WG has worked for many years with its remaining allocated funds, with no further contributions from any other sources.

# WG-Standardization of Pregnancy-associated Plasma Protein A (WG-PAPP A) Chair: Saara Wittfooth (FI) (Lennart Friis-Hansen (DK) new Chair 2022-)

NO report received for Annual Report; section extracted from most recent report presented to SD-EC (October 2022).

#### **Comments from Saara Wittfooth:**

Lennart Friis-Hansen is the chair of WG-PAPP-A currently, but I can inform you, that WG-PAPP-A is proceeding with the Phase 4 studies to confirm commutability of the NIST SRM1949 as the reference material for PAPP-A and for assigning PAPP-A value for this material. Most companies have already received the materials and all of them should report the results back to me in December. The results should be available by the end of this year. I will invoice the costs related to Phase 4 work in my laboratory to IFCC in November (as set forth in the agreement between my university and IFCC).

It has previously been anticipated that this Working Group would cease to be after this year. In adherence to this aim, the practical goals (Phase 4 results) are to be achieved by the end of the year. However, I assume there would still be funds left (around 20 000 EUR) dedicated to this WG and EC should probably consider how to deal with this situation. There have been no publications of this WG over the years it has existed and it would be nice to have the final results reported at the end. But we can probably do that next year even though the WG is finished. A closing meeting of the WG in Rome EuroMedLab 2023 would be nice, but I will leave this to your and Lennart's consideration, as this would probably then require further extension of the WG.

# WG – Standardization of Albumin Assay in Urine (WG-SAU) Chair: Jesse Seegmiller (US)

This WG is a joint WG between IFCC and NIDDK

## Term of reference 1

Perform comparison studies on 10 urine specimens for urine albumin using the reference measurement procedures from Mayo Clinic (LC-MS/MS), NIST (LC-MS/MS), Singapore (LC-MS/MS) and the University of Minnesota Advanced Research and Diagnostic Laboratory (LC-MS/MS).



# List 2022 accomplishments for this Term of Reference

Agreement of the analysis protocol and plans to ship specimens out in 2023 to the other candidate reference laboratories. Agreement on specimen reporting form.

#### List planned activities in 2023 for this Term of Reference

Specimens will be shared with the laboratories. All laboratories with capabilities will run the specimens and report back to the LWG with the reporting form. Data will be reviewed, discussed and published. After completion, data will be submitted to the Joint Committee for Traceability in Laboratory Medicine for potential acceptance as candidate reference procedures.



# WG-Growth Hormone (WG-hGH) Chair: Michel Vos (NL)

NO report received for Annual Report; section extracted from most recent report (PowerPoint) presented to SD-EC (October 2022)

GH sample collection protocol required for inter-assay comparison

Eef Lentjes (past chair) has clearance from local Medical Ethical Assessment Committee (METC)

- · Can already start collecting
- 50-60 samples collected (children + adults)
- 0-60mU/L
- Required volume (four main immunoassays)
- 2.5mL required for duplo run

Michel Vos (current chair) will ask for clearance from local METC

- Clearance end of februari 2022
- Start collection samples all GH orders in collaboration with clinicians

Key-comparison CCQM Cristian Arsene

Serum pool sample shipped

- Results end of summer returned
- Use results for selecting reference method for GH
- Sample shipped to Eef for comparison different immunoassays

Michel will contact CCQM for options on collaboration

Healthy volunteers collection on-hold (200mL serum)

Probably in between now and July 2022 new agreement with sport medicine department

Status sample collection

- UMCG sample collection starting from 16 years onwards.
- Informed consent required, currently setting up procedure with clinic.
- All patients with GH order (probably including endocrine stimulation) will be ask to donate extra tube, followed by selection of usable samples.
- UMCU sample collection of endocrine stimulation testing, total of 25 at the moment.
- Samples per patient will be pooled to get large enough volume
- Total minimal volume required 2.5mL, preferably more if samples have to be measured in duplicate (~4mL)
- 4-5mL required

#### Status key comparison GH sample within CCQM

- CCQM labs + immunoassays through Eef and LC-MS/MS method including antibodypull down through Michel
- Comparison between CCQM LC-MS/MS methods, Siemens, Roche, IDS, Diasorin, Beckman Coulter.
- No Beckman GH assay running in Netherlands, R&D site in France could analyse samples (Jean-Sebastien asks for possibility at R&D site)

#### Network of reference labs

 Cristian will make agenda point at next CCMQ meeting of possibility CCQM labs serving as reference lab.

#### Funding for main comparison

- In part funding available from Dutch organization for Clinical Chemistry / SKML
- Michel will ask LBA representatives for possibilities for funding of this project

### Status collection of calibrator material (200mL serum per person)

- Eef: collection requires setting up new collaboration with sports medicine department, expected to start Q1 2023
- Michel offers to include UMCG as additional site for collection in healthy volunteers
- Status patient material collection for main comparison
- Approximatelly 40 samples with enough volume
- Eef will provide protocol for collection so that work group members can help with collection at local sites
- CCQM comparison for possible RMP

WG-Standardization of Insulin Assays (WG-SIA) Chair: Jesse Seegmiller and Michael Steffes (US)

#### **Terms of Reference**

To develop a traceability chain for the standardization of insulin

### List 2022 accomplishments for this Term of Reference

We are developing our insulin LC-MS assay. Several mass spectrometry techniques were examined that include analyses of intact insulin, intact A- and B-chains analysis, and peptides from enzymatic digestion. We have currently chosen the last approach. Despite some technical progress we are experiencing an unsatisfactory sensitivity for patient samples. Further optimization experiments are ongoing for the ion exchange separation and digestion steps to improve recovery. To establish a proper traceability chain, insulin-labelled internal standard and certified reference material will be further examined.

We had already collected Secondary Reference Materials (single donor and pooled serum) for C-peptide standardization that we also intend to use for this insulin standardization project. We planned a study to send 20 of these samples to manufacturers (and a few labs using LC/MS) for analysis of insulin and c-peptide. After receiving manufacturers' results, we will send them our c-peptide Reference Method results as well as results from the University of Washington LC/MS insulin method (not a reference method). Then we will send a different set of 20 samples for them to analyse after recalibrating their assays based on the relationship from the original set of 20 samples (their method vs LC/MS). This study began in January 2023 with shipment of samples to 9 manufacturers and 2 laboratories.



# List planned activities in 2023 for this Term of Reference

In 2023 we plan to continue work on the insulin Reference Method with the intention of increasing sensitivity.

We will continue our study with manufacturers. The short-term goal will be to have manufacturers share the relationships between their method and final Reference Methods with their customers. This can be done with a white paper that describes the standardization process and gives a conversion equation to users. Our long-term goal is still to have them actually recalibrate their methods and include this recalibration in their IFU so that laboratories can report results comparable to Reference Method results. This will reduce variability among methods/labs.



Chair: Robert H. Christenson (US)

#### Term of reference 1

Development of a candidate secondary reference measurement procedure and candidate secondary reference material for cardiac troponin I (cTnI)

# List 2022 accomplishments for this Term of Reference

- Complete collection of high cTnl samples from myocardial infarction (MI) subjects for producing the commutable cardiac troponin I (cTnl) reference material (RM) 8121.
- Complete collection of samples from normal healthy males and females for blending with the high cTnI samples and produce Level A, Level B, Level C and Level D of the commutable RM 8121.
- Test all samples from MI patients and normal healthy samples for Hepatitis A, B, C and HIV
- Assure all samples for producing cTnl RM 8121 are not infectious.
- List planned activities in 2023 for this Term of Reference
- I plan to work with the new chair of WG-TNI to assign high sensitivity cTnI values to RM 8121.

#### Term of reference 2

Testing for cTnl standardization and clinical validation by comparison with validated commercial assays in a round robin study

#### List 2022 & early 2023 accomplishments for this Term of Reference

About 2 years ago I was successful in obtaining a grant from the National Institute of Standards and Technology (NIST) to complete production of the commutable cTnI RM 8121. By way of review, the final design for RM 8121 is a set of four reference samples with the increasing cTnI estimated values in the ranges and number of vials as follows.

- 1. Level A = 20 ng/L (range 10 ng/L to 30 ng/L); 2500 4000 vials
  - Level A = LOQ (2.6 ng/L) < Level A < female 99th percentile (34 ng/L)
- 2. Level B = 65 ng/L (range 50 ng/L to 80 ng/L); 2500 4000 vials
  - Level B = male 99th percentile (53 ng/L) +~ 20%
- 3. Level C = 265 ng/L (range 220 ng/L to 310 ng/L); 2500 4000 vials
  - Level C = male 99th percentile (53 ng/L) \* 5
- 4. Level D = 3500 ng/L (range 3000 ng/L to 4000 ng/L); 2500 4000 vials
  - Level D = female 99th percentile (34 ng/L) \* 100

All of the high cTnI and samples from healthy individuals were collected by my group at University of Maryland School of Medicine under an IRB approved protocol. Samples were also collected from normal healthy volunteers for blending with the elevated cTnI samples to produce Levels A-D that comprise RM 8121.

NIST issued a 'request for proposal' for blending the high cTnI samples with the material from healthy individuals, to form the 4 Levels, A-D above for RM 8121. The contract also included pipetting the blended materials into freezer vials in an amount of 0.71 mL each. Solomon Park Research Laboratories, Inc., 685 S. 152<sup>nd</sup> Street, Burien, Washington 98148 was awarded the contract. The Solomon group is very experienced and has made several other reference materials for NIST and also for the CDC here in the US.



In January, the normal healthy samples (~10 Litres) were shipped on dry ice to Solomon Park Research Laboratories by UPS. As the high cTnl samples took me over three years to collect, I was reticent to ship these materials by a commercial carrier. For this reason, I had carried the frozen high cTnI pool to Burien, Washington myself. Also, Drs. Mark Lowenthal from NIST and, Show-Hong Duh my colleague from Univ of Maryland, travelled with me from Baltimore, MD to Burien, WA to monitor production of RM 8121 and assure that the Levels A-D were within the ranges listed above. For this purpose, through Dr Robert Payne at Siemens I had arranged with a local hospital, Valley Medical Center, to conduct high-sensitivity cTnI measurements at critical times during thawing of the high cTnl and healthy samples, blending to achieve the cTnl concentrations for Levels A-D and aliquoting processes for the production of the commutable RM 8121. This testing was completed with the Atellica IM TnIH system (Siemens) at Valley Medical Center. To assure quality measurements, Dr Robert Payne provided sets of materials that the manufacturer uses to assure that the reagent lot to reagent lot variation is within their and their FDA's specifications. We measured these materials on Valley Medical Center's instrumentation with each run to assure the cTnl values for RM 8121 would be accurate. During the production of RM 8121 I couriered samples from the Solomon facility to Valley Medical Center for measurements. The Siemens materials and the usual controls used at the Valley Medical Center were included with each run of measurements.

The process of producing RM 8121 stared the first week of February and took 3 days. During this time Drs. Lowenthal, Duh and myself stayed in Burien, WA to assist with decisions and the hs-TnI measurements to assure quality and values of the Levels A-D were within the specified values.

The outcome was over 3000 vials of material for each of the four concentration Levels of RM 8121, over 12000 vials in all.

The hs-cTnl concentrations for each sample member of RM 8121 are as follows.

- Sample A 17.1 ng/L (target range was: 10 ng/L to 30 ng/L)
- Sample B 76.6 ng/L (target range was: 50 ng/L to 80 ng/L)
- Sample C 299 ng/L (target range was: 220 ng/L to 310 ng/L)
- Sample D 3427 ng/L (target range was: 3000 ng/L to 4000 ng/L)

The over 3000 freezer vials for samples for each Level A-D, each containing 0.71 mL of RM 8121 were shipped to NIST, and arrived safely for storage and eventual distribution worldwide once official value assignment is completed. Dr Lowenthal, who is a senior investigator at NIST, reported that NIST was very pleased with the outcome of our project, for both the cTnl concentrations Levels A-D made and the number of vials at each level- total 12,000.

## List planned activities in 2023 for this Term of Reference

- We had an abstract at the AACC Annual Meeting in 2022 that had an update of the RM 8121 project.
- We submitted an abstract for presentation of the creation of Levels A-D of RM 8121 at the 2023 AACC Annual Meeting and Exposition in Anaheim in July, 2023. (Please see the attached Abstract.)
- We will conduct assignment of high-sensitivity cTnl values for Levels A-D of RM 8121, in accordance with an experimental design that will be provided by NIST scientific staff.
- We will compose a manuscript on how the commutable RM 8121 for hs-cTnl was produced. This manuscript will be submitted to the IFCC-SD prior to submission for publication.
- We will propose experiments for RM 8121 at the WG-TNI meeting to be held at the Roma 2021 meeting for discussion. We anticipate making RM 8121 available to stakeholders in the field through NIST's reference material program.

#### Comment from Chair SD:

- This fabulous expedition gave birth to a 4-level commutable RM 8121.
- Dr Christenson and colleagues made a large effort to accomplish this.
- All cTnl-marketing companies and end-users will in the end have benefit from this accomplishment as it is an essential first step in attempts to harmonize cTnl assays.
- The independent value assignment by NIST still has to be realized.
- With Claudia Swart as chair from Jan 2023 and Rob Christenson as expert consultant the establishment of a robust Reference Measurement Procedure and, in the end, of a full Reference Measurement System will hopefully be the next step and ultimate goal to be accomplished by this WG.

# WG-CSF Proteins (WG-CSF) Chair: Johan Gobom (SE)

NO report received for Annual Report; section extracted from most recent report presented to SD-EC.

Change of name requested by the Chair: "Working Group for Biomarkers of Neurodegenerative Diseases

# WG – Commutability in Metrological Traceability (WG-CMT) Chair: Greg Miller (US)

#### Term of reference 1

Advise IFCC Committees and Working Groups on how to assess the commutability of materials on which they are working.

# List 2022 accomplishments for this Term of Reference

- No requests for advice were received in 2022.
- · List planned activities in 2023 for this Term of Reference
- None unless a request is received.

#### Term of reference 2

Establish procedures to use commutable reference materials, and to correct for non-commutability bias, in a metrological traceability hierarchy.

#### List 2022 accomplishments for this Term of Reference

Paper published: Miller WG, Greenberg, N, Panteghini M, Budd JR, Johansen JV on behalf of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) Working Group on Commutability in Metrological Traceability. Guidance on which calibrators in a metrologically traceable calibration hierarchy must be commutable with clinical samples. Clin Chem 2023; 69:228-38.



#### List planned activities in 2023 for this Term of Reference

none; completed.

#### Term of reference 3

Establish how to define the criterion for acceptable commutability that is required for a given reference material, taking into account its intended use in a metrological traceability hierarchy or for surveillance of harmonization/standardization status of results from different measurement procedures.

#### List 2022 accomplishments for this Term of Reference

Progress to complete 2 manuscripts.

#### List planned activities in 2023 for this Term of Reference

Two manuscripts will be submitted for publication in 2023.

- 1. "Recommendations for setting a criterion for assessing commutability of secondary calibrator certified reference materials" has completed internal reviews and is ready to submit.
- 2. "Recommendations for setting a criterion for assessing commutability of sample materials used in external quality assessment/proficiency testing schemes" is nearing completion to submit for internal review.

### **Term of reference 4**

Provide recommendations on verifying commutability for replacement batches of a reference material.

List 2022 accomplishments for this Term of Reference Not started.

### List planned activities in 2023 for this Term of Reference

Began this activity at a meeting on 8 March 2023.

# WG - Immunosuppressive Drugs (WG-ID) Chair: Christoph Seger (CH)

NO report received for Annual Report; section extracted from most recent report presented to SD-EC (October 2023)

#### **Comments by Christoph Seger**

In my opinion we have three general issues to clarify for type A (well definable / single molecular structure) analytes

Some of the commercial LC-MS assays are not traceable to highest order and the companies refuse to take up responsibility



Some immunoassays are that badly set up (insufficient measurand definition), that highest order reference materials are NOT commutable if patient materials are measured. Consequently, such assays are incomparable to LC-MS assays, they are an individual traceability entity.

The commutability concept is not well defined, since assays which are very precise have tighter acceptance limits for materials than assays which are not that precise. This must not be the goal of the regulatory framework.

Taken together, I must state, that even in small molecule analysis it is not an easy task to make laboratory medicine measurements traceable in strictly metrological terms. We cannot even clarify unequivocally, if such an undertaking / burden is clinically needed. In my opinion times have come to re-thin which branches of laboratory medicine investigations / analyses are fitting into the concept of metrological traceability and which are not.

# WG - Apolipoproteins by Mass Spectrometry (WG-APO MS)

**Chair: Christa Cobbaert (NL)** 

#### **Term of reference 1**

To achieve standardization of a panel of clinically relevant serum apolipoproteins (apo) A-I, B, C-I, C-III, E and apo (a) (including qualitative phenotyping where needed). Standardization is done in such a way that measurement results are traceable to SI as outlined in ISO 17511. Other traceability chains will be used in cases where traceability to SI cannot be achieved.

### 2022 accomplishments for this Term of Reference

#### Reference measurement procedure.

The three calibration labs held multiple round of ring trials to assess their current harmonization status. Current results are promising, with median interlaboratory CVs below the target for all apolipoproteins, except apo(a). Further efforts to identify sources of imprecision for apo(a) between the laboratories are ongoing.

Experiments have been performed to evaluate equimolar digestion of apo(a). The initial results are promising, with the expected yield provided by recombinant materials, as well as the lack of potential missed cleavages in an untargeted bottom-up proteomics strategy. Final proof of equimolar digestion will be accomplished once peptide-based calibration is established.

Experiments have been initiated to develop a peptide-based calibration strategy for the seven apolipoproteins. However, initial attempts have not resulted in a stable calibration curve yet. Further effort is now made to assess the optimal conditions for peptide solubility to ensure accurate representation of the peptide concentration in the calibration samples. Moreover, the linearity of peptide-based calibration is assessed to evaluate requirements for accurate value transfer to the secondary reference materials.

The cRMP laboratories were involved in the suitability assessment for apo(a) secondary reference materials of sera from 60 donors. Moreover, samples from CDC LSP were assessed for their apo(a), apoA-I and apoB content to aid in standardization of these parameters, and provide initial materials for assessment of the transition to the new reference measurement system.



#### Reference materials.

All peptides that are to serve as reference materials have been procured and delivered. Initial amino acid analysis has been performed on all peptides, as well as initial purity assessment. Full purity assessment is ongoing for two apo(a) peptides. For the other apolipoproteins, the peptide selection is ongoing. Purity of the primary peptide materials is high, and therefore it is anticipated that not much effort has to be put into analysis of impurities.

Sera from 60 donors have been screened for apo(a) concentration through the cRMP as well as one immunoassay (ITA, Roche Tinaquant LPA2). Moreover, these samples were typed for their number of KIV-2 repeats. Based on their characteristics, donors could be subdivided into five groups, each group to produce one pooled secondary reference material. Further effort is ongoing for the production of two additional pools with higher apo(a) concentrations >250 nmol/L.

#### Planned activities in 2023 for this Term of Reference

A first draft of a manuscript on the level of harmonization between the calibration laboratories is anticipated by the end of Q1 2023.

A calibration strategy for apo(a), traceable to SI units is anticipated by the end of April 2023; analytical validation will be performed before July 2023.

The effects of freezing and thawing on both IA and cRMP for apo(a) will be assessed in Q1 2023.

Measurement of 35 clinical samples for CDC LSP on apo(a), A-I and B will be performed in Q1 2023.

A first commutability assessment for apolipoproteins A-I and B has been initiated and will be finalized before the end of May 2023 by JRC.

Secondary reference materials for apo(a) should be delivered to WG in 2023; value assignment is envisioned for Q3-4 2023.

#### Term of reference 2

To evaluate clinical performance and clinical utility of serum apolipoprotein panel(s) for CVD risk stratification and treatment, in comparison to or together with contemporary blood lipids.

#### List 2022 accomplishments for this Term of Reference

In an LUMC-initiated and led retrospective RCT, serum apolipoproteins have been quantified in 23.500 samples of individuals at risk for CVD at the LUMC (baseline and after 4 months of PCSK9 inhibition on top of statins). Follow-up of the individuals with respect to cardiovascular outcome is available.

#### List planned activities in 2023 for this Term of Reference

Once all results are reported, the data will be merged to assess the value of apolipoproteins for precision CVD risk assessment. A detailed analysis plan has been made with collaboration of an experienced methodologist.



#### **Additional information**

LNE and LUMC were involved in the EU funding programme CardioMET1. A final report has been prepared in January 2023. Claudia Swart from PTB is the PI of the entire project on setting up reference measurement infrastructure for cardiac markers.

As per January 2023, chairmanship of the working group is transferred from Prof Cobbaert to Dr Ruhaak for an envisioned 2 to 3 more years to get the full RMS established. Prof Cobbaert, currently IFCC SD chair, stays as expert/consultant in the APO MS standardization WG.

## **Comment by WG Chair**

The working group functions effectively; however, the aims are ambitious and the progress is dependent on the interplay of all stakeholders, especially the three calibration labs and reference material provider JRC and Solomon Park for timely delivering the sera of the selected donors. The group is committed to deliver the RMS for apo(a) standardization in 2023. RMS's for apos AI and B should also be finalized in 2023, while Apo C and E are envisioned in 2024. For JCTLM endorsement much more has to be done; it is the striving to respond to the JCTLM call for nominations by Q1 2024 in order to get the RMS for apo(a) -and hopefully also for apoA-I and apoB.

Additional guidance and educational tools regarding a successful and well planned joint trajectory to go through IFCC and JCTLM endorsement is welcomed. A JCTLM Task Group on Knowledge Transfer in which experienced IFCC representative(s) are represented, will be established in Q1 2023; the goals are to develop a checklist and educational tools to train chairs of IFCC WGs/Cs early in the standardization/ harmonization trajectories about the peculiarities and essential steps to be taken for getting both IFCC and subsequently JCTLM endorsement.

WG – Pancreatic Enzymes (WG-PE) Chair: Denis Grote-Koska (DE)

Term of reference 1

Development of a primary reference method for pancreatic amylase in serum

#### List 2022 accomplishments for this Term of Reference

Grote-Koska (Hannover, Germany) designed and performed experiments to determine stability of a central PAMY reagent solution, which is the base of the reference measurement procedure for PAMY, as well as method comparisons to the RMP. The latter were performed in Hannover (Grote-Koska) and Milano (I. Infusino, M. Panteghini) on routine methods of Roche Diagnostics and Abbott Diagnostics, respectively. For this purpose, native sera were collected and prepared at the Hannover Medical School (MHH).

An international survey was performed at the end of 2021 to figure out the usage of total amylase, lipase and pancreatic amylase as biomarkers in routine laboratories. The evaluation was performed in 2022. Briefly, 20 % of the participating labs offer pancreatic amylase. 80 % offer lipase. Total amylase is measured at 73 % of the participants of the survey.

Grote-Koska has contacted the chair of C-TLM (A. Keßler) to initiate the PT scheme of PAMY for the first time at RELA 2023.

#### List planned activities in 2023 for this Term of Reference

Reference range determination – two reference laboratories perform measurements on a healthy population. Comparison to routine method of one manufacturer regarding those samples.

Presentation of the RMP to certain IVD manufacturers and publication as Part 8: IFCC primary reference measurement procedure of enzymes.

#### Term of reference 2

Support EC-JRC (Joint Research Centre, Directorate F – Health, Consumers and Reference Materials, formerly IRMM) in studies and certification of reference materials for enzymes

### List 2022 accomplishments for this Term of Reference

In 2022 stability studies of the ERM reference materials ERM AD457/IFCC, AD452/IFCC, and AD456/IFCC (AST, GGT and Amylase) were supported from the RfB calibration laboratory in Hannover for EC-JRC (Grote-Koska).

Further, the reference laboratory participated in the commutability study of AST candidate reference materials.

#### List planned activities in 2023 for this Term of Reference

Measurements for the commutability study of ALP candidate reference materials are scheduled.

# WG - Faecal Immunochemical Testing (WG-FIT) Chair: Sally Claire Benton (UK)

## **Term of reference 1**

To harmonise and/or standardise analysis of haemoglobin in faecal samples by immunochemistry (FIT)

### List 2022 accomplishments for this Term of Reference

We continue to make progress on this challenging area. In 2022 we completed a study that aimed to quantify the bias and correlation between four FIT systems We also assessed the commutability of seven candidate reference materials.

Conclusions: The use of a common threshold for all FIT systems is currently not possible due to the presence of a proportional bias. We have identified potential commutable RMs to take to further studies on the production of a common calibrator, with the aim being to reduce the analytical bias observed on different FIT systems.

The results were shared with all FIT-WG members and manufacturers and a meeting held to discuss these.

A manuscript has been written and submitted for publication reporting these results. It was reviewed and approved by the IFCC scientific division before submission as well as being approved by the FIT-WG. First author was Liesbet Deprez.

We are now on to the next stage of this project and have just completed linearity experiments on all 4 FIT systems included in the study. We plan to meet in person at Euromediab in Rome in May to discuss these results and plan the next stages.

#### List planned activities in 2023 for this Term of Reference

Continue with the harmonisation study work. Protocols for this are being drafted by Liesbet Deprez from the EU reference lab in Geel with expert input from Marieke Frsa and Elin van Der Hagan from Netherlands. The research team at the bowel cancer hub in Guildford are carrying out the analytical work. This is being led by Carolyn Piggott with support Shane O'Driscoll.

Sally Benton continues to oversee the project



# Term of reference 2 To establish EQA and 3rd party IQC programmes

#### List 2022 accomplishments for this Term of Reference

No progress made in 2022

# List planned activities in 2031 for this Term of Reference

There is continued interest in this by members of the FIT-WG and we will aim to engage with EQA companies to obtain guidance on requirements in terms of EQA to help inform the recommendations formed from the group over the coming months.

#### **Additional comments**

The continued focus of the group this year has been on the harmonisation study. This is a challenging study analytically – largely because of the instability of Hb in a faecal matrix and the challenges associated with the faecal matrix including sample heterogeneity.

There have been on-going virtual meetings with a smaller sub-group of the IFCC FIT-WG who have been working on the harmonisation study. This includes members from the JRC EU laboratory in Belgium who have provided expertise on standardisation of methods, the bowel cancer screening research lab in Guildford, UK who have carried out the analytical work for the standardisation study and experts in commutability from the Netherlands.

#### **Comments from WG Chair**

The group works effectively. We are possibly taking more time than ideal to work through our objectives. This is because we are all doing the IFCC FIT-WG work in addition to our routine jobs.

However, all the group are engaged, we continue to have fantastic attendance at meetings and always receive feedback in relation to projects when requested by the group.

The attendance is variable due to geographies however overall most members are participating as required. In the past we have suggested some members leave if they cannot participate more and they have done so. At some point soon the membership might need re-addressing however the vast majority of the group contribute and this is very much appreciated.

# WG - Cell free DNA and related circulating biomarkers (WG-cfDNA) Chair: Ron HN van Schaik (NL)

NO report received for Annual Report; section extracted from most recent report presented to SD-EC (October 2022)

#### IFCC C-MD survey on ctDNA

As part of the interdisciplinary exchange within the Committee, a new online survey on the analysis and performance of ctDNA was created.

The invitation to participate in the survey was sent by the IFCC from 8 June to 10 July 2021 to all national societies that are members of the IFCC. The survey was offered in Spanish and English.

A total of 58 laboratories from 24 countries participated. The results are currently being prepared for publication and will be submitted by the end of November this year.

Another survey on molecular diagnostics and quality assurance is currently being prepared by the Committee and will be sent out early next year.

# WG - Standardization of Procalcitonin assays (WG-PCT) Chair: Vincent Delatour (FR)

#### Term of reference 1

Develop and validate a reference measurement procedure for PCT absolute quantification by Stable Isotope Dilution Mass Spectrometry

#### List 2022 accomplishments for this Term of Reference

Validation of a candidate reference measurement procedure for PCT absolute quantification by Isotope Dilution Mass Spectrometry is now completed is the subject to 4 publications. The first paper was published in analytical and bioanalytical chemistry in May 2021 (Anal Bioanal Chem. 2021 Aug;413(19):4707-4725). This publication was subject to a letter to the editor by Fresenius University (Anal Bioanal Chem. 2021;413(19):4917-4919) and a reply from WG chair (Anal Bioanal Chem. 2021;413(19):4921-4922). The fifth publication describing the validation of the candidate RMP with protein-based calibration is now published (Anal Chem. 2022;94(10):4146-4154). The candidate RMP was submitted to the JCTLM.

#### List planned activities for 2023 for this Term of Reference

Respond to eventual queries from JCTLM Reviewers

# **Term of reference 2**

Document and understand the variability of results provided by the different commercially available PCT assays

# List 2022 accomplishments for this Term of Reference:

In 2021, ten external quality assessment scheme (EQAS) providers from eight different countries were approached to share results of their PCT EQAS. From 2014 to 2020, 2220 routine laboratories conducted 27500 PCT measurements using 137 EQA materials which PCT



concentration ranged from 0.05 ng/mL to 43.66 ng/mL (median 3.02 ng/mL). Different types of serum-based EQA materials were included fresh pools not spiked with exogenous PCT, frozen or lyophilized materials spiked or not with exogenous PCT. The mean between lab CV% is 15.6% but greatly varied across EQA Schemes. In the best cases, a between lab CV of 6-8% was observed, suggesting that comparability of PCT results is quite satisfactory but in other surveys, between lab CVs of 20-25% were observed, suggesting that comparability of PCT results is poor and must be improved. As commutability of EQA materials was not evaluated, it can be speculated that differences in estimates of between lab agreement is (at least partially) due to variable commutability levels of the EQA materials. This confirms the need to evaluate commutability of EQA materials before a conclusion can be made regarding the need to improve comparability of PCT assays.

This work is now published in CCLM (Clin Chem Lab Med. 2021;59(10):1610-1622).

It was agreed that EQA providers would share their materials for inclusion in the commutability study that will be organized in 2023.

In 2022, collection of large single donations needed for the commutability study progressed well in the lab of Prof Hausfater. In parallel, small single donations (leftovers) and small pools have been collected (Warsaw University, Surrey University, Crete University, University Hospital Montpellier) with the objective to prepare pools that will be used as EQA materials which commutability will be evaluated. The commutability study is now planned early 2023. EQA materials from SKML, RfB, Labquality and RCPAQAP have been received in LNE and other EQA materials from Probioqual are expected to be received soon for inclusion in the commutability study.

# List planned activities in 2023 for this Term of Reference:

Agreement and correlation between the different PCT assays will be evaluated through an interlaboratory comparison involving the most popular PCT assays and relying on samples of proven commutability. A prerequisite will be to establish MDTA with study participants.

# Term of reference 3 Evaluate the need for standardization of PCT assays

# List 2022 accomplishments for this Term of Reference:

EQA data were gathered (see ToR #2) and a review of all published correlation studies was conducted.

The ICHCLR identified PCT standardization as high priority with high clinical impact

All WG members agree that commutable EQA materials are needed to accurately estimate between-method agreement

# List planned activities in 2023 for this Term of Reference:

- Organize a commutability study coupled with a correlation study
- Pursue stakeholder consultation
- Maintain and extend manufacturers' involvement

### **Term of reference 4**

#### **Evaluate the feasibility for standardization of PCT assays**

#### List 2022 accomplishments for this Term of Reference:

Feasibility for standardization of PCT assays will be evaluated after activities planned within ToR 1, 2 and 3 have been completed

#### List planned activities in 2023 for this Term of Reference:

Evaluate if the candidate reference method by mass spectrometry is sufficiently robust at PCT concentration of interest and enables to properly establish results traceability to the SI Units with sufficiently low measurements uncertainty

Evaluate the correlation between the different commercially available PCT assays and the candidate reference method by mass spectrometry

Seek for manufacturers' involvement and willingness to implement a new traceability chain

#### Term of reference 5

Perform standardization of PCT assays, if needed and feasible.

#### List 2022 accomplishments for this Term of Reference:

The need and feasibility for standardization of PCT assays first need to be evaluated.

#### List planned activities in 2023 for this Term of Reference:

# PCT assays will be standardized:

- if the IDMS method meets the necessary performance specifications,
- if the variability of results provided by the different commercially available PCT assays is considered unacceptable and can be improved through common calibration with commutable secondary calibrators
- if correlation between the IDMS method and routine assays is sufficient
- if most assay manufacturers agree recalibrating their assays

### **Comments from WG Chair**

For the time being, WG Chair considers that no additional support is required from the EB for the functional group to be more successful. However, WG Chair would welcome suggestions from the EB to establish a list of key actions to be undertaken and accomplished before the end of the second Term.

Also, WG Chair would welcome input regarding the future of this WG. In case the study planned in Q1 2023 reveals that harmonization of PCT test results is insufficient and requires IVD tests to be recalibrated / standardized, should the WG be prolonged? Should a committee be created?

WG - Continuous Glucose Monitoring (WG-CGM) Chair: Guido Freckmann (DE) and Robbert Slingerland (NL)

**Term of reference 1** 

Work package 1 (WP 1): Establish a Traceability Chain to a Defined Measurand

Completed in 2021



### Work package 2 (WP 2): CGM Analytical Performance: Procedures & Metrics

- 1. Establish procedures suitable for assessment of analytical performance of CGM systems,
- 2. Establish metrics and corresponding minimum acceptance criteria for the analytical performance of CGM systems.

## List 2022 accomplishments for this Term of Reference

Mainly work on WP-2 supporting projects (in cooperation with the Institute for Diabetes-Technologie Ulm and the Diabetes Center Berne):

Project 1: Acceptance Criteria and Measurement Procedures for Comparison Measurements

Finalization and publication of project (Pleus S, Eichenlaub M, Gerber T, Eriksson Boija E, Makris K, Haug C, Freckmann G: Improving the Bias of Comparator Methods in Analytical Performance Assessments Through Recalibration. J Diabetes Sci Technol 2022 Oct 22:19322968221133107.)

Project 2: Distribution of Glucose Concentration and Glucose Rate of Change (ROC)

Work is in progress

**Project 3:** *Graphical Display of Accuracy* 

Finalization and publication of project (Eichenlaub M, Stephan P, Waldenmaier D, Pleus S, A, Jendle J, Diem P, Freckmann G: Rothenbühler M, Haug C, Hinzmann R, Thomas Continuous Glucose Deviation Interval and Variability Analysis (CG-DIVA): A Novel Approach for the Statistical Accuracy Assessment of Continuous Glucose Monitoring Systems. J Diabetes Sci Technol 2022 Nov 3: 19322968221134639.,

Stephan P, Eichenlaub M, Waldenmaier D, Pleus S, Rothenbühler M, Haug C, Freckmann G: A statistical approach for assessing the compliance of integrated continuous glucose monitoring systems with FDA accuracy requirements. Diabetes Technol Ther. 2022 Oct 28.doi: 10.1089/ dia.2022.0331.)

The results from the supporting projects will be included in the work on WP-2. In addition, an extensive literature search on methods of CGM performance studies was performed. The results demonstrate and quantify the variety of design aspects and emphasize the need for standardization. Publication of a review article is currently prepared.

#### List planned activities in 2023 for this Term of Reference

Further discussions and input to this work package via conference calls and via e-mail. A consensus document of WP-2 will be prepared and this Term of Reference will be finalized.



#### Term of reference 3

Work package 3 (WP 3): Work with ISO on a New CGM Guideline

Establishment of standardized procedures and acceptance criteria for CGM systems, covering mechanical and electromagnetic safety, analytical performance, and ease of use (analogous to ISO 15197 for blood glucose monitoring systems).

# Cooperation with ISO should be aimed for, if the International Organization for Standardization (ISO) is interested:

The working group is intended to cooperate with ISO to define acceptable procedures and acceptance criteria used to assess analytical performance criteria of CGM systems, with similar scope as that of ISO 15197, which defines procedures and acceptance criteria for systems for self-monitoring of blood glucose. In the future, CGM will also play a role in hospitals. Criteria for the use in in-clinic settings need to be established as well.

# List 2022 accomplishments for this Term of Reference

Not started yet.

## List planned activities in 2023 for this Term of Reference

Planned contact and cooperation with the International Organization for Standardization (ISO).

# WG-Development of a Reference Measurement System For Sustainable Pt/Inr Standardization (WG- PT/INR)

Chair: Christa Cobbaert (NL)

#### Term of reference 1

To develop a harmonized reference measurement procedure based on the WHO manual tilt tube technique as well as a complete reference measurement system for global standardization of the PT/INR test. An entire reference measurement system is essential to anchor the commercial International Standards for thromboplastin to assure longitudinal accuracy of PT/INR-test results in time and space across manufacturers.

# List planned activities in 2022 for this Term of Reference

The working group on PT/INR RMS development works on two lines in parallel:

- 1. Development of a harmonized MTT as Candidate Measurement Procedure in a network of WHO calibration labs (see also Term of reference 4)
- 2. Selecting and defining a suitable candidate Reference Material as part of the metrological traceability chain to be set up for the development of a sustainable Reference Measurement System that allows global PT/INR standardization

The IFCC-ISTH WG has representatives from calibration labs, a T&H clinician-associate professor, corporate representatives from industry and representatives from SSC-ISTH and WHO.

### List 2022 accomplishments for this Term of Reference

The working group is progressing steadily on both parallel lines as described in the planned activities.



Operators of the calibration labs (2 operators per site  $\rightarrow$  8 in total) have participated in six ring trials in 2022. Feedback on the results of the ring trials is subject of discussion in the 2-monthly IFCC-SSC/ISTH WG zoom meetings. Harmonizing the Manual Tilt Tube technique is an ongoing process and will be continued in 2023 until pre-set criteria are met.

Steps have been made in establishing and selecting a suitable primary reference thromboplastin.

A subgroup has been formed to work on the progress of the primary reference standard. A Pilot study has started to evaluate the performance and suitability of the primary standard. Four calibration labs are taking part in the pilot study.

#### List planned activities in 2023 for this Term of Reference

Harmonizing the Manual Tilt Tube technique is an ongoing process and will be continued in 2023. The present criterion is CVa MTT< 1.5% and across labs the interlab CV MTT <2.0%. The ring trial 2023 contains six surveys. Results of the ring trial surveys are regularly discussed in the IFCC-ISTH zoom meetings.

Selecting and defining a suitable primary and secondary reference thromboplastin.

- 1. Results of the pilot study, to select a suitable primary reference thromboplastin, are expected end of March 2023. A report including the results of the pilot study will be written.
- 2. Retrospective calculations on past reference thromboplastins are made to investigate whether it is feasible to select only one secondary recombinant reference thromboplastin and hence only one traceability chain.

#### Term of reference 2

To review the agreed WHO procedure for calculating ISI of new international standards as the procedure should not lead to deterioration of the traceability of PT/INR test results.

#### List 2022 accomplishments for this Term of Reference

Reconsideration of the agreed WHO procedure for ISI assignment to primary thromboplastin reference materials based on averaging, as well as the necessity of the manufacturing of only one primary reference material (recombinant human).

A metrologically traceable and sustainable hierarchy for guaranteeing standardized citrate plasma PT/INR test results for monitoring of VKA treatment in accordance with ISO 17511: 2020 has been established.

The hierarchy includes a human recombinant primary reference thromboplastin. Another similar one has to be considered for standardizing whole blood PT/INR results.

Arising from this two calibration hierarchies have been developed by the IFCC-ISTH WG:

- 1. Calibration hierarchy of plasma INR measurement by hospital labs (end-user), theoretically with one human recombinant primary and secondary reference thromboplastin, which allows rabbit (plain) thromboplastins to be anchored to the same traceability chain within allowable MU.
- 2. Calibration hierarchy POC whole blood procedure.

Allowable uncertainties are projected in the traceability chain. The working group has suggested an equal distribution of the uncertainty budget across the stakeholders and incorporated the MU into both traceability figures



## List planned activities in 2023 for this Term of Reference

Retrospective data analysis of previous calibrations is underway to calculate whether the uncertainty of INR with various commercial human and rabbit (plain, combined) thromboplastin reagents do not exceed maximum allowable MU. This is an important underlying condition to enable the establishment of selecting only one recombinant human primary and secondary reference thromboplastin in the envisioned traceability chains.



#### Term of reference 3

To evaluate the necessity of the co-existence respectively continuation of different thromboplastin reference materials for ensuring global PT/INR standardization.

# List 2022 accomplishments for this Term of Reference

- Establishment of a lean traceability including one primary and one secondary. See 2<sup>nd</sup> ToR.
- The primary reference thromboplastin has been provided by the IVD-industry (Siemens). In October 2022 a reagent bulk of envisioned candidate primary reference thromboplastin was shipped to NIBSC for filling, freeze-drying, sealing, labelling and storage and distribution.
- After reagent processing the bulk candidate primary reference thromboplastin has been tested by the manufacturer and four calibration labs. The work is in progress.
- List planned activities in 2023 for this Term of Reference
- A timeline has been set up including the process of preparing and testing the candidate primary reference thromboplastin. Due date is Q2 2023.

#### Term of reference 4

Four calibration labs are running the harmonized MTT method for certifying the calibration of commercial thromboplastins from IVD-manufacturers

### List 2022 accomplishments for this Term of Reference

Testing and evaluation ring trial 2022-01	Date: report February 2022
Artificial depleted plasmas are prepared for testing and were sent to the calibration labs for testing	
Week 4-8 <sup>th</sup> April 2022: distribution of test surveys 2,3,4,5,6 (ring trial). Two monthly testing	
Testing and evaluation Ring trial 2022-02.	Date: report May 2022
Virtual meeting calibration labs to discuss ring trial results.	Date: June 20th 2022
Testing and evaluation Ring trial 2022-03.	Date: report July 2022
Testing and evaluation of Ring trial 2022-04.	Date: eport September 2022
Testing Ring trial 2022-05	Date: October 2022
Testing Ring trial 2022-06	Date: January 2023

Aim is to reduce the within and between variability of the operators to a stable and sufficiently low imprecision level to minimize as far as feasible the error budget consumed by the MTT. There is a (successful) and joined effort to achieve the criteria for reducing the within and between variability. Half of the operators approach already the required envisioned MTT performance.

The calibration labs will also participate in testing the (candidate) primary reference thromboplastins and the new selected secondary reference thromboplastins.

#### List planned activities in 2023 for this Term of Reference

It's important to reduce the operator variability and therefore it's relevant to look into the details of the MTT. Another workshop will be planned before the summer of 2023

SURVEY NUMBER	Dates of testing
2023-01	Teting in week 8-9: February 20th / March 3th
2023-02	Testing week 16-17: April 17th - 28th
2013-03	Testing week 25-26: June 19th - 30th
2023-04	Testing week 35-36: August 28th - September 8th
2023-0S	Testing week 42-43: October 16 <sup>th</sup> - 27 <sup>th</sup>
2023-06	Testing week 50-51: December 11 <sup>th</sup> - 22 <sup>nd</sup>

# WG- Harmonisation of Autoantibody Testing (WG-HAT) Chair: Dr Joanna Sheldon (UK)

#### Term of reference 1

The production of certified reference materials for the quantification of autoantibody concentrations – IgG antibodies to beta-2 glycoprotein 1.

#### List 2022 accomplishments for this Term of Reference

The reference material for anti beta2 glycoprotein 1 antibodies has been value assigned in IU through the WHO (via NIBSC). This was because the antibody purified for the value assignment process was not commutable (although the material itself was commutable) o we were unable to value assign in SI units.

Downloads for this reference material

- Certificate/Prod. Info. Sheet ERM-DA477\_IFCC\_certificate.pdf
- Origin certificate ERM-DA477\_IFCC\_cert of origin.pdf
- RM report ERM-DA477\_IFCC\_report.pdf

#### List planned activities in 2023 for this Term of Reference

Review whether any companies have adopted this material for calibration of their assays and whether it has had any impact on the EQA performance of the assay.

## Term of reference 2

The production of certified reference materials for the quantification of autoantibody concentrations in Coeliac disease.

# List 2022 accomplishments for this Term of Reference

The reference material for coeliac antibodies has been prepared and is commutable. However, we have encountered the same problem of lack of commutability of the purified antibodies for value assignment. We are therefore working with NIBSC for value assign in IU through the WHO.

## List planned activities in 2023 for this Term of Reference

We are currently in discussions with NIBSC regarding the application for this material to be considered in the next round of certification with the WHO. Hope fully this will progress. Another commutability study on the (bottled) material is necessary and Liesbet Deprez at the JRC is currently collecting samples and identifying participating labs.

#### Term of reference 3

The production of certified reference materials for the quantification of autoantibody concentrations – IgG anti Glomerular Basement Membrane

# List 2022 accomplishments for this Term of Reference

The raw material has been sourced and is with the JRC. We are awaiting the documentation relating to consent that this may be used e.g. for the preparation of reference material for the overall benefit to patients.

# List planned activities in 2023 for this Term of Reference

The plan is for the material to be processed in June/July 2023. There is a large volume of raw material so we plan to try to value assign in both IU and SI units.

# **Publications by Committees and Working Groups:**

#### COMMITTEES

#### C-NPU:

Hansen YBL, Furuta K, Devaraj S, Yilmaz FM, Nordin G. Misleading nomenclature of units of WHO materials used for standardization of SARS COv-2 serology. Clin Chem Lab Med. 2022 Apr 20;60(7): e151-e152. doi: 10.1515/cclm-2022-0082. PMID: 35439401.

#### C-MD:

Molecular diagnostics of SARS-CoV-2: Findings of an international survey. Vacaflores Salinas A, Ashavaid T, Payne DA, Linder MW, Baluchova K, Pan S, Huggett J, Ahmad-Nejad P; IFCC Committee for Molecular Diagnostics C-MD. Clin Chim Acta. 2022 Jun 1; 531:237-242. doi: 10.1016/j.cca.2022.04.007. Epub 2022 Apr 9. PMID: 35413298



Parviz Ahmad-Nejad did an online presentation at the Chinese Clinical Molecular Diagnosis Summit 2022 "Molecular diagnostics and quality assurance – insights from international IFCC surveys"

The most recent publication of the C-MD entitled "Results from an IFCC Global Survey on Laboratory Practices for the Analysis of Circulating Tumor DNA. "has already been approved by the SD of the IFCC and will be submitted to Clin Chim Acta in the near future.

# C-TLM:

The results of RELA2022 are published on the website (http://www.dgkl-rfb.de:81).

"Traceability in Action", IFCC Worldlab, Symposium 17, Seoul, South Korea, June 29, 2022. "What to do when reference measurement procedures show different results?", EQALM Symposium 2022, Athens, Greece, October 12-14, 2022.

#### C-STFT:

Vesper HW, Van Uytfanghe K, Hishinuma A, Raverot V, Patru MM, Danilenko U, van Herwaarden T, Shimizu E Implementing reference systems for thyroid function tests – A collaborative effort. Clin Chim Acta 2021; 519:183-186

Jansen HI, van Herwaarden AE, Huijgen HJ, Painter RC, Hillebrand JJ, Boelen A, Heijboer AC. Pregnancy disrupts the accuracy of automated fT4 immunoassays. Eur Thyroid J. 2022 Oct PMID: 36219545.

Kratzsch J, Baumann NA, Ceriotti F, Lu ZX, Schott M, van Herwaarden AE, Henriques Vieira JG, Lehmann H, Kasapic D, Giovanella L. The new Roche Elecsys TSH assay conforms with current IFCC C-STFT standards. Clin Chem Lab Med. 2021;59: e445-e448

Ribera A, Zhang L, Dabbs-Brown A, Sugahara O, Poynter K, Van Uytfanghe K, Shimizu E, van Herwaarden AE, Botelho JC, Danilenko U, Vesper HW. Development of equilibrium dialysis ID-UPLC-MS/MS candidate reference measurement procedure for free thyroxine in human serum. Under review at Journal

Jansen HI, van der Steen R, Brandt A, Olthaar AJ, Vesper HW, Shimizu E, Heijboer AC, van Uytfanghe K, van Herwaarden AE. Description and validation of an Equilibrium Dialysis ID – LC-MS/MS Candidate Reference Measurement Procedure for Free Thyroxine in human serum. Submitted to journal.

Ribera A, Zhang L, Riberio CMB, Vazquez N, Thonkulpitak J, Botelho JC, Danilenko U, Van Uytfanghe K, Vesper HW. Preanalytical considerations for free thyroxine and triiodothyronine assays. Under agency review

#### C-HAT:

Liesbet Deprez has submitted an abstract for World Euromedlab in Rome





#### C-BM:

Analytical Performance Specifications for 25-Hydroxyvitamin D Examinations

Etienne Cavalier, Callum G. Fraser, Harjit P. Bhattoa, Annemieke C. Heijboer, Konstantinos Makris, Candice Z. Ulmer, Hubert W. Vesper, Samuel Vasikaran, Pierre Lukas, Pierre Delanaye, Anna Carobene, on behalf of the IFCC-IOF Committee for Bone Metabolism

Nutrients. 2021 Feb; 13(2): 431. Published online 2021 Jan 28. doi: 10.3390/nu1302043

Recommendations on the measurement and the clinical use of vitamin D metabolites and vitamin D binding protein - A position paper from the IFCC Committee on bone metabolism.

Makris K, Bhattoa HP, Cavalier E, Phinney K, Sempos CT, Ulmer CZ, Vasikaran SD, Vesper H, Heijboer AC. Clin Chim Acta. 2021 Jun; 517:171-197. doi: 10.1016/j.cca.2021.03.002. Epub 2021 Mar 10. PMID: 33713690

A Multicenter Study to Evaluate Harmonization of Assays for C-Terminal Telopeptides of Type I Collagen (ss-CTX): A Report from the IFCC-IOF Committee for Bone Metabolism (C-BM).

Cavalier E, Eastell R, Jørgensen NR, Makris K, Tournis S, Vasikaran S, Kanis JA, Cooper C, Pottel H, Morris HA; IFCC-IOF Committee for Bone Metabolism (C-BM). Calcif Tissue Int. 2021 Jun;108(6):785-797. doi: 10.1007/s00223-021-00816-5. Epub 2021 Mar 4

The path to the standardization of PTH: Is this a realistic possibility? a position paper of the IFCC C-BM.

Cavalier E, Vasikaran S, Bhattoa HP, Heijboer AC, Makris K, Ulmer CZ. Clin Chim Acta. 2021 Apr; 515:44-51. doi: 10.1016/j.cca.2020.12.022. Epub 2021 Jan 4. PMID: 33412144

Analytical considerations and plans to standardize or harmonize assays for the reference bone turnover markers PINP and  $\beta$ -CTX in blood.

Bhattoa HP, Cavalier E, Eastell R, Heijboer AC, Jørgensen NR, Makris K, Ulmer CZ, Kanis JA, Cooper C, Silverman SL, Vasikaran SD; IFCC-IOF Committee for Bone Metabolism. Clin Chim Acta. 2021 Apr; 515:16-20. doi: 10.1016/j.cca.2020.12.023. Epub 2020 Dec 28. PMID: 33382995

European Biological Variation Study (EuBIVAS): within- and between-subject biological variation estimates of β-CTX, PINP, osteocalcin, intact-FGF 23 and uCuP-MGP - a cooperation between the EFLM Working Group on Biological Variation and the International Osteoporosis Foundation-International Federation of Clinical Chemistry Committee on Bone Metabolism.

Cavalier E, Lukas P, Bottani M, Aarsand AK, Ceriotti F, Coşkun A, Díaz-Garzón J, Fernàndez-Calle P, Guerra E, Locatelli M, Sandberg S, Carobene A; European Federation of Clinical Chemistry and Laboratory Medicine Working Group on Biological Variation and IOF-IFCC Committee on Bone Metabolism

Osteoporos Int. 2020 Aug;31(8):1461-1470. doi: 10.1007/s00198-020-05362-8. Epub 2020 Apr 8. PMID: 32270253

Harmonization of commercial assays for PINP; the way forward.

Vasikaran SD, Bhattoa HP, Eastell R, Heijboer AC, Jørgensen NR, Makris K, Ulmer C, Kanis JA, Cooper C, Silverman S, Cavalier E.

Osteoporos Int. 2020 Mar;31(3):409-412. doi: 10.1007/s00198-020-05310-6.



A multicenter study to evaluate harmonization of assays for N-terminal propeptide of type I procollagen (PINP): a report from the IFCC-IOF Joint Committee for Bone Metabolism.

Cavalier E, Eastell R, Rye Jørgensen N, Makris K, Tournis S, Vasikaran S, Kanis JA, Cooper C, Pottel H, Morris HA; IFCC-IOF Joint Committee for Bone Metabolism (C-BM).

Clin Chem Lab Med. 2019 Sep 25;57(10):1546-1555. doi: 10.1515/cclm-2019-0174

Special issue of Calcified Tissue International: Role of the Clinical Laboratory in the Assessment of Metabolic Muskuloskeletal Diseases (Volume 112, issue 2, February 2023)

Eleven articles in this Special issue: Calcified Tissue International | Volume 112, issue 2 (springer.com)

# **WORKING GROUPS**

#### **WG-CMT:**

Miller WG, Greenberg, N, Panteghini M, Budd JR, Johansen JV on behalf of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) Working Group on Commutability in Metrological Traceability. Guidance on which calibrators in a metrologically traceable calibration hierarchy must be commutable with clinical samples. Clin Chem 2023; 69:228-38.

#### **WG-APO MS:**

Dikaios I, Althaus H, Angles-Cano E, Begcevic Brkovic I, Ceglarek U, Coassin S, Cobbaert CM Delatour V, Dittrich J, Hoofnagle AN, Kostner GM, Kronenberg F, Kuklenyik Z, Prinzing U, Ruhaak LR, Vesper HW, Deprez L; IFCC Working Group for Standardization of Apolipoproteins by Mass Spectrometry. Towards standardization of Lipoprotein (a) measurements: comparison of a MS-based candidate reference measurement procedure with commercially available immunoassays for commutability assessment of candidate reference materials. Clin Chem, accepted

Ruhaak LR, Romijn FPHTM, Begcevic Brkovic I, Kuklenyik Z, Dittrich J, Ceglarek U, Hoofnagle AN, Althaus H, Angles-Cano E, Coassin S, Delatour V, Deprez L, Dikaios I, Kostner GM, Kronenberg F, Lyle A, Prinzing U, Vesper HW, Cobbaert CM; IFCC Working Group for Standardization of Apolipoproteins by Mass Spectrometry. Towards an SI-traceable LC-MRM-MS based Candidate Reference Measurement Procedure for serum apolipoprotein (a). Clin Chem, accepted

Relevant but part of PhD trajectory in LUMC, Leiden, NL with prof Cobbaert as primary thesis advisor (personal invitation from Prof K Adeli, IFCC president):

Diederiks NM, Ruhaak LR, Cobbaert CM; Developing an SI-traceable Apo(a) Reference Measurement System: a pilgrimage for selectivity, completeness of digestion and molecular measurement of apo(a). Critical Reviews in Clinical Laboratory Sciences, submitted (REVIEW)

#### WG-FIT:

"Method comparison and commutability study among four faecal immunochemical tests (FIT) systems" has been accepted for poster presentation at the forthcoming WorldLab-EuroMedLab Roma 2023 Congress (21-25 May 2023).

#### **WG-PCT:**

Activities conducted by IFCC WG-PCT are described in a paper published in the IFCC SD Special issue of CCA (Clin Chim Acta. 2021 Apr; 515:111-121)

Results of the PCT EQA schemes and an analysis of all published correlation studies are subject to a publication that is now published in CCLM (Clin Chem Lab Med. 2021;59(10):1610-1622).

Validation of a candidate reference measurement procedure for PCT absolute quantification by Stable Isotope Dilution Mass Spectrometry is now completed is the subject to 4 scientific publications. The first paper was published in analytical and bioanalytical chemistry in May 2021 (Anal Bioanal Chem. 2021 Aug;413(19):4707-4725). All WG members are identified as collaborators. This publication was subject to a letter to the editor by Fresenius University (Anal Bioanal Chem. 2021;413(19):4917-4919) and a reply (Anal Bioanal Chem. 2021 Aug;413(19):4921-4922). The fifth publication describing the validation of the candidate RMP based on protein-based calibration is now published in open access (Anal Chem. 2022;94(10):4146-4154).

Poster presentation: Boeuf A., Huynh HH, Derbez-Morin M, Giangrande C., Vaslin-Reimann S., Lalere B., Vinh J., Delatour V. Towards the standardization of PCT assays? Status, needs and feasibility. Congress IFCC EuroMedLab 2022, 11-15 April 2022, Munich.

#### WG-TNI

We have had several abstracts on this project over the past few years. We have one abstract submitted for presentation at the 2023 AACC Annual Meeting. We will begin writing the manuscript that will describe the rationale and production of RM 8121. This will be submitted to a peer-review journal following review and feedback from the IFCC SD.

### WG-CGM:

Freckmann G, Nichols JH, Hinzmann R, Klonoff DC, Ju Y, Diem P, Makris K, Slingerland RJ: Standardization process of continuous glucose monitoring: traceability and performance. Clinica Chimica Acta 515 (2021) 5–12

Freckmann G, Slingerland RJ: Continuous Glucose Monitoring – What should be optimized and considered in the future? Scientific short, published online at American Association for Clinical Chemistry (AACC), (2021)

Freckmann G, "Standardization in Glucose Monitoring", presentation at the Euromedlab Meeting, 13-Apr-2022

Freckmann G, "Kontinuierliche Glukosemessung CGM – Traceability and Standards", presentation at DGKL Meeting, 13-Okt-2022

Pleus S, Eichenlaub M, Gerber T, Eriksson Boija E, Makris K, Haug C, Freckmann G: Improving the Bias of Comparator Methods in Analytical Performance Assessments Through Recalibration. J Diabetes Sci Technol 2022 Oct 22:19322968221133107. doi: 10.1177/19322968221133107. Online ahead of print

Stephan P, Eichenlaub M, Waldenmaier D, Pleus S, Rothenbühler M, Haug C, Freckmann G: A statistical approach for assessing the compliance of integrated continuous glucose monitoring systems with FDA accuracy requirements. Diabetes Technol Ther. 2022 Oct 28.doi: 10.1089/dia.2022.0331. Online ahead of print

Freckmann G, "Traceability of CGM", presentation at Diabetes Technology Meeting (DTM), 03-Nov-2022

Eichenlaub M, Stephan P, Waldenmaier D, Pleus S, Rothenbühler M, Haug C, Hinzmann R, Thomas A, Jendle J, Diem P, Freckmann G: Continuous Glucose Deviation Interval and Variability Analysis (CG-DIVA): A Novel Approach for the Statistical Accuracy Assessment of Continuous Glucose Monitoring Systems. J Diabetes Sci Technol 2022 Nov 3: 19322968221134639. Doi: 10.1177/19322968221134639. Online ahead of print

#### **WG-PT INR:**

Paving the way for establishing a reference measurement system for standardization of plasma prothrombin time: Harmonizing the manual tilt tube method Antonius M. H. P. van den Besselaar | Claudia J. J. van Rijn | Chairman F. Abdoel| Veena Chantarangkul| Erica Scalambrino| Steve Kitchen| Armando Tripodi| Anita M. Woolley| Lidia Padovan| Christa M. Cobbaert. DOI:10.1111/jth.14873

Bias and uncertainty of the International Normalized Ratio determined with a whole blood point-of-care prothrombin time test device by comparison to a new International Standard for thromboplastin

Antonius M H P van den Besselaar , Claudia J J van Rijn , Charmane F Abdoel , Christa M Cobbaert doi: 10.1016/j.thromres.2021.02.018.

Effect of the reaction temperature on the prothrombin time and the apparent International Normalized Ratio determined with International Standards for thromboplastins. AMHP van Den Besselaar, Christa Cobbaert. Int J Hematol 2022 Apr;44(2):379-384. Doi: 10.111/ijlh.13737.



# **IN PROGRESS**

## Proposal:

Manuscript in preparation "Defining a metrologically traceable and sustainable hierarchy of International Normalized ratio for monitoring of vitamin K antagonist treatment in accordance with International Standard ISO 17511:202. A.M.H.P. van den Besselaar et al. On behalf of the IFCC-SSC/ISTH working group on PT/INR standardization" to Journal of Hemostasis and Thrombosis:

#### Addendum

Oversight on the uncertainty of INR determinations with various commercial human and rabbit thromboplastin reagents over the past decades.

There have been no publications reported in 2022 by the following Committees and Working Groups:

C-RIDL; WG-PAPPA; WG-hGH; WG-SIA; WG-PE; WG-SAU; WG-cfDNA; WG-CSF; WG-CDT; WG-ID; WG-SHbA

Philippe Gillery SD Chair and Garry John SD Secretary

# **EDUCATION AND MANAGEMENT DIVISION (EMD)**



Committee on Clinical Molecular Biology Curriculum (C-CMBC) Chair: Verena Haselman (DE)

# Term of reference 1 COURSE IMPROVEMENT/DEVELOPMENT

REVISION BEGINNER COURSE: During the annual meeting, we have updated the lectures outline of the beginner course and agreed upon new lectures / exercises that should be included in the next courses. These presentations were then prepared by the tutors and given during the course. Additionally, a TagMan-based assay was developed and included in the beginner course.

REVISION ADVANCED COURSE: During the functional unit meetings, new lectures for the advanced course and new practical exercises were discussed. These lectures and practical exercises (e.g. nomenclature, identification of sequence variations, correct annotation) were prepared by the tutors ahead of the course. According to the focus on the hosting society, a new course day (lectures and exercises) on hemato-oncology were included. The focus on assay validation and evaluation of results including nomenclature of variants and their annotation was enhanced.

## List planned activities in 2023 for this Term of Reference

REVISION BEGINNER COURSE: at the functional meeting, the beginners course in Nigde was evaluated. Based on the evaluation by the participants and tutors, the in-silico part should further be developed in 2023. E.g. by providing appropriate online-tools in advance and including additional seminars on primer/probe design.

REVISION ADVANCED COURSE: After the last advanced course, we evaluated the second advanced course. We decided to further strengthen the focus on assay validation and annotation of variants as this was very challenging for the participants. We decided to provide the students some links for tutorials prior to the course. Additionally, we have to determine some requirements for participants in the advanced course as otherwise their level might be too different.

# Term of reference 2 BEGINNERS COURSE

# List 2022 accomplishments for this Term of Reference

PRE-COURSE: The one-week pre-course in Mannheim was successfully conducted.

BEGINNER COURSE: The beginner course took place in Nigde, Turkey, from September 5-11, 2022 and was highly appreciated and evaluated by the participants.

NOMINATION OF JUNIOR MEMBER: Nazli Yanik was nominated as new junior member.

#### List planned activities in 2023 for this Term of Reference

PRE-COURSE: In advance to the beginners' course, a one-week pre-course in Mannheim is planned. A trainee nominated by the hosting society will travel to Mannheim and will conduct

all experiments of the course in order to adapt the course layout according to local conditions of the host.

BEGINNER COURSE - CALL: A hosting society of the beginner course needs to be identified. As six students from Nigeria applied last year to the course in Turkey, but were not able to participate as they were not able to get a visa, we want to get into contact with the president of the Nigerian Society. Additionally, the course has to be announced via IFCC.

BEGINNER COURSE: As soon as we have identified a hosting country, the one-week course will take place in 2023.

JUNIOR MEMBER: The responsibilities of the junior member should be revised and discussed with IFCC. Furthermore, a new junior member needs to be nominated after the next beginner course.

# Term of reference 3 ADVANCED COURSE

#### List 2022 accomplishments for this Term of Reference

ADVANCED COURSE: In agreement with the hosting society, the course took place after the beginner course and was finally held in Adana from December 1-3, 2022.

ADDITIONAL ADVANCED COURSE: We were not able to conduct a 3rd advanced course in 2023 due to the fact that the 2nd advanced course took place in December 2022 and not January 2022 caused by local COVID-19 associated restrictions.

List planned activities in 2023 for this Term of Reference

ADVANCED COURSE – CALL: A hosting society of the advanced course needs to be identified. We started to identify a hosting society for the 3rd advanced course. Potentially interested countries (based on first oral communications during the conference in Brussel) include Peru and Paraguay. These will be contacted.

ADVANCED COURSE – ADVERTISEMENT: A report of the last advanced course has to be written and – if possible – published in IFCC e-news.

ADVANCED COURSE: Preparation and conduction of the 3rd Advanced Course in 2023.

# Term of reference 4 PUBLICATIONS/GUIDANCE DOCUMENTS

#### List 2022 accomplishments for this Term of Reference

ONLINE PRECOURSE: For the first time, the one-day pre-course was made available to students as recorded lectures. This ensured that all participants were familiar with the basics of molecular biology, and we were able to include a day of qPCR training in the beginner course.

GUIDANCE DOCUMENT: So far, we were not able to prepare a guidance document on proper primer design. However, we have noticed during the course, that this information would help the students for their own research and/or assay design of genetic tests. Thus, we should continue on this activity in 2023.

List planned activities in 2023 for this Term of Reference

GUIDANCE DOCUMENT: a guidance document on primer/probe/assay design should be prepared for all participants. If possible, this should be submitted for publication.



#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

ANNUAL MEETING: The annual meeting of the C-CMBC committee took place during the IFCC WorldLab in Seoul.

FUNCTIONAL UNIT MEETING: Another functional unit meeting of the C-CMBC committee took place during the General Conference in Brussel October 2022.

Additionally, two virtual meetings took place.

#### **MEETING SCHEDULE IN 2023**

ANNUAL MEETING: The C-CMBC committee meeting will take place during the EuroMedLab in Rome.

Additionally, virtual meetings in advance to each course will take place.

# Committee for Evidence-based Laboratory Medicine (C-EBLM) Chair Annalise Zemlin (ZA)

#### **TERMS OF REFERENCE**

The main aim of the Committee on Evidence-based Laboratory Medicine (C-EBLM) of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) is to disseminate information about Evidence-based Laboratory Medicine (EBLM)

# Term of reference 1 Publications on EBLM

#### List 2022 accomplishments for this Term of Reference

Systematic Review manuscript: The committee (only authors) had regular meetings, the manuscript has been improved, the editor of the journal contacted and it is almost complete. It will be submitted early 2023.

List planned activities in 2023 for this Term of Reference

Submission of Systematic Review and start planning next manuscript

# Term of reference 2 Congress attendance and dissemination of EBLM information

#### List 2022 accomplishments for this Term of Reference

- 1. Successful symposium "EBLM from research to clinical practice" online Alexandria 27 March 2022 (under auspices IFCC)
- 2. Face-to-face and online meeting 11 April 2022 Munich
- 3. AZ gave talk "Reconciling Evidence-based Laboratory Medicine and Precision Medicine" 7 June 2022 at CSCC in Niagara Falls
- 4. SB gave talk Seoul 28th June 2022 talk "Laboratory and hypertension adding value to clinical guidelines"





- 6. 48<sup>th</sup> Annual Conference of the Association of Clinical Biochemists of India ACBICON 2022 held at New Delhi, India, from 23rd-26th November, 2022. Symposium "EBLM Where is the Evidence and How do we Apply it" and SB and RK (VLP funding) speakers. Talk by RK (VLP): "Post-Partum Thyroid Disturbance: Is It Always the Same?"
- 7. Submitted proposal for APFCB October 2024 Sydney Australia "EBLM and Test Utilisation". Speakers: ADW, AZ, SM, RK
- 8. Proposal for a symposium at AACC 2023 submitted: Application of Evidence-Based Lab Medicine to guide Test Utilization among Health Inequalities. Facilitator Randy Schneider (corresponding corporate member) and speakers: RK, HSC and SB.

# List planned activities in 2023 for this Term of Reference

- Proposal for a symposium at AACC 2023 submitted: Application of Evidence-Based Lab Medicine to guide Test Utilization among Health Inequalities. Facilitator Randy Schneider (corresponding corporate member) and speakers: RK, HSC and SB
- 2. Submitted proposal for APFCB October 2024 Sydney Australia "EBLM and Test Utilisation". Speakers: ADW, AZ, SM, RK
- 3. ACBION 2023 13-16 September 2023 (SB on COC)- submit EBLM symposium (AZ and SB to participate and also IFCC C-PR)
- 4. Chemical Pathology Conference, Alexandria University Chem Path 2023: Session "Evidence Based Laboratory Medicine in Disease Management". RK Lecture on Evidence Based Utilization and Interpretation of Endocrine Tests
- 5. Annual Meeting Rome 2023
- 6. Explore possible participation Dubai 2024
- 7. Start preparing EFLM Brussels 2025

# Term of reference 3 Webinars

# List 2022 accomplishments for this Term of Reference

No webinars in 2022

#### List planned activities in 2023 for this Term of Reference

- 1. EBLM where do we get the evidence? April 2023 (Chair AEZ; speakers ADW, SB, RK)
- 2. EBLM and inappropriate testing July 2022 (Chair ADW; speakers AZ, KRC, HSC)

Both reviewed and accepted

# Term of reference 4 eAcademy talks

#### List 2022 accomplishments for this Term of Reference

Talks not submitted

# List planned activities in 2023 for this Term of Reference

Submit recordings of symposium given in Egypt 2022 Each committee member to produce a talk (SB, RK and AZ have VLP talks to submit)



#### **ADDITIONAL INFORMATION**

#### Activities not stated in 2022 workplan:

#### AZ:

- Cardiometabolic Health Conference Feb 2022: talk "Glycated albumin what is the evidence?"
- 7<sup>th</sup> Annual National CME of TATA Memorial Hospital talk "Vitamin D do we have enough sunshine?"

#### SB:

- Cardiometabolic Health Conference Feb 2022: talk "Vitamin D and cardiac health"
- Talk Indian Association of Biochemistry April 2022 "Introduction to EBLM"
- 7<sup>th</sup> Annual National CME of TATA Memorial Hospital talk "Should therapeutic agents for sepsis target the glycocalyx?"

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

Five meetings in 2022: 19 Jan (online), 17 March (online), 11 April (Munich and online), 12 August (online) and 28 October (Brussels and online)

#### 6. MEETING SCHEDULE IN 2023

A minimum of quarterly conference calls and face to face in Rome (all full and corresponding members)

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

- 1. Successful symposium "EBLM from research to clinical practice" online Alexandria 27 March 2022 (under auspices IFCC)
- 2. Face-to-face and online meeting 11 April 2022 Munich
- 3. AZ gave talk "Reconciling Evidence-based Laboratory Medicine and Precision Medicine" 7 June 2022 at CSCC in Niagara Falls
- 4. SB gave talk Seoul 28th June 2022 talk "Laboratory and hypertension adding value to clinical guidelines"
- 5. Face-to-face and online meeting Brussels 28 October
- 6. 48th Annual Conference of the Association of Clinical Biochemists of India ACBICON
  2022 held at New Delhi, India, from 23rd-26th November, 2022. Symposium "EBLM Where is the Evidence and How do we Apply it" and SB and RK (VLP funding)
  speakers. Talk by RK (VLP): "Post-Partum Thyroid Disturbance: Is It Always the Same?"
- 7. Submitted proposal for APFCB October 2024 Sydney Australia "EBLM and Test Utilisation". Speakers: ADW, AZ, SM, RK
- 8. Proposal for a symposium at AACC 2023 submitted: Application of Evidence-Based Lab Medicine to guide Test Utilization among Health Inequalities. Facilitator Randy Schneider (corresponding corporate member) and speakers: RK, HSC and SB.



# Committee on Clinical Laboratory Management (C-CLM) Chair Praveen Sharma (IN)

# **TERMS OF REFERENCE**

#### Term of reference 1

To promote the development of clinical laboratory leaders focusing on skills in:

- Laboratory Leadership
- Team Management
- Laboratory Workload Planning
- Goal Setting
- Strategic Planning and Gap Analysis
- Financial Management
- Quality Management & Continuous Quality Improvement
- Quality Tools and Methods
- Risk Management
- Project Management
- Test Utilization Management
- Motivating Staff and Human Resource Management
- Culture of Quality
- Customer Focus and Patient Safety

# List 2022 accomplishments for this Term of Reference

- 1. MA delivered an invited talk on "Strategic Planning in Laboratory Medicine" in Ohio Collaborative Laboratory Conference, April 2022
- RE delivered invited talks at National Pathology Conference, Malaysia- 17 August 2022. (Title of talk: Risk Management) and at 32nd MACB Conference- 12 September 2022. (Title of talk: The Impact of Act 774 on Medical Laboratory Scientist Profession in Malaysia)
- 3. C-CLM members PS & PM participated in a symposium in COLABIOCLI Regional Federation Congress, Leon, Mexico, 2022

Topic: "Sustaining high quality clinical laboratory services in a rapidly changing world" Speakers and their topics:

Sedef Yenice: Utilization Management

PM: Balancing POCT and Centralized Lab testing

Ed Randell: Assuring compliance to standards with diverse service delivery models PS: Integrated continuous process improvement in all laboratories diagnostic testing modalities

4. C-CLM chair (PS) along with past members participated in a symposium in IFCC Worldlab Seoul 2022 (Topic: "Essential leadership skills: shaping future leaders for success in laboratory management")

Speakers and their topics:

Ed Randell: Leadership attributes and styles: Impact on relationships in the workplace

PS: The Leader versus the manager and building leadership through emotional intelligence

Sedef Yenice: Developing an effective leadership style in laboratory team management Aye Aye Khine: Managing relationships and leading changes within the heterogeneous workplace

5. C-CLM organised a symposium in the East Zone ACBICON held in Sikkim Manipal Institute of Medical Sciences, India on 16-17 September 2022.



# Speakers and their topics:

- 1. PM Ethical considerations and Value addition in Laboratory Medicine
- Shruti Gupta (corresponding member) Good Laboratory Practices
   A managerial responsibility
- 3. PS The role of Emotional Intelligence in Leadership Development



PM: Leadership Attitudes and Learning Styles for Medical Laboratory Professionals PS: Fundamentals of Effective Communication for Laboratory Managers Sedef Yenice: Strategies for Effective Conflict Management in the Medical Laboratory Workplace

# List planned activities in 2023 for this Term of Reference

- 1. To contribute to a IFCC Live Webinar.
- 2. To deliver talks at various conferences to promote the development of clinical laboratory leaders.

### Term of reference 2

Produces educational and training materials on laboratory leadership in the form of:

- Publications including monographs, handbooks, and guides.
- Workshops
- Seminars
- Courses

# List 2022 accomplishments for this Term of Reference

- PS delivered a lecture on "Laboratory strategic leadership plan towards improving valuebased laboratory utilization" in AACC University held in the 2022 AACC Annual Scientific Meeting
- 2. PS & PM participated in a APFCB pre-congress workshop titled "Progression towards the future of Laboratory Medicine: Challenges & solutions" in COLABIOCLI Regional Federation Congress, Leon, Mexico, 2022
  - Title of the talks: PS State of Major Transformations in Healthcare & Medical Laboratory; PM Preparing Next-Gen Lab Specialists Role of mentorship and various training/educational opportunities
- 3. RE participated in multiple workshops
  - a. "Application of Risk Management in Medical Laboratories" in Malaysian Association of Accredited Laboratories Lab Management Workshop, 15-16 June 2022
  - b. "Risk Management in Medical Laboratories" in MOH Melaka State Continuing Education Program, 10-11 August 2022
  - c. "Laboratory Quality Management System" in Biomedical Science Program Workshop, Faculty of Health Sciences, National University, Malaysia, 6 October 2022
  - d. "Improving Lab Quality and Cost Effectiveness through Modification of GC/MS Test Method" in Workshop on Training of Trainers (TOT) Quality Assurance Hospital Tunku Azizah, Kuala Lumpur, Malaysia, 21 October 2022



# List planned activities in 2023 for this Term of Reference

- To produce and publish a monograph/guidance short booklet with the following title "Essential Problem-Solving Tools for Quality Improvement"To produce and publish a monograph/guidance short booklet with the following title
  - "Essentials of Project Management for Laboratory Leaders"
- 2. To participate in education workshops or seminars



# **Term of reference 3**

Provides learning resources on topics related to clinical laboratory management.

# List 2022 accomplishments for this Term of Reference

C-CLM members (PS, MG, RE) presented an IFCC Live Webinar on 19th October 2022

Moderator: Sedef Yenice Speakers and their topics:

- PS: Data & Analytics leadership: Challenges and opportunities
- MG: Laboratory Data Analytics to improve patient experience and deliver more value
- RE: Continuous improvement strategies in clinical laboratory services with Data Analytics

# List planned activities in 2023 for this Term of Reference

- 1. The committee is planning to make a publishable guidance short booklet with the title "Essential Set-up for Compliance with Quality Management Requirements"
- 2. To write a review on topic related to laboratory management

#### Term of reference 4

Collaborates with other IFCC committees, workgroups, and task forces in the above activities.

#### List 2022 accomplishments for this Term of Reference

 PM participated in the IFCC Young Scientist Forum (organised by the IFCC Taskforce of Young Scientists TF-YS) and delivered a talk on "How to lead a lab by a YS who recently became a chief"

# List planned activities in 2023 for this Term of Reference

- 1. To collaborate with the C-POCT for organising joint workshops
- 2. To look for the possibility of collaboration with the TF-YS in designing and delivering leadership workshops
- 3. To look for the possibility of collaboration with the TF-GEL in designing and delivering online educational courses/learning material.

### Term of reference 5

Administers surveys on specific areas of laboratory management and establishes a database and plans for preparation of new educational materials based on the results obtained from survey activities.

# List 2022 accomplishments for this Term of Reference

C-CLM decided to conduct a survey on "Global Supply Chain Management Issues in Clinical Laboratories". The survey was designed, and questions were framed accordingly and validated by all the members of the committee.

List planned activities in 2023 for this Term of Reference

The survey on "Global Supply Chain Management Issues in Clinical Laboratories" has been circulated among the various National Representatives. On getting the results back, analysis and presentation of data will be done.

# **ADDITIONAL INFORMATION**

- Sedef Yenice with C-CLM members submitted a proposal to AACC University for the 2023 AACC Annual Scientific Meeting to be held July 23-27, 2023, at the Anaheim Convention Centre in Anaheim, CA
  - Proposal Title: "The Laboratory Leader as Strategist: Extending Boundaries for Clinical Laboratory Influence and Impact"
- 2. PM delivered an invited faculty lecture on & "Ethics in Laboratory Medicine" in the national CME on Bioethics in Medicine, organised by the Department of Biochemistry, AIIMS Gorakhpur, on 19 October 2022
- MA delivered an invited talk on "Strategic Planning in Laboratory Medicine" in Ohio Collaborative Laboratory Conference, April 2022
- 4. MG delivered an invited talk on "Crossing the chasm: Strategies for digital transformation in clinical laboratories" in EFLM 3rd Strategic Conference
- 5. RE delivered multiple invited talks at:
  - Faculty of Health Sciences, National University of Malaysia, 20 July 2022. Title of talk: Industrial Role in Health Sciences Education: Collaboration and Networking
  - National Pathology Conference, Malaysia- 17 August 2022. Title of talk: Risk Management
  - 32nd MACB Conference- 12 September 2022. Title of talk: The Impact of Act 774 on Medical Laboratory Scientist Profession in Malaysia
  - Roche Experience Day (RED) 16 November 2022. Title of talk: The New Era of Laboratory Medicine: Challenges and Opportunities
  - Association of Scientific Officers, Ministry of Health, Malaysia Continuing Education Program on 22 April 2022 (Title of talk: Medical Lab Scientists: Challenges & Opportunities) and 6 December 2022 (Title of talk: Building a Successful Career as a Medical Lab Scientist)
- 6. MG participated in an IFCC webinar on "Data-driven Operations and Machine Learning Applications in Clinical Laboratories" held on 23 May 2022. Title of the talk was "The role of digital transformation in improving clinical laboratory management"



# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

- IFCC C-CLM had a functional group meeting in the IFCC World lab Congress 2022 in Seoul on 28 June 2022.
- C-CLM met for the IFCC general body meeting held in Brussels on 28 October 2022.
- C-CLM met via zoom conference calls arranged on 2 September 2022 and 7 November 2022.

Total meetings = 4 (In person-2, Virtrual-2)

#### **MEETING SCHEDULE IN 2023**

- Functional committee meeting of IFCC C-CLM has been scheduled on EFLM EuroMedLab-IFCC World Lab Congress at Rome (23 May 2023)
- One virtual meeting was completed on 18<sup>th</sup> February 2023.
- At least two more virtual meetings will be planned.

# PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

- Banerjee M, Shekhawat J, Sharma P. Breathomics the Way Forward Towards a Mask Free World. Ind J Clin Biochem 37, 379–380 (2022). https://doi.org/10.1007/s12291-022-01092-2
- 2. Mitra P, Sharma P. E-Learning in Clinical Chemistry: Indian Scenario. Ind J Clin Biochem 37, 255–256 (2022). https://doi.org/10.1007/s12291-022-01063-7
- 3. Banerjee M, Sharma P. Liquid Biopsy: The Way Forward for Precision Medicine. Ind J Clin Biochem 37, 129–130 (2022). https://doi.org/10.1007/s12291-022-01038-8
- 4. Nichols JH, Ali M, Anetor JI, Chen LS, Chen Y, Collins S, Das S, Devaraj S, Fu L, Karon BS, Kary H, Nerenz RD, Rai AJ, Shajani-Yi Z, Thakur V, Wang S, Yu HYE, Zamora LE. AACC Guidance Document on the Use of Point-of-Care Testing in Fertility and Reproduction. J Appl Lab Med. 2022 Sep 1;7(5):1202-1236. doi: 10.1093/jalm/jfac042. PMID: 36047824
- 5. Fnu R, Ali M. Prenatal Biomarkers-Spontaneous vs. In Vitro Fertilization. Aug.30.2022 (https://www.aacc.org/science-and-research/scientific-shorts/2022/prenatal-biomarkers-spontaneous-vs-invitro-fertilization)

Conference presentations and webinars are already mentioned in previous boxes.

Committee for the Education in the Use of Biomarkers in Diabetes (C-EUBD) Chair Emma English (UK)

# **TERMS OF REFERENCE**

# **Term of reference 1**

To maintain and further develop the network of reference laboratories for the measurement of HbA1c (through collaboration with C-TLM)

# List 2022 accomplishments for this Term of Reference

 Continue to provide oversight of IFCC HbA1c Reference Laboratory network: The committee continues to have oversight of the Reference Laboratory Network and will receive an annual report for the network coordinator for consultation and feedback. With

- thanks to Carla Siebelder for the presentation of this data from the 2022 IFCC HbA1c Kotten study (presented at the end of the meeting).
- 2. Continue to expand and deliver the EurA1c study The committee received updates on progress of the EurA1c study in May and October. At the May meeting the goal of "a publication submitted to Clinical Chemistry on behalf of the IFCC-EUBD by the end of the year, if deemed appropriate by the committee" was discussed an it was felt that it was not yet the time to consider another publication from the EurA1c as it warranted further analysis as to the impact of Covid-19 on sample distribution and analysis, with several laboratories unable to receive fresh whole blood samples.

# List planned activities in 2023 for this Term of Reference

- 1. The next update from the Reference laboratory network will be in Rome 2023.
- 2. At the October committee meeting a presentation was provided by Carla Siebelder on the EurA1c 2021 trial data. It was agreed that CS and EE will now progress this further in and present an outline publication plan in due course. Evidence: a publication submitted to Clinical Chemistry on behalf of the IFCC-EUBD by the end of the year with first drafts ready in Q1.

## Term of reference 2, 3 and 6

To work in partnership with WHO and IDF to continue to promote the reporting of HbA1c in line with the consensus statement

To work in partnership with WHO and IDF to facilitate the development and implementation of international guidelines for the use of HbA1c in the diagnosis of diabetes

To work with WHO and TF-POCT to recommend best practice in the use of POCT methods for the measurement of HbA1c

# **List 2022 accomplishments for this Term of Reference:**

- 1. Development of guidelines for the World Health Organization (WHO) prequalification of BGM and POCT HbA1c devices – This activity has been a great success in promoting the work of the committee and IFCC more broadly. The draft TSS documents for both HbA1c POCT and blood glucose measurement have been completed. Members of this and other committees or working groups of the IFCC (WG-GMECC, C-POCT, SD) were actively and extensively involved in both the drafting and critical review of the documents
- 2. Initial stages to set up a Prequalification Laboratory for WHO Work has started on next phase of this activity is to work with WHO to create the first Prequalification Evaluation Laboratory (PEL) for HbA1c, which is required in order for the prequalification process to be completed. The PEL is commissioned to undertake independent evaluations of products on behalf of WHO.

# List planned activities in 2023 for this Term of Reference

- 1. The documents are available for public consultation until Feb 2023 after which we will continue to work with WHO to refine the guidance based on the feedback.
- 2. The PEL is commissioned to undertake independent evaluations of products on behalf of WHO. Currently, the guidelines (devised by committee members) require the use of secondary reference measurement procedures for value assignment of evaluation samples for HbA1c. This restricts the availability of laboratories worldwide however the committee will work with the EMD and SD to draw up plans to expand the network in the longer term likely 2024 and beyond. Evidence: application to WHO to become a PEL for HbA1c POCT using IFCC SRMPs by the end of 2023.



### Term of reference 4

To work with IFCC Corporate Members to develop a consensus position on the information to be included in the Instructions for Use (IFU) as it relates to the clinical use of HbA1c methods

# List 2022 accomplishments for this Term of Reference

1. Undertake a listening exercise with the global manufacturers for HbA1c - As part of this activity we continued working with manufacturers to deliver Webinars and/or face to face presentations or workshops on a regular basis. Manufacturers continue to recognise the C-EUBD as a source of expert opinion and collaboration, in addition to current requests for webinars and possible future face to face meetings, we successfully delivered presentations at IFCC-EFLM EuroMedLab Munich 2022 and two symposia at the IFCC WorldLab meeting in Seoul. In addition to these symposia, members of the committee have undertaken webinars for Menarini Diagnostics, Siemens Diagnostics and Arkray Diagnostics. EL has also provided training for HemoCue, Menarini Diagnostics, Trinity Biotech and QuidelOrtho.

# List planned activities in 2023 for this Term of Reference

 A listening exercise will be undertaken at the joint IFCC-NGSP meeting hosted at the AACC congress in 2023 as the first time most manufacturer representatives will be able to attend. This was not undertaken in 2022 due to many people still being unable to travel due to Covid-19

#### Term of reference 5 and 7

Develop quality targets for the measurement of HbA1c and other biomarkers, and on the basis of these targets, and in conjunction with professional bodies, advise on the use of biomarkers for monitoring, diagnosis and screening of diabetes and glucose intolerance.

To evaluate the clinical value of emerging biomarkers (e.g. glycated albumin) for the management of patients with diabetes and to establish whether there is a case for method harmonisation of effective new biomarkers

# List 2022 accomplishments for this Term of Reference

- 1. Further develop our understanding of the analytical and clinical utility of glycated albumin (GA) measurement Task A A publication on Understanding the harmonisation of glycated albumin methods (which includes data from analytical studies by EL and EK) is now in final draft form.
- 2. Further develop our understanding of the analytical and clinical utility of glycated albumin (GA) measurement Task B produce a systematic review article on the clinical utility of GA in diabetes. A detailed protocol was drafted an initial searches undertaken. A systematic review article published mid 2022 covered one of the core topics we intended to cover. This necessitated adjustments to the protocol including extensive discussions in the October meeting. The changes have been made to the protocol, the searches have been completed and final selection of articles is underway.

# List planned activities in 2023 for this Term of Reference

- 1. The article will be finalised and submitted in Q1-2 of 2023
- 2. The publication aim was end of 2022 however due to the need to adjust the focus this will now be Q1 of 2023.



#### Term of reference 8

To evaluate the emerging importance of post translational modification derived products (PTMDPs), and especially Advanced Glycation End-Products (AGEs), and work with Professional bodies on the best way of developing these for use in diabetes.

# List 2022 accomplishments for this Term of Reference

The activities here link to 5 and 7 above but no further activities have been undertaken.

# List planned activities in 2023 for this Term of Reference

N/A

### Term of reference 9

To monitor the literature and advise on best practice in relation to laboratory aspects of diabetes.

# List 2022 accomplishments for this Term of Reference

Škrha J Jr, Horová E, Šoupal J, Valeriánová A, Malík J, Prázný M, Zima T, Kalousová M, Škrha J. Skin autofluorescence corresponds to microvascular reactivity in diabetes mellitus. J Diabetes Complications. 2022 Jul;36(7):108206. doi: 10.1016/j.jdiacomp.2022.108206.

Lenters-Westra E, English E. The never ending story of Hb-variants interferences on the measurement of HbA1c. Clin Chim Acta. 2022 Jul 1;532:61-63. doi: 10.1016/j.cca.2022.05.019.

Kilpatrick ES. Cardiac Troponin as a Marker of Heart Failure Risk in Diabetes. Clin Chem. 2022 Oct 6;68(10):1232-1234. doi: 10.1093/clinchem/hvac124.

Ponirakis G, Al-Janahi I, Elgassim E, Gad H, Petropoulos IN, Khan A, Ali H, Siddique MA, Gul W, Ferdousi M, Kalteniece A, Mohamed FF, Ahmed LH, Dakroury Y, El Shewehy AM, Al-Mohamedi A, AlMarri F, Homssi M, Qazi M, Hadid NH, Al-Khayat F, Mahfoud ZR, Azmi S, Alam U, Zirie MA, Al-Ansari Y, Jayyousi A, Rigby AS, Kilpatrick ES, Atkin SL, Malik RA. Progressive loss of corneal nerve fibers is associated with physical inactivity and glucose lowering medication associated with weight gain in type 2 diabetes. J Diabetes Investig. 2022 Oct;13(10):1703-1710. doi: 10.1111/jdi.13864.

Kilpatrick ES, Butler AE, Ostlundh L, Atkin SL, Sacks DB. Controversies Around the Measurement of Blood Ketones to Diagnose and Manage Diabetic Ketoacidosis. Diabetes Care. 2022 Feb 1;45(2):267-272. doi: 10.2337/dc21-2279. Erratum in: Diabetes Care. 2022 Mar 03;: PMID: 35050366; PMCID: PMC8897555.

Kengne AP, Matsha TE, Sacks DB, Zemlin AE, Erasmus RT, Sumner AE. Combining HbA1c and glycated albumin improves detection of dysglycaemia in mixed-ancestry South Africans. EClinicalMedicine. 2022 May 23;48:101443. doi: 10.1016/j.eclinm.2022.101443.

Kirkman MS, Sacks DB. Glycated Albumin: Added Value or Redundancy in Diabetes Care? Clin Chem. 2022 Mar 4;68(3):379-381. doi: 10.1093/clinchem/hvab261.

Di Molfetta S, Patruno P, Cormio S, Cignarelli A, Paleari R, Mosca A, Lamacchia O, De Cosmo S, Massa M, Natalicchio A, Perrini S, Laviola L, Giorgino F. A telemedicine-based approach with real-time transmission of blood glucose data improves metabolic control in insulin-treated diabetes: the DIAMONDS randomized clinical trial. J Endocrinol Invest. 2022 Sep;45(9):1663-1671. doi: 10.1007/s40618-022-01802-w.



Ceccarelli Ceccarelli D, Paleari R, Solerte B, Mosca A. Re-thinking diabetic nephropathy: Microalbuminuria is just a piece of the diagnostic puzzle. Clin Chim Acta. 2022 Jan 1;524:146-153. doi: 10.1016/j.cca.2021.11.009.

Schleicher E, Gerdes C, Petersmann A, Müller-Wieland D, Müller UA, Freckmann G, Heinemann L, Nauck M, Landgraf R. Definition, Classification and Diagnosis of Diabetes Mellitus. Exp Clin Endocrinol Diabetes. 2022 Sep;130(S 01):S1-S8. doi: 10.1055/a-1624-2897.

# List planned activities in 2023 for this Term of Reference

Publications on EurA1c, 2x glycated albumin, 2x educational materials and WHO guidance are planned for 2023

#### ADDITIONAL INFORMATION

Additional activities include:

Manufacturers who attain WHO prequalification of their products will be able to offer those products for supply to procurement agencies and organizations that apply quality assurance policies to all health product procurement. This includes all of the major sources of large scale funding for health provision in LMICs, as such it is essential for manufacturers to obtain pre-qualification if they wish to participate in these large global markers. The prequalification process includes several elements: a dossier of evidence provided by the manufacturer which details analytical performance of the device in question in both laboratory evaluation and clinical settings, a label comprehension study, site visits to the manufacturing sites of the devices and reagents and an independent evaluation of analytical performance.

The dossier of evidence is based on the TSS (see activity 7) the label comprehension study use defined WHO criteria as do the WHO led site visits. The final element (independent evaluation study) is undertaken by a WHO approved prequalification evaluation laboratory (PEL). EE an EL were asked to draft and revise the guidelines for PELs approved to undertake the independent review of HbA1c and glucose devices. These documents were also reviewed at the expert panel meeting held by WHO in November.

Currently there are no PEL for HbA1c or BGM therefore we are planning on making a submission to WHO to become the PEL for HbA1c devices in the first instance. The protocol currently requires methods to be compared to the IFCC secondary reference measurement procedures, of which there are a limited number. The European Reference Laboratory (ERL) acts as the lead for the IFCC network (see activity 1) and therefore is a natural choice for this activity. In the long run the aim is to expand the provision of SRMPs to LMICs, however this will have to be discussed further by the IFCC in due course.

Develop an educational output for the IFCC e-Academy – ABO suggested the committee contribute to the IFCC webinar series giving seminars on biomarkers for diabetes. This will include both GA and HbA1c. This activity is ongoing and will be based on the findings of the papers in activity 3 and the analytical quality of POCT HbA1c as well as the clinical utility of POCT HbA1c in LMICs.

Development of educational material for allied health professionals such as dieticians – The initial group of AHPs, dietitians, was proposed however this was expanded to a range of clinical (but non laboratory or diabetology professionals) and AHP groups. EL, ES and EK have been leading this topic and have developed a set of guidelines and flow charts to aid health professionals in understanding the interpretation of diabetes biomarkers as this is a topic that previous work by the committee has been shown to be an area where there is a lack of understanding. The

guidelines will now be evaluated by health professionals such as diabetes specialist dietitians, surgeons, anaesthetists etc in different clinical settings. This project is ongoing.

EE has authored the chapter on 'monitoring diabetes' for the upcoming Textbook of Diabetes, 6thedition, edited by Richard Holt ad Allan Flyvbjerg. Text is currently undergoing proofing and typesetting.



# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

May 2023 Munich - hybrid

October 2023 Brussels - hybrid

Various one to one calls for individual projects

#### **MEETING SCHEDULE IN 2023**

Rome 2023

### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

See ToR 4 and 9

Committee on Clinical Applications of Cardiac Bio-Markers (C-CB) Chair Fred Apple (US)

# **ACTIVITY 1**

Finalize 'Clinical Scorecard' study, involving data analysis, submission of abstracts to meetings (AACC, IFCC, AHA) and submit manuscript for publication (Clinical Chemistry).

**Action:** This study, unfortunately is still not completed, as final data set from Mayo subgroup still pending. As of March 2023, Mayo investigators have still not be able to finalize their data set. Apple will discuss with new Chair Aagre as to plain of action moving forward.

# **ACTIVITY 2**

Maintain the website for cardiac troponin and natriuretic peptide assay tables, revising 3 times a year. The hs-cTn table will be updated with materials used to calibrate manufacturers assays & for traceability. In addition, upgrade the cardiac troponin interference table to include new interferences: macro-troponin, autoantibodies, HAMAs, heterophile Abs.

**Action:** Updated tables on the C-CB website 3 times in 2022.

#### **ACTIVITY 3**

Will be upgrading and rebuilding the C-CB website update during the first six months of year.

**Action:** In collaboration with IFCC office (Sylvia Cardinale) Amy and Tricia finalized the upgraded website that went live in February 2023.

# **ACTIVITY 4**

The following educational papers (with podcasts) are in different stages of writing and will be finalized and submitted for publication in the first 6 months of 2022.

- a. macro-troponin interference
- b. POC cardiac troponin assay recommendations
- c. 99th percentile upper reference limits
- d. hs-cTn in ruling out injury and MI
- e. appraisal of 2021 AHA/ACC Chest Pain Guideline.

#### Action:

- a. Macro troponin paper has been accepted for publication in CCLM 2023.
- b. POC troponin paper has been accepted for publication in CCLM 2023.
- c. 99th percentile upper reference limits paper was published in Clinical Chemistry: Aakre K, Ordonez-Llanos J, Saenger A, Body R, Collinson PO, Hammarsten O, Jaffe A, Kavsak P, Omland T, Apple FS. Analytical Considerations in Deriving 99th Percentile Upper Reference Limits for High-Sensitivity Cardiac Troponin Assays: Educational Recommendations from the IFCC Committee on Clinical Application of Cardiac Bio-Markers. Clin Chem 2022;68:1022-30.
- d. hs-cTn in ruling out injury and MI paper in final stages of revisions and expected to be submitted end of January/early February 2023 to JACC
- e. Appraisal of 2021 AHA/ACC Chest Pain Guideline paper published: Sandoval Y, Apple FS, Mahler S, Body R, Collinson P, Jaffe A. High-sensitivity cardiac troponin and the 2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guidelines for the Evaluation and Diagnosis of Acute Chest Pain. Circulation 2022;146:569-581.
- f. Other papers published:
  - a. Collinson P, Apple FS. Caveat emptor hidden pitfalls in defining the 99th percentile of cardiac troponin assays. Clin Chem Lab Med. 2021;59:e345-e347.
  - b. Wang A, Sandoval Y, Apple FS, Homme J, Jaffe AS; IFCC Committee on Clinical Applications of Cardiac Bio-Markers. The need to develop clinical guidance for the use of high-sensitivity troponin in pediatric and neonatal patients. Clin Chem. 2022;68:884-886.

#### **ACTIVITY 5**

Have monthly zoom C-CB meetings, with minutes posted on C-CB website.

**Action:** The C-CB held 9 zoom monthly meetings in 2022, with minutes distributed, as well as one in-person meeting at July AACC, Chicago 2022

# **ACTIVITY 6**

Participate in and have in-person meetings at the following meetings (COVID dependent):

- a. EuroMedLab meeting in Munich April 2022
  - **Action:** no meeting held.
- b. IFCC WorldLab in Seoul
  - Action: no meeting held.
- c. AACC 2022
  - **Action**: In-person meeting at July AACC, Chicago.

# **ACTIVITY 7**

Initiate planning to test pre and post COVID-19 specimens and pre and post vaccination



specimens for marco-troponin interference for multiple hs-cTnI and hs-cTnT assays in cooperation with assay manufacturers.

Action: Still in discussion phase, to be taken on by new Chair, 2023.

# **ACTIVITY 8**

Submit to IFCC plan for 3 online education symposiums for 2022.

- a. Analytical aspects of high sensitivity cardiac troponin assays **Action**: Presented 2 March 2022, Apple, Collinson, Aakre, Hammarsten
- b. Clinical aspects of high sensitivity cardiac troponin assays **Action**: presented 6 April 2022 Apple, Jaffe, Body, Omland
- c. Analytical and clinical aspects of natriuretic peptide assays
   Action: presented 26 April 2022 Ordonez-Llanos, Saenger, Kavsak, Lam

# **ACTIVITY 9**

Continue exploring the development of an 'APP' predicated on all the education materials that have been developed and published over the past 11 years by the TF-CB and the C-CB.

**Action:** at present APP project has been tabled do to complexity and financial commitments to this project. Goal will be shifted to increase social media presence of activities of C-CB by other means, to be addressed in 2023.

#### **ACTIVITY 10**

Work with EMD and IFCC office to fill an opening on the C-CB.

**Action**: The C-CB in collaboration with IFCC office was successful in a) filling 4 committee appoints in 2002, and selecting Dr. Kristin Aakre was ethe new Chair effective January 2023, as Professor Apple' terms expire at the end of 2022.

# **New Business Activities Not Initially Submitted**

#### **Actions:**

- a. C-CB successfully initiated fund-raising activity with corporate members at difference financial commitments to allow for anticipated reinstitution of in-person all day meetings twice a year, supporting the educational goals.
- b. Expanded Corresponding Members, nominated by Corporate Members
- c. Expanded Corresponding Members, nominated by National Societies

# **Final Note:**

As this is my last report as Chair of the IFCC C-CB, I wish to let the IFCC know that it has been an honor to Chair this group for the past 6 years. The office staff in Milano has been exceptionally supportive. Professor Rifai and Professor Lai have also been exceptionally supportive. Finally, the ELT of the iFCC also has been instrumental in the growth and success of the committee, that started as a Task Force.

#### COMMENT FROM CHAIR

This is a very successful group that is making a great impact. Starting 2023 will have a new chair who I hope will continue to keep the group successful.



# Committee on Kidney Diseases Chair Joe El Khoury (US)

# **TERMS OF REFERENCE**

#### Term of reference 1:

# List 2022 accomplishments for this Term of Reference

- 1. The Chair was a Guest Editor for Practical Laboratory Medicine and led the publication of a Special Issue on "Advances in Detection of Acute Kidney Injury", with some members of the committee contributing their own research to the special issue.
- 2. This activity resulted in 2 publications and one recorded podcast on this subject
- 3. Chair gave presentation at the IFCC-WorldLab Meeting in Seoul, South Korea
- 4. Committee led the development of an educational session that was approved and presented at the 2022 AACC annual meeting. Dr. Joe El-Khoury was moderator for the session and Drs. Pradip Datta (previous member) and Jesse Seegmiller were speakers.

# List planned activities in 2023 for this Term of Reference

- 1. Another Session proposal has been submitted for 2023 AACC annual meeting
- 2. Dr. Joe El-Khoury was invited to speak at the National Kidney Foundation on "What every nephrologist should know about laboratory testing"
- 3. Committee will be meeting in person in Rome to approve list of recommendations to laboratories worldwide
- 4. An invited Q&A on eGFR equations is in preparation for submission to Clinical Chemistry
- 5. An IFCC webinar is in preparation. Currently seeking speakers with the hope of presenting this in 2023 or 2024.

# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

- Kick-off virtual meeting held on Feb 23, 2022
- Virtual meeting held on June 8, 2022
- Session at AACC Annual Meeting on July 25, 2022
- No Meetings held between September and December due to Chair on paternity leave

# **MEETING SCHEDULE IN 2023**

- Virtual Call held on Feb 21, 2023
- In-person meeting planned for IFCC-Rome (Sunday, May 21)
- Virtual Call planned for Nov 30, 2023

## PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

# **PUBLICATIONS**

- 1. Joe M. El-Khoury. IFCC's Committee on Kidney Disease (C-KD): an update. IFCCeNews. 2022 (March). Link: https://www.ifcc.org/media/479334/ifccenewsmarch2022.pdf
- Chung JC, Jones GRD. The Effect of Acute Changes in Glomerular Filtration Rate on Common Biochemical Tests. Practical Laboratory Medicine. 2022;e00280
   Jones GRD. eGFR – 10 years on from the KDIGO Global Recommendations. APFCB News, 2022 Issue 2
- 4. Teresa K Chen, Steven G Coca, Heather R Thiessen-Philbrook, Hiddo J L Heerspink,



- Wassim Obeid, Joachim Ix, Linda Fried, Joseph V Bonventre, Joe M El-Khoury, Michael G Shlipak, Chirag R Parikh. Urinary Biomarkers of Tubular Health and Risk for Kidney Function Decline or Mortality in Diabetes. Am J Nephrol. 2023 doi: 10.1159/000528918. Online ahead of print.
- 5. Verma A, Villalba-Figueroa C, Choucair I, El-Khoury JM. A case of spuriously low serum creatinine concentrations in a patient with acetaminophen poisoning. Clin Chim Acta. 2022;535:195-196.
- 6. El-Khoury JM [EDITORIAL for special issue on AKI Guest Edited by Dr. Joe El-Khoury]. Advances in laboratory detection of acute kidney injury. Pract Lab Med. 2022;31:e00287.
- [Podcast]: Joe El-Khoury. Advances in Laboratory Detection of Acute Kidney Injury. Practical Lab Med Podcast Series. 2023. https://open.spotify.com/ show/1G5T374N0aq8U9tliuq39r

#### **PRESENTATIONS**

- 1. Joe El-Khoury moderated session on "Updates on Chronic Kidney Disease Diagnosis: New Race Neutral eGFR, Measured GFR, and Urine Albumin-to-Creatinine Ratio" that included Drs. Pradip Datta and Jesse Seegmiller as speakers
- 2. Joe El-Khoury presented a session at International Federation for Clinical Chemistry and Laboratory Medicine (IFCC), Seoul, South Korea on: "Clinical Utility of Biomarkers of Acute Kidney Injury"
- 3. Joe El-Khoury presented a session at AACC-Middle East, Dubai, UAE on: "Updates to Biomarkers and Equations in the Assessment of Kidney Injury and Disease"

Committee on Point-of-Care Testing (C-POCT)
Chair Adil I Khan (CA)

# **TERMS OF REFERENCE**

### Term of reference 1

To promote quality in the use, performance, interpretation and reporting of POCT across the full spectrum of clinical chemistry and laboratory medicine

Position paper: "Point-of-Care Testing performed by healthcare professionals outside the hospital setting."

This paper has gone through several revisions and is ready for submission in 2023. List planned activities in 2023 for this Term of Reference

- 1. Work on Position Paper: "Educating non-healthcare consumers on Over-the-Counter Point-of-Care Testing."
- 2. Quality Control Management in Point-of-Care Testing: Recommendations for Primary Care Physicians.



#### Term of reference 2

# To create a forum for high level discussion on a wide range of POCT related topics List 2022 accomplishments for this Term of Reference

1. EUROMEDLAB in Munich, April 10-14, 2022: presented symposium:

"How does Point of Care Testing change the clinical pathways?"

Chairs: A. I. Khan and E. Jacobs

Speakers were:

a. Point-of-Care Testing: A win-win for all players

Adil I. Khan (USA) - from C-POCT

b. Is Internal (and External?) Quality Control Necessary for POCT?

Ellis Jacobs (USA) - from C-POCT

The role of POC-testing in the clinical pathway of diagnosing SARS-CoV-2 infection.

Mette C Tollånes (Norway)

Testing for anti-mullerian Hormone: analytical performances and usability of a Point-of-Care assay.

Damien Gruson (Belgium)

Hemolysis detection with the H-10 HemCheck device in whole blood and plasma STAT samples

A. Garcia Osuna (Spain)

- 2. National Summit on Point-of Care Testing (hybrid meeting), Hotel Pride Plaza, Aerocity, New Delhi, India. Apr 10, 2022
  - a. POCT "the new normal." Dr. Adil .I. Khan
  - b. Traditional vs New- age POCT: Dr Sohini Sengupta
  - c. The 6 Rs for the elimination of errors in POCT: Dr Rajiv Erasmus
- 3. POCT in Pakistan: The Way Forward (Aga Khan University, Karachi, Pakistan. Virtually via zoom. Sept 10, 2022.
  - a. POCT: a "win-win" scenario for all involved: Dr. Adil I. Khan
  - b. POCT Implementation at AKU: Dr. Lena Jafri

# List planned activities in 2023 for this Term of Reference

- "POCT: Developing Community Resilience" IFCC Webinar Moderator – Dr. Adil I. Khan
  - a. Real-life performance of rapid antigen tests for COVID-19. Dr. Julie Shaw
  - b. The COVID-19 Spatial Care Path: Home, Community, and Emergency Diagnostic Portals. Dr. Gerald J. Kost.
  - c. How Point of Care Testing has leveraged Infectious Disease Management and Outcomes in Africa. Dr. Rajiv Erasmus.
- 2. IFCC-PSCP 1<sup>st</sup> Symposium on Point-of-Care Testing: POINT-OF-CARE TESTING: BRIDGING THE DISPARITY GAP IN HEALTHCARE. Islamabad, Pakistan March 9-10, 2023



# Speakers:

- How Can Point-of-Care Testing Bridge the Healthcare Disparity Gap?
  - Dr. Adil Khan
- POCT Experience in Shifa International Hospital Dr. Ghazanfar Abbas
- QA Practices for POCT Program in Pakistan: From Briefing to Experience
   Dr. Lena Jafri
- POCT Accredetation Dr. Muhammad Aamir
- POCT in general practice and primary care Dr. Samarina Musaad
- Use of cardiac Troponin in Rural Australia Rosy Tirimacco
- Markers of traumatic brain injury (TBI) Dr. Paul Jarvis
- Medical economics blood management using TEG/ROTEM Dr. Michel Vaubourdolle
- Quality Assurance Audits and Monitoring of Quality Indicators for POCT Dr. Julie Shaw
- Quality Assurance in POCT: New developments in ABG Dr. Dr. Sohini Sengupta
- How to set up a POCT service / program Marianne Mulder
- How to troubleshoot inaccurate results Dr. Prasad Pamini
- Identifying and using quality indicators Dr. Paloma Oliver
- Home, Community, and Emergency Spatial Care Paths, Diagnostic Portals for COVID-19, Critical Care, & Superstorm - Dr. Gerald Kost
- Workshop Roche Team + Ms, Afshan + Dr. A. I. Khan
- IFCC C-POCT Satellite Symposium at EUROMEDLAB WORLDLAB. Point-of-Care Testing: Home, Hospital and Beyond, May 19-20, 2023
   IFCC C-POCT Satellite Symposium at EUROMEDLAB – WORLDLAB. Point-of-Care Testing: Home, Hospital and Beyond, May 19-20, 2023

### Term of reference 3

To provide international leadership for developing the clinical practice of POCT in Laboratory Medicine.

# List 2022 accomplishments for this Term of Reference

- 1. Position paper: "Point-of-Care Testing performed by healthcare professionals outside the hospital setting."
  - This paper has gone through several revisions and is ready for submission in 2023.
- 2. National Summit on Point-of Care Testing (hybrid meeting), Hotel Pride Plaza, Aerocity, New Delhi, India. Apr 10, 2022
  - a. POCT "the new normal." Dr. Adil .I. Khan
  - b. Traditional vs New- age POCT: Dr Sohini Sengupta
  - c. The 6 Rs for the elimination of errors in POCT: Dr Rajiv Erasmus
- 3. Focus Group Discussion (Roche) Indonesian Clinical Pathologists Association Online and Mercure TB Simatupang, Indonesia 2nd July 2022. Internal and External Quality Assurance in Point-of-Care Testing: Dr. Adil I. Khan
- 4. POCT in Pakistan: The Way Forward (Aga Khan University, Karachi, Pakistan. Virtually via zoom. Sept 10, 2022.
  - a. POCT: a "win-win" scenario for all involved: Dr. Adil I. Khan
  - b. POCT Implementation at AKU: Dr. Lena Jafri
- 5. At the EUROMEDLAB in Munich, April 10-14, 2022 presented symposium:

"How does Point of Care Testing change the clinical pathways?"

Chairs: Dr. Adil. I. Khan and Dr. Ellis Jacobs



# Speakers were:

- Point-of-Care Testing: A win-win for all players Adil I. Khan (USA) – from C-POCT
- Is Internal (and External?) Quality Control Necessary for POCT?
   Ellis Jacobs (USA) from C-POCT
- The role of POC-testing in the clinical pathway of diagnosing SARS-CoV-2 infection.
   Mette C Tollånes (Norway)
- Testing for anti-mullerian Hormone: analytical performances and usability of a Point-of-Care assay.
  - Damien Gruson (Belgium)
- Hemolysis detection with the H-10 HemCheck device in whole blood and plasma STAT samples
  - A. Garcia Osuna (Spain)

# List planned activities in 2023 for this Term of Reference

- IFCC-PSCP 1st Symposium on Point-of-Care Testing: POINT-OF-CARE TESTING: BRIDGING THE DISPARITY GAP IN HEALTHCARE. Islamabad, Pakistan March 9-10, 2023
- 2. IFCC C-POCT Satellite Symposium at EUROMEDLAB WORLDLAB. Point-of-Care Testing: Home, Hospital and Beyond, May 19-20, 2023.
- 3. "Quality Control Management in Point-of-Care Testing: Recommendations for Primary Care Physicians."
- 4. "Education materials for non-healthcare consumers regarding Over-the-Counter Point-of-Care Testing."

# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

Communication on projects mediated mainly through e-mails to Committee Members In-person and /virtual Seoul Monday 27th June 2022.

#### **MEETING SCHEDULE IN 2023**

To be held: May 20 2023 (in-person/virtual Rome)

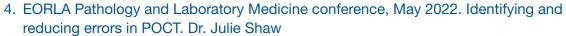
Completed:

February 9, 10 and 11 2023 Via zoom (https://temple.zoom.us/j/98094515348)

# PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

- 1. EUROMEDLAB in Munich, April 10-14, 2022 presented symposium:
  - "How does Point of Care Testing change the clinical pathways?"
  - Chairs: A. I. Khan and E. Jacobs
  - a. Point-of-Care Testing: A win-win for all players Adil I. Khan (USA)
  - b. Is Internal (and External?) Quality Control Necessary for POCT? Ellis Jacobs (USA)
- 2. National Summit on Point-of Care Testing (hybrid meeting), Hotel Pride Plaza, Aerocity, New Delhi, India. Apr 10, 2022
  - a. POCT "the new normal." Dr. Adil .I. Khan
  - b. Traditional vs New- age POCT: Dr Sohini Sengupta
  - c. The 6 Rs for the elimination of errors in POCT: Dr Rajiv Erasmus
- 3. POCT in Pakistan: The Way Forward (Aga Khan University, Karachi, Pakistan. Virtually via zoom. Sept 10, 2022.
  - a. POCT: a "win-win" scenario for all involved: Dr. Adil I. Khan
  - b. POCT Implementation at AKU: Dr. Lena Jafri





- 5. Molecular Medicine Tri-Con Meeting, San Diego, Feb 2022. POCT for COVID-19: Opportunities and Challenges. Dr. Julie Shaw
- 6. Medlab Asia Oct 19-21, 2022. How to design point-of-care strategies for island populations displaced by global warming and rising oceans 2050. Dr. Gerald J Kost.
- 7. XIV Congress of Slovak Society of Clinical Biochemistry, October 9-11, 2022, Slovakia. Workshop Basic Principles And Practical Aspects of POC Testing In Primary Health Care.
  - a. Important Aspects Of Establishing A Poc Quality System Outside Hospitals, The Noklus Model. Dr. Sverre Sandberg:
  - b. Education, Training, and Assessment Of POC Testing Competencies In Primary Health Care, Dr. Ján Balla.

# Committee for the Value Proposition in Laboratory Medicine Chair Andrew St. John (AU)

#### **TERMS OF REFERENCE**

### Term of reference 1

To advocate adoption of the value proposition in laboratory medicine/healthcare Continuing work in the form of peer-reviewed publications, congress symposia and presentations to local meetings is required to describe and define the value proposition in laboratory medicine and to advocate its widespread adoption. During the first 3 years of this committee, it is intended that this work would be restricted to laboratory medicine professionals albeit with interaction with appropriate clinical specialists relevant to the particular tests As the group expands the body of knowledge on the value proposition in firstly laboratory medicine and then in other healthcare disciplines then this work can be extended.

## List 2022 accomplishments for this Term of Reference

Identifying the implementation process for specific tests:

Patient self-testing for INR - completion of final draft and submission for peer review **Actions:** Paper submitted to Journal who have responded with request for major rewrite which is underway.

Point-of-care testing for monitoring of HbA1C in diabetes – design of a trial to determine the optimal measures for effective implementation.

**Actions:** Only preliminary literature search completed so far.

NT pro-BNP in non-acute settings – identifying the barriers to more widespread implementation.

Actions: Literature search commenced in latter part of 2022.

High-sensitivity troponin – identify how implementation has proceeded in UK through audit of laboratories.

**Actions:** Workshop conducted in UK in June 22 with outcomes of two possible papers, one paper on audit of group of local area labs using HST currently underway.



ADAMTS-S use in the management of polycaethemia purpura in a US hospital

**Actions:** No progress

Identifying the barriers to effective test implementation:

Survey of processes associated with test introduction including adoption and implementation in different countries.

Develop an industry perspective of implementation that highlights the barriers that exist in different countries.

#### **Actions:**

- Both projects extensively discussed including at two face to face meetings of Committee in 2022.
- A presentation on the barriers to test implementation was given to the 3rd EFLM Strategic Conference, May 25-27 by Andrew St John. This presentation has been summarised in a paper which will be published in Clin Chem Lab Med in early 2023 (see below)
- Complexity of area has inhibited process but agreement to now provide a published discussion of the issues through a Q and A paper for Clinical Chemistry. Proposal to be submitted to Clinical Chemistry in early 2023.

# List planned activities in 2023 for this Term of Reference

Application of an implementation framework to facilitate the local introduction of patient self-monitoring of INR – paper to be redrafted and resubmitted for publication.

Preparation of a Q and A paper for Clinical Chemistry which will highlight how tests are introduced and implemented in different healthcare systems.

Implementation process for application of NT-proBNP to heart failure diagnosis in primary care.

Examination of adoption and implementation of high-sensitive troponin (HST) use in the UK including:

- a. experience with a 1hr chest pain pathway
- b. audit of usage of HST in UK
- c. determination of financial outcomes

Assessment of the variation in the structure of business cases employed in laboratory medicine services prior to introduction of new tests.

Implementation of ADAMTS-S use in the management of polycaethemia purpura in a US hospital.

Examination of the process that industry uses to introduce new tests including the time taken for full implementation.

### Term of reference 2

Develop a compendium of tools for laboratory medicine specialists to establish the value for individual medical tests within individual health care systems. Case studies will be undertaken for specific medical tests according to the principles of the value proposition in specific healthcare systems. There is a need to develop the principles for the preparation of such case studies for publication in the current peer-reviewed journals in order that they reach the appropriate audience. This work has been commenced and will continue



for 3 years. It will include test laboratories applying the value proposition framework to a particular medical test and assessing the outcomes. At the end of this period it is proposed that a compendium of tools generalisable for the preparation of documents demonstrating the value proposition for any medical test will be described in a major review publication.



# List 2022 accomplishments for this Term of Reference

Promotion of economic assessment tools to identify test value.

- a. Organize and conduct a workshop for lab professionals to provide education and training in health economic principles using a previously developed spreadsheet based tool, as applied to practical case studies.
   Unfortunately the planned workshop at AACC in Chicago had to be cancelled due to two of the speakers unable to travel to the meeting. A proposal has been submitted to hold the workshop at the 2023 Anaheim meeting.
- b. Publication of the spreadsheet based analysis tool and outcomes from the workshop. The Committee has become aware of some possible legal liabilities associated with publication of the economic analysis tool so this has delayed possible publication.

List planned activities in 2023 for this Term of Reference Application of economic modelling to show the value of testing – proposal to hold workshop at AACC 2023 is pending.

# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

Virtual (Zoom) meetings on:

- a. February 7, 2023
- b. May 16, 2023
- c. September 21

Face to face meetings:

- a. July 3, 2023 Birmingham, UK Committee Meeting and Workshop with AStJ, PJ, MoK
   & CPP
- b. October 28, 2023 Brussels, Belgium Committee Meeting at General Conference with AStJ, MoK and PJ

## 6. MEETING SCHEDULE IN 2023

Virtual (Zoom) meetings planned for: February, April, July, September, December

Face to face meetings:

- c. May in Rome at EuroMedLab
- d. 2<sup>nd</sup> half of 2023

# PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

- 1. St John A et al. Improved implementation of medical tests barriers and opportunities. Accepted for publication in Clin Chem Lab Med 2023.
- 2. St John A Presentation on the barriers to test implementation was given to the 3rd EFLM Strategic Conference, May 25-27

# Laboratory Errors and Patient Safety (WG-LEPS) Chair Mario Plebani (IT)

### TERMS OF REFERENCE

### Term of reference 1

# List 2022 accomplishments for this Term of Reference

There is an increasing interest in the activity of the WG and in particular the model of quality indicators is receiving more and more interest with an increasing number of clinical laboratories which attend the program

Further development are expected thanks to the interest by some USA and North America important clinical laboratories and to the development of a software to automate the data collection

# List planned activities in 2023 for this Term of Reference

**ACTIVITY 1:** Deliver lecturers, organize website presentations and publish further papers on the activity of the IFCC WG and on the MQI. One of the first papers has been recently accepted for a publication in Clin Chem Lab Med

**ACTIVITY 2:** Submit proposal for workshops, symposia, lecturers at the IFCC (EFLM, AACC) congresses and at meetings of scientific societies which are members of the IFCC. A session at the XXV IFCC-EFLM WorldLab-EUROMEDLAB Rome 2023 has been planned

**ACTIVITY 3:** Increase the number of National Leaders to further support the participation to the MQI project of laboratories in all Countries with the involvement of the National Scientific Societies. This project is currently "a working in progress" and in the first week of January 2023 a virtual meeting with US colleagues has been planned

**ACTIVITY 4:** Support the development/validation of a software for automated collection of data on quality indicators

**ACTIVITY 5:** Involve National Accreditation Bodies, so that the IFCC MQI may be identified as a suitable tool and mandatory requirement to comply with the ISO 15189:2012 standard and to be used during onsite visits

**ACTIVITY 6:** Involve the most valuable international Providers of EQAS/PT (i.e. NEQAS, INSTAND, RfB, SEKK, IEQAS, NKK, DEKS etc.), to include QIs in the External Quality Assurance/PT schemes and to harmonize eventually already included QIs

**ACTIVITY 7:** Discuss and promote any possible cooperation and collaboration with other IFCC WGs and Committees

**ACTIVITY 8:** Plan a new (Third) Consensus Conference to update the list of QI, performance specifications and goals of the project

# **ADDITIONAL INFORMATION**

A new initiative on Quality Indicators in Point-of Care testing has been developed by the Canadian Colleagues and a paper is under review

Colleagues from the Mas Gen Hospital in Boston have been appointed as national leader of the project

A new software has been developed and is under evaluation for automatically capture the data for the indicators. It will be validated at least in for centers (2 in Europe and 2 in the North America)



# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

- a. CSCC Canadian Society of Clinical Chemistry on February 2022 a session dedicated to the MQI with lecturesrs by Prof Mario Plebani, dr Laura Sciacovelli and Vincent DeGuire
- b. Helsinki March 2022 Labquality days. Lecture by Prof Plebani
- c. Sri Lanka College of Medical Pathologists (august 2022)
- d. IFCC Expert Symposium in Iran (two lecturers by prof Plebani and Vincent de Guire
- e. Calilab 2022 September 2022
- f. Virtual meeting with laboratories participating at the MQI program (September 13th 2022)

### **MEETING SCHEDULE IN 2023**

IFCC WorldLab in Rome: meeting of the WG members (May 23th, 2023)

IFCC WorldLab in Rome: lecturers in a session

International Conference in Laboratory Medicine (Padova, September 20th) Lecture by Vincent DeGuire

Palestine (August 2023) lecture by M Plebani

# **PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS**

- Shcolnik W, da Silva Duarte AJ. Assessment of Culture and Laboratory Practices Related to Patient Safety in Brazilian Laboratories. J Patient Saf. 2022 Oct 1;18(7):674-679.
- 2. Cadamuro J, Simundic AM. The preanalytical phase from an instrument-centred to a patient-centred laboratory medicine. Clin Chem Lab Med. 2022 Nov 4. doi: 10.1515/cclm-2022-1036.
- 3. Zaninotto M, Graziani MS, Plebani M. The harmonization issue in laboratory medicine: the commitment of CCLM. Clin Chem Lab Med. 2022 Nov 16. doi: 10.1515/cclm-2022-1111.
- 4. Plebani M. Quality in laboratory medicine and the Journal: walking together. Clin Chem Lab Med. 2022 Aug 16. doi: 10.1515/cclm-2022-0755. Epub ahead of print.
- 5. Sciacovelli L, Padoan A, Aita A, Basso D, Plebani M. Quality indicators in laboratory medicine: state-of-the-art, quality specifications and future strategies. Clin Chem Lab Med. 2023 Jan 23. doi: 10.1515/cclm-2022-1143

Flow cytometry Working group (WG- FC) Chair Claude Lambert (FR)

### **TERMS OF REFERENCE**

Term of reference 1
List 2022 accomplishments for this Term of Reference

1. Leipzig Flow cytometry IFCC/ WG Flow Cytometry Course From 5 to 7 April 2022, we offered a flow cytometry course in Leipzig, Germany.

36 participants attended the hands-on course. Due to the continued high incidences of Covid, the course had to be held as a 2G+ event.

The program started in the morning with 3 short lectures: Basics of cytometry, Data



acquisition and presentation as well as Multicolor cytometry in immunology were the topics of the first day. From late morning to afternoon, three rotating practical exercises were performed under supervision by experienced trainers: Immune Status (Complete with Compensation); Operation of the instrument, calibration, compensation, controls, combination of antibodies; and Acquisition and handling of cytometric data, anonymization of data for repositories, data presentation.

Second day followed the same scheme. We started with 3 lectures about Antigen-specific T cells, Data evaluation and processing, and Cytometry in haematology. Practical work was about Hematology, Antigen-specific T cells and Advanced analysis of cytometric data, presentation of gating strategy, report writing.

Last day started with lectures about Functional studies, Sorting cells and Complex data evaluation. Topics for practical work were Functional investigations, Limits of sorting and Application examples for complex data analysis in flow cytometry.

Feedback by participants and trainers was very good.

# 2. National summer school on cytometry in Romania with the Romanian Association of Cytometry on 15-16th of June In Bucharest University

The workshop has addressed the basis for diagnosis using flow cytometry for beginners in medical diagnosis and research cursus. The workshop included basis on cytometry and practicals in cell phenotyping, allergy and cytotoxicity tests.

Twenty students followed the course from different cities in Romania.

# 3. IFCC General Conference October 29th-30th Brussels (Belgium),

Participation to the meeting. Meet few members of the group. Meet other working groups. Contact with people from Asia, Africa, Arabic countries.

# 4. National IFCC & Beckman Coulter Workshop on cytometry in Rabat Morocco

From 15 to 18th of November

Focusing on T and ILC lymphocytes from basic, lymphopoiesis and maturation process to monitoring of pathologies including lymphoma, leukemia, primary Immunodeficiencies

The course will include lectures in the morning and practicals in the afternoon with wet lab (cell preparation and analysis on instrument) and numerical data analysis from real cases.

The course will be organized with the financial and technical support of Beckman Coulter company.

The workshop focused on cell analysis of T cells and NK cells in clinical immuno-monitoring (Claude Lambert, univ Hospital Saint-Etienne France, Anis LARBI Global Medical and Scientific Affairs, Beckman Coulter) and in lymphoproliferative syndromes (Mikael Roussel University Hospital Rennes France, representative of the CYTHEM French speaking Association on cell analysis in hematology).

The participants attended the 3 full days the workshop composed of lectures (in french) in the morning and practical's in the afternoon with sample preparation, instrument settings and data interpretation from clinical cases. Twenty-three experienced participants came from the main universities, National Institute of Hygiene (INH) and few other medical laboratories of the central area around Rabat and Casablanca.



# 5. Egypt Workshop will be held on 12-19th of December at Al Azhar University (program joint).

The workshop will address the basis for diagnosis using flow cytometry for beginners, mainly in medical diagnosis cursus. And one day of advanced methods in diagnosis of leukemia and immunodeficiencies for experience people

The workshop gathered 38 medical biologists from Al-Azhar or Cario universities, the biggest university in Egypt, but also from different parts of Egypt or abroad. Most people had experience in diagnosis and had access to the instruments but were mainly beginners.

The lectures were performed during 2 days and a half, by experienced teachers form IFCC or from Al-Azhar university or National Cancer Institute and addressed technical bases and few diagnosis applications in T cell quantification, cell cycle or first steps in hematological disorder screening. The last half a day participants did practicals exercises on sample preparation, acquisition on an instrument and data analysis.

# List planned activities in 2023 for this Term of Reference

- Workshop in Leipzig, Munich
- Winterschool of Cytometry in immunology (actual, in Geneva 5-10th of march)
- Workshop in Columbia in partnership with Beckman Coulter company (planned end of june)
- Workshop on cytometry in Bucharest prior National Romanian meeting on cytometry (planned in may)
- Egypt Workshop beginning of December at Al Azhar University Cairo (planned in December)

#### Still under discussion

- Workshop in Morocco in partnership with Beckman Coulter
- Workshop in India
- Workshop in Balkans
- Workshop in Palestine, or sub equatorial Africa

# Term of reference 2 List 2022 accomplishments for this Term of Reference

#### **Publication**

A new story for an old challenge: Would flow cytometry beat molecular biology in monitoring chimeric antigen receptor T cell pharmacokinetics?

Lambert C, Ntrivalas E, Sack U; flow cytometry working group of the international Federation of Clinical Chemistry (IFCC).

Cytometry A. 2023 Jan;103(1):8-11. doi: 10.1002/cyto.a.24695. Epub 2022 Oct 18.

# List planned activities in 2023 for this Term of Reference

A new publication as much as possible



# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

2 Tel conferences held from the whole working group

4 Tel conferences for the organization of the workshop in Latin America Several mail exchanges for the organization of workshops in Egypt, in Africa

# **MEETING SCHEDULE IN 2023**

Group Meeting in Roma May 2023

Tel conferences

Renewal of the team, introducing of new members

# PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

A new story for an old challenge: Would flow cytometry beat molecular biology in monitoring chimeric antigen receptor T cell pharmacokinetics?

Lambert C, Ntrivalas E, Sack U; flow cytometry working group of the international Federation of Clinical Chemistry (IFCC).

Cytometry A. 2023 Jan;103(1):8-11. doi: 10.1002/cyto.a.24695. Epub 2022 Oct 18.

**9.04.01 Visiting Lecturer Programme (IFCC-VLP) - Chair: Sedef Yenice (TR)** 14 VLP were organized as per appended table.







# ecturer Programme proved for 2022

Speaker/s	Lectures/workshops			
Dr. Patricia Esperon	Lectures/workshops a) Pre-congress course on molecular diagnostics			
Dr. Patricia Esperori	b) Plenary Conference: Genetic Variants of Hereditary cancer			
	c) Symposium on molecular diagnostics: Cancer therapy guided by genomic data			
	Striposidin on molecular diagnostics. Surfeer therapy guided by genomic data			
Prof. Nilda Fink	a) Symposium on Ethics and Bioethics of Laboratory Personnel			
	b) Symposium on Bioethics in Laboratory Medicine			
	c) Round table discussion with the expert, and COLABIOCLI Working group meeting on Bioethics			
Dr. Victor Silva	a) Symposium on Vector diseases: Relevance of Early identification in Mycology. Automation,			
	molecular methods and mass spectrometry			
	b) Symposium on Emerging diseases: Antimicrobial Surveillance Network: New challenges in the fase of AMRC and Future of the Laboratory within surveillance networks			
	c) Jury of poster presentations and Awards committe			
Dr. Natalia Vilor Tejedor	a) Biomarcadores de envejecimiento (Angin Biomarkers)			
Dr. Natalia Vilor rejedor	b) Biomarcadores y determinantes de envejecimiento y demencia. Characterizacion del estudio Alfa			
	(Biomarkers and determinants of aging and dementia. Characterizazion of the Alfa study.			
	\(\begin{align*} \cdot  \qquad     \qquad \qquad    \qquad     \qu			
	a) Conference: Updating of the Diabetes, Renal Disease and Cardiovascular Guidelines: how they			
Dr. Luis E. Figueroa	apply to the Clinical Laboratory.			
	In this conference, the new diagnostic criteria of the ADA 2022 for diabetes, the criteria for			
	diagnosing kidney disease of the KDIGO 2012 and the current European and American guidelines on dyslipidemia and cardiovascular risk will be updated.			
	b) Symposium: Myocardial Infarction: Troponins: which, how, when, and why.			
	In this symposium we will talk about the importance of cardiac markers in the face of acute coronary			
	syndrome. Emphasize the importance of tropinin for classical assays and the current highly sensitive			
	ones.			
	c) Conference: Systematic evaluation of results in clinical laboratories: notification of Critical Values,			
	analysis and monitoring.			
	In this conference we will review the importance of reporting results in the clinical laboratory,			
	Implement critical value procedures. In addition to systematic reviews on its analysis and monitoring			
	in the release.			
Dr. Alba Cecilia Garzon	a) Conference: CLINICAL RISK MANAGEMENT ESSENTIAL IN PATIENT SAFETY.			
Br. Alba Godina Garzon	Symposium: BIOSECURITY CULTURE; BEYOND A PROGRAM			
	b) Workshop: Validation, verification and evaluation of quantitative methods.			
	(Pre-congress activity			
Dr. Kenneth Andrew Sikaris	a)Understanding impact of age/ gender on reference intervals			
Dr. Jose Jara Aguirre	a)Practical investigation approach for detecting and solving the most common interferences			
Dr. 30se sara Aguirre	a) ractical investigation approach for detecting and solving the most common interferences			
Prof Koshrow Adeli	a)Laboratory Medicine: A hidden Treasure in Patient Care and Public Health			
To Rosillow Adell				
	a)From Tumor Markers to Liquid Biopsy in the Current and Future Clinical Practice			
Prof Tomris Ozben	b)Implementation of sustainable practices in medical laboratories. Switching the Clinical Laboratories			
	to Green Labs			
Prof Alexander Haliassos				
Prof Alexander Hallassos	a)Médecine de Laboratoire et sociétiés mobiles			
Prof. Khosrow Adeli	a)Pediatric Reference Intervals in Children and Adolescents: Challenges and Recent Advances			
	b): Emerging Applications of Cardiac Markers in Pediatrics: High Sensitivity Troponin and NT-ProBNP			
	a) Módacina mahila (mahila haalth) at Internat das Ohieta			
Dr. Alexander Haliassos	a) Médecine mobile (mobile health) et Internet des Objets (or IoT: Internet of things).			
DI. Alexander Flanassus	b) Médecine de Laboratoire et Sociétés Mobiles: des enjeux			
	et des solutions pour notre région.			



# 13.02.00 Professional Exchange Programme (PSEP/PMEP)

In total 5 applications were approved: 4 PSEP (Professional Scientific Exchange Programme) and 1 PMEP (Professional Management Exchange Programme), as per below table



IFCC-Professional Exchange Programmes (PEP) year 2022					
Programme	Country of the applicant	Applicant	Period	Hosting Laboratory	
PSEP	Ethiopia	Daniel Mekonnen Nigus	3 months 20 Settembre - 18 Dicembre 2022	Dr. Laura Herrera Léon National Centre of Trop. Medicine, National C Madrid - Spain	
PMEP canceled	Zambia	Arnold Chipunka	3 months 1 July - 30 September 2022	Prof. Annalise Zemlin Tygerberg Academic Laboratory Stellenbosch University Cape Town - South Africa	
PMEP	Zambia	Tiyezye Gondwe	3 months 1 July - 30 September 2022	Prof. Annalise Zemlin Tygerberg Academic Laboratory Stellenbosch University Cape Town - South Africa	
PSEP	Nepal (Aff)	Vivek Pant	1 month 18 September - 2 October 2022	Dr Per Medbøe Thorsby Hormone Laboratory Department of Medical Biochemistry, Oslo University Hospital - Norway	
PSEP	Spain	Blanca Fabre Estremera	3 months September, December 2022	Dr Fred Apple Hennepin County Medical Center in Minneapolis, Minnesota - USA	
PSEP	Guatemala	Ana Sofia Duarte Acuña	3 months September- November 2022	Dr. Eduardo Fares Taie Laboratorio Bioquimico Fares Taie Ciudad del Mar del Plata - Argentina	

The "Adaptive Learning Programme, a New EMD Initiative" has been implemented.

Nader Rifai, EMD Chair

# **COMMUNICATIONS AND PUBLICATIONS DIVISION (CPD)**

Committee on Public Relations (C-PR) Chair Rajiv T. Eramus (ZA)

#### **TERMS OF REFERENCE**

# **Term of reference 1**

Assist IFCC in improving its visibility to all laboratory professionals in their country of residence, their respective National Societies and Regional Federations where it applies.

List 2022 accomplishments for this Term of Reference

#### Global MedLab 2022

3 members of C-PR Committee were part of this 7 member GMLW committee which was led by IFCC President

Members of C-PR interacted with GMLW committee to develop the short and long videos advertising the Lab Professionals week in Munich as well as assisting with the development of posters. A booth commemorating the Lab Professionals Week was set up at the Munich conference with a TV screen that displayed and shared multiple videos and interviews with key officers of the IFCC.

The following posts were used for promoting the GMLW 2022. These posts were in English and Spanish

- Posts schedule English version: https://globalmedlabweek.org/post-en
- Posts schedule Spanish version: https://globalmedlabweek.org/post-es

Both were in full versions (images and texts) for every day and were available from the week before, during the GMLW and the week after.

# 70<sup>th</sup> Anniversary Celebrations C-PR contacted National Champions regarding 70th anniversary celebrations (see memo sent)

"As you may know many initiatives are taking place at IFCC level: celebrations, posters, interviews, history booklets. We are also publishing some interviews delineating the many outstanding achievements of the IFCC over the past decades, the enormous achievements, the many important milestones that have been accomplished contributing to the IFCC's mission of "Advancing excellence in laboratory medicine for better healthcare worldwide". These achievements have not only contributed to the growth of the IFCC but have had an important impact on advancing the science of laboratory medicine and in vitro diagnostics around the world. The future holds considerable promise for the IFCC organization and its family of national societies and corporate members. The strong foundation built by thousands of IFCC officers over the past decades will ensure the IFCC's continued journey towards global leadership in laboratory medicine, contributing to its most valuable mission of improving clinical decision making and better healthcare worldwide. You already saw some of these nice interviews on the IFCC eNews. We want to involve you in these celebrations, and we want to hear from you what plans and suggestions you have for your societies to celebrate this important anniversary. We look forward to receiving your feedback: the most interesting initiatives will be shared so that everyone can benefit from them".

# a. Collaboration with TF-YS, WG-IANT and TF-H

C-PR collaborated with TY-FS in publishing the 70th anniversary magazine as well as some of the podcasts and interviews.

25 videos that consisted of congratulatory messages were shown in a loop outside the plenary room meeting at IFCC General Conference, Brussels

# b. IFCC e News

Short interviews with IFCC officers were published at regular intervals in IFCC News

# c. Production of 1-minute videos with contributions from 20 IFCC officers

"IFCC is celebrating 70 years of its foundation, and you have been selected as one of the 20 leaders in IFCC who generate positive momentum and development in strengthening it. For this reason, we request a 1-minute video so that you can send your greetings and message to the IFCC on this special occasion".

25 videos that consisted of congratulatory messages were shown in a loop outside the plenary room meeting at IFCC General Conference, Brussels



# d. 70th Anniversary Story Board

Video highlighting the IFCC membership: since when each IFCC member joined the IFCC. It also included were past IFCC presidents and corporate members. This was an animated graphic with a flattened globe at the top which starts with just countries in outline with a timeline graphic underneath. As the timeline counts up from 1950 individual countries (in the form of an outline in the colour of their flags) fly into place on the globe on the year they joined IFCC and remain in place until we reach 2022 when the map should show all current members of IFCC and their flags.

# e. 70th Anniversary and Global MedLab Booth, IFCC General Conference

The story board video with the list of all flags of each member society and corporate member banners with stepwise addition of members for each decade was displayed at the Global Medlab booth at the IFCC general conference in Brussels,.

It also included an interview with IFCC president as well as video clips of interviews with IFCC Officers. All were displayed on screen in the MedLab Professionals booth in Brussels.

# f. 70th Anniversary / Magazine

C-PR compiled this 270-page magazine to celebrate the 70th anniversary of IFCC.

It depicted the achievements of IFCC, publications and major milestones.

### **AACC Newswise**

The following items were sent to AACC to be posted to their virtual press room on Newswise.

- IFCC Awards
- IFCC 70th years + link to the interview to Prof Adeli
- Call for Studies TF OSLM project
- Univants
- IFCC WorldLab/EuroMedLab in Rome

# **WebEdge TV Services**

In discussion with this professional TV Company who cover conferences and make video clips with interviews. Had 2 meetings with them. They usually cover big conferences that have more than 2500 attendees so Rome conference would certainly attract them.

# List planned activities in 2023 for this Term of Reference Live my Lab Project (2023)

Following the IFCC General conference in Brussels in October 2022, the C-PR and TF-YS agreed to collaborate in the Live my Lab project. The aim of this project is to show case the work of laboratory professionals and their environment and how this impacts on disease diagnosis and patient management.

Edition of 6 videos, initiative "Live my Lab" for IFCC Global Medicine Week (together with TF-YS) in 4 languages

- 2. Promotional video material from last year to incorporate date 4<sup>th</sup> week (23<sup>rd</sup> to 29<sup>th</sup> April 2023)
- 3. Edition of Podcasts Book 70th anniversary (in 4 languages)

Interact with WebEdge services to televise IFCC WorldLab Dubai in 2024



#### Term of reference 2

- Assist IFCC in improving its visibility to all laboratory professionals in their country of residence, their respective National Societies and Regional Federations where it applies.
- Act as IFCC ambassadors by promoting IFCC and the field of Clinical Chemistry and Laboratory Medicine to laboratory professionals in their respective country of residence, their National Societies and Regional Federations where it applies.
- To promote IFCC activities to National Representatives on a regular basis through the use of social media tools (e.g., WhatsApp/Telegram groups) such that these communications can be effectively communicated to their respective members.
- To monitor how effectively are IFCC communications being shared by the National Representatives with their respective members.

Promote the field of Clinical Chemistry and Laboratory Medicine to the lay public, healthcare administrators and decision makers in their respective country of residence.

# List 2022 accomplishments for this Term of Reference

# 70th anniversary logo

C-PR Committee assisted in selecting the logo for the 70th anniversary celebration. CPR asked that IFCC Communications, slides and presentations should include this logo

# The C-PR organized the "First annual Global Art Competition in honour of IFCC 70<sup>th</sup> Anniversary".

**Submission guidelines were as follows** IFCC is inviting members to submit artwork which can include paintings, digital photography or videography that relates to the field of laboratory medicine and the vital role of laboratorians. Please submit your name, contact e-mail, affiliation, country along with a short description of your contribution in English.

All submissions were reviewed by a panel of judges appointed by C-PR and a cash prize of 500 euros was given to the best submission. This was later extended to include the 2<sup>nd</sup> and 3<sup>rd</sup> best submissions. The winner was announced at the IFCC General Conference held in Brussels, Belgium on 25<sup>th</sup> October. The winners were:

- 1. URUGUAY (500 €)
- 2. SINGAPORE 2 (300€)
- 3. IRAN 2 (200€)

Then we added 2 additional prizes (100 euros each) for INDONESIA and ITALY

# Preparation of a Welcome pack for new members (attached)

The PR Committee is proposing that every new member should be presented with a welcome pack and a certificate of membership. The welcome pack could also include the history book as well as the IFCC milestones.

# IFCC Slide Deck for presentation at meetings (attached)

The original slide deck that was used prior to 2021 has been considerably changed and shortened (14 slides only and the visuals look much better). The final version that is presented underwent several changes and may still be modified and is not cast in stone. There is another one that will be presented to Corporates and the last one to National Societies.



# **Selection and appointment of National Champions to promote Public Relations Activities**

Communication with member societies continued to be a challenge and therefore it was recommended that we appoint national champions that will focus on PR activities.

Letter sent out on 19th January asking member societies to nominate members,

the purpose of having champions/ambassadors is to facilitate communication among IFCC and countries worldwide. Then it makes sense that we, C-PR committee members, are champions of our respective countries. It was also suggested that members of C-PR serve as champions in their respective countries. It was further agreed that wherever possible we include young scientists to serve as additional champions.

Letters sent out to national representatives asking them to nominate champions who would correspond directly with PR Committee and also liase with their respective national representatives/Presidents. The response has been quite positive though 20% of member societies have yet to nominate national champions despite reminders being sent. Though communication has improved it still remains a challenge

# Request to National Champions to participate in Global MedLab Week 2023

A letter was sent to all national champions requesting them to suggest ideas to celebrate the role of laboratory professionals. Excerpt of the letter sent is appended below:

"IFCC Global Medicine Week is additionally an opportunity to celebrate and recognize the role of Specialists in Lab Medicine and other Lab professionals in improving health and patient care in every corner of the world. To help us achieve this goal, members of the C-PR together with Task Force Young Scientists (TF-YS) would like to work with National IFCC Champions and Association Representatives to develop plans for promoting Laboratory Medicine to the public in their countries".

The response to this was not satisfactory with a response rate of less than 20%.

# Short written interviews with National Representatives of Member Societies

A letter of invitation was sent out to all national representatives requesting them to take part in a written interview. Several written interviews with national representative of member societies were carried out and these interviews were published in the 70<sup>th</sup> anniversary magazine along with their respective photographs.

"IFCC was founded in July 1952. For this reason, we are celebrating its 70<sup>th</sup> anniversary, and your opinion is very important to fulfill our mission in Laboratory Medicine. Therefore, we would like that you fill in the attached form: your answers to the questions will be published in a special IFCC magazine. We want your organization to be part of this IFCC 70<sup>th</sup> anniversary magazine, so your opinion is very valuable to us".

The response was good though it could have been better as no responses were received from some societies.

### Feedback from Global MedLab Week 2022

C-PR contacted all the National Champions about their respective activities that took place during GMLW in April 2022

"Further to our last communication (below) we are seeking further information on how the Global MedLab Week was celebrated in your country. We kindly ask you to send us the data



on the results of this year's campaign on the theme that demonstrated the added value of lab medicine with the message: "Laboratory's Vital Role in the Global Fight against the COVID-19 Pandemic". In addition, we ask you to forward any suggestions you may have to make the public in your country aware of the contributions of lab medicine and lab professionals to improving healthcare and safeguarding lives. We will then share the best ideas among all National MedLab Week Champions as proposals for the continuing awareness activities. **We look forward to receiving your feedback by 31**st **July.** 

The feedback received was accettable.

# List planned activities in 2023 for this Term of Reference

# Live my Lab Project (2023)

Following the IFCC General conference in Brussels in October 2022, the C-PR and TF-YS agreed to collaborate in the Live my Lab project. The aim of this project

Edition of videos, initiative "Live my Lab" for IFCC Global Medicine Week (together with TF-YS) in 4 languages

- 2. Promotional material from last year to incorporate date 4<sup>th</sup> week (23<sup>rd</sup> to 29<sup>th</sup> April 2023)
- 3. Edition of Podcasts Book 70th anniversary (in 4 languages)

#### LabWeek Booth Rome 2023

C-PR would like to thank MZ Events for providing a booth for MedLab Week at IFCC/EuroMedLab Conference in Rome (21-25 May 2023)

# Love my Lab project (2023/24)

This project will focus on patient experiences and stories relation/ng to how lab professionals have contributed to their health and well-being.

## Term of reference 3

- Identify key PR tools and make recommendations to the CPD, other divisions and/or EB.
- Develop and update promotional materials, through the CPD, on the IFCC organization and activities, as well as the discipline of Clinical Chemistry and Laboratory Medicine for distribution worldwide.
- Act as a link for distribution of IFCC brochures and other promotion material to all laboratory professionals in their country of residence, National Societies, and Regional Federations where it applies.

# List 2022 accomplishments for this Term of Reference

Social media tools are being used and include Facebook, Instagram, Facebook, YouTube, Twitter, etc.

Several videos from different societies were put on the IFCC Website. The links for these were made available on all social media on which IFCC is registered. The links are given below:

(https://www.ifcc.org/ifcc-communications-publications-division-cpd/cpd-committees/happy-laboratory-professionals-week-2021/).

A social media page was also created asking for societies to add their names



See links below:

**Facebook:** https://fb.watch/4YYcmdew3W/

Telegram: https://t.me/ifclinchem/179

Linkedin: https://www.linkedin.com/posts/ifcc\_medical-laboratory-professionals-week-2021-

activity-6789815152561790976-ubXs

Twitter: https://twitter.com/IFClinChem/status/1384052486240018433?s=20

YouTube: https://youtu.be/9tNYWelqTao

270 pages 70th anniversary magazine was published to make all national societies aware of the accomplishments of IFCC over the last 70 years.

# List planned activities in 2023 for this Term of Reference

A promotional video on IFCC activities is being prepared in collaboration with a private marketing company. The video is expected to be ready by July 2023

# **ADDITIONAL INFORMATION**

C-PR engaged in a number of activities during 2022 and several communications were sent out. This was achieved through the hard work of C-PR Committee members. As C-PR is a small committee it is recommended that there must be full participation by its members in C-PR activities. If this is not possible members must then be asked to step down.

C-PR would like to acknowledge the immense role of Ms Silvia Colli-Lanzi through whom many of these activities were promoted. She has played a key role in all the activities of C-PR and contributed in a very constructive manner to the achievements of C-PR in 2022. C-PR would also like to acknowledge Naranhaus in producing the 70th Anniversary video. Lastly the role of young scientists is acknowledged. Through them we have made great progress. Their role is also acknowledged in the translation of the podcasts.



# 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

EFLM, Munich 11th April 2022

Zoom Meeting, 21 July 2022

28th Oct, 2022, IFCC General Conference, 2022

# **MEETING SCHEDULE IN 2023**

January 2023 (virtual)

May, 2023 (face to face)

August, 2022 (virtual)

December 2022 (virtual)

# **PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS**

AFCC Webinar April 18, 2022 – Lab professionals training (Global MedLab Professionals Week) IFCC Short power point presentation – Biomedical Society of Zambia, 16h December 2022, Livingstone, Zambia

Committee of Internet and Digital Communications (C-IDC) Chair E. Freggiaro (AR)

# **TERMS OF REFERENCE**

# Term of reference 1

Promote IFCC activities through the website, social networks, and any other digital platform, offering functional units a vehicle to distribute the information they produce.

# List 2022 accomplishments for this Term of Reference

As it usually does, the committee publishes on the IFCC website and its social media channels all the information that comes from the different functional units and IFCC activities.

At the moment, IFCC has the following numbers of followers: 3458 on Twitter, 5825 on LinkedIn, 31200 on Facebook, and 1635 on Instagram. IFCC also has a Telegram channel and a YouTube channel with approximately 2000 views per year. Every news item posted on the website is replicated on social media. An average of two to three posts per week are generated, which demands a great deal of work from the web editor and the social media coordinator.

# List planned activities in 2023 for this Term of Reference

This is an ongoing and permanent task carried out by the committee. Of course, it will continue to evolve, although the idea is to professionalize the posts in terms of their graphic design. To achieve this, quotes have been requested from design companies with the aim of achieving a social media image like the new website layout.



#### Term of reference 2

Explore new communication technologies and any other innovative technology tools that could be used to promote IFCC goals.

# List 2022 accomplishments for this Term of Reference

From different places such as CPD and C-PR, the idea of developing podcasts on laboratory medicine has emerged. We are conducting tests to use audios that will be inserted on the website and distributed through specific platforms such as Spotify.

# List planned activities in 2023 for this Term of Reference

To start broadcasting podcasts from IFCC to disseminate the achievements of the different functional units.

# **Term of reference 3**

Develop and maintain the IFCC App.

# List 2022 accomplishments for this Term of Reference

The IFCC app has become very outdated and has become impossible to use. It is no longer available or supported. For this reason, a new website has been developed that is primarily compatible with mobile devices. This means that for practical purposes, it will function like an app inserted in the browser.

# List planned activities in 2023 for this Term of Reference

We will incorporate new features into this web app such as push notifications, event reminders, messaging, and other ideas that are being worked on by the committee.

#### Term of reference 4

Manage social media accounts to promote IFCC worldwide.

# List 2022 accomplishments for this Term of Reference

The number of users on each of the social media platforms has been growing over the years. In 2022, the IFCC Facebook page finally became the professional institution with the most users worldwide, surpassing the AACC that previously held that position by 7,000 members.

# List planned activities in 2023 for this Term of Reference

The goal is always to continue with the regular dissemination while trying to increase the number of users on each platform. At the same time, new platforms that appear and their potential usefulness for IFCC will be explored.

#### Term of reference 5

Develop and deploy new tools through the Internet to meet the needs of IFCC projects.

# List 2022 accomplishments for this Term of Reference

A new website has been created. In 2022, the technology support company for the main website and satellites such as eAcademy was changed. The new company is based in Rotterdam,



Netherlands. An excellent agreement was reached with this company after several months of searching among IT sector companies. This company also provides service on IFCC's databases. As for the website, not only has a new design been created, but a number of technical features have also been improved. In particular, a very robust website in terms of security has been achieved. The content management system (CMS), which was outdated and had allowed a cyber-attack, was also changed and solved. Without a doubt, this has been the committee's greatest achievement, and many months of work were invested in joint meetings between the DIGIWEDO company, the IFCC office, the CPD Chair, and the IFCC President.

#### List planned activities in 2023 for this Term of Reference

The addition of functionalities to the website will continue. The most important one will be the incorporation of user profiles that will allow visitors to have a personalized and integrated experience of all the services offered by IFCC. This feature will also be used to develop an intranet that facilitates communication between the office, functional units, and national and corporate representatives. This way, it will be possible to know if the communications sent are read, forwarded, or if the tasks requested of each member are completed on time. As previously stated, the website will be transformed into a mobile app thanks to the technology used in its creation.

#### Term of reference 6

Offer internet support and provide other digital tool services to all National Societies.

#### List 2022 accomplishments for this Term of Reference

Nothing to comment on this.

#### List planned activities in 2023 for this Term of Reference

Together with C-PR and the digital marketing company NARAHAUS, the social media coordinator will connect with their counterparts from EFLM and COLABIOCLI to disseminate all information related to LABWEEK 2023. In this way, C-IDC will support national and regional societies, helping them promote the clinical laboratory.

#### Term of reference 7

Maintain the technical aspects of the website, social media, mobile app, and other tools to keep them updated.

#### List 2022 accomplishments for this Term of Reference

It is difficult to explain the technical issues in this report, but this is one of the main achievements of 2022. The website is now hosted on much more secure servers and with a working mode that practically makes it very difficult to be compromised. For example, the CMS now operates on a separate server from the production site and has first-level security features. In addition, the site's loading speed features have been improved. The web design has been optimized for different platforms, thus achieving a better user experience. The site's statistics have been improved to have reliable information on the number of downloads or access to each page or document. The search engine has also been improved, now providing more reliable and accurate results, among other things.

#### List planned activities in 2023 for this Term of Reference

Continuously improving the website and its features. Relaunching the mobile application based on the new website.

#### **ADDITIONAL INFORMATION**



The contract with Insoft, which provided technical support for all the committee's technological products, has been terminated. After more than a decade of working together and achieving many productions, several circumstances led to an unproductive stalemate that forced the termination of the contract. After a long search, an agreement was reached with DIGIWEDO, which is doing an excellent job and taking over tasks that had been left undone due to the lack of support from the previous company.

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

In person meeting at the IFCC General Conference held in Brussels.

3 Zoom meetings / 1 hour each to address specific topics.

Several Zoom meetings with DIGIWEDO to design and restructuration of IFCC Website.

#### **MEETING SCHEDULE IN 2023**

Euromedlab / Worldlab 2023 - Rome - May 22 9:00 - 17:00.

Zoom meetings on demand and permanent contact over WhatsApp Group.

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

Congreso Asociación Bioquímica Uruguaya 2023

Closing conference: "Clinical Biochemistry in the Al Era: How to teach and learn?"

17-20 May 2023

eJIFCC Working Group Chair: János Kappelmayer (HU)

#### **TERMS OF REFERENCE**

#### Term of reference 1

The chair of this WG is Editor-in-Chief of the eJIFCC. He/she is a member of the CPD Executive and is responsible for the articles and material in each issue. The journal is an educational and news vehicle intended for the individual members of the Full Member Societies. The journal has been allocated ISSN Number 1650-3414

#### List 2022 accomplishments for this Term of Reference

In 2022 there has been an enormous increase in the number of submissions compared to previous years. In total there were 84 submissions from 23 countries (Hungary, Italy, UK, Sweden, Russian, Croatia, Slovenia, Romania, Ukraine, Bosnia, India, Indonesia, Nepal, Saud

Arabia, Iraq, Pakistan, Canada, USA, Tunisia, Spain, Morocco, Africa, Ethiopia) and out of these 38 were accepted for publication

#### List planned activities in 2023 for this Term of Reference

Further enforcement of the peer Review process by selecting better manuscripts for publication and assembling a Thematic Issue on Pharmacogenomics and Personalized Medicine.

Aside from this the submissions keep increasing constantly, the submissions in the period January 1-March 30, 2023, is already 114.



# Term of reference 2 Launching the Editorial Manager for manuscript handling

#### List 2022 accomplishments for this Term of Reference

Participation at online training courses. These courses started from June 1, 2022 to November 7, 2022. Each zoom meeting was 90 minutes.

- The online education was divided to 3 main categories and 7 smaller units within them.
- Dr. Bhattoa Harjit Pal Assistant Editor and Valentina László eJIFCC secretary participated on each online course.
- We already received 22 manuscripts in the Editorial Manager system in 2023.

#### List planned activities in 2023 for this Term of Reference

In 2023 we have already introduced the Editorial Manager for manuscript handling. In the period January 1-February 28 there was an interim period when authors may have submitted their works via email or via the Editorial Manager, but as of March 1, 2023 only manuscripts submitted via the Editorial Manager are handled. Simultaneously all Editorial Board members had to register for this system, that also facilitated the upgrading of the Editorial Board list.

# Term of reference 3 Scientometric advancement of the eJIFCC

#### List 2022 accomplishments for this Term of Reference



By being listed on Scopus since 2018 the eJIFCC has started to obtain Cite Score values that showed a continuous increase and values plateaud in 2022:

2018: 0.1

2019: 0.8

2020: 2.7

2021: 5,7

2022: 5.2

In 2022 a request was submitted to obtain an Impact Factor value from Clarivate.

We got a request for a modification of our submission with some further points to fix.

#### List planned activities in 2023 for this Term of Reference

Resubmission of the request to Clarivate to obtain an impact factor value

#### ADDITIONAL INFORMATION

Some new Editorial Board members were recruited in 2022, particularly from those who previously guest edited successful Thematic Issues that are well cited.

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

There were no in-person meetings, all discussions were virtual meetings or via email.

#### **MEETING SCHEDULE IN 2023**

An in person meeting at the Rome EuroMedLab that is scheduled at Rome to be held from May 21 to May 25 2023.

Location and time of the IFCC CPD group meeting:

Congress Center La Nuvola, Rome Convention Center Viale Asia 40 /44 00144 Rome

Meeting name: CPD EC Dates: 20th May from 9am to 5:30pm, 21sth May from 9am to 1 pm

Meeting of the eJIFCC Editorial Board:

May 22: from 1:30pm to 2:30pm (location is to be defined later)

Progress Report of the eJIFCC April 2022-May 2023

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

Four Issues of the eJIFCC/year

The most recent is Issue-1 2023 that is now with the Publisher Insoft Canada.

**eNews Working Group** 

**Chair: Katherina Psarra (GR)** 

#### **TERMS OF REFERENCE**

#### **Term of reference 1**

Gather and disseminate information about the activities of the EB, SD and EMD and their Committees and Working Groups

#### List 2022 accomplishments for this Term of Reference

All the eNews issues publish the information sent by the committees, task forces, and working groups. The chairs receive an email reminding them to send the relevant information every month. List planned activities in 2023 for this Term of Reference

List planned activities in 2020 for this ferm of hererend

The same procedure is to continue for 2023.

#### **Term of reference 2**





Publish news and information about the activities of IFCC Members and Corporate Members.

#### List 2022 accomplishments for this Term of Reference

All the eNews issues publish the information sent by the IFCC members and corporate members including Univants awards.

#### List planned activities in 2023 for this Term of Reference

The same procedure is to continue for 2023.

#### Term of reference 3

Provide early information about discussions taking place within the Division Committees in order that the topics of current concern, and future developments, are known to all those practicing in the field.

#### List 2022 accomplishments for this Term of Reference

All the eNews issues publish the information sent by Division Committees.

#### List planned activities in 2023 for this Term of Reference

The same procedure is to continue for 2023.

#### Term of reference 4

Publish a calendar of all IFCC congresses and meetings.

#### List 2022 accomplishments for this Term of Reference

All the eNews issues publish the calendar.

#### List planned activities in 2023 for this Term of Reference

The same procedure is to continue for 2023.





#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

No meeting (virtual or in person) of the WG took place during 2022

#### **MEETING SCHEDULE IN 2023**

There is a meeting of the WG scheduled during Euromedlab Rome 2023 on Monday 22nd May.

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

There are not any other publications or presentations, webinars except for the publication of the eNews issues.

Working Group for Ibero-American Nomenclature and Translations (WG-IANT)



#### Chair Raúl Girardi (AR)

#### **TERMS OF REFERENCE**

#### Term of reference 1

Organise and manage the Ibero-American corner on the web site

#### List 2022 accomplishments for this Term of Reference

Change of members, some members were removed from the group who during these 2 years did not contribute much to the WG. A member from Peru, who had not been represented there for many years, joined the group.

The member from Mexico was changed because he was no longer president of the national society he represented and because of his low participation in the WG.

I will publish in RIA as well as in the social networks congresses and all events related to clinical biochemistry that are at least sponsored by IFCC, the courses should also be free of charge.

#### List planned activities in 2023 for this Term of Reference

I will continue to work with members based on their track record, endorsement by the national scientific society and their previous performance in the WG so that they continue to participate in the WG.

We are talking with representatives from other countries such as El Salvador or Nicaragua to select a representative.

There is a request from previous years about the possibility of modifying the RIA website to make it more agile and modern. In this year there are already some changes in the page and in sight it is a better presentation. I am evaluating its functionality

#### Term of reference 2

Editorial Board of the e-journal "Diagnostico in Vitro" (edited by Raul Girardi)

#### List 2022 accomplishments for this Term of Reference

The 3 annual editions of February, June and October were published.

Improved publication time.

For the first time, we managed to publish articles in Portuguese, which had never happened before, through discussions with members of the Sociedade Brasileira de Análises Clínicas (SBAC).

#### List planned activities in 2023 for this Term of Reference

The February edition has already been published and the June edition is being edited.

I will try to continue to increase the number of articles of a scientific nature over those related to news and novelties.

I will keep trying to increase the number of articles in Portuguese.

October will be issued according to schedule.

#### **Term of reference 3**

**Produce Spanish and Portuguese terminological documents** 





#### List 2022 accomplishments for this Term of Reference

Two versions of the catalogue of codification and systematic nomenclature of laboratory tests by Dr. Felix Gascon (Spain) were published.

Portuguese and to do the same with those already published such as the VIM.

#### List planned activities in 2023 for this Term of Reference

I am working to publish a version of a medical dictionary covering most of the terms that are commonly applicable in Iberoamerica.

Continue to publish versions of the catalogue of codification and systematic nomenclature of laboratory tests by Dr. Felix Gascon (Spain).

Work with the Brazilian and Portuguese societies to publish the same documents in Portuguese and to do the same with those already published such as the VIM.

#### Term of reference 4

Produce Spanish and Portuguese translations of IFCC documents

Produce Spanish and Portuguese informative and educational documents

#### List 2022 accomplishments for this Term of Reference

Interview published from Dra. Maria del Carmen Pasquel to Prof Adeli on the outstanding achievements of the IFCC in the last decades in the framework of the 70th anniversary.

Other interviews related to the profession.

Material related to the Global Med Lab Week has been published.

#### List planned activities in 2023 for this Term of Reference

New material related to Global Med Lab Week 2023.

We are working together with the C-PR to publish their material, generate joint material, and publish it in Spanish and Portuguese.

#### ADDITIONAL INFORMATION

Because of its speed and reach to the public, it is working a lot on social networks, especially with Instagram.

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

First face-to-face and virtual synchronous meeting at the Latin American Congress of Clinical Biochemistry of COALABIOCLI in Leon (Mx) March 30 - April 2, 2022. Due to technical failures, the meeting was terminated and the topics to be discussed were continued in the IFCC-WorldLab SEOUL 2022 - Jun 26 - 30, 2022 in a face-to-face and virtual synchronous way.

The second meeting was the Clinical Laboratory Quality Congress CALILAB 2022, Mar del Plata (Ar) 7 - 9 November 2022 in face-to-face and virtual synchronous mode.



R. Girardi and part of the WG-IANT members attended the IFCC General Conference, Brussels (Belgium) from 27 to 31 October 2022.

Participation of R. Girardi in the IFCC meeting on the Strategic Plan for 2022 in virtual synchronous mode



#### **MEETING SCHEDULE IN 2023**

First meeting of the WG-IANT 2023 in ROME 2023. WORLDLAB - EUROMEDLAB. 21-25 May 2023

Second meeting to be decided at the WG meeting in Rome

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

Webinar presentation: Traceability of measurements, quality and laboratory accreditation. Three topics of interest for clinical laboratory professionals in Ibero-America (R. Girardi (Argentina), Amadeo Saez-Alquezar (Brazil), Maria del Carmen Pasquel (Ecuador), Ana Piana (Uruguay).

Participation of WG-IANT members in the Global Med Lab Week 2022 - IFCC

Presentation of the Webinar Project on External and Internal Quality Control in Quantitative Measurements, R. Girardi (Argentina, Jorge Morancho Zaragoza (Spain) and External and Internal Evaluation in Qualitative Measurements, J. Aberer (Argentina)

Tahir Pillay CPD Chair

### **EMERGING TECHNOLOGIES DIVISION (ETD)**

Committee Emerging Technologies in Pediatric Laboratory Medicine (C-ETPLM) Chair Tim Lang (UK)

#### TERMS OF REFERENCE

#### Term of reference 1

To identify, prioritise and coordinate projects to support the emerging science in pediatric laboratory medicine across the total testing process.

### List 2022 accomplishments for this Term of Reference Review of activities

In early 2022 (April) Chair met with ETD and EB led by KA to discuss that the C-EPLM should focus on scientific and educational activities related to pediatric laboratory medicine, developing programs and guidelines that can assist pediatric lab professionals around the world. The plan developed following this meeting is reflected in the new focus in C-ETPLM activities and aligning them with the EB aims for 2023: gap analysis / Scoping areas to develop educational solutions and other activities that will support developing countries especially. e.g. guidelines, best practice advice

Survey prepared and sent out via IFCC TF-YS to committee/corresponding members and attendees at YS Forum in Seoul to assess areas for Education in Pediatric Biochemistry, especially focusing on developing countries needs. Plan then developed during late 2022 and at GC.

#### List planned activities in 2023 for this Term of Reference

Continuing to review activities of group with plan to assign roles to each committee member in areas and develop short, mid and long term plans:

- New technologies
- New clinical applications
- Guideline documents
- Education
- Support for developing countries

#### Term of reference 2

To review the current concepts in Pediatric Laboratory Medicine and advance laboratory practice through the development and dissemination of position papers and guidelines

#### List 2022 accomplishments for this Term of Reference

Preparation and publication of paper on joint survey with SSIEM/ISNS on effect of Covid on pediatric biochemistry. Published July 2022.

#### List planned activities in 2023 for this Term of Reference

Preparation of simple guidelines/recommendations covering a number of common topics (from the clinical/analytical list) in partnership covering developed and developing country

perspective. Lead from committee (TPL) has developed plan to present at IFCC TownHall event.

Preparation of paper or a collection of papers in a thematic edition defining what is ET in PLM. Current plan is to prepare a mini review focusing on the different needs of different age groups from pre-term through to adolescence.



#### Term of reference 3

To develop existing links and establish new links with clinical and scientific societies working in other specialist organizations including neonatology, pediatrics, inherited metabolic diseases and other rare diseases.

#### List 2022 accomplishments for this Term of Reference

Contact made with TF-YS to assess training needs and how C-ETPLM can support them. Survey done and outcomes from this have prioritised areas for education. Meeting held with chair of TF-YS and how closer working could occur. E.g., Supporting YS-Forum in future ?2024 Dubai, inviting YS members to collaborate on guidelines etc

C-ETPLM supported WG proposal on Neonatal Bilirubin in collaboration with AACB (AUS).

Preparation and publication of paper on joint survey with SSIEM/ISNS on effect of Covid on pediatric biochemistry. Published July 2022.

Continued engagement of committee members on joint project on 170HP analysis with 2<sup>nd</sup> paper due very shortly.

#### List planned activities in 2023 for this Term of Reference

Joint symposium with International Society for Neonatal Screening on Neonatal Screening at ICPLM in Rome.

Chair invited via KA to be representative on group reviewing standard or recommendation for publications that present neonatal lab values for International Neonatal Consortium (part of the Critical Path Institute)

Chair (representing ACB) and Liaison member on WG-Neonatal Bilirubin

#### Term of reference 4

To lead education activities, including the satellite meeting of WorldLab Congress of Pediatric Laboratory Medicine.

#### List 2022 accomplishments for this Term of Reference

Preparation of programme for XVIth ICPLM in Rome

Preparation of Webinar proposal for IFCC Webinar on Emerging Technologies in Pediatric Laboratory Medicine

Survey prepared and sent out via IFCC TF-YS to assess areas for Education in Pediatric Biochemistry, especially focusing on developing countries needs

Preparation of scientific session proposal at AACC meeting in Anheim focusing on Genomic testing and the complexity of introducing emerging technologies in pediatric laboratory medicine (awaiting decision).

#### List planned activities in 2023 for this Term of Reference

XVIth ICPLM in Rome

Deliver webinar on IFCC webinar series -

Pediatrics is an area where emerging technologies have been implemented successfully

The role of emerging technologies and its introduction throughout the diagnostic cycle will be discussed using examples in the general laboratory and those laboratories supporting regional and national programs such as newborn bloodspot screening and rare disease programs.

- 1. Emerging technologies supporting pediatric laboratory medicine
- 2. The Impact of Genomics and Transcriptomics in Pediatric Clinical Care
- 3. Optimising second-tier newborn screening for congenital adrenal hyperplasia

Develop programme for ICPLM in Dubai 2024

Round table discussion on emerging technologies

Support YS-TF at next Forum with planning of pediatric focused session

Add Committee members to VPL list

Scientific session proposal at AACC meeting: Genomic Testing and the Complexity of Introducing Emerging Technologies in Laboratory Medicine

### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

26/04/2022 Committee Meeting (Virtual)

23/05/2022 Committee Meeting (Virtual)

17/08/2022 Committee Meeting (Virtual)

22/09/2022 Committee Meeting (Virtual)

28/10/2022 Committee Meeting (In person @GC, Brussels)

30/11/2022 Committee Meeting (virtual)

15/12/2022 Committee Meeting (Virtual)

#### **MEETING SCHEDULE IN 2023**

18/01/2023 Committee Meeting (Virtual)

16/02/2023 Committee Meeting (Virtual)

15/03/2023 Committee Meeting (Virtual)

20/04/2023 Committee Meeting (Virtual)

21/05/2023 Committee Meeting (In person, post ICPLM in Rome)

Future monthly meetings to be scheduled for June to December in 2<sup>nd</sup> half of year.

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

# Current and emerging technologies for the timely screening and diagnosis of neonatal jaundice

Mercy Thomas Ronda F. Greaves, David G. Tingay, Tze Ping Loh, Vera Ignjatovic, Fiona Newall, Michelle Oeum, Mai Thi Chi Tran, Anushi E. Rajapaksa

Critical Reviews in Clinical Laboratory Sciences Volume 59, 2022 - Issue 5



# Impact of COVID-19 on pediatric laboratory medicine: an IFCC C-ETPLM, SSIEM, ISNS global survey

Tze Ping Loh, Ronda F. Greaves, Chloe M. Mak, Gajja S. Salomons, James R. Bonham, Tim Lang eJIFCC Volume 33 no 2 - 2022



# Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM) Chair Bernard Gouget (FR)

#### **TERMS OF REFERENCE**

#### Term of reference

Digital Health, mHealth & Al

Lab Medicine and Healthcare is undergoing a digital revolution. Big Data, mobiles devices and other innovations are opening up new frontiers in Lab medicine, a trend that has become especially visible during the COVID 19. Digitalization is expected to improve a broad range of outcomes, from prevention and treatment. It will allow to lab medicine to use resources more efficiently, then more effective and sustainable

The C-MHBLM is analysing the potential digital health challenges and recommendations to address them as well as breaking down the digital barriers. This includes:

Interoperability opportunities and challenges in linking mhealth applications

Al applications for Lab medicine to make sense to health data

Al as a catalyst for sustainable development

Ethical issues of AI in Lab Medicine

How could Metaverse transform lab medicine

### List 2022 accomplishments for this Term of Reference Conférences:

47th ACBICON, Dec 12-15 2021, Hybrid mode

Symposium: Artificial Intelligence and Lab Digitization-Future Laboratories

Chairpersons: Prof Abbas Ali Mahdi, Prof. Pradeep K. Dabla

Intelligence based medicine: What we should know?

Prof. Sergio Bernardini, Chair IFCC-Emerging Technology Division (ETD)

Smart technologies to tackle COVID-19

Dr. Bernard Gouget, Chair IFCC Committee on Mobile Health and Bioengineering in Laboratory Medicine (IFCC C-MHBLM ETD)

All and Lab Medicine at the heart of translation for network medicine Prof. Damien Gruson.

MedLab Middle East 31Jan-2Feb 2022, Hybrid

e-Communication: eHealth/mHealth: How the Lab Medicine sector is changing?

**B.Gouget** 

XXV Congreso LatinoAmericano de Bioquimica Clinia, Leon (MX), March 30-April 2, 2022

Plenary: Al, Big Data and wearable technologies: closing gaps in patient data and care

IA, Big Data y tecnologías portátiles: cerrando brechas en los datos y la atención de los pacientes

Bernard GOUGET: Al in Lab Medicine: hype versus reality

IA en medicina de laboratorio: bombo versus realida

Post congress On line:

Wearables technologies and mHealth: A Sustainable Healthcare Model for Developing World

Tecnologías de wearables y mHealth: un modelo de atención médica sostenible para el mundo en desarrollo

Pr Pradeep Dabla, Dept Biochemistry, New Dehli (IN)

EUROMEDLAB 10-14 April 2022

EDUW 29 - 14.00-15.00

Title: Sustainabilty and digitalization in Laboratory Medicine: Prepare for the future now!

**Chair / Scientific coordinator:** Dr. Bernard Gouget, IFCC -Chair, Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM)

- Sustainable Laboratory Medicine: Myth or reality?

Professor Damien Gruson – Head of the department of Clinical Biochemistry of the Cliniques Universitaires Saint Luc – Brussels, Belgium

- Sustainable Laboratory Medicine: we all have a role to play.

Jordi Trafí-Prats – Senior Director EMEA Marketing at Ortho Clinical Diagnostics

EUROMEDLAB 10-14 April 2022 "Viewpoint 6"

Wednesday Dec 1st 17:00-18:00

Regulating direct-to-consumer testing 2.0: Protecting the consumer-

Chair: B. Gouget (France), Chair C-MHBLM

- Introduction: What is Direct-to-Consumer (D2C or DTC), how to increase Public Awareness B. Gouget (FR)
- Opportunities for decentralized testing in modern healthcare and dangers vs benefits of DTC –J.H. Nichols (USA), Member C-MHBLM
- Advocacy for appropriate regulation of biological tests sold directly to consumers

M. Vaubourdolle (France) IFCC-C POCT

AACC 2022 Annual Scientific meeting, July 24-28, 2022 Chicago (IL)

Session 32108: Transforming Laboratory Medicine Through Mobile Health Technologies 07/25/2022 10:30 AM Until 07/25/2022 12:00 PM



Speakers:

James Nichols, PhD, DABCC, FAACC, Vanderbilt University Medical Center

A Future So Bright: Personalizing Laboratory Medicine Through Mobile Health

Frank Desiere, PhD, MBA, Roche

Smart Technologies and Their Impact on the Digital Transformation of the Medical Laboratory

Discussing in the room: Damien Gruson; Bernard Gouget

XVI Baltic Congress in Lab Medicine, Sep 22-24 Tallin (Estonia)

Saturday, September 24, plenary session 9.00-9.40

Bernard Gouget: Smart Lab Medicine in digital era

LM4MS Heraklion, 2-5 October 2022

Session 2: How to make easier and wider the implementation of Emerging technologies

Chairs: Bernard Gouget, Ioannis Papassotiriou

Sergio Bernardini: Health technology assessment: The 6W

Damien Gruson: How to apply the usual quality assessment tools to Al LabMed Applications

IFCC ETD C-MHBLM Symposium, October 27th 2022

UCL Louvain, Woluwe St Lambert Brussels (BE)

Chairs Bernard Gouget, Damien Gruson

Introduction: S. Bernardini

Emerging Technologies for prevention: Making the best use of data:

Emerging technologies for healthier EU, expectations from stakeholders: L Giolot

Smart cities: Maider Liaguno

Diving into the minds: PN SCHWAB Panel discussion: Bernard Gouget

48th ACBICON New Delhi 23-26 November 2022

Pré-conference Workshop: Applied Artificial Intelligence Research

Artificial Intelligence & its Basics: Pradeep Dabla

Data Mining processing and cleaning: Damien Gruson
Al data applications in Lab Medicine: Sergio Bernardini

Al applications in Healthcare: Pierre Jean Lamy

Al and Ethical issues: Bernard Gouget

Symposium 20

Evidence Based Lab Medicine: Where is the evidence, how we apply it?

Chair: Bernard GOUGET





#### JIB Paris 2022, December 1-2

Organization of an international session on:

Al in Health care and Genomic

Speaker: Sarah BO

### List of planned activities in 2023 for this Term of Reference Conferences



#### Sustainability in the Clinical Laboratory

Monday, 6 February 2023 | Riyadh Room

#### Programme | Day 1 | Monday, 6 February 2023

#### 10:15 Opening remarks

Dr Rana Nabulsi, Head – Operations & Quality-Pathology & Genetics, DHA, Dubai, UAE

Prof Damien Gruson, Head - Department of Clinical Biochemistry, Cliniques Universitaires Saint Luc,
Brussels, Belgium

#### Session 1: Going green!

Moderator: Prof Khosrow Adeli & Dr Rana Nabulsi

- 10:30 Are we ready for sustainability in healthcare? Dr Naser Ammash, CEO, Sheikh Shakhbout Medical City (SSMC), Abu Dhabi, UAE
- 10:50 Green labs how to get started Dr Bernard Gouget, Assistant Professor, Fédération Hospitalière de France, Paris, France
- 11:10 Engaging clinical laboratories in greener and sustainable practices Prof Damien Gruson, Head - Department of Clinical Biochemistry, Cliniques Universitaires Saint Luc, Brussels, Belgium
- 11:30 Future-proofing labs through smart technology and innovation Prof Sergio Bernardini, Chair, IFCC Division on Emerging technology, Rome, Italy
- 11:50 Interactive Q & A with Session Speakers
- 12:10 Panel discussion: Holistic approaches to reducing the environmental impact of clinical laboratories Moderator: Prof Damien Gruson





#### ةى رى رسل الى جول وى بلل نورش عل او قشل اشل الهي عمل الماك أل

Les 23<sup>èmes</sup> Journées Marocaines de Biologie Clinique 16-18 Mars 2023, Marrakech (MO)

Le 16 Mars 14h30-15h30: Atelier SMCC-IFCC Young Scientists

"Décarboniser le secteur de la santé et Médecine de laboratoire"

Modérateurs:

Dr Hichem ASSAMI (Paris) - Dr Otmane TOUZANI (Rabat) -

Intervenants:

Dr Bernard GOUGET, Chair IFCC C-MHBLM, Labac EFLM representative (FR)

Dr Alexandre HALIASSOS, President of Greek society of clinical chemistry-clinical biochemistry (GSCC-CB), IFCC EB Treasurer (GR)

Pr Laïla CHABAA, Ex-Professeur à la Faculté de Médecine et de Pharmacie de Marrakech, Ex-Chef du service de Biochimie CHU Mohammed VI de Marra

Le 18 Mars 14h00 – 16h00 : Symposium 5 : Biologie Clinique et Intelligence Artificielle (IA)

Bernard Gouget: IA et santé numérique: Enjeux et préocupations éthiques,

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

**EUROMEDLAB Munchen 2022** 

AACC Chicago ,July 2022

BRUXELLES, October 2022

+ e-communication

#### **MEETING SCHEDULE IN 2023**

ROMA WorlLab 2023

**INDIA ACBICON 2023** 

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

Artificial intelligence and thyroid disease management: considerations for thyroid function tests

Damien Gruson<sup>1</sup>, Pradeep Dabla<sup>2</sup>, Sanja Stankovic<sup>3</sup>, Evgenija Homsak<sup>4</sup>, Bernard Gouget<sup>5</sup>, Sergio Bernardini<sup>6</sup>, Benoit Macq<sup>7</sup>

PMID: 35799984 PMCID: PMC9195598 DOI:10.11613/BM.2022.020601

Target association rule mining to explore novel paediatric illness patterns in emergency settings

Pradeep Kumar Dabla, Kamal Upreti, Divakar Singh, Anju Singh, Jitender Sharma, Aashima Dabas, Damien Gruson, Bernard Gouget, Sergio Bernardini, Evgenija Homsak & Sanja Stankovic

Scandinavian Journal of Clinical and Laboratory Investigation, Volume 82, 2022 - Issue 7-8

Article | Published online: 18 Nov 2022 | Views: 33

Accepted CCLM

A new door to a different world: Opportunities from the metaverse and the raise of Meta-Medical Laboratories. Damien Gruson<sup>1,2,8</sup>, Ronda Greaves<sup>3,8</sup>, Pradeep Dabla<sup>4,9</sup>, Sergio Bernardini<sup>5,8</sup>, Bernard Gouget<sup>6,9</sup>, Tuğba Kemaloğlu Öz<sup>7,10</sup>



#### To be submitted:

Validation and verification framework and data integration of biosensors and biomedical medical devices: a joint position statement of the IFCC Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MBHLM) and The Healthcare Information and Management Systems Society (HIMSS)

Damien Gruson<sup>1,2,10</sup>, Pradeep Dabla<sup>3,10</sup>, Sanja Stankovic<sup>4,5,10</sup>, Evgenija Homsak<sup>6,10</sup>, James Nichols, Kazu Kotani, Ramy Asaad Khalil, Bernard Gouget<sup>7,10</sup>,







#### DEC: https://www.ifcc.org/media/479250/ifccenewsdecember2021.pdf

- B. Gouget, D. Gruson, S. Bernardini:The C-MHBLM ahead: Catching the wave of POCT with IVD contribution to technological innovation pp: 8-11
- B. Gouget: Never two without three available for all pp: 19-21
- S. Ghassan, B.Gouget: Syria between a rock and a hard place pp: 23-24

#### FEB: https://www.ifcc.org/media/479299/ifccenewsfebruary2022.pdf

• B. Gouget, M. Germanos-Haddad, A. Haliassos, M. Ciotti, S.Bernardini, F Blanchecotte Safeguarding migrants' health by common efforts, pp: 44-46

#### MAY: https://www.ifcc.org/media/479477/ifccenewsmay2022.pdf

B. Gouget: The future of lab medicine is rising at the XXV COLABIOCLI – Leon (MX), pp:9-13

#### JUNE: https://www.ifcc.org/media/479481/ifccenewsjune2022.pdf

- B. Gouget, Michel Vaubourdolle, James Nichols
   IFCC C-MHBLM and C-POCT in Munich asking key questions about DTC testing pp:7-9
- B. Gouget: Going green: lab medicine and environmental sustainability pp: 19-21

### OCT: https://www.ifcc.org/media/479787/ifccenewsoctober2022.pdf

- B. Gouget:The IFCC C-MHBLM and m-technologies under the spotlights in Chicago, IL, USA pp:13-16
- B. Gouget: Smart interconnected minds at the 16th BCLM2022 Tallinn, Estonia pp: 39-43
- JP. Siest: Dr. Jean-Baptiste Woillard (FR) winner of the «1st IFCC-Gérard Siest Young Scientist Award for Distinguished Contributions in Pharmacogenetics» pp:43-45

#### JAN-FEB 2023: https://www.ifcc.org/media/479987/ifccenewsfebruary2023.pdf

- B.Gouget, Pradeep Dabla, D.Gruson, S.Bernardini. VLP Report, ACBICON 2022: Assessing Al technologies and ethics in healthcare services p 16-20
- B.Gouget: R.Assas Khalil, S.Bhargava.VLP Report, ACBICON 2022: It's time to look at the LabMed evidence! 21-23
- B.Gouget: Changing of the guard: Prof. Katell Peoc'h, SFBC President (Nov 2022 Nov 2025) p 58-59
- B.Gouget, JM Giannoli, F.Blanchecotte. JIB Paris 2022: an iconic congress in the iconic City of Lights p 60-65
- S.Stankovic and B.Gouget, JM Giannoli, F. Blanchecotte. Serbian response to a Western Balkan refugee crisis p 66-67
- Gramos Begoli and B.Gouget, JM Giannoli, F. Blanchecotte.. Kosovo Spotlight on migrants and migration challenges 69-70
- Marielle Kaplan and B.Gouget, JM Giannoli, F. Blanchecotte.. Integrating lab medicine technologies and mobile health services for asylum seekers and refugees- Israel point of view p 71-73
- B.Gouget: Paris-Italy JIB 2022: Leading Al innovation in genomics p 74-75

Working Group on the Guidance for the implementation of custom-made genomic panels (WG-GCP)
Chair Jennifer Morrissette (US)

#### **TERMS OF REFERENCE**

Term of reference 1

Presentations demonstrating clinical utility of custom genomic panels

#### List 2022 accomplishments for this Term of Reference

Was invited to speak at the 2022 EFLM meeting and presented:

Title: Greater expectations: Meeting clinical needs through broad and rapid genomic testing

Resulted in a publication, highlighting IFCC: Poveda-Rogers C, Morrissette JJD. Greater expectations: meeting clinical needs through broad and rapid genomic testing. Clin Chem Lab Med. 2022 Dec 6;61(4):654-661. PMID: 36473133.

#### List planned activities in 2023 for this Term of Reference

Planned presentation at WorldLab in Roma 2023



#### Term of reference 2

Identification of clinical and educational needs in countries with emerging cancer genomic needs

#### List 2022 accomplishments for this Term of Reference

Survey to better understand needs in genomically emerging nations; translated into Spanish; under review by individuals with genomics background who are native Spanish speakers

#### List planned activities in 2023 for this Term of Reference

Convert survey into an online form; distribute internationally; begin to review data

### Term of reference 3

dentify test case for capturing genomic data in genomically emerging nation

#### List 2022 accomplishments for this Term of Reference

We were in discussions with a clinic in Botswana that would like to capture genomic information on breast cancer patients, specifically ER, PR, HER2 amp, Ki67, due to long lag times forIHC. Considering "Xpert Breast Cancer STRAT4" product from Cepheid. Plan was to piggyback from the STRT4 implementation in Rwanda. Still under discussion with breast oncologist.

#### List planned activities in 2023 for this Term of Reference

Continued discussions, with development of a validation plan

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

Several small group conference calls to discuss small parts of these projects

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

EFLM 2022 (May)

Working Group on Artificial Intelligence and Genomic Diagnostics (WG-AIGD) Chair Larry Kricka (US)

#### **TERMS OF REFERENCE**

#### **Term of reference 1**

To evaluate and monitor emerging trends and directions of research and development in the field defined by the intersection of artificial intelligence, genomics, and clinical diagnosis.

#### List 2022 accomplishments for this Term of Reference

A. We published on the WG-AIGD website a 2022 Current Awareness Update on the regulatory landscape of AI/ML-enabled medical devices (a link on the website connects to the literature on information relevant to the US, European, UK and Korean regulatory agencies).

#### List planned activities in 2023 for this Term of Reference

A. We will review subsequent developments in the regulatory landscape and determine if an update is required.

### Term of reference 2

To develop and in-depth assessment of the application of AI (deep learning, machine learning) in genomic (molecular) diagnostics.

#### List 2022 accomplishments for this Term of Reference

This term of reference is now outdated because of the rapid growth in the applications of Al in genomic diagnostics. A recent search for "(artificial intelligence OR machine learning) AND (genomic diagnostics)" produced >33,000 hits on Google Scholar. This very large number of publications strongly suggests that the topic as a whole can no longer be considered as emerging, and accordingly the WG has selected narrow areas within this larger subject area that we believe to be of interest to the IFCC community.

#### List planned activities in 2023 for this Term of Reference

None (see above for explanation)

#### Term of reference 3

To develop periodic updates on the applications of AI in clinical genomic testing.

#### List 2022 accomplishments for this Term of Reference

A. We published on the WG-AIGD website a 2022 Current Awareness Update covering work relevant to the applications of AI in clinical genomic testing published in the first part of 2022.

#### List planned activities in 2023 for this Term of Reference

A. We will review subsequent developments in the applications of AI in clinical genomic testing and determine if an update is required.

#### Term of reference 4

To access the accessibility and the barriers to routine implementation of AI in clinical genomic testing

#### List 2022 accomplishments for this Term of Reference

Generally, a key issue in publications reporting Al-based studies is the accessibility of the Al-based method to the laboratorian and the detail of the Al method reported. We published on the WG-AlGD website summary of "Recommendations for data, source code, Al methods, and experiments in Al publications (adapted from Gundersen et al 2018)". Also, we attached a supporting document (Documenting Al research

IFCC WG-AIGD (Kricka LJ, Baudhuin LM, Fortina P, Ertel A, Hope T, McCudden C, Park JY, Polevikov S, Satychkov) to the web page.



#### List planned activities in 2023 for this Term of Reference

A. We will review subsequent developments in the recommendations for Al-based publications and determine if an update is required

#### Term of reference 5

To develop a resource that will inform the IFCC community on developments and trends in the applications of artificial intelligence in clinical genomics

#### List 2022 accomplishments for this Term of Reference

- A. We published on the WG-AIGD website a listing of key references that address the following topics: convergence of digital health, artificial intelligence with Universal Health Coverage, ethics and governance of artificial intelligence, good machine learning practice, and the reproducibility of machine learning applications.
- B. We published on the WG-AIGD website details of the 2022 Al Index Report together with links to useful commentaries on the Report.

#### List planned activities in 2023 for this Term of Reference

A. We will review subsequent developments to determine if an update is required to the two topics covered in the updates listed in A and B, above.

#### **ADDITIONAL INFORMATION**

- A. We welcomed new WG members in 2022: Dr Chris McCudden (Canada), Dr Linnea Baudhuin (USA), and Dr Rachel Carling (UK).
- B. A redesign of the website is planned that would consign older updates to an archive and make the most recent updates more visible.
- C. The WG's term ends 12/2023.

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

The WG-AIGD has operated in a virtual mode via email and occasional calls with individual members as required.

#### **MEETING SCHEDULE IN 2023**

A. A meeting of the WG-AIGD is planned for the take place during the 2023 Conference in Rome in May.

#### **PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS**

#### **Publications**

Greaves RF, Kricka L, Gruson D, Martin H, Ferrari M, Bernardini S. Emerging technology: a definition for laboratory medicine. Clin Chem Lab Med. 2022 Oct 31;61(1):33-36. doi: 10.1515/cclm-2022-0929. PMID: 36302376.



# Working Group on Single Cell and Spatial Transcriptomics (WG-SCST) Chair Andrew P South (US)

#### **TERMS OF REFERENCE**

#### Term of reference 1

Provide a regularly updated perspective on the clinical diagnostic applications of singlecell and spatial transcriptomic technologies as they evolve and become more accessible over the next 3 years through both the creation of a webpage and the publication of manuscripts to:

- Assist clinical laboratories in developing in-house single-cell and spatial transcriptomics
- Provide up to date information on potential therapy matches through identification of effector cell types in different disease states
- Provide up to date information on technologies and approaches as they become commercially available

#### List 2022 accomplishments for this Term of Reference

November 9, 2022

IFCC Live Webinar "Single Cell and Spatial Transcriptomics: clinical application" The Webinar was well supported with over 500 registered attendees.

January 2022

Working with the "Guidance for the Implementation of Custom-made Genomic Panels" working group to implement an IFCC survey "Questionnaire for IFCC genomics in community hospitals and hospitals in low resource settings".

#### List planned activities in 2023 for this Term of Reference

Manuscript preparation – currently working on a manuscript to review up to date information on single cell and spatial technologies and approaches that are most likely to enter clinical medicine in future years.

Recruit additional members.4

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

February 16th (conference call)

April 12th (in person)

November 7th (conference call)

#### **MEETING SCHEDULE IN 2023**

May 23, Rome (in person)

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

IFCC Live Webinar "Single Cell and Spatial Transcriptomics: clinical application"



Classification of human chronic inflammatory skin disease based on single-cell immune profiling. Liu Y, Wang H, Taylor M, Cook C, Martínez-Berdeja A, North JP, Harirchian P, Hailer AA, Zhao Z, Ghadially R, Ricardo-Gonzalez RR, Grekin RC, Mauro TM, Kim E, Choi J, Purdom E, **Cho RJ**, Cheng JB. Sci Immunol. 2022 Apr 15;7(70):eabl9165. doi: 10.1126/sciimmunol.abl9165. Epub 2022 Apr 15. PMID: 35427179

Spectral clustering of single-cell multi-omics data on multilayer graphs. Zhang S, Leistico JR, Cho RJ, Cheng JB, Song JS. Bioinformatics. 2022 Jul 11;38(14):3600-3608. doi: 10.1093/bioinformatics/btac378. PMID: 35652725

Defining Patient-Level Molecular Heterogeneity in Psoriasis Vulgaris Based on Single-Cell Transcriptomics. Liu Y, Wang H, Cook C, Taylor MA, North JP, Hailer A, Shou Y, Sadik A, Kim E, Purdom E, Cheng JB, **Cho RJ**. Front Immunol. 2022 Jul 26;13:842651. doi: 10.3389/fimmu.2022.842651. eCollection 2022. PMID: 35958578

A single-cell transcriptional gradient in human cutaneous memory T cells restricts Th17/Tc17 identity. Cook CP, Taylor M, Liu Y, Schmidt R, Sedgewick A, Kim E, Hailer A, North JP, Harirchian P, Wang H, Kashem SW, Shou Y, McCalmont TC, Benz SC, Choi J, Purdom E, Marson A, Ramos SBV, Cheng JB, **Cho RJ**. Cell Rep Med. 2022 Aug 16;3(8):100715. doi: 10.1016/j. xcrm.2022.100715. PMID: 35977472

Characterizing Dermal Transcriptional Change in the Progression from Sun-Protected Skin to Actinic Keratosis. LaFleur B, Curiel-Lewandrowski C, Tapia E, Parker J, White L, Chow HS, **South AP**. J Invest Dermatol. 2023 Jan 26:S0022-202X(23)00018-0. doi: 10.1016/j.jid.2022.12.021. Online ahead of print. PMID: 36708948

Working Group on Metabolomics (WG-M) Chair Elie Fux (DE)

#### **TERMS OF REFERENCE**

#### Term of reference 1

Assess Metabolomics approaches and Identify barriers/ challenges for clinical applications.

- 1. To evaluate and monitor emerging trends of Research in the field of Metabolomics.
- 2. To provide an overview on metabolite discovery strategies by combining metabolomics with orthogonal experimental and computational biology approaches.
- 3. To assess the applications of Metabolomics in clinical diagnosis and prognosis.
- 4. To develop periodic updates of the applications on Metabolomics technologies and methods in clinical diagnosis.
- 5. To assess the accessibility and the barriers to routine implementation of Metabolomics in clinical laboratories.
- 6. To develop a resource that will inform the IFCC community on developments in the applications of Metabolomics in Clinical Diagnosis /Prognosis as well as methods/technologies in the IVD Market.

#### List 2022 accomplishments for this Term of Reference

 Literature review of current applications of metabolomics in clinical environment was completed. Scouting activities will continue. Repository document to list the most interesting applications was created and is regularly being updated by the WG members

- Article on metabolomics published in the IFCC e-news from February
- Opening Lecture presentation from Elie Fux at the National Biochemistry Congress of the Turkish Biochemical Society- October 2022. Sponsored through the IFCC Visiting lecturer Program. Article published in the IFCC enews about the visit.
- Lecture from Elie Fux at the 13th annual conference of Pakistan Society of chemical Pathologists – Virtual November 2022
- Workshop organization on New Born Screening from David Friedecky and volatolomics from Corado Di Natale for 13th annual conference of Pakistan Society of chemical Pathologists – Virtual November 2022
- Elie Fux and Marie Lenski participated at the annual General conference in Bruxelles Oct 2022
- Official support activities from WG to Euramet for the production of reference material

#### List of planned activities in 2023 for this Term of Reference

- We would like to update our IFCC website with useful links and resources for scientists wishing to establish metabolomics in clinical environments
- Scouting of technologies and literature will continue Establish connections with international metabolomics societies

#### Term of reference 2

Recommend solutions to facilitate the translation from academic laboratories to clinical laboratories

#### List 2022 accomplishments for this Term of Reference

This is our long-term goal. No activities were started

#### List of planned activities in 2023 for this Term of Reference

Review of existing guidelines for metabolomics based technologies Establish contact to existing quality assurance consortiums to start collaboration

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

Virtual Monthly meetings of the working group:

27JAN 2022, THU 1 - 2:30pm

9 FEB 2022, WED 1 - 2:30pm

9 MAR 2022, WED 1 – 2:30pm

6 APR 2022, WED 1 – 2:30pm

4 MAY 2022, WED 1 - 2:30pm

19 MAY 2022, THU 1 - 2:30pm

15 JUN 2022, WED 1 - 2:30pm

13 JUL 2022, WED 1 – 2:30pm

10 AUG 2022, WED 1 - 2:30pm

14 SEP 2022, WED 1 - 2:30pm

12 OCT 2022, WED 1 - 2:30pm

15 DEC 2022, THU 1 - 2:30pm

## Virtual Scientific Sessions - Presentations on scientific topics from WG members or invited Key opinion leaders:

27 JUN 2022, MON 1 – 2:30pm / Dr Gavin O'Connorf from PTB Germany

/ Focus Session on Reference Material for metabolomics and project Euramet

5 OCT 2022, WED, 1-2pm / David Friedecky / Metabolomics in Neontal Screening

17 OCT 2022, MON, 1-2pm /Marie Lenski/ Metabolomics & Clinical Toxicology

30 NOV 2022, WED 1 – 2:30pm / Prof Isabelle Fournier

/ Spidermass from Prism Lab

#### **MEETING SCHEDULE IN 2023**

Monthly meetings planned in 2023

Virtual scientific sessions will continue

In person meeting of the working Group at Euromed Roma 2023

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

Webinar on metabolomics was prepared end of 2022 and given live on February 15th 2023. Speakers were Drs Fux, Bendt and Otvos.

A second IFCC webinar is planned in November 2023

The Working group would like to publish a review paper in 2023

# Working Group on Method Evaluation Protocol (WG-MEP) Chair Ronda Graves (AU)

#### **TERMS OF REFERENCE**

#### **Term of reference**

- 1. To review and summarise the literature and guidelines on method evaluation procedures used in clinical laboratories.
- 2. To provide high-level guidance and incorporate evidence-based procedures for method evaluation, taking into account the intended clinical application of the measurement procedure.
- 3. To engage key stakeholders on method evaluation procedures, including and not limited to IFCC members and clinical stakeholders.
- 4. To develop and disseminate educational resources for clinical stakeholders, to inform best practices for method evaluation protocols.



#### List 2022 accomplishments for this Term of Reference 1

1. Completed review of calibration practices and validation procedures for mass spectrometry.

### List planned activities in 2023 for this Term of Reference

- 1. Publish review of calibration practices and validation procedures for mass spectrometry in peer reviewed journal.
- 2. Initiated 2 review articles on method verification (for commercially available measurement procedures) and method validation (for laboratory-developed tests).



#### Term of reference 2

#### List 2022 accomplishments for this Term of Reference 1

Published 2 manuscripts (opinion article examining method evaluation approaches in clinical laboratory; regression-based approaches in method evaluation)

- 1. Loh TP, Cooke BR, Markus C, Zakaria R, Tran MTC, Ho CS, Greaves RF; IFCC Working Group on Method Evaluation Protocols. Method evaluation in the clinical laboratory. Clin Chem Lab Med. 2022 Nov 4. doi: 10.1515/cclm-2022-0878. Epub ahead of print. PMID: 36327459.
- 2. Koh NWX, Markus C, Loh TP, Lim CY; IFCC Working Group for Method Evaluation Protocols. Lot-to-lot reagent verification: Effect of sample size and replicate measurement on linear regression approaches. Clin Chim Acta. 2022 Sep 1;534:29-34. doi: 10.1016/j.cca.2022.07.006. Epub 2022 Jul 8. PMID: 35810798.

#### List planned activities in 2023 for this Term of Reference

- 1. Continue with evaluation of regression- and difference-based method comparison/ bias evaluation procedures.
- 2. Initiated drafting of a journal checklist for reporting method performance (either in describing a novel measurement procedure or reporting the analytical performance of a measurement procedure).
- 3. Initiated an original study examining different approaches for linearity evaluation.
- 4. To develop a guidance document using the IFCC template

#### Term of reference 3

#### List 2022 accomplishments for this Term of Reference

1. Invited submission of proposals for corresponding membership to the Working Group.

#### List planned activities in 2023 for this Term of Reference

- 1. To formalise corresponding memberships for the Working Group.
- 2. To explore educational workshop/ seminar opportunities through corresponding members/ national societies.

#### Term of reference 4

#### List 2022 accomplishments for this Term of Reference

 Submitted workshop proposal for EuroMedLab 2023 but was unsuccessful due to competing programs and venue inavailability.

#### List planned activities in 2023 for this Term of Reference

- 1. To submit a proposal for IFCC Webinar for 2024
- 2. To submit a symposium proposal for IFCC WorldLab in Dubai 2024
- 3. To explore regional/ national conferences for potential educational workshops/ seminars

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

Monthly meetings held virtually



#### **MEETING SCHEDULE IN 2023**

- Monthly working meeting to continue
- To use EuroMedLab (Rome) 2023 for in-person / hybrid discussion, and take the opportunity to meet corresponding members

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

- 1. Loh TP, Cooke BR, Markus C, Zakaria R, Tran MTC, Ho CS, Greaves RF; IFCC Working Group on Method Evaluation Protocols. Method evaluation in the clinical laboratory. Clin Chem Lab Med. 2022 Nov 4. doi: 10.1515/cclm-2022-0878. Epub ahead of print. PMID: 36327459.
- 2. Koh NWX, Markus C, Loh TP, Lim CY; IFCC Working Group for Method Evaluation Protocols. Lot-to-lot reagent verification: Effect of sample size and replicate measurement on linear regression approaches. Clin Chim Acta. 2022 Sep 1;534:29-34. doi: 10.1016/j.cca.2022.07.006. Epub 2022 Jul 8. PMID: 35810798.

Working Group on Neonatal Bilirubin (WG-NB) a cooperation between IFCC Scientific Division and Emerging Technologies Division Chairs Lindsey Mackay (AU) and Ronda Graves (AU)

#### **TERMS OF REFERENCE**

#### Term of reference 1

To understand the current status of agreement in neonatal bilirubin determination against clinical decision levels and EQA performance

#### List 2022 accomplishments for this Term of Reference

N/A as WG set up in December 2022

#### List planned activities in 2023 for this Term of Reference

- Publication to set the scene wrt the current issues
- Review of international EQA schemes, the performance of participants, how they are being assessed and the types of materials being employed
- More detailed work program to be reviewed at first face to face WG meeting in May 2023

#### Term of reference 2

To define appropriate performance parameters to ensure fitness for clinical purpose (screening, diagnosing or monitoring)

#### List 2022 accomplishments for this Term of Reference

N/A as WG set up in December 2022

#### List planned activities in 2023 for this Term of Reference

- Follow on from TOR 1 work to assess currently used performance parameters
- More detailed work program to be reviewed at first face to face WG meeting in May 2023



#### Term of reference 3

To review the availability and appropriateness of current JCTLM and other CRMs, RMPs and RMSs, define the appropriate measurand(s) and consider appropriate traceability chains

#### List 2022 accomplishments for this Term of Reference

N/A as WG set up in December 2022

#### List planned activities in 2023 for this Term of Reference

- Initial review of CRMs/RMPs etc to be discussed in March WG meeting, including non-JCTLM listed services.
- Current reference laboratories outside of JCTLM listing to be reviewed as only Chinese laboratories are included and several reference labs internationally are being used to assess accuracy
- More detailed work program to be reviewed at first face to face WG meeting in May 2023

#### Term of reference 4

To periodically review emerging methodologies, their fitness for purpose and recommend solutions to improve comparability and traceability

#### List 2022 accomplishments for this Term of Reference

N/A as WG set up in December 2022

#### List planned activities in 2023 for this Term of Reference

- Current focus on TOR 1, 2 and 3, with emerging methodologies to then be considered
- More detailed work program to be reviewed at first face to face WG meeting in May 2023

#### **Term of reference 5**

To collaborate with major manufacturers (from both traditional and near-patient technologies) on neonatal jaundice testing to improve comparability and traceability (where appropriate)

#### List 2022 accomplishments for this Term of Reference

N/A as WG set up in December 2022

#### List planned activities in 2023 for this Term of Reference

- Further industry linkages to be established via call for corresponding members in February 2023
- More detailed work program to be reviewed at first face to face WG meeting in May 2023



#### Term of reference 6

To develop and disseminate publications and educational resources related to neonatal jaundice testing for stakeholders to support best practice

#### List 2022 accomplishments for this Term of Reference

N/A as WG set up in December 2022

#### List planned activities in 2023 for this Term of Reference

More detailed work program to be reviewed at first face to face WG meeting in May 2023

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

24 January 2023 – Videoconference to establish the WG with initial members 21 February 2023 – Videoconference to progress finalising TOR and membership

#### **MEETING SCHEDULE IN 2023**

Monthly VCs with members and both co-chairs (dates set so far are 20 March 2023 and 17 April 2023)

Face to face meeting on 24 May 2023 to develop plans under each TOR

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

Not applicable at this stage of the WG's activities. IFCC eNews article planned for March 2023 to provide information on the new WG.

Sergio Bernardini ETD Chair and Ronda Graves ETD Secretary



### TASK FORCES

### TASK FORCE ON ETHICS (TF-E)

#### **Term of reference 1**

To increase awareness, to provide a voice among Laboratory Medicine Professionals on ethical issues and to encourage the practice of Laboratory Medicine to the highest ethical standards

#### List 2022 accomplishments for this Term of Reference

- Promoted the 2021 IFCC Code of Ethics approval by different media sources to guide National Societies in its adoption
- Collated important Ethical materials using out TF's Ethics "toolbox" for members societies and other website visitors.
- Organized and implemented an ethics centred webinar for the IFCC series titled "A global perspective on health inequities in laboratory medicine" April 12 2022.

#### List planned activities in 2023 for this Term of Reference

- To continue the promotion of the 2021 IFCC Code of Ethics approval by various mediums such as manuscripts, scientific sessions or workshops
- To develop a user-friendly interface for our Ethics "toolbox" that will be available on our IFCC webpage
- To continue discussions about facilitating workshops at National Societies' scientific meetings that focus on ethical topics such as the recently approved 2021 IFCC Code of Ethics
- To present a webinar for the IFCC series on "Publication Ethics: An overview from different perspectives" planned for 22 June, 2023
- To present a webinar for the IFCC series on the "Ethical challenges of artificial intelligence" planned for 2023

#### Term of reference 2

To develop freely available guidance documents and articles for IFCC member societies on various ethical issues with a goal to publish through IFCC official publications

#### List 2022 accomplishments for this Term of Reference

- Published in the article "Ethical concerns in the use of residual biological material in the clinical laboratory" in eIFCC news March 2022
- Expanded on the TF's eIFCC article listed above and created a draft manuscript "Ethical issues in the use of leftover samples and associated personal data"

#### List planned activities in 2023 for this Term of Reference

• To continue to monitor the current state of member societies and their adherence to the IFCC National Societies Code of Ethics (COE). Note TF recommended to refer as COEs in order to get more National Societies to adopt.

- To upload the current member societies that have their own COEs or those who have adopted the COE to our TF website
- To disseminate our findings in eIFCC newsletter for public transparency. Article has been sent and will be published.
- To submit the "Ethical issues in the use of leftover samples and associated personal data."
   Currently under review
- To develop an ethical checklist for the IFCC outcomes study initiative in order to help preparation of outcome study projects for member societies
- Recommendations/Guidelines to be developed in the following areas
  - 1. Incidental lab findings
  - 2. Reflex testing
  - 3. Using of artificial intelligence tools for reporting
  - 4. Ethical concerns for preanalytical, analytical and postanalytical phases of laboratory work.
  - 5. Ethical considerations for the use of residual samples obtained from routine clinical work
  - Access to newborn screening as a human right "37% of newborns are screened around the world for inheritable disorders (IFCC Task Force on Global Newborn Screening"
  - 7. Using artificial intelligence in scientific work or as an author of scientific studies
  - 8. Access to consumables to perform laboratory testing in remote areas
  - 9. Sustainability and green lab initiatives for the safety/protection of the environment
  - 10. Proposal on a template for Ethical Clinical Practice Guidelines

### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

We had four virtual meetings and one in person meeting (Brussels, Oct 2022)

#### **MEETING SCHEDULE IN 2023**

We plan to have five virtual meeting (Jan (done), Apr, Jul, Sep and Nov. 2023) and one in person Rome May 2023

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

- "Ethical concerns in the use of residual biological material in the clinical laboratory" in eIFCC news March 2022
- Webinar for the IFCC series titled "A global perspective on health inequities in laboratory medicine" April 12 2022.

Nilda Fink, TF-E Chair



### TASK FORCE FOR YOUNG SCIENTISTS (TF-YS)

## Term of reference 1 TF-YS educational sessions & networking

#### List 2022 accomplishments for this Term of Reference

- 1. Online conference of Georgia National Society (GLMA)- **IFCC TF-YS introduction** and activities. May 13, 2022.
- EUROMEDLAB 2021. IFCC TF-YS symposium: Motivation in the Clinical Laboratory

   Santiago Fares Taie (ARG); Productivity Tools for Young Scientist Professional –
   Intan W. Musfafa (Indonesia); Career management for Young Laboratory Scientists
  - Giulia Sancesario (IT); Conflict Management amongst Young Laboratory Scientists Ashlin Ramoul (ZAF), Munich (Germany), 10-14th April 2022
  - Ashlin Rampul (ZAF). Munich (Germany), 10-14<sup>th</sup> April 2022
- 3. EUROMEDLAB 2021. **IFCC TF-YS open meeting** together with EFLM YS-TF and German YS group. Munich (Germany), 10-14<sup>th</sup> April 2022
- 4. COLABIOCLI congress. **LATAM YS Forum**. Leon (Mexico), March 30<sup>th</sup> April 2<sup>nd</sup>, 2022.
- 5. 2<sup>nd</sup> Global Quality Week. **4 days webinar**. COLABIOCLI YS-TF. April 5-8, 2022.
- Liderazgo de Jóvenes Profesionales de Laboratorio Clínico. Virtual. June

   August, 2022.
- 7. IFCC WorldLab IFCC YS FORUM. Seoul (South Korea), June 26-30, 2022.
- 8. IFCC WorldLab **IFCC TF-YS Functional Meeting**. Seoul (South Korea), June 26-30, 2022.
- 9. GLMA's conference **YS participation**. Georgia, September 17, 2022,
- 10. 6<sup>th</sup> Slovenian Congress of Clinical Chemistry and Laboratory Medicine. **YS Symposium**. (Eslovenia), Virtual participation, September 20, 2022.
- 11. TBS international Biochemistry congress & 33 National Biochemistry Congress. **YS Symposium**. Turkey, October 26, 2022.
- 12. IFCC General Conference, Oct 27<sup>th</sup> 31<sup>st</sup>, 2022 in Brussels. **IFCC YS-TF Functional Meeting**.
- CALILAB 2022 XI Congreso Argentino de Calidad en el Laboratorio Clínico.
   Simposio Oportunidades para Jóvenes Bioquímicos. Mar del Plata (Argentina), November 7-9, 2022.
- 14. COLABIOCLI 1<sup>er</sup> Conferencia Latinoamericana de Jóvenes Profesionales de Laboratorio Clínico. Cochabamba (Bolivia), December 9-10, 2022.
- 15. Green Lab campaign initiated by Indonesian Association for Clinical Chemistry (GLEAM- Green Laboratory for Environment and Mankind). **Webinar MyGreenLab**. December 15, 2022.

#### List planned activities in 2023 for this Term of Reference

1. COLABIOCLI YS Leadership Workshop. March to May 2023.



- 2. 36<sup>th</sup> National Days of Clinical Biology: « Young Scientists Symposium ».May 11-13<sup>th</sup>, 2023, Djerba, Tunisia.
- 3. COLABIOCLI conversatorio « Los jóvenes profesionales del laboratorio clínico. Los desafíos dentro de COLABIOCLI ». May 9<sup>th</sup>, 2023
- 4. 25th WORLDLAB EUROMEDLAB, ROME 2023. Second YS FORUM. 21st May 2023.
- 5. 25<sup>th</sup> WORLDLAB EUROMEDLAB, ROME 2023. YS Symposium. Chairs: K. Taha Ucar (Turkey), B. Das (India)
  - a. Circulating cancer biomarkers: where are we now?, A. Tikhonov (Russia)
  - b. Immature platelet fraction as an early inflammatory biomarker, C. Imperiali (Spain)
  - c. Dialogue between lab and clinicians for a win-win collaboration, M. Lenski (France)
  - d. Setting Reference Intervals for analytes with dynamic physiological changes, U. Senarathne (Sri Lanka)
- 6. COLABIOCLI «2<sup>da</sup> Conferencia Latinoamericana de Jóvenes Profesionales del Laboratorio Clínico ». Florianopolis, Brazil. June 18-21<sup>st</sup>, 2023

### Term of reference 2 WEBINAR SERIES

### List 2022 accomplishments for this Term of Reference

On November 17<sup>th</sup> 2022, the TF-YS conducted the webinar titled "Personalized Oncology: Present and Future". For this webinar we had 1,580 registrants and 290 live attendees.

#### List planned activities in 2023 for this Term of Reference

Webinar 1: "Basics of Artificial intelligence" July 24th -28th

Speaker 1: Reinhardt Hesse - Augmenting Intelligence: Basics of Artificial Intelligence in the lab

Speaker 2: Jakob Adler - Skills of the Future - What kind of digital competence is needed?

Webinar 2: Date: December on the 18th to 19th

### Term of reference 3 LAB-SURFING

#### List 2022 accomplishments for this Term of Reference

Lab-Surfing is a Laboratory professional social media designed and created in order to fulfil the objectives of IFCC-TFYS & unattended needs of Young Scientists (YS) globally. In a continuing evolving Laboratory Medicine profession with new technologies and methods every year, YS find exchange programmes and communication essential to widen their horizons and sharpen the laboratory skills.

Required an update on IT and google certificates. Licences and maintenance are well organized.

More than 800 YS registered from all around the





#### List planned activities in 2023 for this Term of Reference

Continue working with the platform that is being used successfully by YS from all around the world.

Licences and maintenance is required in a yearly basis.



### Term of reference 4 CAPILLARY PROGRAMME

### List 2022 accomplishments for this Term of Reference



# Corresponding members participating in this activity:

- a. Sofía Duarte (Guatemala)
- b. Jorge Hernandez Bello (Mexico)
- c. Alvaro Justiniano Cortez (Bolivia)

This programme intends to increase the participation of TFYS corresponding members during national meetings.

A Survey was conducted of corresponding members, and National YS-WGs have been mapped.

#### List planned activities in 2023 for this Term of Reference

Continue assisting the corresponding members of the TFYS to motivate them to create YS groups in their country and region. Moreover, we are permanently trying to get more committed with our activities by doing surveys and seeking other points of view for our programmes.

The TFYS is the largest TF comprising 48 corresponding members.





### Term of reference 5 MENTORSHIP PROGRAMME INTERVIEWS

#### List 2022 accomplishments for this Term of Reference

This mentoring minutes program is intended to educate IFCC Young Scientist members on any current mentorship program in the laboratory research area. The program focuses on "how, when, what and why" about the existing mentor and mentee relationship and tips on how others can learn from their relationship.

#### List planned activities in 2023 for this Term of Reference

As every year, during 2023 there will be 3 interviews published on the IFCC e-News.

### Term of reference 6 RADIO EL MICROSCOPIO

#### List 2022 accomplishments for this Term of Reference

Active participation in the selection of interviews and scientific support for the different topics.

#### List planned activities in 2023 for this Term of Reference

During 2023 we will continue supporting the Radio El Microscopio.

## Term of reference 7 LIVEMYLAB PROJECT

### List 2022 accomplishments for this Term of Reference

LivMyLab project consists in a virtual/ remoted visit of a real lab, driven by young scientists.

During 2022 we design the format of the videos and sent letters with invitation to participate sending videos were sent in English, Spanish, French and Chinese.

### List planned activities in 2023 for this Term of Reference



During 2023 we will present the first videos of this programme. It is a joint programme with CPD. Same videos with different edition will be used by CPD for other activities.



## Term of reference 8 LEADERSHIP WORKSHOP

#### List 2022 accomplishments for this Term of Reference

Promote the development of a critical mass of young leaders, with leadership skills and strategic planning of projects with social impact.

The Workshop will be promoted by YS members of the TS-YS from Latin America.

In 2021 we had the first experience of the Leadership workshop with excellent results. An indicator of this is the creation of a regional YS Group in Latin America with the YS participants of the first workshop.

The second edition of the Leadership workshop was in 2022 with 32 YS from all LATAM.

## List planned activities in 2023 for this Term of Reference

The third edition of the Leadership Workshop is schedules for March 2023.

## Term of reference 9 CLINICAL CASE STUDIES

### List 2022 accomplishments for this Term of Reference

N/A

## List planned activities in 2023 for this Term of Reference

During 2023 we plan to develop a clinical case study project where YS from IFCC community will present their experience with interesting real life case studies. The first phase consists to open a call for clinical case reports and the TFYS will select the most interesting cases to be presented.

For the presentation of the clinical case studies, we will invite IFCC experts to make comments on the clinical case to increase the discussion and understanding.

## Term of reference 8 YS FORUM

#### List 2022 accomplishments for this Term of Reference

Young Scientists are the future of laboratory medicine and comprise the major workforce of laboratory professionals. Future leaders need to be trained and encouraged to succeed in their role, ideally with the support of experienced leaders. To make this feasible, YS must have activities that encourage their participation, offer opportunities of training and improve communication and networking.

The first edition of the FORUM was held in the Seoul WorldLab congress 2022 with great success.





For this 2023, we have prepared the SECOND edition of the YS FORUM that will take place in the WorldLab-EuroMedLab ROME 2023. For the moment there are more than 240 registrations to assist in person.





### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

#### Listed in the Terms of Reference 1.

Unfortunately, we don't have a record of the online meetings held during 2022. Approximately we had 1 meeting per month.

#### **MEETING SCHEDULE IN 2023**

- 1. COLABIOCLI YS Leadership Workshop. March to May 2023.
- 2. 36<sup>th</sup> National Days of Clinical Biology: « Young Scientists Symposium ».May 11-13<sup>th</sup>, 2023, Djerba, Tunisia.
- 3. COLABIOCLI conversatorio « Los jóvenes profesionales del laboratorio clínico. Los desafíos dentro de COLABIOCLI ». May 9th, 2023
- 4. 25th WORLDLAB EUROMEDLAB, ROME 2023. Second YS FORUM. 21st May 2023.
- 5. 25<sup>th</sup> WORLDLAB EUROMEDLAB, ROME 2023. YS Symposium. Chairs: K. Taha Ucar (Turkey), B. Das (India)
  - a. Circulating cancer biomarkers: where are we now?, A. Tikhonov (Russia)
  - b. Immature platelet fraction as an early inflammatory biomarker, C. Imperiali (Spain)
  - c. Dialogue between lab and clinicians for a win-win collaboration, M. Lenski (France)
  - d. Setting Reference Intervals for analytes with dynamic physiological changes, U. Senarathne (Sri Lanka)
- 6. COLABIOCLI « 2<sup>da</sup> Conferencia Latinoamericana de Jóvenes Profesionales del Laboratorio Clínico ». Florianopolis, Brazil. June 18-21st, 2023 Corresponding members participating in this activity:
  - a. Sofía Duarte (Guatmala)
  - b. Jorge Hernandez Bello (Mexico)
  - c. Alvaro Justiniano Cortez (Bolivia)

### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

### Listed in previous terms of reference.

During 2023 we published an article on Digital Competence in Laboratory Medicine: doi.org/10.1515/labmed-2023-0021



Santiago Fares Taie - Chair IFCC-TF-YS Giulia Sancesario - Co-Chair IFCC-TF-YS

## **TASK FORCE HISTORY (TF-H)**

The IFCC Milestones 2022 has been updated for the 70<sup>th</sup> Anniversary celebrations, providing an overview of the IFCC history and rationale of the evolution of the leading organization in the field of lab medicine.

The booklet was distributed on occasion of the IFCC General Conference that was held in Brussels, Belgium, from 28 to 30 October 2022.



Mathias M. Mülller and Bernard Gouget, TF-H Chairs

## TASK FORCE CORPORATE MEMBERS (TF-CM)

#### Term of reference 1:

To improve the engagement of Corporate Members with the IFCC

### List 2022 accomplishments for this Term of Reference

Upon assuming chair of this TF-CM, we achieved the following:

- Nearly doubled our corporate voice with expanded membership on the IFCC TF\_CM (currently with ~14 companies represented)
- Created and facilitated multiple surveys including an annual survey on the value of the IFCC for CMs
- Created an annual Welcome Package for improved orientation of members to IFCC, promoting the value of IFCC
- Created annual certificate(s) for membership
- Send Thank you notes to all members of the IFCC TF-CM which could be shared with their leadership to highlight the power of IFCC involvement

## List planned activities in 2023 for this Term of Reference

- Launch of the Welcome package will occur in 2023 before EML in Rome
- Socialize findings from the 2023 annual survey, highlighting the value of IFCC membership and top benefits from active members
- Expand CM visibility with best practice sharing in eNEWs and social media.
   A proposed eNEWS article include how companies can/should consider dedicated resources for support to IFCC committees, working groups and task forces.
- Consider thank you letter from the EB vs chair of the IFCC TF-CM

#### Term of reference 2

To serve as the "voice of industry" and be more accessible to all IFCC teams and leadership, enabling a more diverse understanding and appreciation of needs among corporate members and the IFCC

### List 2022 accomplishments for this Term of Reference

- Draft and sent letter to all working groups, task forces and committees to volunteer to be a resource to each of them, if voice of industry is needed
- Supported ad hoc needs, as they arrived from various teams
- Hosted Industry Forum at the Brussels General Conference with voice of industry commentary across 4 topics with more details in a separate section.

## List planned activities in 2023 for this Term of Reference

- eNews article published in February with a summary of the Industry Voice from the General Conference
- Bi-monthly articles are now underway with working groups assigned to different topics for industry updates in IFCC eNEWs
- An industry response to an article is planned (Trayer J, Rowbotham NJ, Boyle RJ, et al. Industry influence in healthcare harms patients: myth or maxim? Breathe 2022.

#### **Term of reference 3**

To facilitate discussion among Corporate Members and identify common topics of interest and/or concern

## List 2022 accomplishments for this Term of Reference

- A major concern in 2022 related to conferences. These concerns lead to multiple nominations for team members to serve on the COC for conferences.
- A F2F meeting occurred last year in Milan to assess a funding strategy for workshops at leading conferences, even if booth sponsorships were not possible. While the model was not approved, the EB did approve a different cost structure that still allowed scientific symposia without booth sponsorships. This was considered a double win.
- A call to action was supported related to recruiting hospitals for clinical studies on neonatal capillary blood.

#### List planned activities in 2023 for this Term of Reference

- Areas of concern get reviewed and discussed each month, leading to survey feedback that suggested some companies feel serving on the IFCC TF-CMs is a favorite highlight for them with IFCC
- A recent success was a communication from Tomris related to rules and ability
  to operate surrounding the general conference, as select members brought up concerns
  related to an industry event in Brussels last year.

#### Term of reference 4

To increase awareness with other Corporate Members of IFCC TF-CM and to encourage their participation in IFCC activities

### List 2022 accomplishments for this Term of Reference

- The welcome package was designed to meet this need.
- The annual survey was also designed to meet this need, highlighting opportunities for improved collaboration and participation

#### List planned activities in 2023 for this Term of Reference

- The bimonthly IFCC eNews articles will ideally tackle this topic
- Recent survey findings suggest more opportunities exist to enhance participation of smaller companies

#### **ADDITIONAL INFORMATION**

While not specifically addressed above, a fifth term of reference and passion of all members of the IFCC TF-CMs also includes:

Assisting IFCC in promotion of science, innovation, and advancement of the essential contribution of laboratory medicine to health care

## 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

January 18<sup>th</sup> (virtual) September 13<sup>th</sup> (virtual)

February 15<sup>th</sup> (virtual) October 11<sup>th</sup> (virtual)

March 15<sup>th</sup> (virtual) October 28<sup>th</sup> (Live – Brussels)

April 11<sup>th</sup> (live – Munich) December 13<sup>th</sup> (virtual)

April 19th (virtual)

June 3<sup>rd</sup> (live – Milan)

#### **MEETING SCHEDULE IN 2023**

January 10th (virtual) July 11th (virtual)

March 14<sup>th</sup> (virtual) August 8th (virtual)

April11<sup>th</sup> (virtual) September 12th (virtual)

May 9<sup>th</sup> (virtual) October 10<sup>th</sup> (virtual)

May 22<sup>nd</sup> (live – Rome) November 14th (virtual)

June 13th (virtual) December 12<sup>th</sup> (virtual)

## PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS **INDUSTRY FOUM (General Conference)**

• Meeting the demand for clinical studies for regulatory approval: how can IFCC and the IVD industry collaborate to meet the need? (Radiometer) Anne Skurup, Radiometer Medical

• Emerging trends (Siemens Healthineers):

Dr. Frank Vitzthum, Siemens Healthcare Diagnostics Products GmbH

• What have we learned from the experience of COVID (QuidelOrtho) Els Melis, QuidelOrtho

• VD industry partnership with IFCC (BD)

Brendan Meyer, Becton Dickinson Life Sciences

Moderators: Tricia Ravalico (Abbott) and Joe Passarelli (Roche)

The above presentation was also summarized and published this year in IFCC eNews (March issue),

Tricia Ravalico, TF-CM Chair



#### **TASK FORCE ON COVID-19**



#### **Term of reference 1**

Establish and maintain an IFCC e-learning platform on COVID-19 ("IFCC Information Guide on COVID-19"), which provides regular updates on epidemiology, pathogenesis and laboratory testing of COVID-19;

#### List 2022 accomplishments for this Term of Reference

Maintained the IFCC e-learning platform on COVID-19 ("IFCC Information Guide on COVID-19"), which provides regular updates on epidemiology, pathogenesis and laboratory testing of COVID-19

#### List planned activities in 2023 for this Term of Reference

Continue to maintain the IFCC e-learning platform on COVID-19 ("IFCC Information Guide on COVID-19"), which provides regular updates on epidemiology, pathogenesis and laboratory testing of COVID-19.

#### Term of reference 2

Provide tentative guidance and consensus documents for harmonizing the use of diagnostic and serological tests for COVID-19

### List 2022 accomplishments for this Term of Reference

List of published articles:

- 1. Lippi G, Henry BM, Plebani M. A Simple Epidemiologic Model for Predicting Impaired Neutralization of New SARS-CoV-2 Variants. Vaccines (Basel). 2023 Jan 5;11(1):128. doi: 10.3390/vaccines11010128. PMID: 36679973; PMCID: PMC9863154.
- 2. Lippi G, Plebani M. Reliability of SARS-CoV-2 serological testing for influencing public health policies: A reappraisal. Eur J Intern Med. 2023 Feb;108:102-103. doi: 10.1016/j. ejim.2022.11.025. Epub 2022 Nov 23. PMID: 36443132; PMCID: PMC9682048.
- 3. Salvagno GL, Pighi L, Henry BM, Valentini M, Tonin B, Bragantini D, Gianfilippi G, De Nitto S, Plebani M, Lippi G. Assessment of humoral and cellular immunity after bivalent BNT162b2 vaccination and potential association with reactogenicity. Clin Chem Lab Med. 2023 Feb 2. doi: 10.1515/cclm-2023-0055. Epub ahead of print. PMID: 36722026.
- 4. Salvagno GL, Lippi G. The Comparability of Anti-SARS-CoV-2 IgG Levels Measured with Different Immunoassays Varies over Time after Primary BNT162b2 Vaccination and Homologous Booster Immunization. Microbiol Spectr. 2022 Dec 21;10(6):e0302222. doi: 10.1128/spectrum.03022-22. Epub 2022 Nov 10. PMID: 36354360; PMCID: PMC9769787.
- Salvagno GL, Henry BM, Pighi L, De Nitto S, Lippi G. Variation of Total Anti-SARS-CoV-2 Antibodies After Primary BNT162b2 Vaccination and Homologous Booster. EJIFCC. 2022 Aug 8;33(2):166-174. PMID: 36313914; PMCID: PMC9562482.

## List planned activities in 2023 for this Term of Reference

Continue to publish in this area

#### Term of reference 3

Provide tentative guidance for harmonizing biosafety measures during management of COVID-19 specimens by clinical laboratories;

List 2022 accomplishments for this Term of Reference

None

List planned activities in 2023 for this Term of Reference

None

#### **Term of reference 4**

Address clinical, technical and organizational perspectives of laboratory-based and POC testing in COVID-19 patients and provide guidelines/recommendation when feasible

#### List 2022 accomplishments for this Term of Reference

List of publications:

- 1. Lippi G, Henry BM, Plebani M. Pooled analysis of laboratory-based SARS-CoV-2 antigen immunoassays. Clin Chem Lab Med. 2023 Jan 12. doi: 10.1515/cclm-2022-1321. Epub ahead of print. PMID: 36634259.
- 2. Lippi G, Henry BM, Plebani M. Diagnostic accuracy of Siemens SARS-CoV-2 Antigen (CoV2Ag) chemiluminescent immunoassay for diagnosing acute SARS-CoV-2 infection: a pooled analysis. Clin Chem Lab Med. 2023 Jan 12. doi: 10.1515/cclm-2022-1287. Epub ahead of print. PMID: 36634305.
- 3. Lippi G, Nocini R, Brandon HM. Critical literature review and pooled analysis of diagnostic accuracy of Ortho VITROS SARS-CoV-2 antigen test for diagnosing acute SARS-CoV-2 infections. J Med Biochem. 2022 Oct 15;41(4):540-548. doi: 10.5937/jomb0-36107. PMID: 36381069; PMCID: PMC9618338.
- Salvagno GL, Henry BM, Bongiovanni G, De Nitto S, Pighi L, Lippi G. Positivization time of a COVID-19 rapid antigen self-test predicts SARS-CoV-2 viral load: a proof of concept. Clin Chem Lab Med. 2022 Nov 1;61(2):316-322. doi: 10.1515/cclm-2022-0873. PMID: 36315978.
- 5. Favresse J, Douxfils J, Henry B, Lippi G, Plebani M. Clinical Chemistry and Laboratory Medicine celebrates 60 years narrative review devoted to the contribution of the journal to the diagnosis of SARS-CoV-2. Clin Chem Lab Med. 2022 Nov 24. doi: 10.1515/cclm-2022-1166. Epub ahead of print. PMID: 36420539.
- 6. Sharma D, Notarte KI, Fernandez RA, Lippi G, Gromiha MM, Henry BM. In silico evaluation of the impact of Omicron variant of concern sublineage BA.4 and BA.5 on the sensitivity of RT-qPCR assays for SARS-CoV-2 detection using whole genome sequencing. J Med Virol. 2023 Jan;95(1):e28241. doi: 10.1002/jmv.28241. Epub 2022 Nov 8. PMID: 36263448; PMCID: PMC9874926.

## List planned activities in 2023 for this Term of Reference

Continue to publish in this area



#### Term of reference 5

Integrate data on COVID-19 laboratory abnormalities from all over the world, and promoting or coordinating new studies

#### List 2022 accomplishments for this Term of Reference

#### List of publications:

- 1. Marchi G, Bozzini C, Bertolone L, Dima F, Busti F, Castagna A, Stranieri C, Fratta Pasini AM, Friso S, Lippi G, Girelli D, Vianello A. Red Blood Cell Morphologic Abnormalities in Patients Hospitalized for COVID-19. Front Physiol. 2022 Jul 4;13:932013. doi: 10.3389/fphys.2022.932013. PMID: 35860651; PMCID: PMC9289213.
- 2. Carpenè G, Negrini D, Henry BM, Montagnana M, Lippi G. Homocysteine in coronavirus disease (COVID-19): a systematic literature review. Diagnosis (Berl). 2022 Jun 16;9(3):306-310. doi: 10.1515/dx-2022-0042. PMID: 35704707.
- 3. Henry BM, Sinkovits G, Szergyuk I, de Oliveira MHS, Lippi G, Benoit JL, Favaloro EJ, Pode-Shakked N, Benoit SW, Cooper DS, Müller V, Iványi Z, Gál J, Réti M, Gopcsa L, Reményi P, Szathmáry B, Lakatos B, Szlávik J, Bobek I, Prohászka ZZ, Förhécz Z, Csuka D, Hurler L, Kajdácsi E, Cervenak L, Mező B, Kiszel P, Masszi T, Vályi-Nagy I, Prohászka Z. Complement Levels at Admission Reflecting Progression to Severe Acute Kidney Injury (AKI) in Coronavirus Disease 2019 (COVID-19): A Multicenter Prospective Cohort Study. Front Med (Lausanne). 2022 Apr 29;9:796109. doi: 10.3389/fmed.2022.796109. PMID: 35572977; PMCID: PMC9100416.
- Henry BM, de Oliveira MHS, Cheruiyot I, Benoit J, Rose J, Favaloro EJ, Lippi G, Benoit S, Pode Shakked N. Cell-Free DNA, Neutrophil extracellular traps (NETs), and Endothelial Injury in Coronavirus Disease 2019- (COVID-19-) Associated Acute Kidney Injury. Mediators Inflamm. 2022 Apr 22;2022:9339411. doi: 10.1155/2022/9339411. PMID: 35497096; PMCID: PMC9054425.

#### List planned activities in 2023 for this Term of Reference

Continue to publish in this area

#### Term of reference 6

Establish and maintain efficient distance learning channels, with organization of webinars and providence of other informative material

#### List 2022 accomplishments for this Term of Reference

#### List of initiatives:

- 1. COVID-19 IFCC TF Webinar: IFCC Free Webinar on Impact of SARS-CoV-2 variants and mutations on COVID-19 diagnostics. 16 February 2022.
- 2. COVID-19 IFCC TF session at: 8th International Congress of Biochemistry and 17<sup>th</sup> National Congress of the Biochemical Society of Iran. Virtual edition, 23-26 August 2022
- Lecture on behalf of COVID-19 IFCC TF: Essential contribution of laboratory diagnostics in COVID-19. National Congress of the Institute of Biomedical Science. Birmingham (UK), 14-17 March 2022.
- 4. Lecture on behalf of COVID-19 IFCC TF: Biology and clinics of COVID-19. Lippi G. EuroMedLab 24<sup>th</sup> IFCC-EFLM European Congress of Clinical and Laboratory Medicine. Munich (Germany), 10-14 April 2022.
- 5. Lecture on behalf of COVID-19 IFCC TF: COVID-19 Beyond Virology. NSW Health Pathology Research Forum 2022. Sidney (Australia), 8-9 November 2022.



- Organize another COVID-19 IFCC TF Webinar
- Organize a COVID-19 IFCC TF Conference
- Continue to deliver lectures on behalf of COVID-19 IFCC TF

Giuseppe Lippi, TF-COVID-19 Chair



## TASK FORCE ON GLOBAL NEWBORN SCREENING (TF-NBS)

JOINT TASK FORCE OF IFCC AND INTERNATIONAL SOCIETY OF NEWBORN SCREENING (ISNS)

#### Term of reference 1

- Select countries for IFCC's NBS Pilot Project via a call for participation to IFCC member societies using pre-defined selection criteria. A formal call for participation by developing countries will be issued soon by the IFCC office.
- Identify potential participating centres (e.g. healthcare facilities and laboratories) and stakeholders (e.g. government ministries and/or agencies) within each Partner Country.

#### List 2022 accomplishments for this Term of Reference

Based on the initial survey from 2021 we narrowed down the list of candidates and created follow up surveys and had virtual calls with selected countries (Bolivia, Guatemala, Dominican Republic, Peru, South Africa, Uganda, Nigeria, Nepal and Bangladesh).

Bolivia was originally identified as a possible candidate from Latin America, but several attempts to communicate with their health representatives went unanswered in November of 2022. In addition, we were informed that there were protests and disturbances in the country that would not assured the safety of a local visit. So we turned to another candidate: the Dominican Republic. There was quick progress in setting up an initial visit with the help of the local champion, Dr. Ceila Perez de Ferran.

We selected candidate countries for local in country visits (Dominican Republic, South Africa). Planned initial visits for February 2023.

In Nigeria, TF member John Anetor will outline for a proposal for 1-2 in-country meeting.

There were initial contacts with 4 countries in Eastern Europe (Albania, Romania, Ukraine and Georgia) for interest in advancing their programs with an in country visit scheduled to Romania in March 2023

There was also a virtual initial call with Nepal to explore possibilities in that country as well.

Initial in country visits to South Africa, Dominican Republic and Romania to assess current situation and identify needs for February 2023.

In Dominican Republic the IFCC Task Force met the Pediatric Society, government representatives that included the Health Minister, Vice Minister of Collective Health, President of Center for Disability and others. In addition, we met the local IFCC representatives of CODOBIO and Senator Lia Diaz. The general take is that there is a collective sense of advancing the NBS Decree of 2015 into making it law. Meeting report to follow.

In South Africa an 'in country meeting' took place in Cape Town on 21st and 22nd February. Those who attended included: local advocates and clinicians, health policy makers, WHO representation, national IFCC representation and representatives from the NBS task force. The meeting had a positive outcome with plans to form a national core group and an invitation from Government to make concrete proposals to begin newborn screening in South Africa. Meeting report to follow.

In Romania, those planned to attend include: local advocates and clinicians, the European lead for the European Reference Networks for inherited metabolic disorders, health policy makers, patient/parent representatives, members of the NBS Task Force and the national/regional IFCC representative is being sought.

### **Term of reference 2**

• Engage with these centres in order to conduct situation assessment (i.e. information in regard to NBS-related diseases as well as resources/barriers in the Partner Country).

#### List 2022 accomplishments for this Term of Reference

Initially for Latin America, we contacted the local champion Dr. Bany Seoane, and expressed interest for a local meeting to gather national interested parties and foreign experts. Contact was also made with a representative from the Health Ministry, Dr. Patricia Apaza in charge of children's health. She requested a note to initiate a technical report with their Health Minister. This was done promptly, but we received no follow up response after several weeks and attempts.

Since the October meeting, no response was received from Bolivia. Several attempts and months have gone without response from the Health Ministry representative (Dr. Patricia Apaza). One of the TF members in South America informed that there have been protests and disturbances in Bolivia due to internal politics although not much news is known internationally. A recent trip by a colleague confirmed this. We attempted to have a call with the local Bolivian representative (Dr. Bany Seoane) that answered the survey on Nov 2<sup>4th</sup>, but she did not attend.

Due to this lack of communication and uncertain safety measures, we decided to table the project in Bolivia for now and shifted our focus to another Latin American candidate: Dominican Republic. We held a call on Dec 5th with the DR representative (Dr. Ceila Perez de Ferran). There is enthusiasm to further their project and local infrastructure in place to start. A tentative initial visit by TF members (2 day) was discussed for February or March 2023 to meet local champions and visit the facilities and give an initial assessment. Dr. Perez de Ferran will start working on a tentative visit plan and champions to meet and will return by end of 2022 for further discussion



For Latin America, an initial assessment visit to Dominican Republic is scheduled for Feb 21-22, 2023. The goals are to assess the current situation of NBS, meet local representatives that can become project champions and identify needs and opportunities for rapid advancement of the program. On this visit we have scheduled meetings with the Health Minister, the Pediatric Society of Endocrinology and College of Bioanalysts (local IFCC representative) among others. There will also be tours of the potential facilities that can house NBS testing. We have also learned recently of interest from the Pan American Health Organization and UNICEF in collaborating on this project in Dominican Republic, so we will reach out to initiate contact.

There is also a planned visit to South Africa as part of a 2 day meeting.

Follow ups with Nepal, Nigeria and Eastern European countries will occur to assess their situation. Projects in those countries may not be able to occur this year, but a general assessment would be helpful for future planning and opportunities.

#### Term of reference 3

• Identify ways in which the IFCC can provide lacking resources and support.

#### List 2022 accomplishments for this Term of Reference

As part of the survey, most respondents indicated needs in having support with development of educational materials and guidelines; in laboratory training; and in providing laboratory quality audits

#### List planned activities in 2023 for this Term of Reference

Based on initial visits a report will be made to reflect assessment of current situation and recommendations for advancement. The experience of task force members will be available to assist in logistical, scientific and clinical knowledge support to the local country teams.

#### Term of reference 4

 Develop a detailed protocol for an initial Pilot Project specific to each Partner Country. The proposal will be presented to the Partner Country via the respective IFCC member society. The Pilot Project implementation must be conditional on the Partner Country's commitment to its continuation following IFCC's initial financial support.

## List 2022 accomplishments for this Term of Reference

Most of the work in 2022 was to identify and make initial contact with candidate countries to select for in country visits. The initial visits will be used to assess current situation and needs

#### List planned activities in 2023 for this Term of Reference

After initial in-country visits to Dominican Republic, South Africa and Romania, a report of assessment and recommendations will be made and plan for progress will be discussed with the local in-country teams. A plan with short term and long term goals will be made in collaboration with the local team.



#### **ADDITIONAL INFORMATION**

This Task Force will explore a possible collaboration with the Task Force on Ethics. Drs. Joe Wiencek and Nilda Fink reached out about a possible collaboration dealing with the ethics of NBS. A meeting is scheduled to occur in March 2023.

Contact is still maintained with the AACC group for NBS to keep each other informed of activities and opportunities for collaboration.

### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

Larger Task Force Meetings

- Virtual, May 2022
- Brussels, Oct 2022

Multiple virtual calls were held with candidate countries with certain members of TF. Many of these countries included more than one virtual meeting

- South Africa
- Nigeria
- Bolivia
- Dominican Republic,
- Bangladesh,
- Nepal,
- Uganda

Latin American group met frequently as needed through virtual means

#### **MEETING SCHEDULE IN 2023**

Larger Task Force Meetings

March 2023

May 2023

September 2023

December 2023

Latin American group will continue meeting regularly as needed (virtual)

#### **PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS**

Webinar 2022: Aspects of Newborn Screening (Oct 5, 2022)

Van Leung-Pineda Co-Chair and James Bonham Co-Chair/ISNS - TF-NBS



## TASK FORCE ON GLOBAL LAB QUALITY (TF-GLQ)

The Terms of References given below were taken from the TF-GLQ Annual Report 2021:

#### Term of reference 1

• Finalize selection process of IQC materials provider

#### List 2022 accomplishments for this Term of Reference:

It was decided not the pursue the topic of IQC materials provision to participating countries further, due to high cost and complex logistics. The pilot program will focus on EQC provision only.

#### List planned activities in 2023 for this Term of Reference:

N/A

#### Term of reference 2

Develop jointly with 1WA the EQA program for the 1-year pilot phase

#### List 2022 accomplishments for this Term of Reference:

The program for the 1-year pilot phase was jointly developed with 1WA. Several ZOOM meetings were held between the TF and 1WA to define joint responsibilities and develop monthly reporting tools to enable comparison of participant specific performance characteristics (e.g., acceptable versus unacceptable results), applied assays, and general satisfaction with the program.

At the end of 2022, a program satisfaction survey was performed, in which eight of the ten pilot phase countries participated (Zambia and Columbia did not respond). The satisfaction rate was high, with only certain criticism on sample analytics and flawed sample packaging instructions were formulated by Malawi. Most countries expressed interest to continue the program after the end of the 1-year pilot phase.

It was decided after the Brussels IFCC General Conference meeting in October 2022 to expand the program from 5 labs / participating country to 10 labs / participating country. Letters of appeal were sent to country coordinators to identify five more labs interested to participate. As a result, at the end of 2022, a total of 100 participating labs were recruited into the program.

## List planned activities in 2023 for this Term of Reference:

The program will continue thru 2023. At the end of 2023, it needs to be decided if and (and if the answer is "yes", how) the EQA program shall be extended.

There is no plan to extend to program to include IQC material provision.



#### **Term of reference 3**

Start jointly with 1WA and monitor the roll-out of the EQA program.

## **List 2022 accomplishments for this Term of Reference:**

Throughout 2022, the program was closely monitored by the TF, with monthly reports issued by 1WA. A dashboard of reporting items & topics is currently being improved and will serve as input for future monthly reports.

## List planned activities in 2023 for this term of Reference:

Continuation of program evaluation & monitoring in 2023.

#### Term of reference 4

- Develop and conduct general IQC and EQA training programs for participating countries. (Prioritization, number and duration of such trainings to be worked out).
- Conduct an IFCC Webinar on IQC and EQA.

### List 2022 accomplishments for this Term of Reference

Onsite training & workshops with active country participation are planned to take place in Zambia and Malawi in October 2022 and in Peru and Columbia in November 2022. TF teams of three members (Africa) and 4 four members (Latin America) are being dispatched for these onsite trainings on IQC and EQA. A Webinar on IQC and EQA is currently being planned to take place in 2022.

#### List planned activities in 2023 for this Term of Reference

N/A

#### **ADDITIONAL INFORMATION**

Sadly, two TF Members (Dr. Chuanbao Zhang and Dr. Andre Guimaraes) had to be expelled in 2022 due to inactivity.

Fortunately, it can be stated that the remaining TF is very active with a good level of contribution and participation by almost all members.

#### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

The following TF meetings were held in 2022:

- · Nine monthly 2-hour ZOOM meetings,
- Two Face-to-Face meetings:
  - June 28, 2022 (Seoul),
  - October 28, 2022 (Brussels at the IFCC General Conference),
- ACBICON (New Delhi) Conference participation with presentations by both TF Chairs November 24<sup>th</sup> to 26<sup>th</sup>.



## **MEETING SCHEDULE IN 2023**

Monthly 2-hour ZOOM meetings to be continued

Face-to-Face meeting at the WORLDLAB-EUROMEDLAB Rom meeting in May 2023.

## PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

• External quality assessment practices in medical laboratories: an IFCC global survey of member societies

Ivan M Blasutig, Sarah E Wheeler, Renze Bais, Pradeep Kumar Dabla, Ji Lin, Armand Perret-Liaudet, Annette Thomas, Kandace A Cendejas, Jean-Marc Giannoli, Anne Vassault, Egon Amann, Qing H Meng.

Clin Chem Lab Med, 2023 Feb 13, doi: 10.1515/cclm-2023-0057.





MindrayLabTalkWebinar Nov. 18, 2021

Egon Amann, Ph.D.

Consultant in Life Sciences, Quality Systems & Clinical Chemistry,

Prof. Emeritus, Ph.D., Philipps University Marburg, Germany and

University of Applied Sciences, Hamm-Lippstadt, Germany,

IFCC Co-Chair TF-GLQ

• IFCC's global initiative to enhance clinical laboratories' quality in developing countries Egon Amann, Ph.D.

13<sup>th</sup> international and 19th national congress on quality improvement in clinical laboratories organized virtually by IACLD on MAY 17-21, 2022

- Task Force on Global Lab Quality (TF-GLQ)
   Egon Amann, Qing Meng
   IFCC General Conference, Brussels, October 30, 2022
- IFCC Task Force on Global Lab Quality (TF-GLQ) A Status Report Egon Amann, Ph.D.
   ACBICON 2022, Nov. 22 – 26, New Delhi
- The Fitness for Purpose of Analytical Methods Egon Amann, Ph.D.
   ACBICON 2022, Nov. 22 – 26, New Delhi
- Quality Control: Strategy and Practice for Clinical laboratories Qing Meng, Ph.D., MD ACBICON 2022, Nov. 22 – 26, New Delhi
- Career Opportunity for Clinical Chemist in the US Qing Meng, Ph.D., MD
   ACBICON 2022, Nov. 22 – 26, New Delhi

Egon Amann, Qing Meng, TF-GLQ Co-Chairs

## TASK FORCE ON GLOBAL ELEARNING/EACADEMY (TF-GEL)

TF-GEL continues to produce webinars with a good international following. See "Highlight of the Year" for Webinar titles and details. 20 webinars include 60 Presentations, 30 Hours, 60



speakers, over 70.000 participants from more than 170 countries.

TF-GEL has been working with the new website developers concerning the new learning platform that is to be launched shortly. We are planning to liaise with IFCC specialists /specialist committees to produce appropriate teaching material for this leaning platform, which can be reviewed by the same experts/specialist committees on an ongoing basis.

Adrian Park TF-GEL Chair



## TASK FORCE ON OUTCOME STUDIES IN LABORATORY MEDICINE (TF-OSLM)

#### **Term of reference 1**

#### List 2022 accomplishments for this Term of Reference

- 1. Develop a funded research program: The "call for study proposals seeking research proposals for studies evaluating the impact of laboratory testing on health outcomes" was released in July, 2022. A total of 55 applications from 32 countries. Five proposals were selected to provide funding for the study. The feedback from at least 2 (up to 6) reviewers has been sent to each applicant to provide evaluation comments. The draft contract agreement has been submitted to the IFCC EB for review and approval.
- 2. Create a repository/database of publications that is accessible by members of IFCC: Working with the IFCC website contractor team to develop a proposal to set up a website database of outcome study related publications that is accessible by members of IFCC. The draft proposal has been submitted to the IFCC EB for review and approval.
- 3. Search Evidence for Outcome Studies in Laboratory Medicine: the TF members are working on searching evidence for outcomes studies in several areas (Antibiotic guidance, cancer biomarker, cardiac biomarker, COVID-19, diabetes, POCT etc.). Once the database website is set up, the publications will be available in the database.

#### List planned activities in 2023 for this Term of Reference

- 1. Manuscript in preparation: we are in the process of writing an opinion paper to advocate outcome studies in laboratory medicine and share the TF's experience of call for proposals. The proposed title is "Linking laboratory testing to clinical outcomes: bridging the gap through outcome-based studies in laboratory medicine".
- **2. Review article in preparation:** we are in the process of writing a review paper on outcome studies for biomarkers for guidance of antibiotic treatment (procalcitonin and CRP).
- **3. 2023 IFCC Live Webinar proposal:** Title of the Webinar: Outcome studies to advance excellence in laboratory medicine.
- **4. Workshop** on real-world outcome studies in collaboration with IFCC Committee for the Value Proposition in Laboratory Medicine.
- 5. Search Evidence for Outcome Studies in Laboratory Medicine: continue on the search effort
- **6. Database:** test the prototype and go live with multiple categories and topics of outcome studies.

- 7. Develop a funded research program: plan to release a new round of "call for study proposals seeking research proposals for studies evaluating the impact of laboratory testing on health outcomes"
- 8. In person TF member meeting at Worldlab/Euromedlab Roma 2023
- 9. IFCC Symposium at at Worldlab/Euromedlab Roma 2023



## Advancing Excellence in Laboratory Medicine Worldwide: An Update from IFCC

Taskforces – Session chairs: K. Adeli (Canada), A. Haliassos (Greece)

- Enhancing Laboratory Quality on a Global Level: Results of the IFCC EQA Pilot Study
   E. Amann (Germany)
- Closing the Gaps in Newborn Screening: The IFCC Global NBS Program J. Bonham (UK)
- Impact of the Clinical Laboratory in Clinical Medicine: Developing the Evidence Z. Zhao (USA)
- Global Database of Adult and Pediatric Reference Intervals J. Zierk (Germany)

### 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

The Task Force OSLM has been managing to have monthly virtual meetings and one in-person meeting per year to have always feedback and updates among the members for a more linear and successful work.

In 2022 we had nine virtual meetings and one in-person meeting during the General Conference in Brussels in October 2022.

#### **MEETING SCHEDULE IN 2023**

For 2023 the meetings have maintained the monthly schedule.

The first meeting in 2023 has been held on January 9<sup>th</sup> and two other meeting have been scheduled in the overcoming months.

The Task Force has also organized an in-person meeting during the WorldLab / EuroMedLab Congress in Rome on the 21st May, 2023.

#### PUBLICATIONS/CONFERENCE PRESENTATIONS/WEBINARS

#### **Publications:**

- Haşim A, Doğan Ö, Serdar CC, Serdar MA. The value of the measurement of arginine metabolites (especially L-NMMA) in determining the severity of Covid-19. Association of serum ADMA, SDMA and L-NMMA concentrations with disease progression in COVID-19 patients. Biochem Med (Zagreb). 2023 Feb 15;33(1):010701. doi: 10.11613/BM.2023.010701.
- Cihan M, Dogan O, Ceran Serdar C, Altuncekic Yildirim A, Kurt C, Serdar MA.
   The value of the Kynurenine pathway (especially KYN:TRP ratio and PA) in disease severity and progression. Kynurenine pathway in Coronavirus disease (COVID-19): Potential role in prognosis. J Clin Lab Anal. Mar 2022;36(3):e24257. doi: 10.1002/icla.24257.
- 3. Kilercik M, Ucal Y, **Serdar MA**, Serteser M, Ozpinar A, Schweigert FJ. The value of ZnPP (we developed and validated in-house in our laboratory) in determining the severity of Covid -19. Zinc protoporphyrin levels in COVID-19 are indicative of iron deficiency and potential predictor of disease severity. PLoS One. 2022 Feb 3;17(2):e0262487. doi: 10.1371/journal.pone.02262487.

- 4. Kilercik M, Demirelce O, **Serdar MA**, Mikailova P, Serteser M. Roles of newly developed whole blood parameters in determining Covid-19 severity and mortality. A new haematocytometric index: Predicting severity and mortality risk value in COVID-19 patients. PLoS One. 2021 Aug 5;16(8):e0254073. doi: 10.1371/journal. pone.0254073. PMID:
- Sarici SU, Ozcan M, Akpinar M, Altun D, Yasartekin Y, Koklu E, Serdar MA, Sarici D. Early diagnosis of hyperbilirubinemia and risk determination with Transcutaneous Bilirubin measurement. Transcutaneous Bilirubin Levels and Risk of Significant Hyperbilirubinemia in Early-Term and Term Newborns. J Obstet Gynecol Neonatal Nurs. 2021 May;50(3):307-315. doi: 10.1016/j.jogn.2021.01.007.
- 6. Farnsworth MC, **Zhao Z**, Apple EF, Collinson P, DeMarco ML, Gronowski A, B Sacks D, Zhu Y. Critical Roles of Clinical Laboratorians in Translational Research and Applied Sciences-Experts' Insights and Experiences. Clin Chem. 2022 Jul 3;68(7):877-883. doi: 10.1093/clinchem/hvac074.PMID: 35617137
- 7. Farnsworth C and **Zhao Z**, Critical Roles of Clinical Laboratorians in Translational Research and Applied Sciences—Experts' Insights and Experiences, Clinical Chemistry journal podcast, August 1, 2022
- 8. Nishant Kumar Chauhan, Benhur Joel Shadrach, Mahendra Kumar Garg, Pradeep Bhatia, Pankaj Bhardwaj, Manoj Kumar Gupta, Naveen Dutt, Ram Niwas Jalandra, Pawan Garg, Vijaya Lakshmi Nag, Praveen Sharma, Gopal Krishna Bohra, Deepak Kumar, Poonam Abhay Elhence, **Mithu Banerjee**, Deepti Mathur, Abhishek HL Purohit, Ravisekhar Gadepalli, Binit Sureka, Sanjeev Misra. Predictors of Clinical Outcomes in Adult COVID-19 Patients Admitted to a Tertiary Care Hospital in India: an analytical cross-sectional study. Acta Bio Med 2021; 92(3): e2021024.
- 9. Ram Niwas, Aneesa Shahul, M K Garg, Vijaya Lakshmi Nag, Pradeep Kumar Bhatia, Naveen Dutt, Nishant Chauhan, Jaykaran Charan, Shahir Asfahan, Praveen Sharma, Pankaj Bhardwaj, **Mithu Banerjee**, Pawan Garg, Binit Sureka, Gopal Krishna Bohra, Maya Gopalakrishnan, Sanjeev Misra. Clinical outcome, viral response and safety profile of chloroquine in COVID-19 patients -initial experience. Adv Respir Med. 2020; 88: 515–19.
- 10. Tomo S, Garg MK, Sharma Praveen, **Banerjee M**. Is there a role of Dehydroepiandrosterone sulphate in COVID-19 prognosis & treatment? . Endocrine Regulations; 2021; 55, (3,) 174–81.

## **Presentations/Webinars**

- Zhen Zhao, "IFCC Task Force on Outcome Studies in Laboratory Medicine", The International Federation of Clinical Chemistry and Laboratory Medicine 2022 General Conference, October 2022, Brussels, Belgium
- **Zhen Zhao**, "Unsung Heroes Working Behind the Scene: The Role of Laboratory Medicine on Healthcare Outcomes", Plenary lecture at Shanghai International Forum of Laboratory Medicine, September 2022, Shanghai, China
- **3. Zhen Zhao**, "Unique Roles of Clinical Laboratorians in Translational Research", March 2022, Canadian Society for Medical Laboratory Science, Canada
- **4. Zhen Zhao**, "Implementation of Cardiac Troponin in Risk Stratification and Management for COVID-19 Patients", September 2021, Siemens Healthineers Knowledge Sharing Webinar, Taipei, Taiwan

Zhen Zhao, TF-OSLM Chair



## TASK FORCE ON GLOBAL REFERENCE INTERVAL DATABASE (TF-GRID)



#### **TERMS OF REFERENCE**

#### Mandate/aims:

The TF's mandate as given by the IFCC has been used to develop 4 major aims for this TF:

- Develop GRID, the IFCC web-based Reference interval database, with the vision of GRID becoming the primary international resource for reference intervals in laboratory medicine
- Provide web-based tools to derive reference intervals using direct and indirect methods
- RI harmonization: Develop methods to establish globally harmonized reference intervals where feasible and apply these methods to provide harmonized RIs
- RIs established by the TF GRID
- Education & Outreach: Organize workshops/webinars and provide education material

## Term of reference 1/GRID:

#### List 2022 accomplishments for this Term of Reference

The TF has developed the concept for GRID and specified a majority of technicalities. The IFCC's preferred IT provider DIGIWEDO will implement the website and has begun to do so in 2023 after the contract was signed.

List planned activities in 2023 for this Term of Reference

Release of a preview/beta GRID website.

## Term of reference 2 (web-based tools to derive reference intervals)

#### List 2022 accomplishments for this Term of Reference

Definition of a strategy how to create/implement web-based tools to derive reference intervals: we will adapt an existing toolkit created by AB Leichtle, which he/his group will provide free of charge to the IFCC.

## List planned activities in 2023 for this Term of Reference

AB Leichtle is currently adapting the toolkit. After this, we will contact the IFCC and DIGIWEDO to plan the release of this toolkit as part of the IFCC/GRID webpage.

## Term of reference 3 (RI harmonization)

### List 2022 accomplishments for this Term of Reference

Definition of a basic strategy:

- Publication of a method paper (lead: A. Coskun) covering RI Harmonization using direct and indirect methods, and which includes
- direct and indirect comparisons using laboratory data from GRID members.



### List planned activities in 2023 for this Term of Reference

Realization of the defined strategy.

## Term of reference 4 (Education & Outreach)

#### List 2022 accomplishments for this Term of Reference

Definition of strategy/planned activities:

1-2 d workshop at WorldLab

Webinar

Minor workshop

#### List planned activities in 2023 for this Term of Reference

3h-Workshop at AACC 2023 (Ken Sikaris, Thomas Streichert, Jakob Zierk)

Webinar in November (Mary Kathryn Bohn, Ken Sikaris, Jakob Zierk)

Planning of 1-day-workshop at WorldLab 2024 in Durban (if approved)

## 2022 MEETINGS / CONFERENCE CALLS HELD (VIRTUAL & IN PERSON)

8 ZOOM meetings (1-2 hrs)

Live meetings in Munich and Brussels (4 hrs each)

#### **MEETING SCHEDULE IN 2023**

Monthly meetings (first Friday every month), approx. 1 h, ZOOM call Meeting at WorldLab (May 21, 4 hrs)

#### **Presentations at IFCC General**

Conference 2022 (JZ) and World Lab 2023 (JZ)

Webinar scheduled for November 2023 (JZ, KS, MKB)

Jacob Zierk, TF-GRID Chair

## FOUNDATION FOR EMERGING NATIONS





The activities of the FEN were again severely impacted during 2022 because of the Covid-19 pandemic.

#### The FEN Board:

- Approved the annual report and accounts for 2022
- Achieved tax exemption from the Swiss Regulatory Authority

The pandemic meant that it has not been possible for five scholarship recipients to visit their host laboratories in S Korea and the UK. The scholarships have been held over into 2023.

Fundraising for the FEN is contingent on the completion of ongoing projects. Therefore, no attempts were made to raise fresh funding during the year.

The Board acknowledges the excellent support of Paola Bramati.

The Board hopes that 2023 will be a more productive and effective year.

Graham Beastall FEN Chair

## **REGIONAL FEDERATIONS**

### REGIONAL FEDERATIONS AFFILIATED WITH IFCC

There are six main Regional Professional Laboratory Medicine organizations which can be considered IFCC regional partners:

- AFCB Arab Federation of Clinical Biochemistry
- AFCC African Federation of Clinical Chemistry
- APFCB Asia-Pacific federation of Clinical Biochemistry
- COLABIOCLI Latin-American Confederation of Clinical Biochemistry
- EFLM European Federation Clinical Chemistry and Laboratory Medicine
- NAFCC North American Federation of Clinical Chemistry and Laboratory Medicine

## **AFCB**

#### **Arab Federation of Clinical Biology**



The year 2022 saw AFCB's scientific activities return to normal.

The cooperation initiated between member countries during the COVID-19 pandemic continued, with each bringing its own expertise and know-how to the table.

We were particularly pleased to welcome the Kingdom of Saudi Arabia as new member, and we look forward to more applications in the future.

International congresses were organized by member countries, and many new projects were launched:

- An online continuing education project is now up and running, and the federation's board voted unanimously in favor of promoting young people's education and international exchange programs.
- A quality management training program with a free access to all members has been discussed and a committee started working on it.
- Cooperation agreements with international societies were under discussion and should be signed notably with the EFLM and FIFBCML.
- Activity Report of 5 AFCB member societies (SDBLB, SMCC, SSCC, SCLA and STBC) were received as follows:

**LEBANON**: Syndicat des Biologistes du Liban / Lebanese Syndicate of Clinical Biologists (SDBLB)

National meetings				
Name of the meeting	Date	Topic		
The 2022 international meeting of the SDBL (under the auspices of the IFCC, AFCB, FIBCML)	8-10 september 2022	La Biologie Médicale en Temps de crise(s)		

Also: The Lebanese Syndicate of Clinical Biologists organized in 2022:

## 4 webinars with over 100 participants

3 meetings in different regions with 50-60 participants

3 scientific seminars in Beirut area

An external Quality Control (ASQUALAB) Biochemistry program was offered for free to all members A continuous medical education online (e-Medicinimage) was offered for free to all members (Hematology, Microbiology)

With the support of the two associations ASQUALAB and Medicinimage



A website for the SDBL (webmaster Dr Najla El Bizri) offering plenty of educational tools was put online. All Syndicate's members technical and scientific problems were followed- up by a committee dedicated to help

## **Regional relations**

All AFCB members

Lebanese Society of Infectious Diseases and Clinical Microbiology

Lebanese Society of Pneumology

Lebanese Society of Critical Care Medicine

Lebanese Society of Hematology and Blood Transfusion

#### International relations

**IFCC** 

**AFCB** 

**FIFBCML** 

JIB

**SFBC** 

SFM

MOROCCO: Société Marocaine de Chimie Clinique / Moroccan Society

of Clinical Chemistry and Laboratory Medicine (SMCC)

Activities organized in 2022:

Les 22<sup>èmes</sup> Journées Marocaines de Biologie Clinique et le 5<sup>ème</sup> Congrès International Francophone de Biologie Clinique et Médecine de Laboratoire



Under the auspices of the IFCC and the FIFBCML 22-24 september 2022



## SAUDI ARABIA: Saudi Society for Clinical Chemistry (SSCC)







	ACTIVITY	PLACE	Туре	DATE	CME
1	General Concept of Safety in Medical Laboratories	Online	workshop	Jan 08,2022	3 Hrs.
2	Medlab Middle East	Dubai	Booth	24-27 Jan 2022	
3	Hemostasis Seminar	Online	webinar	Jan 31,2022	2 Hrs.
4	Series Laboratory Biomarkers of Diseases Growth Hormone Disorders	Online	workshop	Feb 15,2022	2 Hrs.
5	Culture Free Sepsis Diagnosis	Online	webinar	Feb 22,2022	2 Hrs.
6	Laboratory and Diagnostic Congress	Virtual	Conference	20-22 Feb 2022	24 Hrs.
7	نم دحلاو ةيبطلا تاربتخملا قيمها قيثارولا ضارمالا	Online	Awareness	Feb 28,2022	
8	نم دحلاو ةيبطلا تاربتخملا قيمها قيثارولا ضارمالا	Albaha	Booth	Mar 09,2022	
9	The Role of SARS-CoV-2 Rapid Antigen POCT Test During the Pandemic	Intigen POCT Test During the		Mar 28,2022	
10	Laboratory Day Accreditation	Online	Seminar	Mar 31,2022	8 Hrs.
11	ةيدو عسل اقيعمجل التلجمل لوال الدعل التي المدعل التي التي التي التي التي التي التي الت			March 2022	
12	Innovations and Advancements in Point-Of-Care Blood Gas Testing	Online	webinar	April 07,2022	2 Hrs.
13	ناضمر مايص، يركسلا	Online	Awareness	April 16,2022	
14	Utilization of Testosterone Hormone and Herpes Simplex Virus	Alkhobar		May 25,2022	2 Hrs.
15	Utilization of Testosterone Hormone and Herpes Simplex Virus	Almedina		May 28,2022	2 Hrs.
16	Immunoassay Workshop	Jeddah	Workshop	May 30,2022	4 Hrs.
17	روض حل ةي عمجل ا ءاض عا نم لماع وض ع معد يلودل ارمتومل AACC Annual Scientific Meeting 2022		conference	From July 24,2022- August 29,2022	
18	Immunoassay Workshop	Abha	Workshop	June 01,2022	2 Hrs.
19	Utilization of Testosterone Hormone and Herpes Simplex Virus	Riyadh		June 02,2022	2 Hrs.
20	The Role of SARS-Cov-2 Rapid Antigen POCT Testing During the Pandemic	Online	webinar	June 07,2022	2 Hrs.
21	ةيدو عسل أقيعم جل الله على المثل الدعل المنطقة المنطق			June 2022	
22	Utilization of Testosterone Hormone and Herpes Simplex Virus	Qassim	Workshop Aug 8,2022		2 Hrs.
23	Utilization of Testosterone Hormone and Herpes Simplex Virus	Hail	il Workshop Aug 11,2022		2 Hrs.
24	Utilization of Testosterone Hormone and Herpes Simplex Virus	Tabuk	Workshop	Aug 13,2022	2 Hrs.

	ACTIVITY	PLACE	Туре	DATE	CME
25	Forensic Evidence in Criminal Investigation	Jeddah	Workshop	Aug 23,2022	3 Hrs.
26	Analyzation of hormonal profile in investigation of female infertility and diagnosis of thyroid	Al-Jouf	Workshop	Aug 30,2022	2 Hrs.
27	Analyzation of hormonal profile in investigation of female infertility and diagnosis of thyroid	Najran	Workshop	Sep 06,2022	2 Hrs.
28	Analyzation of hormonal profile in investigation of female infertility and diagnosis of thyroid	Jazan	Workshop	Sep 08,2022	2 Hrs.
29	هيلع ظفاحو كبلق فرعا	Online	Awareness	Sep 19,2022	
30	عم ًانمازت يويح عمتجم , ةيفاعل الافتحا يدوعس اينطول مويل	Online	Awareness	Sep 22,2022	
31	ةدالولا يثيدحل ركبمل صحفاا	Online	Awareness	Sep 26,2022	
32	يثيدحل ركىبال صحفال نع روشورب قدالول		Awareness		
33	ةيدوعسلا ةيعمجلا قلجمل شلاشلا ددعلا قيريرسل عليميكلل			Sep,2022	
34	يلع .د) قيعمجلا العنصاع نم لماع وضع معد رمتؤملا شدحتمك قلدراشملل (بيضعلا نانويلاب يلودلا		conference	October	
35	د) قى عمجلا ءاضعا نىم لىماع وضع معد رمت ومل شدحتمك قكراشملل (يعرب روناً على ودل Medlab		conference		
36	The Controversy over Different HbA1c as Measured by Different Techniques	Online	Workshop	Oct 5,2022	2 Hrs.
37	ماظنل قيناڭلا قودنلا قلمالكتم قيحص قايح وتىكلاا	Jeddah	Awareness	Oct 12,2022	
38	Utilization of Testosterone Hormone and Herpes Simplex Virus	Almedina	Workshop	Oct 19,2022	2 Hrs.
39	Utilization of Testosterone Hormone and Herpes Simplex Virus	Abha	Workshop	Oct 26,2022	2 Hrs.
41	Point-of-Care Testing (POCT) Workshop	Riyadh	Workshop	Nov 10,2022	4 Hrs.
42	Plasma Proteins Science Day 2022	Online	Webinar	Nov 10,2022	
43	مويلاً عم انمازت لافطالاه يركسلا ضررم ركسلل يملاعلا	Online	Awareness	Nov 15,2022	
44	4th International Meeting in Clinical Chemistry & Laboratory Medicine & SSCC 8th Annual Meeting	Riyadh	Riyadh Hybrid	Dec 6-8,2022	15 Hrs.
45	1st Low Carb Society Workshop	Jeddah	conference	Dec 10,2022	6 Hrs.
46	كتيفاع كؤاذغ ةيوعوت لمع تشرو	Jeddah	Workshop	Dec 10,2022	
47	Hormone and Immunoassay Workshop	Dubai	Awareness	Dec 11,2022	5 Hrs.
	Total				84 Hrs.

## **SYRIA:** Syrian Clinical Laboratory Association (SCLA)

A scientific meeting was organised by the Endocrinology & Metabolic Diseases Society in collaboration with SCLA. Dr. Khatib has delivered a lecture on New-borne Screening. The same topic was also shared with the Neonatal Society.

A lecture on Vitamin D was also presented by Dr. A. Khatib at a meeting organised by the Syrian Physician's Syndicate. SCLA has participated in a workshop organised by SNIBE at the Four Seasons hotel presenting lectures on Vitamin D by Dr. Khatib and Hepatitis markers by Dr. G. Shannan.

SCLA in collaboration with the Pharmacists Syndicate has organed a scientific conference at Dama Rose of Damascus where several lectures were delivered by scientists of SCLA.

SCLA has participated in the scientific days of various private universities including Al Rasheed & Al Cham universities.

Dr. G. Shannan has delivered a lecture on Microbiome & Microbiota at the Faculty of Pharmacy of Damascus University and for the members of Old Damascus Society.

SCLA has participated in the Conferences of Pharmacists Syndicates of Aleppo & Lattakia. Dr. F. Qubeily, Dr. L. Yousef, Dr. A. Alassad and Dr. A. Khatib had presented their experiences at the Arab Federation of Clinical Biology which was held in Beirut.

Dr. G. Shannan has received the Distinguished IFCC Award for International Service in Seol during the WorldLab.

Several colleagues from Syria have actively participated in the activities of the Mediterranean Congress which was held in Corfu, Greece. Dr. A. Khatib and Dr. G. Shannan had presented two lectures.

TUNISIA: Société Tunisienne de Biologie Clinique / Tunisian Society of Clinical Biology (STBC)

National meetings					
Name of the meeting			Date	Topic	
35èmes Journées Nationales de Biologie Clinique			26-27 & 28 Mai 2022	Biology at the center of the care process	
2èmes Journées Tunisiennes de Biologie Praticienne 27 o		27 & 28/10/2022	Cancer and biology		
18-19/02/2022	Tunis	Management	of laboratory equipment		
19/02/2022	Kébili	4th Day of Clin	4 <sup>th</sup> Day of Clinical Biology of Kebili		
04/03/2022	Tunis	Validation and Verification of methods of medical biology laboratories			30
11-12/03/2022	Tunis	The metrology in the laboratories of analysis			28
25-26/03/2022	Tunis	Audit of the quality management system			25
01/12/2022	Monastir	Biological Risk Management in Medical Laboratories			27
16/12/2022	Tunis	Approach of the immunological assessment in case of autoimmune disease of the central nervous system			33
27/01/2023	Gabès	Validation of the blood count			47
24/02/2023	Tunis	6 sigma approach and implementation and follow-up of quality controls			45



## **Regional relations**

Faculty of Pharmacy of Monastir Tunisian Syndicat of biology Tunisian Society of General and Family Medicine

## **International relations**



IFCC AFCB FIFBCML BIOMED J JIB SFBC ALAM SFM

### **Additional information**

The president of our national society is Prof. Manel Chaâbane (cmanel@yahoo.fr) (since the elections of the executive board hold in February 20th, 2021). She is the new representative of our national society.

Christian Haddad MD, MHS, President

## **AFCC**

#### **African Federation of Clinical Chemistry**



Dear Colleagues,

It gives me great pleasure to present this report. This again has been a very difficult period for the AFCC due to the COVID 19 pandemic in which we could only commence some activities as from the 4th month of 2022. In fact due to this pandemic we could not achieve many of the proposed activities that were presented as our operational plan for 2020/21. However despite this we were able to engage in multiple activities as listed below as well as support our young scientists

## Conference participation

President was invited to the inaugural conference of Malawian Association of Medical Lab Scientists in Feb 2020 and the Egyptian Quality Improvement Conference (MRC Chemical Pathology)

Towards the end of 2020, AFCC was asked to participate in an IFCC supported conference on COVID-19 which was held virtually in February, 2021.

AFCC provided auspices to the Egyptian MRC (Chemical Pathology) Congresses in 2021 and 2022. Prof Erasmus was an invited speaker and he gave a talk virtually.

## AFCC Support for 1st Cardiometabolic Health and Diabetes Africa Congress (22-25 Feb 2022)

AFCC supported this congress and also assisted in its planning through Prof Erasmus. AFCC supported 40 scientists, members of the Board and nominees from Task Force on Young Scientists (total number supported was 70)

#### **Webinar Presentations (see below)**

- 1. The AFCC Young Scientists organized a webinar in March 2021
- 2. Subsequently a number of webinars were organized in collaboration with several academic institutions and the Empower School of Health, Switzerland

Future Webinars: It was suggested that a Webinar Committee be appointed, members to be drawn from the AFCC member societies. A committee was appointed in consultation with Mr Gizachew Akalu. A suggestion has also been made by the Egyptian Society for Quality Improvement

IFCC Webinar on POC in Resource Poor Countries – July, 2021

Turkish Society- Lab Ethics- June, 2021

Africa Health -Biomarkers for Diabetes - Oct 2021

Kenyan Association of Clinical Pathology (KACP) - Point of Care Testing - Oct, 2021

AFCC Contribution to IFCC COVID 19 Conference - Feb, 2021

AFCC Young Scientists Webinar to celebrate Lab Professionals Week - April, 2021

AFCC Ethical Lab Practice Workshop, March 2021

Quality Issues in Medical Laboratory- Elephant in the room May, 2021

Lab Professional Week: The Medical Lab Career Opportunities, April, 2021

AFCC Webinar on Lab Logistics - July 2021

MRC /Chemical Pathology Conference, Alexandria University, Egyptian Society for Lab

Improvement – April, 2021

Several webinars were also organized in 2022

#### **Auspices**

POCT Africa International Conference (auspices AFCC) – May, 2021 20 young scientists were sponsored to attend this conference



#### **Website Revamp**

As recommended by the board the website was revamped by a company in Zambia who initially collaborated with a company in Nigeria. The latter withdrew from the project. A contract drawn up by the company to maintain the website was not approved by the Board. The Board recommended that another company be engaged to revamp the website. The President obtained 3 quotes from South Africa and one of the 3 companies is expected to be chosen in 2023.



#### **Appointment of Committees**

The formation of 3 subcommittees was recommended.

- a. Education and Training Mr G Akalu
- b. Standardisation and Traceability Prof Anetor
- c. Point of Care Testing Prof Erasmus

2 of the 3 committees have started and have initiated projects. The POCT Committee is working closely with Siemens to harmonise POCT policies and training throughout Africa. A project on establishing reference intervals for glucose is underway subject to obtaining ethical approval.

## Organization of BSZ AFCC Regional Conference (Nov 2021)

The conference was postponed to Nov 11<sup>th</sup> due to the COVID 19 epidemic. The conference was organized virtually in collaboration with Ministry of Health Zambia and the University of Zambia. Their assistance is acknowledged as well as the LOC chaired by Mr V Daka and the chair of the Scientific Committee, Prof Sody Munsaka

The President facilitated the academic program by suggesting the names of 20 international speakers. The LOC was able to get 6 sponsors while the AFCC president managed to get 1 sponsor

IFCC supported the conference by approving the participation of 3 IFCC Committees (Emerging Technologies, Lab Mx and POCT). The conference was well attended and a huge success.

## **BSZ Annual Conference, Livingstone 16-28 December, 2022**

BSZ organized their annual conference from 16-18<sup>th</sup> December in Livingstone. The conference was originally planned from 24-26<sup>th</sup> November. They were successful in obtaining 2 international speakers through the IFCC VLP program. These were Prof Erasmus (South Africa and Prof Okesina (Nigeria). 30 young scientists were supported to attend this conference

#### **Sponsorships**

AFCC supported young scientists to:

- a. IFCC Conference on COVID, 2021
- b. POCT Africa Conference, 2021
- c. BSZ AFCC Conference, 2021
- d. 1st Africa Cardio Metabolic Conference, 2022
- e. IFCC WorldLab, Seoul, 2022
- f. BSZ Annual Conference, 2022

## Communication

It has been a difficult task to keep up with multiple emails, requests and notices. This has resulted in lapses in communication. It is strongly suggested that a secretariat be formed and staffed by a part time person. Proposals have been sent to Biomedical Society of Zambia and Ethiopian Medical Lab Association. BSZ has in the mean time informally agreed to host the AFCC Secretariat

#### **AFCC Rep to IFCC Global Lab Week Group**

Mr H Lumano will represent the AFCC

#### Revenue

No revenue has been received in 2021 and 2022 though the allocation of funds from IFCC was increased

The new system for receiving funds is now linked to specific activities for which invoices are sent to the IFCC office once the activity is approved by IFCC Treasurer.

#### Collaboration with AACC and EFLM

This has commenced and is expected to grow further in 2023.

### **Proposed MOU with Supreme Council of Egyptian Universities**

A MOU has been prepared towards collaboration and co-operation between Egyptian Supreme Council, Siemens Middle East and AFCC to promote training and education throughout Africa. Hopefully this will be signed in 2023

#### WorldLab Korea, June, 2022

The president and other members of the Board could not attend this meeting due to delays in getting the visas and police clearances and thus the face to face Board meeting was postponed. The AFCC supported 6 young scientists and gave a grant of US\$1500 to each awardee. Their reports can be found on the IFCC website

#### Invitation to AFCC President to attend CALILAB 2022, Argentina, 7-9th November, 2022

AFCC President was invited to the annual congress of the Argentinian Society of Clinical Chemistry. The president was able to get funding from Stellenbosch University and NRF (National Research Foundation and also managed to get 3 other colleagues invited as they had funds to sponsor themselves

#### **New Affiliate Member of AFCC/IFCC**

The Botswana Institute of Lab Scientists has become the latest member of IFCC and AFCC. AFCC will be organizing a meeting with them most probably in April, 2023. Prof Erasmus had a meeting with Siemens to support this meeting. (This was originally slated for Nov 2022 but has now been shifted – see below)

# Proposed AFCC Workshop in Botswana to celebrate their membership of AFCC in November, 2022 and face to face AFCC Board meeting at IFCC General Conference in Brussels, 29<sup>th</sup> October, 2022

This proposed workshop was postponed at the request of the Botswana Association thus the proposed face to face Board meeting had to be cancelled. The president proposed that the Board meet in Brussels at the IFCC General Conference.

## AFCC Board meeting (face to face) 29th October, 2022

The IFCC kindly agreed for the Board members to come to the General Conference in Brussels from 29-30<sup>th</sup> October. Accommodation was funded by IFCC and air tickets paid by AFCC. The face to face board meeting planned for Livingstone, Zambia could not take place due to lack of quorum and poor connectivity

#### **AFCC Account**

The financial affairs of AFCC are in good standing and have enabled several face to face Board meetings as well as sponsor young scientists to international meetings

#### **Elections**

Elections for the new AFCC Board are currently in process. The current Board would like to welcome the President Elect, Dr Mabel Charles Davies as the incoming President



The current Board whose period of office was extended by one year stepped down on 31st December, 2022

#### **Constitutional Changes**

The Secretary has proposed a number of constitutional changes which will be taken forward by the new Board.



## **AFCC Representation on IFCC Board**

The Board would like to express its gratitude to Prof Okesina for ensuring that AFCC and its activities received adequate support from the IFCC

## **Challenges**

Reluctance of industry to fund AFCC workshops due to recession

#### **Future Plans**

**Establishment of AFCC Secretariat** 

Revamping of Website

Collaboration with Industry on future webinars and workshops

Increasing membership by 10% (Liberia, Tanzania and Uganda) in 2023/24

AFCC Regional Conference.

Fund raising

Face to face Board meeting at EuroMedLab, Rome, May, 2023

The outgoing President would like to thank all the Board members for their support. AFCC would also like to express its gratitude to IFCC in supporting its academic activities throughout 2022

Rajiv Erasmus, President

## **APFCB**

## Asia-Pacific Federation of Clinical Biochemistry and Laboratory Medicine



After the pandemic showed a significant decline since the beginning of 2022, activities around the world started to roll slowly but surely. Meetings during 2022 were held with utmost caution while not everyone were feeling safe to travel at the beginning, but life became quite normal later in the year, although hybrid meetings became a convenient way of organising conferences. Which also happened to APFCB. APFCB had it's congress in June 2022, which was a joint hybrid congress between the IFCC, APFCB and KSCC. This was a change of plan from the previous schedule of the APFCB congresses as 2022 was planned for the APFCB congress in Sydney, Australia. The change of schedules and places were unavoidable due the circumstances, and the joint congress in Seoul, Korea, was a good compromise to start in-person meetings. Apart from the congress in Seoul, Korea, APFCB activities continued as shown below.

Ordinary members and Affiliate members were the same in numbers, but activity of members did decrease during the past years. Some Corporate members were delisted as result of non-responsiveness, but we are glad to see some new ones.

**ORDINARY MEMBERS (in alphabetical order)** The members of the APFCB which is now 39 years old are as follows:

#### 1. Full/ordinary Members, Affiliate Members and Corporate Members status 2021

The ordinary membership had not seen any change during 2022, although the pandemic may have affected some members causing inactivity and unresponsiveness during the yearAustralasian Association of Clinical Biochemists (AACB)

- 1. Australasian Association of Clinical Biochemists (AACB)
- 2. Association of Clinical Biochemists of India (ACBI)
- 3. Association for Clinical Biochemistry, Srilanka (ACBSL)
- 4. Chinese Association for Clinical Biochemistry, Taiwan (CACB)
- 5. Chinese Society of Laboratory Medicine (CSLM)
- 6. Hong Kong Society of Clinical Chemistry (HKSCC)
- 7. Indonesian Association of Clinical Chemistry (IACC)
- 8. Iranian Association of Clinical Laboratory Doctors (IACLD)
- 9. Japan Society of Clinical Chemistry (JSCC)
- 10. Korean Society of Clinical Chemistry (KSCC)
- 11. Malaysian Association of Clinical Biochemistry (MACB)
- 12. Mongolian Association of Health Laboratorians (MAHL)
- 13. Nepal Association for Medical Laboratory Science (NAMLS)
- 14. Pakistan Society of Clinical Pathologists (PSCP)
- 15. Philippine Association of Medical Technologists (PAMET)
- 16. Singapore Association of Clinical Biochemistry (SACB)
- 17. Thailand Association of Clinical Biochemistry (TACB)
- 18. Vietnamese Association of Clinical Biochemistry (VACB)

## 2. AFFILIATE MEMBERS (in alphabetical order)

There was no change either on the list of affiliate membership during 2022; although there were some non-responders

- 1. Association of Medical Biochemists of India (AMBI)
- 2. Chinese Association of Clinical Laboratory Management (CACLM)
- 3. College of Chemical Pathologists of Srilanka (CCPSL)
- 4. Macao Laboratory Medicine Association (MLMA)



- 5. Nepalese Association of Clinical Chemistry (NACC)
- 6. Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL)

#### 3. CORPORATE MEMBERS (in alphabetical order)

- Abbott Laboratories (Singapore) Pte Ltd
- 2. Beckman Coulter Hong Kong Ltd
- 3. Becton Dickinson Holdings Pte Ltd (BD Diagnostics-Preanalytical Systems)
- 4. Bio-Rad Laboratories (Singapore) Pte Ltd
- 5. DiaSys Diagnostic Systems GmbH
- 6. Quidel Ortho\*
- 7. Roche Diagnostics Asia Pacific Pte Ltd
- 8. Sekisui Medical Co Ltd
- 9. Siemens Healthcare Pte Ltd
- 10. Shenzhen New Industries Biomedical Engineering Co Ltd (Snibe Diagnostic)
- 11. Sukraa Software Solution Pvt Ltd
- 12. Sysmex Corporation
- 13. The Royal College of Pathologists of Australasia Quality Assurance Programs (RCPAQAP)
- 14. Thermo Fisher Sientific
- 15. Waters Pacific Pte Ltd

We are welcoming one new corporate member beginning 2023: Greiner Bio-one. (\*) delisted before 2022 and reinstated in 2022.

#### 4. EXECUTIVE BOARD AND COMMITTEE CHAIRS

Due to health reasons, Dr Sunil Sethi, who was supposed to chair as APFCB President until the end of 2022, resigned in September 2022, and the Vice President, Endang Hoyaranda, took over the Presidentship.

#### **Executive Board:**

- President: Dra Endang Hoyaranda (IACC)
- Immediate Past-President: Dr Leslie Lai (MACB)
- Vice President: became vacant as the Vice President became President
- Secretary: Dr Helen Martin (AACB)
- Treasurer: Dr Leila L Florento (PAMET)
- Corporate Representative (co-opt): Dr Douglas Chung (Abbott)

#### Committee Chairs:

- Scientific Committee Chair: Dr Samuel Vasikaran (AACB)
- Education and Laboratory Management Chair: Dr Tony Badrick (AACB)
- Communication Committee Chair: Dr Raja Elina Raja Aziddin (MACB)
- Congresses and Conferences Chair: Dr Praveen Sharma (ACBI)



#### The following are activities conducted by the committees:

#### SCIENTIFIC COMMITTEE ACTIVITIES

Committee Chair: Dr Samuel Vasikaran

Members: Tze Ping Loh, Chair of Harmonization of Reference Intervals WG

Ronda Greaves, Chair of Mass Spectrometry Harmonisation WG

Mohamed Saleem, Chair of Laboratory Data for Improving Diagnostics WG

Mithu Banerjee, Chair of Diabetes Testing Harmonisation WG

Pavai Sthaneswar, Chair of APFCB / WASPaLM Task Force on CKD

#### 1. Reference Intervals WG

The Harmonization of Reference Intervals WG has examined and compared indirect methods for the derivation of reference intervals using data from laboratories within the Asia-Pacific region. The results of these studies have resulted in three publications.

#### **Publications:**

- a. Comparison of two (data mining) indirect approaches for between-subject biological variation determination. Tan RZ, et al; APFCB Harmonization of Reference Intervals Working Group. Clin Biochem 2022 Apr 27: S0009-9120(22)00118-7. doi: 10.1016/j. clinbiochem.2022.04.015. Online ahead of print
- b. Comparison of 8 methods for univariate statistical exclusion of pathological subpopulations for indirect reference intervals and biological variation studies.
   Tan RZ, et al; APFCB Harmonization of Reference Intervals Working Group. Clin Biochem 2022; 103: 16-24
- c. Comparison of four indirect (data mining) approaches to derive within-subject biological variation. Tan RZ, et al; APFCB Harmonization of Reference Intervals Working Group. Clin Chem Lab Med 2022;60(4):636-44.

#### 2. Mass Spectrometry Harmonisation WG

A multicentre study of the influence of internal standard on the analysis of 17-hydroxyprogesterone by LCMSMS was completed in association with RCPAQAP – AACB and IFCC ETD Pediatric Hormonics Working Group.

A study of patients presenting to the National Children's Hospital in Vietnam with  $5\alpha$ -reductase type 2 deficiency detected by GC-MS analysis of the urinary steroid metabolome was conducted. The additional aim of this study was to determine the sensitivity and specificity of urinary steroid metabolite ratios in the diagnosis of  $5\alpha$ -reductase type 2 deficiency.

#### **Publications:**

- a. Validation of steroid ratios for random urine by mass spectrometry to detect 5α-reductase deficiency in Vietnamese children. Tran TCM, et al. Clin Chem Lab Med 2022 May 24. doi: 10.1515/cclm-2022-0272. Online ahead of print
- b. Influence of isotopically labeled internal standards on quantification of serum/plasma 17α-hydroxyprogesterone (17OHP) by liquid chromatography mass spectrometry. Loh TP, et al. Clin Chem Lab Med 2020 Sep 25;58(10):1731-1739.



#### 3. Laboratory data for improving Diagnostics WG

The WG has Analysed Laboratory Data for Improving Diagnostics and produced data on the reporting of critical results in Asian laboratories and Quality indicators in Chinese Laboratories. These survey reports will be used to support healthcare goals for improved disease management in the region. The support of Roche Diagnostics for this activity is acknowledged.

#### **Publications:**

- A current analysis of quality indicators in Chinese clinical Laboratories. Saleem M, et al. J Lab Precis Med 2021;6:16
- b. Turnaround times and modes of reporting critical results in Asian laboratories. Badrick T, et al. Annals of Clinical Biochemistry 2021:58(3):247-50.

#### 4. Diabetes Testing Harmonisation WG

The WG conducting surveys of diabetes testing and reporting practices in the region. Results of surveys conducted in the Philippines, India and Sri Lanka have been presented at the PAMET conference in 2018, the APFCB Congress in 2019 and the CCPSL Congress in 2020 respectively. Survey has also been concluded in Singapore and the results are being analysed for publication. It is clear that whilst most laboratories follow recommended practices, there is some lag in laboratory practices in some areas which could benefit from activities to harmonize and update practice. Ideally, this would be locally driven, led by each national professional body, but APFCB would support these activities going forward.

#### Publication:

a. Trends in laboratory testing practice for diabetes mellitus. Banerjee M, Vasikaran S. eJIFCC 2020;31:(3):231-41.

#### 5. APFCB-WASPaLM TF-CKD

The WG has undertaken a survey of testing and reporting practices for CKD related laboratory indices in India in order to ascertain concordance of reporting practices with current guidelines and industry standards. The results are being analysed and it is hoped that the data would help harmonize practice according to current recommendations throughout the region.

#### 6. Masterclass webinars: Interpretative commenting on clinical chemistry reports

Webinars to discuss and analyse interpretative comments and to educate laboratory professionals on the addition of interpretative commenting commenced in August 2020. Numerous webinars on various Clinical Biochemistry topics have been concluded with wide participation from the region. The resource material and the recordings of these webinars are available on the APFCB Youtube channel: https://www.youtube.com/channel/UCoiicTsnVX-COjklgZHQ54Q/videos

Future webinars are planned on a monthly basis. The support and the excellent organisation of the webinars by Dr Pearline Teo, Siemens Healthcare Pte Ltd is acknowledged.



#### **EDUCATION AND LABORATORY MANAGEMENT COMMITTEE ACTIVITIES**

Committee Chair: Dr Tony Badrick

**Members:** Dr Lia Gardenia Partakusuma (Indonesia)

Dr Tze Ping Loh (Singapore)
Dr Ronda Greaves (Australia)

Dr Raja Elina (Malaysia)

Dr July Kumalawati (Indonesia)

Dra Endang Hoyaranda (Indonesia)

Dr Jozi Habijanic (Roche Corporate)

Dr Amit Manjure (Siemens Corporate)

Dr Rojeet Shrestha (Japan)

Dr Hong-yew Lim (Roche Corporate)

The role of the C-ELM is to provide support for member organisations in education. This usually involves the organisation of visiting lecturers, seminars, and training activities. Travel restrictions were stringent as impact of the Covid pandemic. Other means for education programs were implemented to continue the C-ELM activities.

#### 1. APFCB Travelling Lecturer

The APFCB Visiting Lecturer for 2021/22 was Dr Helen Martin from Australia. Whilst there were travel restrictions on this key role, virtual lectures continued.

#### 2. APFCB - Roche - 12th Chemical Pathology Course - Vietnam

This is an ongoing annual event organised by Roche in collaboration with Rhonda Greaves from Australia. In 2020, the virtual event attracted approximately 400 participants and consisted of a mixture of invited and local speakers presenting on routine chemical pathology topics.

The course is supported and endorsed by many prestigious local and international medical organisations and associations, such as International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB), Australasian Association of Clinical Biochemists (AACB), Vietnamese Association of Clinical Biochemists (VACB), Ho Chi Minh City Association of Clinical Biochemists (HACB), Ho Chi Minh City Association of Medical Laboratory Technologists (HAMLT), Bach Mai Hospital, Cho Ray Hospital and other medical organizations and Associations.

#### 3. APFCB-AACC Workshops

The APFCB has been collaborating with the AACC with their Global Lab Quality Initiative (GLQI) as part of the Asia-Pacific Working Group (APWG). It was not possible to run any workshop in 2020. After being delayed for three years, this workshop is planned to run in Mongolia in 2023.

#### 4. Workshop on Laboratory Testing of Covid-19

As the information of laboratory diagnosis and monitoring of COVID-19 was rapidly evolving with new information arising on a daily basis, laboratory professionals needed a constant update on the developments. Furthermore, many developing countries were struggling to meet



requirements of appropriate testing not only because of lack of resources but also due to lack of well-trained laboratory professionals on the molecular assays. To help lab professionals with appropriate guide in COVID-19 testing, the APFCB committee for Education and Laboratory Management organised a two-day virtual workshop that contained a series of lectures from experts as a complete guide on Laboratory Testing of COVID-19.



#### 5. APFCB Young Scientist Award Objectives

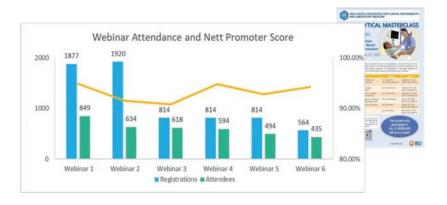
- a. The APFCB Young Scientist Award Competition: this is a scientific paper competition conducted by the APFCB through its Education and Laboratory Management Committee with the following objectives:
- b. Foster scientific potential of young scientists within the Asia-Pacific region
- c. As a means of aiding and encouraging young scientists in written and oral communication of their research results
- d. There were 12 recipients at this meeting.

#### 6. APFCB Becton Dickinson Pre-Analytical Improvement Project

The collaboration of APFCB with BD to provide our members with a digital guideline for preanalytical procedures was finalised (ppt, in English) and presented as a series of fortnightly webinars during 12 weeks in September through November 2021, with the following topics:

- a. Introduction to Pre-analytical Issues (Dr Sunil Sethi and Dra Endang Hoyaranda)
- b. Module A1 Phlebotomist Attributes (Ms Constance Mak)
- c. Module A2 Specimen Collection via Venipuncture (Dr Tjan Sian Hwa and Dr Tester Ashavaid) as Webinar 3 and 4
- d. Module A3 Specimen Collection via Vascular Access Devices (Dr Brian Smith)
- e. Module A4 Specimen Transportation (Dr Leila Florento).

The webinars were very successful, attended by hundreds of participants from the Asia-Pacific region, mainly ASEAN, but also from outside the region. It is intended that there will be an annual pre-analytic webinar series.



Report on APFCB Preanalytical Masterclass Webinar Series

Reported by Shireen Kaur Pannu, Clinical Marketing Manager, BD



#### COMMUNICATION AND PUBLICATION COMMITTEE

The APFCB Communications and Publications Committee (C-CP) is responsible for the development and management of the APFCB website and coordination of the online activities of the APFCB as well as for the online publication of APFCB news. The new Chair of Communications and Publications Committee for the term 2020-2022 was appointed on 4 February 2020.

#### Members of the committee

for this term are as follows: Dr. Raja Elina Raja Aziddin (Chair)

Dr. Purvi Purohit (Web Editor)

Dr. Rojeet Shrestha (Media Coordinator)

Dr. Pradeep Dabla

Will Greene (Corporate -Roche) and

Lim Ai Tin (Corporate -Siemens)

The new C-CP team took over just at the start of the Covid-19 pandemic in 2020. The pandemic which resulted in lockdowns, travel restrictions and limited face-to-face interactions, prompted the team to strengthen the virtual presence of the APFCB through its official website, social media and the APFCB e-newsletter. Throughout the term, the C-CP has kept active communication and promoted the activities of the APFCB via electronic means not only to its member societies in the Asia Pacific region but also to countries under the IFCC.

#### 1. APFCB website development, maintenance and management

The C-CP is responsible for the development, maintenance and management of the APFCB website. Since April 2020, the APFCB website has frequently been updated with the latest information on webinars, online courses, virtual conferences of the APFCB, its member societies and international professional bodies. Also available are scientific publications, guidelines, recorded and live webinars on various topics of interest.

The C-CP also oversees the management of the website which has been awarded to a third party, Ubitech Solutions.

The COVID-19 pandemic which dramatically accelerated the trend towards working remotely and pushed more and more activities online saw shortcomings and limitations of the APFCB website. In view of this, the APFCB website is currently under review and a new and improved mobile dynamic website is currently under construction. Work on the new design began in May 2022. Launch of the new website is in January 2023.

#### 2. APFCB social media development and management

In this age of digitalization, social media has become a powerful platform to communicate and disseminate news and information. As an effort for effective communication and distribution of news and updates of APFCB's activities among the national societies and clinical laboratory professionals, the C-CP created social media accounts for the APFCB. Since August 2020, the APFCB is officially available on Facebook, Twitter, LinkedIn, Instagram and YouTube. Since then, the C-CP has been actively using social media to communicate and disseminate news and information on APFCB's recent activities which includes publications, congress and events, nominations and awards as well as promoting various e-learning activities and materials produced by the APFCB.

#### Links to the APFCB social media pages are as follows



Facebook Page: https://www.facebook.com/APFCB/

Twitter: https://twitter.com/APFCB\_LM

Instagram: https://www.instagram.com/apfcb\_lm/
LinkedIn: https://www.linkedin.com/company/apfcb/

YouTube: https://www.youtube.com/channel/UCoiicTsnVX-COjklgZHQ54Q

#### 3. Publication of online activities, educational materials and resources

The application of the virtual platform for educational and training purposes accelerated with the onset of the Covid-19 pandemic.

Realising the need for fast, accurate and reliable information on Covid-19, the C-CP took initiatives as early as April 2020 to upload scientific publications, guidelines, recorded and live webinars on COVID-19. From August 2020, with the assistance of the APFCB Education and Lab Management Committee (C-ELM) and corporate members, additional educational and training material on other topics of interest were uploaded on the PAFCB website so as to provide its members easy access to education and training.

The C-CP team also collaborated with other committees such as the C-ELM, Scientific and C-CC as well the corporate sector to coordinate the APFCB online activities. Announcements of upcoming events such as the APFCB Masterclass webinars on Interpretative Commenting, webinars under the APFCB auspices, IFCC webinars, APFCB Congress, IFCC Townhall event, conferences of the APFCB member societies were made available on the homepage of the APFCB website https://www.apfcb.org/index.html. Also available on the homepage is the APFCB virtual workshop on Complete Guide on Laboratory Testing of COVID-19.

To date, recordings and slides of past APFCB Masterclass Webinars on Interpretative Commenting have been uploaded on the webinars page of the APFCB website at https://www.apfcb.org/webinars.html. Also available on the webinars page are the IFCC webinars. Links to past webinars organised by the APFCB corporate members under the auspices of the APFCB are listed under the Congress and Conferences Committee page at https://www.apfcb.org/conferences.html. Links to these events have also been made available on APFCB social media which are listed at the footnote on the APFCB website homepage.



#### 4. Promotional Activities

All upcoming events of the APFCB are promoted on the APFCB website homepage as well as on social media. In addition, the C-CP also sends out blast email invitations to members and reminders on upcoming events. The C-CP is continuously expanding the list of members in its database.

#### 5. Publication of APFCB News

The C-CP is also responsible for the online publication of APFCB News. The new elected chair of the C-CP was also appointed as Chief Editor of the APFCB News.

The newsletter is published twice yearly and is available on the APFCB website as an e-book and can be downloaded as a pdf copy. The APFCB News is an important publication of the APFCB as it contains reports of APFCB activities under the various committees, report on IFCC activities as well as reports from member societies.

To standardise article submissions, the C-CP team drew up a Guideline for the submission of reports, articles and advertisements to the APFCB News in May 2021. This guideline is available on the APFCB website homepage via this link: https://www.apfcb.org/Submission%20 Guidelines%20APFCB%20News%20050721.pdf.

In following with tradition, the cover of the APFCB newsletter features paintings of Dr Tan It Koon, founder and past President of APFCB. In honour of his contributions and support to the APFCB, a feature article on Dr Tan It Koon, written by Mr Joseph Lopez, past president of APFCB was published in APFCB News 2021 Issue 1.

In line with the C-CP efforts to provide members access to educational material, educational articles have been included in the APFCB news from 2020 Issue 2 onwards. Since then, the response for educational article submission has been very encouraging. To further strengthen the educational content of the APFCB newsletter, opinion papers from experts have also been published in the newsletter since 2020 Issue 2. With this addition, the C-CP hopes to make the APFCB News a useful platform not only for sharing information on the activities carried out in the Asia Pacific region but also to make it a useful resource for knowledge sharing.

To encourage more participation and involvement of corporate members, a section called industry voice was introduced in 2020 Issue 1. This section contains reports of corporate member activities related to the APFCB such as reports on webinars under the auspices of the APFCB. In early 2021, rates for advertisements in the APFCB News were revised to make it more attractive to corporate members. Corporate members responded positively to the revised rates and the APFCB newsletter has since published advertisements in the newsletter from APFCB News 2021 Issue 1 onwards.

Another exciting feature added to APFCB News 2022 issue 1 is a quiz section which is a new feature of the newsletter. Questions in this section are based on the APFCB webinars which were organized in 2020-2021 and which are still available on the APFCB website.

As the newsletter is published twice a year, 2 newsletters have been published during 2022, following two editions a year during the previous years:







APFCB News 2022 Issue 2



#### **CONGRESS AND CONFERENCES COMMITTEE**

Committee Chair: Dr Praveen Sharma (India) - Chair

**Members of the Committee:** Woei Horng Fang (Taiwan)

Ronaldo Puno (Philippines)

Prasenjit Mitra (India) Member

Will Greene (Roche - Corporate Member)

Ai Tin Lim (Siemens - Corporate Member)

The mandate of the committee is to streamline the process of granting APFCB auspices to various scientific events like conferences, congresses, events organized by regional society members, and corporate member events. With the COVID-19 situation affecting the global scientific community, there were no applications for physical conferences. Rather, there was a surge in the events based on virtual platforms. The committee received a number of applications for grant of APFCB auspices. During 2021-2022, the committee members evaluated and granted APFCB auspices to the following scientific events.

#### 1. Conferences and Courses:

Event name	Organised by	<b>Event Start Date</b>	<b>Event End Date</b>
North Zone ACBICON 2022	ACBI	22/04/22	23/04/22
29 <sup>th</sup> AMBICON 2022	AMBI	18/07/22	23/07/22
15 <sup>th</sup> IACC Conference 2022	IACC	25/06/22	27/06/22
Annual Academic sessions CCPSL AAS 2022	CCPSL	26/08/22	27/08/22
32 <sup>nd</sup> MACB (virtual) Conference 2022	MACB	11/09/22	13/09/22
AACB 59 <sup>th</sup> Annual Scientific Conference 2022	AACB	18/10/22	20/10/22
48 <sup>th</sup> ACBICON 2022	ACBI	23/11/22	26/11/22
Vietnam Chemical Pathology Course XIII 2022	VACB	01/12/22	01/12/22

#### 2. Corporate Member Events/Webinars:

Event name	Organised by	<b>Event Date</b>
Series of educational webinars focused on the Asia Pacific region related to Prenatal & Pre-eclampsia Screening, Clinical Biochemistry, Toxicology and 3 <sup>rd</sup> party QC	Thermo-Scientific	Multiple webinars 2021-2022



#### **CORPORATE MEMBERS**

Corporate Representative: Mr Alexander Wong; Co-opted since May 2022

by Dr Douglas Chung, who was elected as full Corporate Representative starting January 2023

### **Main Highlights:**

- a. Appointment of Corporate Representatives to APFCB Standing Committees
- b. Zoomification of Corporate Member Activities
- c. Sponsorships to various APFCB activities
- d. Sholarships for Young Scientists

#### 1. Active corporate members

There are a total of 14 active Corporate Members. In alphabetical order, they are:

- Abbott Laboratories (Singapore) Pte Ltd.
- · Beckman Coulter Hong Kong Ltd.
- Becton Dickinson Holdings Pte. Ltd.
- Bio-Rad Laboratories (Singapore) Pte Ltd.
- DiaSys Diagnostic Systems GmbH
- Quidel Ortho\*
- Roche Diagnostics Asia Pacific Pte Ltd.
- Sekisui Medical Co Ltd.
- Siemens Healthcare Pte Ltd.
- Snibe Diagnostics
- Sukraa Software Solution Pvt Ltd.
- Sysmex Corporation
- RCPAQAP
- Thermo Fisher Scientific
- Waters Pacific Pte Ltd.

#### 2. New corporate members

One new corporate member, Waters Pacific Pte Ltd., was added. Another new member which will be added in January 2023 is Greiner Bio One

#### 3. Corporate Representative

In November 2021 there was a call for the Corporate Members to nominate and vote for candidates for the next Corporate Representative. Dr Douglas Chung from Abbott has been elected to serve as Corporate Representative for the next term commencing on 1 January 2023. He will also co-opt the remainder of the current term from June 2022 to December 2022 as the previous holder, Mr Alexander Wong, has vacated the position.



#### 4. Benefits of Corporate Membership

#### 4.1 Branding Opportunities

Branding opportunities with APFCB include: logo of Corporate Member on APFCB website, acknowledgement during APFCB presentations delivered across the world, linking corporate educational materials to APFCB website, etc.

#### 4.2 Market Outreach

Reach laboratory professionals and scientific leaders across Asia Pacific with touchpoints including e-Newsletters, APFCB Congresses, Joint APFCB Workshops/ Symposia, and Specialty Meetings under APFCB Auspices.

#### 4.3 Active participation in APFCB committees

- 4.3.1 Work closely with Laboratory KOLs across the Asia Pacific region on educational or scientific work groups aligned with Corporate Member's interests
- 4.3.2 Contribute to decisions for congresses & seminars in Asia Pacific
- 4.3.3 Propose sponsorship opportunities aligned with Corporate Member's interests.

#### 4.4 Special discounts for Corporate Members

- 4.4.1 10% discounts for APFCB Congress, for Corporate Members of > 3 years
- 4.4.2 Free publication of scientific articles or reviews on e-Newsletters.

#### 5. Industry articles featured in newsletter

The APFCB newsletter (2 issues per year) provides a platform for Corporate Members to contribute articles that are of educational or scientific relevance.

Recent issues have included the articles listed below:

#### • 2022 Issue 1

- How coagulation diagnostics support COVID- 19 vaccination and patient management - Roche Diagnostics Asia Pacific
- CSF biomarkers and their role in Alzheimer's disease Roche Diagnostics Asia Pacific
- Detection of the hepatitis B surface antigen (HBsAg) in patients with occult hepatitis B using a sensitive HBsAg assay Abbott Laboratories, Singapore
- Analytical Performance evaluation of the New VITROS TSH3 assay on VITROS XT 7600 Integrated System - Toprani Advanced Lab Systems
- Open vs. closed molecular testing platforms: choosing the right system for your clinical lab - Roche Diagnostics Asia Pacific
- Total Lab Automation Integrated with Fleet of New Generation Atellica Solution: Driving Better outcomes Dr Lal PathLabs.

#### • 2022 Issue 2

- A report on Molecular Diagnostics QC webinar: Webinar on Molecular Diagnostics and Quality Control - Thermo Fisher

#### 6. Ethical and Compliance Guidelines - APACMed Code of Ethical Conduct

The Asia Pacific Medical Technology Association (APACMed) represents manufacturers and suppliers of medical equipment, devices and in-vitro diagnostics, industry associations and other key stakeholders associated with the medical technology industry in Asia Pacific. Many APFCB Corporate Members (including Abbott, Beckman Coulter, BD, Roche, Siemens, Sysmex, Thermo Fisher) are also part of APACMed.

The APACMed Code of Ethical Conduct seeks to provide a standardized guideline for how Corporate Members should interact with healthcare practitioners and professional societies



across Asia Pacific. This Code was first effective on 1 January 2016. The latest amendment took effect on 1 July 2020. The full document can be found on the APACMed website at the following link: https://apacmed.org/apacmed-code-of-ethical-conduct/

APFCB Corporate Members are encouraged to be familiar the Code and operate in compliance with the guidance therein.

#### 7. COVID-19 and the role of diagnostics

APACMed has developed a white paper summarising the role of diagnostics in the management of COVID-19. The full report can be accessed at the link below:

https://apacmed.org/content/uploads/2021/07/APACMed-The-Critical-Role-of-Diagnostics-in-COVID-19-Management.pdf

This report highlights some key recommendations that the industry can follow in supporting the fight against the pandemic. These include:

- 7.1 Community surveillance & hotspot management
- 7.2 Economic resilience & recovery
- 7.3 Travel resumption
- 7.4 Supporting vaccine roll-out

Reported by Endang Hoyaranda (President) based on reports by Committee Chairs Sam Vasikaran, Tony Badrick, Raja Elina, Praveen Sharma and Corporate Representative Douglas Chung.



### **COLABIOCLI**

#### **Latin-American Confederation of Clinical Biochemistry**





National meetings		
Name of the meeting	Date	Topic
Formation of the New Executive Committee of the Latin American Confederation of Clinical Biochemistry (COLABIOCLI)	April 29, 2022	Structure of the New Executive Committee
Review and Adjustment of the COLABIOCLI Strategic Plan to 2024	June 7 and 9, 2022	Approval of the Strategic Plan
Meeting Preparation Schedule of Activities Management 2022	April 29, 2022	Approval of the Schedule of Activities 2022
Meetings of the COLABIOCLI Executive Committee. The first Tuesday of each month	10 Committee meetings during 2022	Developed according to the agenda determined by the COLABIOCLI Executive Committee and the needs of the entity
Meetings of Presidents of National Entities. Two meetings scheduled for management	Since may 20 to october 5, 2022	Reports of Activities of National Entities, Coordination of Activities with COLABIOCLI
Meetings with the Heads of the Working Group Meetings Organizing Committee Latin American Congress of Clinical Biochemistry – Colombia "Cartagena de Indias 2024".	August 26, 2022	Coordination and implementation of Academic Activities
Census of Laboratories in countries of the Region	May to September, 2022	Report of laboratories of the countries of the region and their condition of authorization and/ or accreditation - submitted to OPS
Preparation of Regulations: of Working Groups	August 26, 2022	Approval and dissemination for compliance

#### **EDUCATION**

#### **MODULAR COURSES.**

- Strategic Planning in Laboratories and Leadership of Young Professionals
- Quality Management and Good Laboratory Practices to Strengthen Genomic Surveillance of COVID-19 in Molecular Biology Laboratories.
- Production of Blood Components in Transfusion Medicine
- International Course of Medical Mycology. 10 modules, conducted in Portuguese and Spanish
- The Path to Continuous Improvement of the Quality Management System (QMS) in the Clinical Laboratory
- Molecular Biology Applied to Laboratory Diagnosis.

#### WEBINARS BY MEMBER COUNTRIES.

- D-dimers and their different clinical applications
- Practical aspects of the Preanalytical Phase in the Cytochemical study of Puncture Fluid
- The dangerous path of wanting to control the biology of the fields with chemical cocktails
- The Laboratory for Monitoring the Leading Cause of Death Worldwide
- Expansion of Molecular Biology in the Laboratory
- Importance of the preanalytical phase in different areas of the clinical laboratory

- Artificial intelligence, a tool to enhance activities in the clinical laboratory
- Laboratory Challenges for the Lupus Anticoagulant Test
- Identification of Microorganisms using MALDI-TOF mass spectrophotometry for timely delivery of results
- Functional extracts of Ecuadorian plant seeds: antioxidant and antitumor properties and application in the treatment of colon cancer.
- Evaluation of the Antimicrobial Activity of honey from Native Stingless Bees (Meliponini Tribe) in Biofilms.

#### WEBINARS BY WORKING GROUPS

- Programs and Opportunities with the IFCC Youth Group (IFCC TF-YS)
- Emergency Laboratory Update "A Panorama through our experiences
- Analytical performance of enzyme creatinine
- Improvement actions to ensure quality in Clinical Laboratories
- Relevant Update in Microbiology to obtain quality results with patient-focused interpretation
- Biochemical professional profile-new challenges
- Aspects to take into account in the accreditation process of a laboratory
- Challenges and opportunities for young scientists in the clinical laboratory: a journey through our experiences
- Process control in blood Banks
- Bioethics in Research, Teaching and Assistance Task
- Identification of Critical Points during Blood Extraction

#### **CONVERSATORY COLABIOCLI CNB OF COLOMBIA**

- Monkeypox
- Vaccines, they managed to solve the problem of Sars cov-2; what can we expect
- Young professionals in the Latin American context
- Surveillance of emerging infectious diseases
- Current situation of laboratory diagnosis; experiences achieved two years after the Covid 19 pandemic
- Evolution of external quality assessment programs in Latin America

#### **GENERAL AWARENESS VIDEOS**

- Latin American Contest of Videos related to the Clinical Laboratory "Role of the Clinical Laboratory Professional
- Translation of Videos of the Brazilian Society of Clinical Analysis "Revaluing Laboratory Tests"

#### **POPULATION AWARENESS WEEK**

2<sup>nd</sup> Latin American Week of Quality in Health

Regional meetings		
Name of the meeting	Date	Society's contribution for the meeting
Ordinary Assembly of COLABIOCLI during the "XXV Latin American Congress of Clinical Biochemistry.	León – México March 30 to april 02, 2022	Election of the new Executive Committee COLABIOCLI.
IFCC General Conference.	Bruselas-Belgica October 26 to 30, 2022	Colabiocli Report Presentation



Regional meetings		
Name of the meeting	Date	Society's contribution for the meeting
Seminars for Academic Training Units of Biochemists and equivalent titles in Latin America and the Caribbean	Cordoba – Argentina November, 25 to 26, 2022	Conformation of the Latin American Network of Training Entities of Biochemical Professionals and equivalent titles
1st Latin American Conference of Young Clinical Laboratory Professionals	Cochabamba -Bolivia December 9 to 10, 2022	Elaboration Schedule Activities 2023
Meetings Organizing Committee Latin American Congress of Clinical Biochemistry - Colombia "Cartagena de Indias 2024". Two scheduled meetings	August 24 to september 30, 2022	Established Congress guidelines: themes, dates, place
Latin American Contest of Videos related to the Clinical Laboratory "Role of the Clinical Laboratory Professional	April, 2022	3 prizes awarded: - first prize: Uruguay - Second prize: Mexico - Third prize: Bolivia

#### **REGIONAL RELATIONS**

#### PARTICIPATIONS CONFERENCES NATIONAL ENTITIES MEMBERS COLABIOCLI

- 47<sup>th</sup> Congress of the Brazilian Society of Clinical Analysis (SBAC)
- 20<sup>th</sup> Chilean Congress of Clinical Chemistry and Laboratory Sciences
- 15<sup>th</sup> Congress of Laboratorians of Panama
- 11 Argentine Congress of Quality in the Clinical Laboratory (CALILAB2022)
- 20<sup>th</sup> International Congress of the College of Bacteriologists of Colombia
- 15<sup>th</sup> Congress of Bioanalysts of the Dominican Republic

#### INTERNATIONAL RELATIONS

#### PARTICIPATIONS CONFERENCES NATIONAL ENTITIES MEMBERS COLABIOCLI

- XXV Latin American Congress of Clinical Biochemistry, held in the city of León Guanajuato-Mexico.
- General Conference International Federation of Clinical Chemistry IFCC

#### **QUALITY SUPPORT ACTIVITIES**

- Call for countries to participate in the free pilot program of External Quality Assessment for Laboratories, sponsored by the National Quality Control Program (PNCQ) of the Brazilian Society of Clinical Analysis (SBAC).
- Implementation of the pilot projects on Strategic Planning in the member countries of COLABIOCLI that voluntarily want to develop

#### **ADDITIONAL INFORMATION**

#### INTERNATIONAL EVENTS ORGANIZED BY COLABIOCLI

- V Forum of Academic Training Units for Biochemical Professionals and Equivalent Degrees in Latin America and the Caribbean"
- 1st Latin American Conference of Young Clinical Laboratory Professionals
- XXV Latin American Congress of Clinical Biochemistry, held in the city of León Guanajuato-Mexico



Álvaro Justiniano Grosz, President Ana Lena Vera, Regional Representative

#### **EFLM**

### **European Federation of Clinical Chemistry and Laboratory Medicine**



In 2022, the newly established Task Force "Green and sustainable laboratories" (TF-GSL) chaired by EFLM President Tomris Ozben, prepared the EFLM Guidelines, checklists, Powerpoints and video recordings on main topics: Energy, Waste, Water, and Chemicals for Green and Sustainable Laboratories implementing sustainable practices in medical laboratories. A logo was prepared, and ISBN code was received for the guidelines. They were distributed to representatives of 49 National Societies together with short presentations, in order to prepare them for their role of National TF-GSL Expert who are supposed to work with the TF core members and their national societies in switching the medical laboratories within their countries to green and sustainable laboratories. The European Commission (EC) entitled "European Green Deal (EGD) was informed about the establishment of the EFLM Task Force-Green Labs. A close collaboration was developed with MedTech Europe and their Senior Manager on "Environment & Sustainability" was appointed to the EFLM TF-Green Labs as a TF member. A session was dedicated at the EFLM Strategic Conference on this topic. Meetings with the EFLM National Societies (Presidents, National Representatives, members) will be organized and a Workshop for the whole EFLM Community will be organized in 2023. A call to receive "Green and Sustainable Lab Certificate" applications from Laboratories will be launched in March 2023.

EFLM Academy continued to grow, reaching the number of almost 6000 members. All the benefits for Academy members were continued, which are now easier to navigate after the introduction of the improved e-learning platform. The platform enables access to live and on-demand webinars, as well as to the recorded events and the Syllabus Course for EFLM Academy members.

In January 2022, the EFLM Syllabus Course was launched. This unique educational resource was prepared by the EFLM Task Group Syllabus Course, chaired by Ana-Maria Šimundić. With its 43 modules, the Syllabus Course covers the entire curriculum of Laboratory Medicine. The contents are constantly added. Therefore, by the end of the year the module Virology that was in preparation when the Course was launched, was completed.

During the pandemic, the benefits offered by the EFLM Scholarship program in memory of Prof. Vic Blaton related to bursaries for meetings and conferences organized by EFLM were suspended for obvious reasons. In 2022, all of them were realized. Also, the EFLMLabX

professional exchanging program has been reactivated in 2022 and opened for applications.

3rd EFLM Strategic Conference "Smart and Green Laboratories – How to implement IVDR, emerging technologies and sustainable practices" was held 25-27<sup>th</sup> May 2022 as a virtual conference, with free access to all the EFLM Academy members. The Conference was successful, with more than 2000 registered participants, and represented a starting point for developing the EFLM Strategic Plan and Actions 2022/23.

In 2022 EFLM WG Laboratory Medicine Credit Points compiled the manual for EFLM Accreditation of Educational Programs. The trademark of CPECS® - Continuing Professional Education Credit System was registered and the first meeting to apply the system will be EuroMedLab/WorldLab Rome 2023.

Also in 2022, EFLM reactivated the program "Invite an Executive Board Member at Your National Society Congress". The program was originally intended to support in this way five national congresses per year. However, due to the imposed two-year suspension caused by the global pandemic, in 2022 all 13 received applications were approved.

Due to the lack of time caused by her new professional engagements, Ana-Maria Šimundić resigned to the position of EFLM representative in the IFCC EB EFLM President Tomris Ozben replaced her for the period 2022-23, after the extraordinary elections and endorsement by full-member NSs. Also in 2022 the IFCC launched the regular call for the term in office in 2024-2026. EFLM EB proposed the current president-elect, Mario Plebani. His candidacy was supported by all NSs, and after the regular elections, he was elected as the EFLM representative in the IFCC EB for 2024-2026.

EFLM EB had a joint meeting with the EB of the Arab Federation of Clinical Biochemistry (AFCB) in Crete, held at the outskirts of the 3<sup>rd</sup> joint EFLM-AFCB Conference "Laboratory Medicine for Mobile Societies -LM4MS". The cooperation beyond joint organization of LM4MS conferences on activities of mutual interest was agreed upon. This resulted with signing the new Guidelines for organization of LM4MS conferences2.

At the last EB meeting in 2022 the new EFLM Strategic Plan 2022–2023 was drafted and discussed. Strategic objectives and actions are regarding structure and organization; relation with other organizations; profession, education and training, communication; and scientific affairs. The draft of the Strategic and Action plan 2022-23 was shared with Functional units' chairs and Presidents and National Representatives of EFLM National Society Members for their comments and suggestions, before finalization and realization.

#### **COMMITTEES**

#### **Committee – Communication (C-C)**

C-C has one working group (WG Promotion & Publications) and two task groups (TG European Laboratory Day and TG Young Scientists). During the year 2022 we realized following priorities:

- After a new series of business offers for websites under EFLM administration redesign and user experience improvement, winning company was selected, and changes will be realized during 2023.
- The new TG Young Scientists was established and Miron Sopic was elected as the chair + 6 core members and > 20 associated members joined the TG. TG YS members met during EuroMedLab in Munich and started collaboration on CC activities (Newsletter, Social Media, European Laboratory Day) and initiated in cooperation with IFCC Young Scientists a survey about digital competence education in laboratory medicine.
- We produced 6 issues of EFLM Newsletter where we continued with the traditional sections and newly established (cooperation with EFLM EB) the section "Interviews with past EFLM presidents and senior EFLM officers".



- TG European Laboratory Day marked for the first time the European Laboratory day on November 5<sup>th</sup>. The purpose of the activities was to make laboratory medicine more visible and recognizable, to meet patients, and to inform the public about the profession and the valuable contribution of the specialist in laboratory medicine to patient care. Different activities were organized in Croatia, the Czech Republic, Estonia, France, Italy, Poland, Portugal, Serbia, and Turkey. Colleagues prepared activities for children, laboratory tours, student lectures, healthcare workers workshops, and open-day activities. After the held activities, a survey about the LabDay event was sent to colleagues to share their activities. All content was collected and published in the December 2022 issue of EuroLabNews.
- We continued with the regular presence of EFLM in social media (Facebook, Twitter, LinkedIn and Instagram) propagating key information from EFLM life.
- We prepared propagation materials for EuroMedLab in Munich EFLM booth (posters, interviews with interesting personalities that were published in social media)

#### **Committee – Education and Training (C-ET)**

In 2022 C-ET members were involved in EFLM bursaries evaluation for the online conference on pre-analytics. In addition, chairs of C-ET and Science committee evaluated research grants that were previously established by Executive Board. Two applications were granted, one for an applicant coming from a country enjoying "Vic Blaton" scholarship programme and the other for an applicant coming from any other country in Europe.

Working group on congresses and postgraduate education (WG-CPE). WG-CPE and C-ET chair were involved in organization of one online postgraduate courses: How to write a good scientific paper (on-line, 26 October - 15 November 2022). WG-CPE granted 3 on-line and 21 face-to face auspices for different educational events in 2022. WG was also involved in organization of the new EFLM course "Lessons in Immunochemistry", and realized 4 online lessons which will be organized in a form of webinars (Hypertension, Vitamin D-status, Hearth Failure and Androgen excess of deficiency). Additionally, WG-CPE was involved in organization of the new course "Meet the expert", which should also be realized as online course.

Working group on Laboratory medicine Credit Points (WG-LMCP). To institute an EFLM credit system, the WG-LMCP were working on the development of a "Provider Application and Manual for EFLM Accreditation of Educational Programs" in conjunction with an administrative system called the Continuing Professional Education Credit System (CPECS). Besides English version, WG members from Spain translated Provider Application to Spanish. EFLM office applied and received CERTIFICATE OF REGISTRATION for CPECS at the EUROPEAN UNION INTELLECTUAL PROPERTY OFFICE. For the first time EFLM accreditation system will be (CPECS accreditation) will be performed at the next 25th IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine in Rome.

Working group on Distance Education (WG-DE). In cooperation with PCO (professional congress organizers), WG members were involved in planning and organization of 17 webinars in 2022. They already prepared a list of 18 new webinars for 2023

#### **Committee – Profession (C-P)**

The C-P activity in 2022 focused mainly in five objectives:

- 1. Progress with achieving recognition of Specialists in Laboratory Medicine
- 2. Growing the EFLM Register (EuSpLM)
- 3. Growing the EFLM Academy
- 4. EFLMLabX
- 5. TG: EFLM Syllabus Courses



According to the demand of Directive 2013/55/EC (Recognition of Professional Qualifications), we are prepared to present the Common Training Framework for specialists in Laboratory Medicine (CTF) document (published in CCLM in 2021), as a joint statement of the EU-based national societies, to the EU Commission. Aim to continue the process of achieving EuSpLM recognition. We have already established communication with the EU Commission officer responsible for this Directive and professional regulation to define the meeting date in 2023 and to present our progress and the actual situation.

In support of this process, the launch of the EFLM Academy in December 2019, which is open to anyone (not just EFLM members) interested in laboratory medicine, proved to be a success. EFLM Academy offers a lot of benefits to its members. Therefore, the number of Academy and EuSpLM register members is constantly growing, especially through block-enrolled NS. At the beginning of 2022, there were added a lot of new essential benefits, including free access to additionally six important Journal (Clinical Chemistry Journal, Journal of Applied Laboratory Medicine, Critical Reviews in Clinical Laboratory Sciences Journal, Clinical Biochemistry Journal and Scandinavian Journal of Clinical and Laboratory Investigation), free access to CLSI documents (for block enrolled members). As a result of an important project of TG: EFLM Syllabus Courses, in 2022 is free to access to more than 350 lectures on all Syllabus topics, free access to EFLM webinars and much more. There are a few differences in the additional benefits of membership of the EFLM compared to non-EFLM Academy membership: enrollment in the EFLM EuSpLM register, which will only be possible by applying to the EFLM Academy and eligibility for EFLM grant applicants. All information about Academy and its benefits is available on the EFLM website https://www.eflm.eu/site/page/a/1558. As a result of these efforts, the number of registrants for the Academy increased steadily until the end of 2022 (+30% in comparison with the year 2021). The total number of members of the Academy is 6623 (with and without EuSpLM): through NS block enrollment (maximum share of registrants) (Total: 5801 (88%)) members, without EuSpLM certificate: 2784 (42%) members from total 6623; individual registration (Total: 822 (12%)), without EuSpLM registration: 694 out of 822). The total number of members of the Academy without EuSpLM, joined by both channels, is 3711.

The WG-Register confirmed 2912 applications for EuSpLM Register in 2022, mainly achieved by block entry 2784 (96%) and 128 (4%) from individual applications.

By the end of 2022, a Memorandum of Understanding (MoU) for Academy/EuspLM register group enrollment had been signed with 35/48 EFLM national societies (12 new in 2022: Estonia, France, Germany, Grece, Kosovo, Netherlands, Romania, Romania Affiliate, Slovak Republic, Turkey (TBS, KBUD) and UK, 3 in a way to sign: CSCB, MACCLM, LABAC-France.

In 2022 EFLM Academy Software renovation for easier management of the application has been applied on the EFLM website:

- The new platform for the EFLM Academy renewal in 2023 was launched in October 2022 and presented to all NS. It enables preparing and managing databases of all members in the Academy and EuSpLM Register by block enrollment and individual registration.
- 2. Standardised EuSpLM application form and new corresponding NS certificate (EoS proforma) for the individual registration process have been updated on the website.

After the Corona pandemic crisis, the EFLMLabX practice exchange project is already restarted with a lot of new applications for the practices. With the rising interest in the project, it has shown the need for its growth, and at the end of 2022, a new TG-EFLMLabX was established to support and develop the project activities. One of the most critical tasks is to attract more institutions/laboratories as the offerers of new practices. In 2022 three practices were realised (in Spain, Germany and Belgium). The project achieved significant support through the introduction of an EFLM Bursaries programme. We got three applications, and all of them have been confirmed.

In 2022, the TG: EFLM Syllabus Courses continued the project of Syllabus Courses, which EFLM launched in January 2022 in cooperation with several professionals from all over Europe as coordinators of 43 modules. With esteemed lecturers from different fields of LM and many European countries and beyond, we have prepared and recorded more than 300 lectures on all topics of the Syllabus. Courses are available on the EFLM Academy website as a part of the new e-learning platform for Academy members only. By the end of 2022 Virology module has been completed and several modules where individual lectures were missing were updated or completed.

C-P, together with Gilbert Wieringa, has prepared an update of the European Register of Specialists in Clinical Chemistry and Laboratory Medicine: Code of Conduct, Version 3-2022. A new version was already confirmed by EFLM NSs and is proceeding to CCLM for publication.

For better visibility of the C-P projects, the Chair of C-P, E. Homsak, presented the importance and progress of achieving recognition of Specialists in Laboratory Medicine and the educational EFLM tools (EFLMLabX and Syllabus Courses) at the NS meetings (in Slovenian Congress, Portugal Congress), Crete/Greece International Conference of Mediterranean countries, in Belgrade at the Serbian Congress/Balcan Symposium, through the recorded interview (to present EFLMLabX) at the EuroMedLab in Munich, which is available and advertising on social media (YouTube, LinkedIn).

C-P updated the site accordingly with any changes.

#### **Committee – Quality and Regulations (C-QR)**

The Working Group Accreditation and ISO/CEN standards published an article on an Approach for determining allowable between reagent lot variation. Clinical Chemistry and Laboratory Medicine (CCLM), vol. 60, no. 5, 2022, pp. 681-688. https://doi.org/10.1515/cclm-2022-0083. In the vein of this topic, we also worked on Analytical performance specifications for imprecision and bias based on clinical use.

These topics relate to the implementation of laboratory practices in the context of the risk-management system called for by the ISO 15189 standard. Meanwhile the 2022 version of that standard was published end 2022. It makes risk management a universal tool, and focuses on risks for patient care. This philosophy is fully congruent with that of the new EU IVD Regulation.

We plan in the year to come to develop commentaries on the transition from the 2012 to the 2022 version of the ISO 15189, and on the pivotal role of the risk management system, both with respect to this transition and to the implementation of IVDR requirements for in-house laboratory developed tests.

The Committee Chair is active in ISO-TC212 WG1, and in the EA Health Care Working Group to contribute to harmonization of accreditation according to ISO15189 in the European countries. The WG is focused on influencing the development and interpretation of ISO and CEN standards and in particular the implementation of the new EU IVD Regulation to the benefit of patient care.

The Committee Chair is also active in the EFLM Task Force: European Regulatory Affairs (TF-ERA). This Task Force follows up on the implementation phase of the new EU IVD regulation. Together with that task-force we prepared an opinion on EU-IVDR compliance under an ISO-15189 quality system (to be published shortly).

#### Committee - Science (C-S)

After the maximum three and succesful terms of office as C-S Chair, Eric Kilpatrick was stepping down as of 2022, with Michel Langlois succeeding him for a first term and coordinating the activities of eight Working Groups (WGs), two Task Groups (TGs), and three Task and Finish Groups (TFGs). In addition, two new functional units have been established under this Committee

in 2022: the WG-Artificial Intelligence chaired by Andrea Padoan and the TG-CKD chaired by Etienne Cavalier, coinciding with publication of the EFLM Position paper on race-free CKD-EPI equation.

The impressive scientific outcome of C-S activities in 2022 includes 17 papers published or accepted, 18 papers submitted, 7 surveys conducted, and 33 lectures and webinars. The EFLM Pre-analytical Conference was organized in March 2022 and several contributions were made to EuroMedLab Munich and EFLM Strategic Conference 2022 sessions.

The WG-Biological Variation extended the number of new measurands and biological variation data sets published by Aasne Aarsand and colleagues. The TG-Biological Variation Database under this WG further developed the EFLM Biological Variation Database – our Society's famous landmark! – including publishing the new website. The TFG-Practical Approach to Measurement Uncertainty under the same WG published papers related to measurement uncertainty (MU) calculations and analytical performance specifications (APS), including a paper on a practical approach to calculate MU developed by this TFG.

Cooperations with other Societies and clinical specialists' groups were expanded, broadening the horizon of EFLM. The WG-Cardiac Markers started collaboration with the European Society of Cardiology (ESC), and a joint international survey of EFLM, IFCC, the Association for Acute CardioVascular Care (ACVC) and the European Society for Emergency Medicine (EUSEM) on cardiac marker use for myocardial injury diagnosis was performed under leadership of Päivi Laitinen. A multisociety guideline of EFLM, EASI (European Autoimmunity Standardization Initiative) and ICAP (International Consensus on Antinuclear Antibody Patterns) was developed by Xavier Bossuyt and members of the WG-Autoimmunity Testing, making recommendations for detection of antinuclear antibodies. This guideline underwent public consultation and voting by the EFLM National Societies in 2022 and is approved for publication. The 2000 European Urinalysis Guideline is updated by Timo Kouri and the multidisciplinary TFG-Urinalysis including bacteriologists and experts in urine chemistry and automated particle counts. This comprehensive document is submitted for public consultation by ESCMID (European Society of Clinical Microbiology and Infectious Diseases), and the EFLM National Societies.

Synergistic collaborations between WGs and T(F)Gs within the C-S and with other Committees of EFLM were also strenghtened. The WG-Preanalytical Phase and WG-Postanalytical Phase set the example by establishing joint collaborative projects to improve laboratory test request and clinical utilization of tests. In addition, the WG-Postanalytical Phase finalized projects on laboratory report formatting and reflex/reflective testing. A first version of an online-tool for laboratories to input and evaluate their analyte stability data has been created by the WG-Preanalytical Phase, under leadership of Janne Cadamuro. The WG-Patient Focused Laboratory Medicine, guided by Snezana Jovicic, is further conducting evaluations of the effects of reporting interpretative comments to patients' laboratory results, the availability and validation of overthe-counter POC tests in different countries, smartphone applications, and other projects aiming to develop lay-person friendly Lab Medicine communication to patients.

The WG-Test Evaluation reached out at EuroMedLab Munich on key elements of test evaluation and IVDR, and is working to embed IVDR test requirements in an update of the Test Evaluation Framework paper. Guided by Christa Cobbaert, this WG develops guidance on "equivalence of tests" for both CE-IVDs and in-house tests. Input was given to the European Commission via Medical Device Coordination Group (MDCG) observership in the IVD working group, contributing to MDCG guidance on LDTs. The TG-Performance Specifications Based on Outcome Studies, guided by Rita Horvath under WG-Test Evaluation, continued working on a multifaceted approach when setting APS, and focuses on the methodology for deriving outcome-based APS. The generous gesture of Rita Horvath to donate her EFLM Award 2019 for "Scientific Achievements in Laboratory Medicine" money to this TG deserves to be mentioned.

In 2022 there was a changing of the guard in two WGs and one TFG with a new Chair: WG-Harmonization with Martina Zaninotto (succeeding Ian Young), WG-Postanalytical Phase with Pieter Vermeersch (succeeding Ann-Helen Kristoffersen), and TFG-Hemolysis, Icterus and Lipemia (HIL) Interference with Rachel Marrington (succeeding Ana-Maria Simundic).

2021-2022 was the last term of office of two esteemed WG Chairs who have been working very hard and succesful in C-S for many years. As of 2023, Philip Monaghan will succeed Christa Cobbaert ending her 3rd term as Chair of WG-Test Evaluation. Sverre Sandberg will succeed Aasne Aarsand ending her 3rd term as Chair of WG-Biological Variation, and Aasne will take over Sverre's chairmanship of the TG-Biological Variation Database under this WG. The TFG-Practical Approach to Measurement Uncertainty, after two years of fruitful activity under the same WG, will be continued as a TG with new plans under leadership of the same Chair, Abdurrahman Coskun, to further explore use of MU of the analytes as a powerful tool in harmonization of different instruments and laboratories and to determine the MU-based APS.

In the post-pandemic months of 2022, it is obvious that C-S has quickly regained productivity beyond pre-pandemic levels and groups are now working at high pace. A positive consequence of the pandemic is that WGs and T(F)Gs are actually meeting more often now that videoconferencing has become the default means of gathering – reducing the costs and climate impact of meetings.

#### **MEETINGS**

These are the EFLM live events that took place in 2022:

- EuroMedLab 2021 Munich (DE), 10-14 April 2022
   24<sup>th</sup> IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine
- 2<sup>nd</sup> AFCB-EFLM Conference "Laboratory Medicine for Mobile Societies" jointly organized with the BCLF and GSCC-CB Annual Congresses - Crete (GR), 2-5 October 2022
  - Biennial Conference of EFLM in collaboration with the Arab Federation of Clinical Biochemistry
- EFLM Postgraduate Course Skopje (MK), 17-18 November 2022
   Biostatistics in Laboratory Medicine

Three very successful EFLM courses and conferences have been also held on-line:

- Biannual Conference organized by the EFLM Working Group on "Preanalyical Phase",
   15-18 March 2022
  - 6th EFLM Conference on Preanalytical Phase ""Preanalytical Quality: an interdisciplinary journey"
- 3<sup>rd</sup> EFLM Strategic Conference, 25-27 May 2022
  - SMART and GREEN LABORATORIES How to implement IVDR, emerging technologies and sustainable practices in medical laboratories?
- 3<sup>rd</sup> EFLM Postgraduate Course, 26 October 15 November 2022
   How to write and publish a good scientific & professional article

#### **WEBINARS**

EFLM has organized several Webinars during 2022, thanks to the new EFLM e-learning platform:

- 25/01/2022 Isolation, characterization and cryopreservation of hematopoietic stem cells from cord blood units
- 08/02/2022 Patient-focused laboratory medicine how can we communicate directly with patients?



- 22/02/2022 Biological variation of CBC parameters as a pointer towards individual reference intervals
- 24/02/2022 EFLM Lessons in Immunochemistry 1
- 29/03/2022 Liquid biopsy
- 12/04/2022 Evidence-based laboratory medicine
- 26/04/2022 Laboratory diagnostic of thyroid diseases
- 10/05/2022 Regulation of In Vitro Diagnostics in the EU: Lessons for diagnostic professionals
- 24/05/2022 Laboratory diagnostic of prostate cancer
- 30/05/2022 EFLM Lessons in Immunochemistry 2 Vitamin D status: the role of Laboratory
- 21/06/2022 Molecular Immunology: new tricks of the innate immune system
- 28/06/2022 From IVD Directive to IVD Regulation: the changing landscape of Test Evaluation and Regulatory Requirements
- 15/07/2022 Cardiac Markers
- 13/09/2022 EFLM Lessons in Immunochemistry 3
- 27/09/2022 Basic Semen Examination WHO recommendations and new European ISO standard
- 11/10/2022 Challenges in POC testing
- 25/10/2022 The EFLM Update of the European Urinalysis Guidelines
- 08/11/2022 Monitoring the performance of a measurement system for its intended clinical use
- 22/11/2022 Atherogenic lipoproteins: which, when, and how to quantify
- 24/11/2022 EFLM Lessons in Immunochemistry
- 13/12/2022 Artificial Intelligence in laboratory medicine

#### **PUBLICATIONS**

Biological variation of serum iron from the European biological variation study (EuBIVAS)

Carobene A, Aarsand AK, Coşkun K, Díaz-Garzón J, Locatelli M, Fernandez-Calle P, Sandberg S and Ceriotti F

Clin Chem Lab Med 2022 https://doi.org/10.1515/cclm-2022-1091

The new, race-free, Chronic Kidney Disease Epidemiology Consortium (CKD-EPI) equation to estimate glomerular filtration rate: is it applicable in Europe? A position statement by the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)

Delanaye P, Schaeffner E, Cozzolino M, Langlois M, Plebani M, Ozben T, Cavalier E, on behalf of the Board members of the EFLM Task Group Chronic Kidney Diseases

Clin Chem Lab Med 2022 https://doi.org/10.1515/cclm-2022-0928

Efficiency, efficacy and subjective user satisfaction of alternative laboratory report formats. An investigation on behalf of the Working Group for Postanalytical Phase (WG-POST), of the European Federation of Clinical Chemistry and Laboratory Medicine

Cadamuro J, Winzer J, Perkhofer L, von Meyer A, Bauça J. M, Plekhanova O, Linko-Parvinen A, Watine J, Kniewallner K. M, Keppel M. H, Šálek T, Mrazek C, Felder T. K, Oberkofler H, Haschke-Becher E, Vermeersch P, Kristoffersen A. E. and Eisl C, on behalf of the EFLM Working Group for Postanalytical Phase (WG-POST)

Clin Chem Lab Med 2022 doi.org/10.1515/cclm-2022-0269



Acidification of 24-hour urine in urolithiasis risk testing: An obsolete relic?

Cadamuro J, Decho C, Frans G, Auer S, von Meyer A, Kniewallner K. M, Heinrich E, Keppel M. H, Mrazek C, Felder T. K, Oberkofler H, Haschke-Becher E, Kipman U, Salek T, Vermeersch P, on behalf of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) Working Group "Preanalytical Phase" (WG-PRE)

Clinica Chimica Acta 2022;532:1-9

Measurement uncertainty for practical use

Coskun A, Theodorsson E, Oosterhuis W, Sandberg S, on behalf of the European Federation of Clinical Chemistry and Laboratory Medicine Task and Finish Group on Practical Approach to Measurement Uncertainty

Clinica Chimica Acta 2022:531:352-60

Preanalytical quality improvement – an interdisciplinary journey

Cadamuro J, Baird G, Baumann G, Bolenius K, Cornes M, Ibarz M, Lewis T, Lima Oliveira G, Lippi G, Plebani M, Simundic AM, von Meyer A, on behalf of the European Federation for Clinical Chemistry and Laboratory Medicine (EFLM) Working Group for Preanalytical Phase (WG-PRE)

Clin Chem Lab Med 2022 doi.org/10.1515/cclm-2022-0117

An approach for determining allowable between reagent lot variation

van Schrojenstein Lantman M, Can Çubukçu H, Boursier G, Panteghini M, Bernabeu-Andreu FA, Milinkovic N, Mesko Brguljan P, Linko S, Brugnoni D, O'Kelly R, Kroupis C, Lohmander M, Šprongl L, Vanstapel F, Thelen M, European Federation of Clinical Chemistry, Laboratory Medicine EFLM Working Group Accreditation, ISO/CEN standards WG-A/ISO

Clin Chem Lab Med 2022 doi.org/10.1515/cclm-2022-0083

The value proposition of integrative diagnostics for (early) detection of cancer. On behalf of the EFLM interdisciplinary Task and Finish Group "CNAPS/CTC for early detection of cancer"

Froelich MF, Capoluongo E, Kovacs Z, Patton SJ, Lianidou ES, Haselmann V

Clin Chem Lab Med 2022 doi.org/10.1515/cclm-2022-0129

Critical review and meta-analysis of biological variation estimates for tumor markers

Marques-Garcia F, Boned B, González-Lao E, Braga F, Carobene A, Coskun A, Díaz-Garzón J, Fernández-Calle J, Carmen Perich M, Simon M, Jonker N, Aslan B, Bartlett WA, Sandberg S, Aarsand AK, on behalf of the European Federation of Clinical Chemistry and Laboratory Medicine Working Group on Biological Variation and Task Group for the Biological Variation Database

Clin Chem Lab Med 2022 doi.org/10.1515/cclm-2021-0725

Snežana Jovičić, EFLM Executive Board Secretary

### **NAFCC**

### North American Federation of Clinical Chemistry and Laboratory Medicine





The NAFCC represents two North American organizations on the IFCC Executive Board (IFCC-EB), the American Association for Clinical Chemistry (AACC) and the Canadian Society of Clinical Chemists (CSCC). In 2023 the AACC will be changing its name to the Association for Diagnostics & Laboratory Medicine (ADLM).

Dr. Stephen Hill was elected as NAFCC representative and was to serve until December 2023. Unfortunately, Dr Hill is unable to finish his term. Dr Edward (Ted) Dunn, current Past-President of the CSCC has been confirmed as NAFCC representative until the end of 2023. Former AACC President Dr. David Grenache, has been appointed to the IFCC-EB starting January 2024 for a three-year term.

The CSCC held its annual conference in Niagara Falls ON from June 5-8, 2022 and the AACC held its Annual Scientific Meeting and Clinical Lab Expo in Chicago IL from July 24-28, 2022

The AACC will be holding its Annual Scientific Meeting and Clinical Lab Expo from July 23-27, 2023, in Anaheim California. The CSCC is holding a joint scientific meeting with the Canadian College of Medical Geneticists (CCMG) from June 18-21, 2023, in Winnipeg Manitoba.

Edward Dunn, NAFCC Representative



### **Full Member Societies**





#### **NATIONAL MEETINGS**

Name of the meeting	Date
Previous activity before the national meeting	May 26, 2022 – Buenos Aires, Argentina
Meeting of the National entities of C.U.B.R.A	May 27, 2022 – Buenos Aires, Argentina
Live Webinars organized by Cubra's Permanent Scientific Committee	June 2022

#### **EDUCATION**

- Member of the Executive Committee of the Commission of National Biochemical Certification (COCERBIN).
- Member of the "Advisory Commission for the Evaluation and Updating of the Unique Biochemical Nomenclature", within the Superintendence of Health Services.

#### **REGIONAL RELATIONS**

Colegio Bioquímico de Catamarca

Colegio Bioquímico del Chaco

Colegio Bioquímico de La Pampa

Colegio Bioquímico de La Rioja

Colegio Bioquímico de San Juan

Colegio Bioquímico de Santiago del Estero

Colegio Bioquímico de Tucumán

Colegio de Bioquímicos de la Provincia de Río Negro

Colegio de Bioquímicos de Corrientes

Colegio de Bioquímicos de Neuguén

Colegio de Bioquímicos de Entre Ríos

Colegio de Bioquímicos de Formosa

Colegio de Bioquímicos de Jujuy

Sección 1ª de Bioquímica del Colegio Oficial de Farm. y Bioq. de Capital Federal

Colegio de Farm. y Bioquímicos de la Provincia de Santa Cruz

Bioquímicos del Interior A.C. Salta

Círculo Bioquímico de la Provincia de Misiones

Asociación Bioquímica de Salta

Asociación Bioquímica de Mendoza

Asociación Bioquímica del Este

Asociación Bioquímica de San Luis

Asociación Bioquímica de Villa Mercedes

Asociación Bioquímica de San Rafael

Federación de Bioquímicos de la Provincia de Córdoba

Federación Bioquímica de la Provincia de Buenos Aires

Federación Bioquímica de la Provincia de Chubut

Federación Bioquímica de la Provincia de Santa Fe



FBA - Fundación Bioquímica Argentina

COORDINADORA de Colegios de Bioquímicos de Ley de la República Argentina

**CGP** - Confederación General de Profesionales

IRAM - Instituto Argentino de Normalización y Certificación

ECUAFyB - Ente Coordinador de Unidades Académicas de Farmacia y Bioquímica

UCOPS - Unión de Confederaciones de Profesionales de la Salud

Agrupación Bioquímica de Cuyo

FEBIPA - Federación Bioquímica Patagónica.

FOBINEA - Foro de Bioquímicos del Noreste Argentino.

FEBINOA - Federación Bioquímica del Noroeste Argentino

Ministerio de Salud de la Nación - Superintendencia de Servicios de Salud

Ministerio de Educación de la Nación

#### **INTERNATIONAL RELATIONS**

IFCC International Federation of Clinical Chemistry and Laboratory Medicine.
COLABIOCLI Confederación Latinoamericana de Bioquímica Clínica.
CLAPU Confederación Latinoamericana y del Caribe de Asociaciones de Profesionales Universitarios.



### **AUSTRIA**

## AUSTRIAN SOCIETY OF LABORATORY MEDICINE AND CLINICAL CHEMISTRY (ÖGLMKC)

#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
9th annual conference of the ÖGLMKC	July 4 <sup>th</sup> to 7 <sup>th</sup> , 2023	laboratory medicine



## CANADA CANADIAN SOCIETY OF CLINICAL CHEMISTS (CSCC)

#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
CSCC Annual Conference 2022	June 5-8, 2022	CSCC Annual Meeting Niagara Falls, Ontario
Upcoming meeting in 2023: CSCC Annual Conference	June 18-21, 2023	CSCC Annual Meeting held jointly with The Canadian College of Medi- cal Geneticists (CCMG) Winnipeg, Manitoba
Upcoming meeting in 2024: CSCC Annual Conference	June 16-19, 2024	CSCC Annual Meeting held jointly with La Société québécoise de bio- logie clinique (SQBC) Mont Sainte-Anne, Quebec



Name of the meeting	Date	Topic
Upcoming meeting in 2025: CSCC Annual Conference	July 27-31, 2025	CSCC Annual Meeting held jointly with the American Association for Clinical Chemistry (AACC) Chicago, Illinois



#### **EDUCATION**

#### **2022 Travelling Lectureship Series**

Speaker: Dr. Sophie Gosselin, MD, CSPQ, FRCPC, FACMT, FAACT, Professor, Department of Emergency Medicine at McGill University Faculty of Medicine, Site Chief of the emergency medicine service at Hôpital Charles-Lemoyne, Greenfield Park and Associate-Chief of the CISSS-Montérégie Centre Emergency Department; Montreal, Canada

Topic: Emergency Toxicology Laboratory Service

Dr. Gosselin gave a number of lectures to different sites across Canada, both in-person and virtually, during Fall 2022 and Winter 2023

The lectureship is sponsored by Bio-Rad Laboratories

#### **CSCC** Webinar Lectureship on Cardiovascular Disease

Speaker: Dr. Sridevi Devaraj, PhD, DABCC, FAACC, FRSC, CCRP, Medical Director, Clinical Chemistry and Point of Care Technology, Texas Children's Hospital and Pavilion for Women; Director of Laboratories, TCH Centers for Children and Women, Professor of Pathology & Immunology, Baylor College of Medicine, Rotation Director and Fellowship Director, Clinical Chemistry

Topic: Cardiovascular Disease and Pediatric Lipid Guidelines: Role of the Clinical Laboratory March 24, 2022

Lectureship sponsored by Abbott

#### **CSCC Webinar Lectureship on Critical Care Medicine**

Speaker: Nam K. Tran, PhD, Professor and Senior Director of Clinical Pathology, UC Davis School of Medicine, California, USA

Topic: Laboratory Considerations for Disaster Response Testing: Lessons Learned and Preparing for the Next Crisis

April 7,2022

Lectureship sponsored by Roche

#### 2021-22 Education Roundtable Webinar Series

16 CSCC "Education Roundtable" in webinar format were held twice a month from September 2021 to May 2022. Over 100 participants attend each session.

#### 2022-23 Education Roundtable Webinar Series

15 CSCC "Education Roundtable" in webinar format will be held twice a month from September 2022 to May 2023. Over 100 participants attend each session.

## 28th AACC International CPOCT Symposium: Meeting Evolving Patient Needs Using Point-of-Care Testing

CSCC partnered with AACC on this biennial symposium, held September 21-23, 2022 in Montreal, Canada.

This symposium is designed to meet the needs of laboratory professionals overseeing and/ or carrying out point-of-care testing, clinical laboratory physicians, supervisors, managers, regulatory personnel, and other laboratory professionals interested in advances in point-of-care testing.

#### **Special Interest / Working Groups**

CSCC has 11 special interest / working groups which are communities with an interest in advancing a specific area of knowledge, learning or technology where members cooperate to affect or to produce solutions within their particular field. The activities usually consist of communication between conferences and informal sessions within the CSCC conference. These groups also develop position statements and guidelines, and present educational webinars.

### **Leadership In Quality Management Certificate Program**

The purpose of this Program is to bring Clinical Biochemists, as laboratory leaders, to a level required to provide competent leadership and oversight to the quality management systems (QMS) in their laboratory. The certificate Program is presented as an on-line course in quality management. CSCC trainee members are offered the option to register in the program at no charge. This event is an accredited group learning activity as defined by the CACB/CSCC Professional Development Program.

Participants have two years to complete the program.

### **CACB Professional Development Program**

The Maintenance of Competence Committee oversees the continuing professional development (PD) program designed by the Canadian Academy of Clinical Biochemistry to encourage and support the lifelong learning needs of its Fellows and other healthcare professionals who are in the practice of clinical chemistry. The program uses accreditation of continuing professional development events, establishes an ongoing PD program for continuing education credits, and conducts audits of PD credit submissions as a means of meeting this goal.

#### **Clinical Biochemistry Journal**

CSCC is the owner of the scientific journal Clinical Biochemistry which is published by Elsevier. There are 12 issues per year and the website is: https://journals.elsevier.com/clinical-biochemistry

#### **Clinical Chemistry Training Programs**

The Canadian Academy of Clinical Biochemistry has accredited six Postdoctoral Training Programs in Clinical Chemistry across Canada: University of Toronto, McMaster University, Université de Montréal, University of Manitoba, University of Calgary, and University of Alberta. These programs are directed toward acquiring professional competence as well as a small research complement.

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
Ontario Society of Clinical Chemists 2022 Annual Meeting	September 27-28, 2022 Toronto, Ontario	Hosted and planned by the Ontario regional society of CSCC
Alberta Society of Clinical Chemists 2022 Annual Meeting	October 14-15, 2022 Jasper, Alberta	Hosted and planned by the Alberta regional society of CSCC



#### **REGIONAL RELATIONS**

CSCC has 8 Provincial Sections – British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, and Newfoundland & Labrador. Each Section holds its own meetings and small conferences. The Sections report annually to the Society Council. A Provincial Grant is available for each section to help fund their activities.

CSCC will hold its annual conference as a joint meeting with the Canadian College of Medical Geneticists (CCMG) in 2023 in Winnipeg, Manitoba.

CSCC will hold its annual conference as a joint meeting with La Société québécoise de biologie clinique (SQBC) in 2024 in Mont Sainte-Anne, Quebec.

#### **INTERNATIONAL RELATIONS**

CSCC will hold its annual meeting jointly with the American Association for Clinical Chemistry (AACC) in 2025 in Chicago, USA.

CSCC paid the IFCC membership dues of the Cuban Society.

CSCC, with AACC, is a member of the North American Federation of Clinical Chemistry and Laboratory Medicine (NAFCC) of IFCC. The NAFCC is represented at the IFCC Executive Board meetings. Dr. Ted Dunn of Ontario Canada is the current NAFCC representative.

Dr. Khosrow Adeli, Past-Chair of the Canadian Academy of Clinical Biochemistry, is the current President of IFCC.

Dr. David Kinniburgh, Past-President of CSCC, is the current Secretary of IFCC.

Dr. Allison Venner, CSCC President, attended the IFCC General Council (October 26-30, 2022) as the national representative for CSCC.

There are several Canadian members on IFCC committees and each of these members is asked to provide a report to CSCC Council at least annually.

#### **ADDITIONAL INFORMATION**

#### **External Representation**

#### The CSCC:

- Has diverse representation on external professional groups, including IFCC, the Canadian Standards Association, the JCTLM Working Group for Traceability, Education and Promotion, the Canadian Society of Nephrology Task Force on eGFR Reporting, and the Diabetes Technology Society (iCode).
- Has a number of interactions with other Canadian pathology and lab medicine groups including, 'Choosing Wisely Canada' (http://www.choosingwiselycanada.org/)
- Supports LabCanDx (formerly MEDEC), the national association for the Canadian medical technology industry, in their efforts to promote the value of laboratory medicine and supports participation in ToxLRN which is an initiative by Health Canada to create a network of toxicology laboratories in Canada.
- Provides support and professional encouragement for Trainees and Young Scientists, such as travel grant funding and a special reception at the annual conference. CSCC also provides Trainee Elective Visit Grants which support short-term elective visits to other labs to provide lab medicine trainees with a unique opportunity to augment their skill sets.
- Holds an annual charity run at its annual conference and proceeds are donated to a local charity.
- Publishes a bi-monthly newsletter.



- Has a Public Outreach Division which is actively working on promoting the profession of clinical biochemistry in Canada.
- Has a Podcast program and in 2022 nine podcasts were produced. https://cscc.ca/en/ chemist-library/the-lab-report.html



# **CHILE**SOCIEDAD CHILENA DE QUÍMICA CLÍNICA (SCHQC)



#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
20 Congreso Chileno de Quimica Clinica	August 18-19, 2022	

#### **EDUCATION**

- Webinar COLABIOCLI Desempeño analítico de Creatinina enzimática. Édison López. 28 April 2022
- Webinar COLABIOCLI Acciones de mejora para asegurar la calidad en los laboratorios clínicos. Natalia Serrano. 31 Mayo 2022
- Webinar COLABIOCLI Aspectos a tomar en cuenta para el proceso de acreditación de un laboratorio clínico. Leonardo Aguirre, 16 Agosto 2022
- Webinar COLABIOCLI Inteligencia Artificial: Una herramienta para potenciar actividades en el laboratorio clínico. Daniel del Águila, 27 Septiembre 2022
- Webinar Facultad de Farmacia Universidad de Concepción. Biomarcadores emergentes en laboratorio clínico. Cecilia Tapia, 2 Enero 2022
- FCC Live Webinar Importance of the preanalytical phase in different areas of the laboratory. Eduardo Aranda, 7 September 2022
- Curso precongreso: Diagnostico de laboratorio en enfermedades autoinmunes.17 Agosto 2022
- Curso precongreso: Validación, verificación y evaluación de métodos cualitativos, 17 Agosto 2022

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
XXV Congreso Latinoamericaco de Bioquimica Clinica León Mexico	30 Marzo - 2 Abril 2022	Curso precongreso: Fase Pre analitica. Eduardo Aanday Maria E. Arredondo. Curso Acreditacion. Leonardo Aguirre
XI Congreso Argentino de la Calidad en ellaboratorio clinico	7,8 y 9 Noviembre 2022	Simposio Acreditacion. Leonardo Aguirre
1°Conferencia Latinoamericana de Jovenes Profesionalales	9 y 10 Diciembre 2022	Conferencia: Natalia Serrano

#### **REGIONAL RELATIONS**

SChQC has collaborations with several associations of medical laboratory.

- COLABIOCLI (Confederación Latinoamericana de Bioquímica Clínica)
- APTM (Asociación Panamericana de Tecnología Médica)
- WG Pre Analityc Phase-LATAM COLABIOCLI Eduardo Aranda (member) and Maria E. Arredondo (member)
- WG Accreditation Management COLABIOCLI Leonardo Aguirre (member) and Leticia Luna (corresponding member)

#### **INTERNATIONAL RELATIONS**

IFCC TF OSML Claudio Suarez (member)

IFCC EMD C-CMBC Cecilia Tapia (corresponding member)

IFCC National representative Eduardo Aranda



#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
CACB Annual General Meeting in conjunction with 36th Joint Annual Conference of Biomedical Science (JACBS), Taipei, Taiwan	26-27 March 2022	A hybrid format, the physical Conference venue was at the National Yangming Jiaotong University, Yangming Campus, Taipei. CACB planned for a scientific symposium focusing on "Precision Laboratory Medicine and Sustainable Healthcare". Four speakers were invited to present the progress on identifying novel biomarkers and therapeutic targets for various diseases. The speakers include Dr. Khosrow Adeli, IFCC President and Professor at The Hospital for Sick Children/University of Toronto, gave a keynote speech on "Value and Impact of Lab Medicine in Healthcare and Public Health" (Photo 1); Dr. Wen-Chien Chou, Director of the Department of Laboratory Medicine at National Taiwan University Hospital, presented "Precision Medicine—from blood cancers"; Dr. Sui-Yuan Chang, Professor of Clinical Laboratory Sciences and Medical Biotechnology, National Taiwan University, shared their latest findings on "Inhibition of SARS-CoV-2 infection including the Omicron variant by a broad-spectrum siRNA"; Dr. Wen-Hui Ku, CEO of Taipei Institute of Pathology, presented "Precision Medicine: the utility of LC-MS". CACB also held competitions for poster and oral presentation. Overall, the two-day conference was successful and truly an enjoyable academic gathering for the attending members of CACB.



ı	40th Anniversary Conference of Chinese Association for Clinical
ı	Biochemistry.

9 July 2022

The activity was held at the Department of Clinical Laboratory Sciences and Medical Biotechnology, National Taiwan University. A symposium of "Current IVD Industry Trends and Technologies." Speakers and representatives from Roche Diagnostics Ltd., Taiwan, Abbott Laboratories Services Corp., Taiwan Branch, and Sysmex Taiwan Co., Ltd were invited to deliver most updated development in IVD Industry. A celebration was followed by the Symposium. Past and current presidents, board members and friends of CACB reunited to honor the past and celebrate the future of CACB (Photo 2).



#### **EDUCATION**

A traditional Chinese edition of "The chronicle and commemorative photographs of Chinese Association for Clinical Biochemistry 1982-2022" was published and distributed to CACB members as well as friends and supporters.

#### **REGIONAL RELATIONS**

A contribution of national society report to APFCB News 2022 Issue 1 published in March 2022 and Issue 2 published in November 2022.

#### **INTERNATIONAL RELATIONS**

CACB Executive Director and National Representative Dr Woei-Horng Fang attended IFCC General Conference in Brussels. Dr. Fang reunited with old friends in IFCC and had a fruitful discussion on education and regulation (Photos 3 to 7).

In the 2022 IFCC General Conference in Brussels, an agreement was achieved between Prof. Nader Rifai (AACC) and Dr. Woei-horng Fang (CACB). In order to increase utility and eliminate language barriers, Dr. Fang would join the Chinese version initiative of AACC Learning Lab for Laboratory Medicine on NEJM Knowledge+ program. Dr. Fang proposed the Traditional Chinese version initiative and was accepted. The translation was started in December 2022 and The Chinese site was schedule to be launched in April 2023 (Photo 8).

#### **ADDITIONAL INFORMATION**



Photo 1 - CACB Board Members had a group photo with Dr. Adeli after his keynote speech.





Photo 2 - CACB 40th anniversary.









Photos 3 to 7 - At 2022 IFCC General Conference in Brussels, CACB Executive Director Dr Fang presented "The chronicle and commemorative photographs of Chinese Association for Clinical Biochemistry 1982-2022" to IFCC President Prof Khosrow Adeli, Past President Prof Maurizio Ferrari and President-elect Prof Tomris Ozben, APFCB President Dr Endang Horyanda and IFCC Secretariate staff.

#### Planning of 2022 events:

CACB annual conference and scientific symposium in conjunction with the 37th Joint Annual Conference of Biomedical Science (JACBS). The main theme for JACBS this year is "Metabolism in Human Health". Four speakers will be invited to present the progress on metabolomics and its clinical applications. Professor Andrew Hoofnagle, Director of Division of Chemistry, Department of Laboratory Medicine and Pathology University of Washington, is going to deliver a keynote speech on "Clinical Metabolomics: Current state and future directions". Professor Ming-Shi Shiao, Consultant and CRO, GeneOnLink, and adjunct Professor, Graduate Institute of Traditional Medicine, National Yang Ming Chau Ton University, will present "Metabolomics Enables Precision Medicine". Professor Jentaie Shiea from National Sun Yat-sen University will talk about "Rapid Characterization and Imaging of Drugs and Potential Metabolic Disease Biomarkers on Human Skin with Ambient Ionization Tandem Mass Spectrometry". Professor Tjin-Shing Jap, Physician, Division of Endocrinology and Metabolism, Taipei-Veterans General Hospital will present" The laboratory evaluation of glucose and lipid metabolism from Biochemical perspectives".



Photo 8 In 2022 IFCC General Conference, Prof Nader Rifai (AACC) and Dr Woei-horng Fang (CACB) made an agreement for Traditional Chinese version initiative of AACC Learning Lab for Laboratory



#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
10 <sup>th</sup> Congress of the Croatian Society of Medical Biochemistry and Laboratory Medicine with International Participation organized by the Branch of Slavonia and Baranja	28.91.10.2022	Providing an overview of the hot topics and novel technologies in the field of laboratory medicine. (https://kongres2022.hdmblm.hr/index.php/en/)
33 <sup>rd</sup> Symposium of the Croatian Society of Medical Biochemistry and Laboratory Medicine	21.5.2022	Laboratory diagnosis of arterial hypertension

#### **EDUCATION**

CSMBLM organized 3 webinars in 2022. Topics covered were: POCT, laboratory diagnostics of neurological disease and metabolism of iron (hepcidin).

Lecturers were local experts in the field.

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
Branch of Dalmatia	21.12.2022	Laboratory procedures and assessment of the adequacy of peritoneal dialysis
Branch of the Istria, Primorje-Gorski	1.12.2022	Therapeutic monitoring of antipsychotics in the blood
Kotar and Lika region	9.6.2022	Down syndrome screening in the first trimester
	13.12.2022	Erythrocyte sedimentation rate - an old analysis in a new guise
Northwestern Branch	18.10.2022	Microscopy in the little finger
Northwestern Blanch	17.5.2022	Anemia of chronic disease
	7.4.2022	Satiety and hunger hormones
Duanah of Clavenia and Davania	19.12.2022	A new marker in the diagnosis of sepsis
Branch of Slavonia and Baranja	2.5.2022	ESI parameter, a new way to fight sepsis
European LabDay	5.11.2022	Dubrovnik, Split, Rijeka, Osijek, Zagreb

#### **INTERNATIONAL RELATIONS**

CSMBLM members are active in CSMBLM voluntary activities in EFLM and IFCC also. More than 15 members are full/corresponding members or chairs of different EFLM and IFCC Committees and Working/Task Groups. Members are active in live and virtual meetings, and they are participating in educational and scientific activities. The calls for new members are regularly distributed to all CSMBLM members by mass mailing and posted on the official web page and

on the official Facebook page. Moreover, CSMBLM is distributing in emails all organized activities under EFLM and IFCC auspices (congresses, webinars...).

#### **ADDITIONAL INFORMATION**

CSMBLM supported an IFCC initiative Global MedLab Week 2022 and shared propagation material on a web page, informed members about the initiative, and posted all propagation material on the official CSMBLM Facebook page. In 2022 CSMBLM marked European Laboratory Day on November 5th with different activities organized by members in Dubrovnik, Split, Rijeka, Osijek, and Zagreb. A few Croatian laboratories applied as an offerer in IFCC Professional Exchange Programme. All CSMBLM members are members of the EFLM Academy by block registration

CSMBLM is supporting members with bursaries for educational events and providing letters of recommendation for applying to specific member positions.



# **ESTONIA**ESTONIAN SOCIETY FOR LABORATORY MEDICINE

#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
General meeting of ESLM	9.05 in Äksi, Tartumaa	Different topics: skeletal tissue bank in TUC, data viewer in EHR and standardization of lab reports, pharmacogenetics, New approach for cardiovascular risk prediction in ambulatory care, ELF in Clinical practice etc.
General meeting of ESLM	8.12 in Jõhvi, Ida-Vi- rumaa	Different topics: Clinical impact of rapid molecular diagnosis of sepsis, Molecular controls as a routine tool in the laboratory QC practice, etc

#### **EDUCATION**

ESCMID Postgraduate Education Course "Antimicrobial susceptibility testing with EUCAST criteria and methods" – September, 27-30<sup>th</sup>, Tallinn

Days for Estonian Clinicians - May 12-13th, Tartu

Session held by ESLM: "Laboratory's response to clinical problems: algorithms and recommendations "

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
XVI Baltic Congress in Laboratory Medicine	September, 22-24	Organizer

#### **REGIONAL RELATIONS**

Cooperation between the Estonian and Lithuanian societies for Laboratory medicine in implementing the LOINC codes for laboratory tests in use in local laboratories



#### INTERNATIONAL RELATIONS

# ESLM is the member of the following international organizations: IFCC, EFLM, BALM, ESCMID, EUCAST

Marina Ivanova is the national representative in EUCAST

Helle Järv is a member of EUCAST subcommittee AFST

Kadri Klaos is the member of EUCAST subcommittee AMST

Marika Jürna-Ellam is the member of EUCAST subcommittee ECMM

Agnes Ivanov is a member in the IFCC Working Group "Laboratory Errors and Patient Safety" (WG-LEPS) and corresponding member in IFCC TF-POCT

Marge Kütt is a corresponding member in the EFLM Working Group "Patient Focused Laboratory Medicine" (WG-PFLM)

Anna Velts-Lindh is a corresponding member in the IFCC working group TF-YS "Task Force Young Scientists".

Galina Zemtsovskaja is a corresponding member in IFCC working groups: Committee on Clinical Applications of Cardiac Biomarkers (C-CB); Committee on Bone metabolism (C-BM); Harmonization of Interpretive Commenting EQA (WG-ICQA)

Mikk Tooming is a corresponding member of IFCC working group Committee on Molecular Diagnostics (C-MD)

Kalle Kisand participated in activities of the scientific committee of EUROMEDLAB MUNICH 2021 (2022)

Mehis Bakhoff is the corresponding member of EFLM Task Force "Green & Sustainable Laboratories"

Sim Iskül is the corresponding member of IFCC WG-eNews

#### **ADDITIONAL INFORMATION**

Together with Estonian Society of Bioanalysts, ESLM published issue No 8 (2022) of the journal "Eesti Laborimeditsiin" ("Estonian Laboratory Medicine") (in March).

#### There are 2 sections in ESLM:

- Section of clinical microbiology
- Section of laboratory physicians

#### There are working groups in the fields of

- Laboratory terminology,
- LOINC (Logical Observation Identifiers Names and Codes),
- Laboratory Quality,
- Kidney Biomarkers,
- Cardiac Markers,
- Laboratory Hematology,
- Diagnostics of Urogenital Infections
- Protein electrophoresis
- Flow cytometry
- Method Harmonization
- Implementation of IVDR in Estonian laboratories

22 laboratories are reporting all the laboratory test results electronically to the National Digital Health Record. New forms of visual display of dynamical changes of test results are available since 2021 in National Digital Health Record.





# FINLAND FINNISH SOCIETY OF CLINICAL CHEMISTRY (SKKY)

#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Kevätkoulutuspäivät	1920.5.2022	General laboratory medicine (together with 2 other national organizations in laboratory medicine)
Laboratoriolääketiede ja -näyttely	67.10.2022	General laboratory medicine/session Biomarkers in Laboratory medicine



# **EDUCATION**

National newsletter Kliinlab (4 journals/year, not peer-reviewed).

#### **REGIONAL RELATIONS**

Collaboration with medical clinical chemistry specialist trade union and clinical chemist trade union.

#### **INTERNATIONAL RELATIONS**

Close collaboration with Nordisk Forening for Klinisk Kemi/NFKK (Nordic collaboration). One member in Nordisk Forening for Klinisk Kemi working group Preanalytic phase. Active participation in Nordic collaboration, two members in Nordisk Forening for Klinisk Kemi/NFKK board.

Collaboration with EFLM

Ten members or chairs in six EFLM working groups.

Collaboration with IFCC

Ten members or chairs in eight IFCC working groups, committees or task forces.

#### **ADDITIONAL INFORMATION**

The board had five meetings. The society had two meetings. Active work with travel and research grants.



# **FRANCE** SOCIÉTÉ FRANÇAISE DE BIOLOGIE CLINIQUE (SFBC)

#### **ADDITIONAL INFORMATION**

# SFBC Board (starting November 2022)

**Executive Board:** 

President
 Vice-President
 Past-President
 Pr Katell PEOC'H
 Pr Alain CARRIE
 Pr Vincent SAPIN

General Secretary
 Dr Marie Christine BEAUVIEUX / Dr Caroline MOREAU

• reasurer
 Dr Laurence MOULY

Scientific Committee: Dr Delphine COLLIN-CHAVAGNAC

#### Dr Constance DELABY

## **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
National meetings with SFBC auspices (+ SFBC members in the scientific committee)	BiomedJ 19-20 may 2022  JFBM 05 - 07 october 2022	Nutrition Toxicology Neuro filament light chain Troponin



#### **EDUCATION**

- Educational Committee chaired by Pr V. Sapin
  - Continuous professional development (DPC) and continuous medical education (CME) through SFBC scientific meeting sessions. V. Sapin is president of the National organism of Professional Development called "Biologie Clinique
- Committee on Evaluation of Professional Practices (C-EPP): chaired by Dr I. Aimone-Gastin (Nancy)
  - National Agreement SFBC as Validating Society for "EPP"
  - Relations with the Federation of Medical Specialities (FSM)

#### **REGIONAL MEETINGS and WEBINARS**

#### **Participation of SFBC members in International meetings**

- Euromedlab Munich 10-14 April 2022
- SYMPOSIUM 17 | New trends in standardization Chairs: P. Gillery (France) (virtual), E. Cavalier (Belgium). Standardization of bone markers E. Cavalier (Belgium)
- SYMPOSIUM 14 | Advances in IQC tools and techniques The importance of demonstrating commutability of reference materials with IQC V. Delatour (France)
- VIEWPOINT 6 | Regulating direct-to-consumer testing 2.0: Protecting the consumer Chair: B. Gouget (France)
- What is Direct-to-Consumer (D2C or DTC), how to increase Public Awareness –
   B. Gouget (France)
- WorldLab Seoul 26-30 June 2022
- SYMPOSIUM 3 THE FUTURE OF STANDARDIZATION IN LABORATORY MEDICINE: CHALLENGES AND OPPORTUNITIES.. Standardization and harmonization of biological measurements: successes, pitfalls and challenges P. Gillery (France) (virtual)
- SYMPOSIUM 4 EMERGING TECHNOLOGIES: NEW TRENDS AND CLINICAL APPLICATIONS. Genomics in oncology M. De Tayrac (France)

# **REGIONAL RELATIONS**

Functional unit	Name	Surname	Position
TF: European regulatory affairs	Bernard	POGGI	Corresponding Member
TFG: Urinalysis (TFG-U)	Audrey	MERENS	Member
	Marine	PESTEL-CARON	Corresponding member
TG: Chronic Kidney Disease	Laurence	CHARDON	Member
TG: European Laboratory Day (TG-ELD)	Bernard	GOUGET	Member
WG: Accreditation and ISO/CEN standards (WG-A/ISO)	Guilaine	BOURSIER	Chair
WG: Congresses and Post-Graduate Education	Guillaume	GRZYCH	Member - Young Scientist
WG: Guidelines (WG-G)	Bérénice	SCHELL	Member - Young Scientist

# **INTERNATIONAL RELATIONS**

- SFBC Committee on International Relations:
  - Prof. P. Gillery
  - Prof. J. Goudable
  - Pr M. Delpech
  - Dr L. Pieroni
  - Dr B. Gouget
  - Prof. V. Sapin
- SFBC representatives:
  - IFCC: Prof. P. Gillery
  - EFLM: Prof. J. Goudable
  - WASPaLM: Prof. P. Gillery, Dr G. Boursier
  - FIFBCML: Prof V. Sapin, Prof M. Delpech, Dr L . Pieroni
- Participation in the International Advisory Board of IFCC/EFLM meetings:
  - IFCC WorldLab Seoul 2022 (Pr P. Gillery, ISC Member)
  - FLM/IFCC EuroMedLab Munich 2022 (Pr P. Gillery, Chair of the Scientific Programme Committee, Joëlle Goudable, ISAB)
  - WorldLab EuroMedLab Roma 2023 (Pr P. Gillery, Member of the Scientific Programme Committee)
  - -SFBC: founding member of the FIFBCML: Fédération Internationale Francophone de Biologie Clinique et de Médecine de Laboratoire.
  - Participation of SFBC members at National meetings of IFCC full member societies.

#### Participation of SFBC members in IFCC Committees and Working Groups

✓ Scientific Division (SD)

**Executive Committee** 

Committees

- Standardization of Thyroid Function Tests (C-STFT)
- Molecular Diagnostic (C-MD)
- Traceability in Laboratory Medicine (C-TLM)
- Bone markers (C-BM)

P. Gillery, Chair, 2020-2022

V. Raverot, Member 2020-2022

K. Peoc'h, corresp. Member

A. Vassault, corresp. Member

V. Delatour, Consultant

J.P. Cristol, corresp. Membe



#### Working groups

- Standardization of Procalcitonin assays (WG-PCT)
- V. Raverot, Member 2020-2022
- A. Boeuf, Member
- H. Briand, Member
- A.M. Dupuy, Member
- P. Hausfater, Member



- CSF Proteins (WG-CSF)
- Commutability in Metrological Traceabiliy (WG-CMT)
- Apolipoproteins by Mass Spectrometry (WG-Apo MS)
- Standardisation of Albumin Assay in Urine (WG-SAU)
- Standardisation of Pregnancy-Associated Plasma Protein (WG-PAPPA)
- Standardization of Troponin I (WG-TNI)
- Standardisation of Hemoglobin A2 (WG-HbA2)
- F. Schellenberg, Member S. Lehmann, Member V. Delatour, Member V. Delatour, Member V. Delatour, Member E. Angles-Cano, Member L. Pieroni, Corresp. Member

# R. Garnotel, corresp. Member G. Lefèvre, Corresp. Member

M. Arock, Corresp Member

# ✓ Education and Management Division (EMD) Committees

- Committee on Point of Care Testing (C-POCT)
- Committee on Education in the Use of Biomarkers of Diabetes (C-EUBD)
- Committee on Kidney Disease (C-KD) Working Group
- Flow Cytometry (WG-FC)

- M. Vaubourdolle, Member, 2020-2022
- P. Gillery, corresp. Member J.P. Cristol, corresp. Member
- C. Lambert, Chair, 2022-2024

# ✓ Emerging Technology Division (ETD)

- Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM)
- Committee on Omics Translation (C-OT)
- Emerging technologies in Pediatric Laboratory Medicine (C-ETPLM)
- B. Gouget, Chair, 2021-2023 M. De Tayrac, Member, 2019-2021
- A. Mailloux, corresp. Member

#### √ Task Forces (TF)

- Task Force on History (TF-H)
- Task Force on Global Newborn Screening (TF-NBS)
- Task Force on Global Lab Quality (TF-GLQ)
- B. Gouget, Co-Chair, 2022-2024
- E. Lebredonchel, Member (Y.S), 2021-2023
- J.M. Giannoli, Member, 2021-2023
- A. Perret-Liaudet, Member,
- 2021-2023
- A. Vassault, Member, 2021-2023 M. Lenski, corresp. Member
- Task Force for Young Scientists (TF-YS)

Name of the meeting	Date	Topic
Online conference	2022 May	Approaches in laboratory medicine considering the covid pandemic and post-covid complications. Georgia
Scientific conference	2022 September	Modern Laboratory Medicine Achievement and Challenges. Georgia, Batumi

#### **EDUCATION**

- 2022 IFCC LIVE WEBINAR COVID-19 and Laboratory Medicine Role in Georgia
- D-Dimer assay harmonization and standardization problem



#### **INTERNATIONAL RELATIONS**

- 24<sup>th</sup> IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine; Munich, April 10–14, 2022
- 2022 EQA pilot program acc. to IFCC's global initiative to enhance clinical laboratories' quality in developing countries – 5 participant laboratories from Georgia
- 24<sup>th</sup> International Congress of Clinical Chemistry and Laboratory Medicine IFCC WorldLab SEOUL 2022
- IFCC General Conference Brussels, November 2022

GLMA is the full member of the following international organizations: IFCC, EFLM

# Full membership:

- Nino Tabatadze IFCC Task Force on Global eLearning/eAcademy (TF-GEL)
- Sofo Jashiashvili EFLM Working Group on Distance Education and e-Learning (WG-DE)

#### Corporate membership:

- Giorgi Kamkamidze EFLM working group on Postanalytical Phase (WG-POST)
- Ekaterine Kupatadze EFLM WG on Patients Focused Laboratory Medicine (WG-PFLM)
- Tamar Ramishvili IFCC Task Force for Young Scientists (TF-YS)
- Maka Dakhundaridze IFCC Committee on Evidence-Based Laboratory Medicine (C-EBLM)
- Maia Alkhazishvili IFCC Committee on Clinical Laboratory Management (C-CLM)
- Manana Akhvlediani IFCC Task Force on Ethics
- Ekaterine Kupatadze IFCC Task Force on Global Reference Interval Database (TF-GRID)
- Nino Abesadze IFCC Task Force on Global Newborn Screening (TF-NBS)
- Nino Bakuradze IFCC Taskforce on Global Lab Quality (TF-GLQ)
- Nino Bekaia IFCC Committee on Standardization of Thyroid Function Tests (C-STFT)



- Ekaterine Khmaladze IFCC Committee on Clinical Molecular Biology Curriculum (C-CMBC)
- Prof. Manana Akhvlediani GLMA board member EFLM academy reword 2022
- Nana Dzneladze GLMA board member EFLM WG "Accreditation and ISO/CE standards"



#### ADDITIONAL INFORMATION

# March 2022 - Support of Ukraine

GLMA sent special cargo with laboratory reagents and supplies for Ukrainian people

Thanks to the community of laboratory diagnostics specialists with GLma- საქართველოს ლაბორატორიული მედიცინის ასოციაცია for a high level of professionalism in the smallest detail, during the formation and shipment of the cargo. These days, help will come to the laboratories where it is most needed.

Rate translation



Thank you from the whole laboratory and medical community of Ukraine!

P.S. Special thanks to Ekaterine Kupatadze for support and heroic organization of collection and shipment of cargo. And also Ed Tregubov for forming the whole chain of logistics and documentation.

♠ · Rate translation





# **GERMANY**DEUTSCHE GESELLSCHAFT FÜR KLINISCHE CHEMIE UND LABORATORIUMSMEDIZIN E.V. (DGKL)

#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
5. Munic POCT Symposium	1517. March 2022	Various topics
8. Central German Laboratory Conference	56. May 2023	Various topics
Annual General Meeting of the DGKL (approx. 700 attendees)	1314. October 2022	Entire range of Clinical Chemistry and Laboratory Medicine
User convention Clinical Mass Spectrometry	2425. October 2023	Various topics

#### **EDUCATION**

Several Short Courses in the context of the Annual Meeting of the DGKL.

Revision course Clinical Chemistry for preparation of the board exam European Clinical Chemist 28 March – 3 April 2022, Hannover

#### Exams:

28.-29. April 2022, Berlin 20.-21. October 2022, Berlin

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Topic
EuroMedLab Munich	1014. April 2022	Congress President
Anaytica Conference	2123. June 2022	Congress organisation in cooperation with the chemical societies (GdCh, GBM)



#### **REGIONAL RELATIONS**

Active participation in EFLM in several functional units.

Prof. Dr. Klaus Kohse is EFLM-Treasurer.

# **INTERNATIONAL RELATIONS**

Active participation in IFCC including several Working Groups, Task Forces etc. Journal of Laboratory Medicine, Official Journal of the DGKL

# **ADDITIONAL INFORMATION**

Research Atlas with information on university laboratory medicine in Germany Approx. 1.100 members



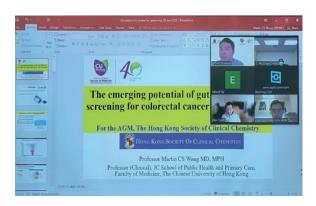
# **NATIONAL MEETINGS**

Name of the meeting	Date	Торіс
HKSCC Annual Scientific Meeting	000d January 0000	The Emerging Potential     of Gut Microbiota in Screening     for Colorectal Cancer and     Adenomas
and Annual General Meeting	22 <sup>nd</sup> January 2022	2. The Way Towards Precision Medicine - Insight from High Risk Breast and Ovarian Cancer Screening
HKSCC Online Seminar		1. Iron Profile Made Easy
	23 <sup>rd</sup> July 2022	2. Porphyria: Topic Review and Case Presentation
		3. Review on the Biomarker in Liver Fibrosis
		1.Cushing's syndrome: Diagnostic workup and challenges
HKSCC Online Seminar	19 <sup>th</sup> November 2022	2. Vitamin D Metabolism: A Review
		3. Abnormal thyroid function tests in a 9-month-old boy





The 2022 Annual Scientific Meeting (ASM) was held 22nd Jan 2022 in hybrid mode and the theme was "Biomarkers in Oncology: Current Practice and Development in Hong Kong". There were two presentations from invited speakers: (1) "The Emerging Potential of Gut Microbiota in Screening for Colorectal Cancer and Adenomas" by Professor Martin CW WONG, Director, The Jockey Club Bowel Cancer Education Centre, The Chinese University of Hong Kong; and (2) "The Way Towards Precision Medicine - Insight from High Risk Breast and Ovarian Cancer Screening" by Dr Chris TL CHAN, Molecular Geneticist, Supervisor, Division of Molecular Pathology, Department of Pathology, Hong Kong Sanatorium & Hospital. The ASM was attended by 71 members and guests.



ASM 2022 (22 Jan 2022): Prof Martin CW WONG (1)



ASM 2022 (22 Jan 2022): Dr Chris TL CHAN (2)



Chairman and speakers on Zoom

An online seminar was hold on 23rd June via Zoom platform. There were three presentations by invited local speakers: 'Iron Profile Made Easy' by Dr Jenny CHENG, Prince of Wales Hospital, 'Porphyria: Topic Review and Case Presentation' by Dr Jeremiah TSEUNG, Princess Margaret Hospital, 'Review on the Biomarker in Liver Fibrosis' by Dr Kelvin YIP of Pamela Youde Nethersole Eastern Hospital. This virtual seminar was attended by 98 members and guests.

Another online seminar was hold on 19th November via Zoom platform. There were three presentations by invited local speakers: 'Cushing's syndrome: Diagnostic workup and challenges' by Dr Hoi Shan LEUNG, Princess Margaret Hospital; 'Vitamin D Metabolism: A Review' by Dr Shreenidhi R SUBRAMANIAM, Prince of Wales Hospital; and 'Abnormal thyroid function tests in a 9-month-old boy' by Dr Rachel SW YIU of Queen Mary Hospital. The virtual seminar was attended by 82 members and guests.

#### **REGIONAL MEETINGS**

NIL



#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Interdisciplinary Lab Professional Day: Clinical and Laboratory Consequences of the COVID-19 Pandemic	26 May, 2022	consequences of the covid infection in the fields of cardiology, pediatrics, immunology, psychiatry, primary care; autoantibodies and coagulopathy related to covid infection; coagulation tests in covid infectioninvestigations, postgradual education
Immunological Diagnostics: Novelties in COVID-19 Infection and Autoimmune Liver Diseases	13 October, 2022	humoral and cellular immune response to covid vaccination, COVID-19 and autoimmunity, autoimmune liver diseases, cryoglobulinemia
QualiCont Forum 2022	16 November, 2022	internal and external quality control, POCT, infertility, systemic autoimmune diseases, vaccination

#### **EDUCATION**

The above three meetings all had educational and continuous professional development purposes as well.

#### **REGIONAL RELATIONS**

Regionally, Hungarian specialists in laboratory medicine conventionally have good relations with similar experts in Croatia, Austria and Romania. Some colleagues working in Hungarian labs originally come from Romania.

#### INTERNATIONAL RELATIONS

Members of our society regularly participate in international congresses like the EuroMedLab 2022 Munich and the WorldLab Seoul 2022.

International roles:

IFCC Communications and Publications Division, Vice Chair: Prof. János Kappelmayer IFCC, eJIFCC, Editor: Prof. János Kappelmayer

IFCC Communications and Publications Division, Working Group-eJIFCC, Chair: Prof. János Kappelmayer, Members: Dr. Harjit Pal Bhattoa, Prof. Tamás Kőszegi, Prof. Gábor L. Kovács IFCC Scientific Division, Committee on Bone Metabolism, Member: Dr. Harjit Pal Bhattoa EFLM Science Committee, Working Group: Postanalytical Phase, Expert/Consultant: Dr. Éva Ajzner



EFLM Education and Training Committee, Working Group: Congresses and Postgraduate

Education, Member: Dr. Zsuzsa Bagoly

EFLM Communication Committee, Working Group: Promotion and Publications, Chair: Dr.

Harjit Pal Bhattoa

EFLM EuroLabNews, Editor: Dr. Harjit Pal Bhattoa

EFLM Profession Committee, Task Group: EFLM Syllabus Course, Member: Dr. Harjit Pal

Bhattoa

#### **ADDITIONAL INFORMATION**

There were also some other postgraduate educational courses in our field (laboratory medicine) organized by medical universities independently of our national society.



# INDIA ASSOCIATION OF CLINICAL BIOCHEMISTS OF INDIA (ACBI)

#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
48 <sup>th</sup> Annual National Conference of Association of Clinical Biochemists of India.	23 – 26 <sup>th</sup> November 2022	Theme: "Harnessing Basic And Molecular Research to Enhance Patient Care"

# **EDUCATION**

# **ACBI National Conference - New Delhi**

#### **Workshops:**

- a. Genetics in Medical Diagnostics and Prognostics,
- b. Statistical Analysis of Research Data including Meta-analysis -Hands onWorkshop,
- c. Hands-on-training: In vitro mammalian cell culture techniques and its application,
- d. Newborn Screening From Text to Test, End-to-end Integrated Total Laboratory Automation.
- e. Applied Artificial Intelligence Research Genome editing via CRISPR-Cas9,
- f. Roadmap to Laboratory Accreditation as per ISO 15189 and Molecular Advances in Cardiovascular Research

Awadhesh Saran Memorial Oration: Dr. V. K. Paul, Member, NITI AAYOG, Government of India. gave his inaugural-cum-oration address on 'The COVID Journey of India'

Dr. K.P Sinha Oration: Dr. Maurizio Ferrari, (Past President IFCC), Director of Research, Institute for Photonics and Nanotechnologies, CNR, Trento, Italy. Prof. Maurizio Ferrari described the new highly sensitive methods developed for the analysis of ctDNA and CTCs in plasma, thus enabling mutation testing of cancer without a biopsy specimen, and enhancing diagnosis and management in these patients.

Dr. Praveen Sharma Oration: Prof. Sedef Yenice, Professor of Biochemistry and Clinical Chemistr, Group Florence Nightingale Hastaneleri, Istanbul, Turkey, Chair, EFLM Working Group on Laboratory Medicine Credit Points (WG-LMCP) (2021-present), Chair, IFCC Abbott



Visiting Lecturer Program (VLP) (2021-present) Executive Member of IFCC Education and Management Division (EMD)(2020-present), Expert and Advisor, IFCC EMD, Committee on Clinical Laboratory Management (2020-present), Member, CLSI ExP on Clinical Chemistry and Toxicology (CHEM) (2020-present). Prof. Sedef Yenice's oration was aimed at providing the attendees (1) ways to improve laboratory testing practices to increase the chances of better patient outcomes by supporting clinical decision making, (2) reduce unnecessary costs associated with laboratory testing, and (3) provide knowledge of the supporting infrastructure needed to develop and sustain programs to improve laboratory test utilization.

**K.L.Gupta Memorial Oration: Dr.Rahul Purwar, Associate Professor, Department of Biosciences and Bioengineering, Indian Institute of Technology, Powai.** Prof Rahul Purwar discussed the collaborative effort of Indian Institute of Technology (IIT) and Tata Memorial Centre (TMC), Mumbai, India in bringing forth an innovative genetic cure for haematological cancers – Chimeric-Antigen-Receptor-T (CAR-T) cells – which not only have shown remarkable success in clinical trials, but are also affordable by the common man.

Dr. T.N. Patabhiraman Oration: Dr Vijay Kutala, Dept. of Clinical Pharmacology & Therapeutics, Nizam's Institute of Medical Sciences, Chairman, State Allied & Healthcare Council, Hyderabad. Dr. Kutala described how they increased the bioavailability and therapeutic potential of curcumin through triphenyl phosphonium conjugation, thus making it efficient against cancer and infective diseases while having no deleterious effect against normal cells.

Mrs. & Dr. G.P. Talwar Oration: Prof. Arnab Pal, Professor, Department of Biochemistry, PGIMER, Chandigarh. Prof. Arnab Pal described how he and his team of young scientists have identified 135 dysregulated proteins in the saliva of oral squamous cell carcinoma patients. They also identified differential transcriptomic signatures of CTCs associated with tumour aggressiveness and disease outcome, as highly significant prognostic biomarkers for personalization of cancer therapy.

TARANATH SHETTY MEMORIAL POPULAR LECTURE SERIES ORATION: Dr. Jitendra N. Verma Ph.D., Founder, Managing Director Lifecare Innovations Pvt. Ltd.: Liposomal Amphotericine B In Saline: A Matchless Antifugal Drug Developed In India Through Industry-academia Collaboration.

Symposia: Metabolic Syndrome: The Obstinate Multiorgan Malady

- **Dr. Ramy S.H. Assaad Khalil**: Post –Partum Thyroid Disturbances: Is It Always The Same?
- Prof. Moinuddin: Glycooxidative Modifications Of Proteins And Pathogenesis
- Dr. Sudhir Kalhan: Bariatric Surgery to the Rescue of Metabolic Syndrome: A Tertiary Care Center Experience
- Dr. Pankaj Sharma: Biomarkers of clinical relevance in patients with

Symposium: Adding Value To Laboratory Testing: Quality Control Validation Verification And Risk Assessment – Tools For Sustainability

- Dr. T. Venkatesh: Risk Management A Tool For Sustainable Laboratory.
- **Dr. Barnali Das:** Proper Implementation of DQ, IQ, OQ, PQ and Verification/ Validation Protocol: Tools to Ensure Quality of Results.
- Prof. Egon Peter Amann: The Fitness for Purpose of Analytical Methods
- Mr. Pankaj Johri: "Adding Values to Medical Laboratory Quality Practices: Validation & Verification as per ISO 15189"

#### Symposium: Liquid Biopsy: From Bench To Bedside

- Dr. Anurag Mehta: Evolution of Liquid Biopsy and nuances of digital droplet PCR (ddPCR)
- Dr. Shrinidhi Nathany: Liquid Biopsy In The Era Of NGSPrinciples & Interpretation
- Dr. Ullas Batra: Liquid Biopsy- A Clinician's Perspective

# Symposium: Immuno Modulatory And Therapeutic Strategies In Health And Disease

- Dr. Arvind Sahu: Designing complement regulator: lessons from viruses
- Dr. Nimesh Gupta: T cells in virus infection and vaccination: Lessons for vaccine development.
- **Dr. Alpana Sharm:** New insights of γδ-T cells in Vitiligo: A potential therapeutic target
- Dr. Kalpana Luthra: Reverse vaccinology in HIV-1 infection

# **Symposium: Immunobiology Of Transplantation: Recent Trends**

- Dr. (Col) Ajay Baranwal: Antibody monitoring in Solid Organ Transplantation
- Dr. Meenakshi Singh: Immunogenetic paradigms in Hematopoietic stem cell transplantation
- Dr. Niraj Tyagi: Biomarker Guided AKI Management: The Paradigm Shift

#### Symposium: Harmonisation Of Global Lab Quality- IFCC Strategies.

- Dr. Alexander Haliassos: Harmonization of Global Laboratory Quality- IFCC Strategies
- Prof. Egon Peter Amann: IFCC's Task Force on Global Lab Quality (TF-GLQ)- A Status Report
- Dr. Qing Meng: Quality Control: Strategy and Practice for Clinical Laboratories
- Dr. Pradeep K Dabla: HbA1C- NGSP/DC

#### Symposium: Novel Drug Therapies: Application And Challenges

- Dr. Sangeeta Sharma: Clinical Utility of Therapeutic Drug Monitoring (TDM) in Neuropsychiatry Practice
- Dr. JPS Sawhney: Non Statin Therapy For Dyslipidemia
- Dr. Jyoti Kotwal: DOACS the New Kid in the Block
- Prof. Narinder S. Sahni: Blood Fatty Acids: Surrogate Markers of an Imbalanced Diet and Chronic Inflammation.

#### Symposium: Protean Manifestations Of Cancer: Distilled Through The Laboratory

- Dr. Kinjalka Ghosh: Abnormal Clinical Chemistry In Cancer
- Dr. Shrikant Raut: Interferences: Part and Parcel Of Clinical Chemistry
- Dr. Geeta Rathnakumar: Tumor Markers: Finding The Wolf Amongst The Sheep.
- Dr. Mingma Sherpa: Evaluation Of Urine, Oral Gargle And Cervical Smears As Biological Samples For Detection Of High Risk Human Papillomavirus Infection Status Among Women In Sikkim Using Real Time PCR &HC.

# **Symposium: Integrating Epigenetic Research With Clinics**

- Dr. Vaishali Suri: Current status of Methylation profiling as a diagnostic tool in CNS tumours
- Dr. Gangandeep Walia: Basic and Clinical Epigenetics in Cardiometabolic Disorders
- Dr. Sourav Banerjee: "Best out of waste: Non-coding RNAs in synapse development and memory

## **Symposium: Nutrigenomics - Future Of Personalized Nutrition**

- Dr. Sunita Agarwal: Intermittent Fasting In Metabolic Diseases
- Dr. Preeti Jain: Can Nutrition Be Tailored To One's Genes?



- **Dr. Jyotdeep Kaur:** The Imbalance Of Maternal Folic Acid And Vitamin B12 During Pregnancy Leads To Adverse Newborn Outcomes, Are There Transgenerational Epigenetic Effects?
- Dr. Sadanand Naik: Micronutrients and Immune system in Reducing the Risk of Infection

# **Symposium: Shifting Paradigms In Clinical Diabetology**

- Dr. Anand Chellappan: Redefining Diabetes Care: Shift From Glucocentric To Organ Protective Approach
- **Dr. Kannan Vaidyanathan:** Emerging Technologies For Diabetes Management: Application And Challenges
- Dr. Susruta Sen: Unravelling the Mysteries of Hormone Assays
- Dr. Brijesh Rathore: Incidence Of New Onset Diabetes In Post Covid- 19 Patients.

# **Symposium: Heavy Metals In Health And Disease**

- Dr. Prasenjit Mitra: Immunological Aspects of Lead Toxicity
- Dr. K K Sharma: Toxic Effects of Lead on Different Body Organs.
- Dr. Shailja Sharma: Molecular updates of Lead Toxicity
- Dr. Rachna Agarwal: Iron Profile and Parkinson's Disease Risk: Evidence from Discriminately Analysis

# **Symposium: Exploring The Biochemistry Competency Based Curriculum**

- Dr. Ritu Singh: Electives Of CBME: The Purpose, The Organization and The Logistics-The Role of Biochemistry
- Dr. Sucheta Dandekar: Implementing Self- Directed Learning (SDL) In Biochemistry
   A Step to Life-Long Learning
- Dr. Rohini Bhadre: Reflections And Reflective Writing A Tool For Self Assessment

#### Symposium: Basics Of Using CRISPR Based DNA Editing Systems

- Ms. Rhythm Phutela: Repair Pathways In CRISPR Mediated Genetic Perturbation
- Ms. Meghali Aich: Embryonic Stem Cell Pluripotency
- Ms. Saumya Sharma: Modelling A Rare Neuropathy Using Human Ipscs
- Ms. Sajal Sarkar: Delivery Of CRISPR Effectors Inside Cells

#### **Symposium: Ethics In Laboratory Medicine**

- Dr. Jawahar Kalra: Ethical And Legal Aspects In Medical Errors Disclosure
- Prof. Dr. R. Dhananjayan: Ethical Considerations Of Good Clinical Laboratory Practices
- Dr. Arun Gupta: Medical Negligence Issues In Pathological Practice
- Dr. Sudip Kumar Datta: Emerging Challenges in Ethics in Laboratory Medicine IFCC Perspectives

# Symposium: Epidemiology: Past Present & Future

- Maj. Gen. Atul Kotwal: Biochemical Markers: Health Systems Transformation at District & Below.
- Dr. Lalit Kant: Epidemiology And Biochemistry: Complimentary Couple
- Prof. Ken Sikaris: Reference Intervals The Importance Of Racial/ Ethnic Variations

#### Symposium: Biobanking: Paving The Way For Medical Research

- **Dr. Juhi Tayal Tumor:** tissue banking @Rajiv Gandhi Cancer institute. New delhi. A Decade's experience
- Dr. Aruna Korlimarla: Biobanking: The Why And How?
- Dr. Birendra Kumar Yadav: BiobankingIn Future Health: Barriers And Opportunities



#### **Symposium: Recent Advances In Infectious Diseases**

- **Dr. Sadhna Sharma:** Identification of signature MicroRNAs in tuberculosis and diabetes copathogenesis Dr. Rajat Sandhir: Hydrogen Sulfide Attenuates Microglial Activation and Polarization in Lipopolysaccharide-Induced Neuroinflammation
- Dr. Dharamvir Yadav: Association of bone metabolic profile with severity and mortality in SARS –CoV-2 Patients
- Dr. Manaswini Mangaraj: Metabolomics Strategy in Medicine from Tuberculosis perspectives

#### Symposium: Neurogenetics In Neurological Diseases- Diagnostic Insight

- Prof. Rajinder K. Dhamija: Genetics Of Stroke
- **Dr. Ritushree Kukreti:** Epilpeptic Drugs Response Pharmacogenomics Signatures On Anti- Epileptic Drugs.
- Dr. Neera Chaudhary: Brain Ketonemia Is it the Panacea

# Symposium: Evidence Based Laboratory Medicine: Where Is The Evidence And How We Apply It?

- Dr. Ramy S.H. Assaad Khalil: Evidence Insights on Routine Endocrine and Diabetes tests
- Dr. Arvind Kumar: Interpreting Biochemical Markers in Infectious Diseases
- **Dr. S Aruselvi:** Evidence Based Laboratory Medicine -ABG and Electrolytes' Correlation With Transfusion in Trauma Patients.
- Dr. Tahir Pillay: Calculated LDL-Cholesterol: Applying Best Practice And Recent Advances

# Symposium: Effective Leadership And Management In The Medical Laboratory

- Dr. Sedef Yenice: Strategies For Effective Conflict Management In The Medical Laboratory Workplace Dr. Prasenjit Mitra: Leadership Attitudes and Learning Styles for Medical Laboratory Professionals
- Dr. Praveen Sharma: Fundamentals Of Effective Communication For Laboratory Managers

# **Symposium: Quality And Six Sigma**

- Prof. Ken Sikaris: Quality indicators in test requisitioning and reporting
- Dr. Rajesh Sharma: Significance Of An Automated QC System For Management Of Assay Performance Dr. Shyamali Pal: Tracking the Correlation of Pre Analytical Factors and Sample Stability Across Distant Transportation
- Dr. Dinesh Yadav: Post Analytical Variables in Clinical Biochemistry

# Symposium: Newborn Screening - First Step For Baby's Health

- Dr. Parimala V Thirumalesh: Cat Or Big Cat? Compilation Of Clinical Cases
   Of Disguise
- Dr. Sanjay Wazir: Universal New Born ScreeningThe Spot And The Beyond.
- Lt. Col. Anurodh Gupta: Cost Effective Strategy For Screening New Borns In India
- **Dr. Suparva Patel:** Disease Modifying Genetic Determinants of Cystic Fibrosis in Children: Journey Through Case Series

#### Symposium: Artificial Intelligence And Machine Learning In Clinical Practice

- Dr. Shabbir Syed Abdul: Application Of Al In Healthcare: Challenges And Opportunities
- Dr. Gowhar Shafi: Al-Enabled Identification And Prediction Of Genomic Signatures
   From Histopathology Images
- Dr. Souvik Chakravarty: Open Source Digital Twin Development In Health Care



#### Symposium: Recent Advances: Pulmonary Health & Laboratory Medicine

- Dr. Sonam Spalgais: Recent Advances In Laboratory Diagnostics Of Interstitial Lung Disease And Its Management
- **Dr. Vishwajeet Rohil:** Polyphenolic Acetates: Novel Epigenome Targeted Drugs For Lung Carcinogenesis
- Dr.Jayeeta Bhadra: Biomarkers In Diagnosis And Management Of Obstructive Airway Diseases

# Symposium: Micronutrients In Health And Disease: Consequences Of Subclinical Deficiency

- Prof. Najmul Islam: A Preliminary Study on the Beneficial Effects of hytochemicals and Natural Antioxidants in Coronary Heart Disease (CHD)
- **Dr. Sharwari Narawade:** Vitamin B12 and Folate in Indian vegetarians- necessity of supplementation
- Dr. Smita Kaushik: Human Milk: Personalized Nutrition for Infants
- **Dr. Namita P. Mahalle:** Vitamin B12 and B6 In Indian vegetarians- effect of milk supplementation

# Symposium: AACC India Section- Career Directives For Young Biochemists: Addressing The Different Perspective And Opportunities In Academics Administration Clinical Laboratory & Industry

- Dr. Nimmi Kansal: Biochemist's Role In Reference Lab & Specialized Field
- Dr. Anjali Singh: Biochemist's Role In IVD Sector
- Dr. Jayashree Bhattacharjee: Biochemist's Role In Hospital & Medical College Administration
- Dr. Subrata Sinha: Biochemist's Role In Research & Academics
- Dr. Qing Meng: Career Opportunity For Chemical Pathologist In US
- Dr. Susruta Sen: Biochemist's Role As Lab Director In A Tertiary Care Hospital

# Symposium: Male Infertility: Unexplored Arena/Avenues

- Dr. Kanimozhi Sadasivam: The Long Winding Tale Of Ion Channels In Sperm Science
- Dr. Reeta Bansiwal: Do Semen Parameters Affect Success of IVF
- Dr. Savita Yadav: Sperm Proteomics Reveals Over Represented Oxidative Stress Pathways In iRPL

#### **Symposium: Stem Cells And Regenerative Medicine**

- Dr (Lt Col) Pawan Kumar Gupta: Commercializing Cell Therapy Products in India
   Journey from Bench to Bedside.
- Dr. Saurabh Ghosh: Cartilage Tissue engineering: 3D Bioprinted Cartilage
- **Dr. Sudip Sen:** Differentiating Human fetal Neural Stem Cells Into Oligodendrocytes To Understand The Pathogenesis Of Cerebral Palsy In Premature Neonates

#### Symposium: Cardiovascular Disease - Laboratory To Bedside

- Dr. Medha Rajappa: Psoriasis & cardiovascular disease: Decoding the genetics of this
  connection.
- Dr. P. D. Gupta: Cardiovascular Disorders during Menopause
- Dr. Anita R Bhatia: Association of CD40 Gene polymorphism with coronary Artery disease: A pilot study in North Indian population
- Dr. Wahid Ali: Endothelium enriched MicroRNA126 &122 in Coronary Artery



# Symposium: Integrated Health Care SystemOrganization Perspective And Vision In Indian Scenario

- Dr. Preeti Chauhan: Opportunities and challenges of HIMS and LIS in government hospitals
- **Dr. Sandeep Chopra:** eHospital application implementation across Government Hospitals Roadmap to Digital Health
- Mr Anurag Saxena: India pioneering transformative change in healthcare with digital interventions
- Dr. Mamta Kankra: Health Information Exchange (HIE): Role In Enhanced Patient Care

## Free Paper Sessions by 85 delegates

**Oral Award categories:** Twenty two young investigators presented their work and vied for the awards.

## 154 poster presentations

#### **AFMC Quiz contest**

**Industrial Workshop and Scientific activities:** Abbott Healthcare Pvt Ltd, ROCHE Diagnostics, Beckman Ltd., DiaSys Ltd, Q-Line Biotech, OCD Ltd.,

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
16th Asia-Pacific Congress of Clinical Biochemistry at Coex, Seoul, Korea	June 26 to 30, 2022	Dr. Praveen Sharma & Dr Rajiv R Sinha participated in the APFCB Council Meeting. Dr Rajiv Sinha chaired a session on Covid Diagnostics.

#### **REGIONAL RELATIONS**

Many members of ACBI are also actively participating in the affairs of APFCB. Dr Praveen Sharma, Dr. Pradeep Dabla, Dr Purvi Purohit, Dr Prasenjit Mitra as chairpersons/members of various divisions & sub-committees.

#### INTERNATIONAL RELATIONS

Many members of ACBI are actively participating in the affairs of IFCC. Dr Praveen Sharma, Dr. Pradeep Dabla, Dr Prasenjit Mitra, Dr Seema Bhargava, Dr Barnali Das & Dr Sudip Datta are chairpersons/members of various divisions & sub-committees of IFCC.

Large number of members participated as delegate at the 24<sup>th</sup> International Congress of Clinical Chemistry and Laboratory Medicine & 16<sup>th</sup> Asia-Pacific Congress of Clinical Biochemistry at Coex, Seoul, Korea from June 26 to 30, 2022.

#### **ADDITIONAL INFORMATION**

The 49<sup>th</sup> Annual National Conference of the association will be held in Thiruvananthapuram (Trivandrum), Kerala in September 2023. The organizing secretary is Dr Kannan Vaidyanathan.



# The following were elected as office bearers of ACBI for the year 2023:

#### PRESIDENT:

#### Dr. Seema Bhargav

Chairperson and Senior Consultant,

Department of Biochemistry & Professor,

GRIPMER, Sir Ganga Ram Hospital,

New Delhi, India

Phone no. 91-9818084844

Email id: bhargavaseema6@gmail.com

# **VICE PRESIDENT (I) & ORGANIZING SECRETARY, ACBICON 2023**

Dr. Kannan Vaidyanathan, MD, FRCP (Edin.)

Professor & Head,

Department of Biochemistry,

Believers Church Medical College Hospital,

St. Thomas Nagar, Kuttapuzha,

Tiruvalla - 689103, Kerala, India

Tel. Off. +469 2742800 Ext 2126;

Mob - +919447286365

Email: drkannanvaidyanathan@gmail.com

# **VICE PRESIDENT (II)**

#### Dr. Harsh Vardhan Singh

Senior Biochemist

Department of Biochemistry,

North Delhi Municipal Corporation Medical College & Hindu Rao Hospital,

Delhi-110007

Email: hvsingh77@gmail.com Mobile: +91-9810910824 Office: 011-23905690 (Direct)

#### **ADVISOR**

Prof. K.P. Sinha,

Director.

Biochem Lab

East Boring Canal Road,

Patna-800001, India

Tel: 91-612-2521496/2531212;

Mobile:09430061144

email: kpsacbi@yahoo.co.in

#### **SECRETARY:**

# Dr. Rajiv Ranjan Sinha,

Professor & Head,

Department of Biochemistry,

Nalanda Medical College,

Kankerbagh Road, Patna-800023, Bihar, India

Tel: 91-612-2531212

Cell: 09835067630, 09801800171 email: kpsacbi@yahoo.co.in Web: www.acbindia.org.in



#### TREASURER:

# Dr Krishna Ranjan Prasad,

Professor, Dept.of Biochemistry, Katihar Medical College.

A-12 Sector D, Kankerbagh Colony,

Patna - 800 020. Bihar. Tel #: 91-612-2353461 Mobile: 09334330401

email: k\_ranjan@msn.com, kpsacbi@yahoo.co.in

#### **JOINT SECRETARY:**

#### 1. Dr. Prasenjit Mitra

Assistant Professor Department of Biochemistry PGIMER, Sector - 12 Chandigarh - 160 012

Cell - 8107835666

Email: prasy4u@gmail.com

#### 2. Dr Mamta Kankra

Senior Consultant
Department of Biochemistry
& Quality Manager, Clinical Laboratory Services,
Sir Ganga Ram Hospital
New Delhi 110060

Phone: +91 42252122

Mob: - 9811514406, 9310117359 Email: kankramamta@gmail.com

#### **ZONAL COUNCIL MEMBERS**

# **North Zone:**

# **Dr. Dharamveer Yadav**

Assistant Professor Dept. of Biochemistry S.M.S. Medical College Jaipur – 302 004

E-mail: dharam1435@gmail.com

#### South Zone:

# Dr Medha Rajappa,

Additional Professor of Biochemistry,

Department of Biochemistry,

Second Floor, Academic Centre,

Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER),

Dhanvantari Nagar, Puducherry-605006

E-mail: linkmedha@gmail.com

Phone: 094863-98875

### **West Zone:**



# **Dr Barnali Das**

Consultant, Laboratory Medicine,

Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute,

Mumbai - 400053. Mobile: 9324349519

Email: drbarnalid@gmail.com

#### **Central Zone:**

# Dr. Sukhes Mukherjee

**Associate Professor** 

Dept of Biochemistry,

All India Institute of Medical Sciences,

Bhopal- 462020 Madhya Pradesh Mobile: 989780019

Email: sukhes.mukherjee@gmail.com

#### **East Zone:**

#### **Dr. Vanita Lal**

Professor & Head

Department of Biochemistry

**AIIMS** 

Panchayat Training Institute

Daburgram, Jasidih

Deoghar- 814142

Jharkhand.

Mobile: 8003996875

Email: laldasvanita@gmail.com



# **INDONESIA**

INDONESIAN ASSOCIATION FOR CLINICAL CHEMISTRY (HKKI)

# **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
16th IACC NATIONAL CONGRESS	22 <sup>nd</sup> -24 <sup>th</sup> July 2022	The Future of Clinical Laboratory: Precision Medicine Perspective

### **EDUCATION**

Westgard Series: From A to Z Laboratory Risk Management, webinar, 19th November 2022 Green Lab Capacity Building, webinar, 15th December 2022

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
IACC's Lampung Branch Inauguration	16 <sup>th</sup> September 2022	Scientific Seminar for Pathologist and Labtechs with topic: "Update of Autoimmune Diseases: Early Diagnosis, Management and Laboratory Aspect of Systemic Lupus Erythematosus"







Name of the meeting	Date	Торіс
44 <sup>th</sup> Annual conference	14 <sup>th</sup> - 15 <sup>th</sup> October	Precision medicine, Biochemsmitry through the ages, Nutrition, International matters, Pharmacogenetics

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
ACB Republic of Ireland Scientific meeting	4 <sup>th</sup> March 2022	

#### **REGIONAL RELATIONS**

EFLM working group corresponding members Pre-analytical Phase: Dr Seán Costelloe

Register: Michéal Ryan

Distance education and e-learning: Dr Graham Lee ISO and accrediation standards: Ruth O'Kelly

EFLM Reference Intervals and Decision Limits: Alison Bransfield EFLM Green Labs Task force member: Dr Seán Costelloe

# **INTERNATIONAL RELATIONS**

IFCC Young scientist task force member: Karen Heverin



# ITALY ITALIAN SOCIETY OF CLINICAL CHEMISTRY AND CLINICAL MOLECULAR BIOLOGY (SIBioC)

# **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
		The National Congress is the most important annual event held by a Scientific Society, representing a unique opportunity for updates, cultural discussions, exchanging opinions, sharing ideas and experience, and innovation.
		The goal of the Congress is to discuss the current themes with illustrious international figures from the Laboratory Medicine field, and the future outlooks in predicting, preventing, diagnosing, prognosis and therapy for various pathologies of great clinical significance.
54° National Congress SIBIOC – Laboratory Medicine		The success of this year's National Congress held in Genoa with over 1200 participants, the presentation of 300 abstracts, 12 scientific sessions with 115 full presentations and 10 workshops was of great satisfaction for SIBioC, especially after Covid19 isolation.
Laboratory Medicine: the bridge between present and future in healthcare	Genoa, 5-7 October 2022	The Congress has been an opportunity for discussing important and current themes. A fundamental aspect of our discipline or the need to know, interpret, guide all the new opportunities offered by technological, digital, scientific innovation in an overall and
(Medicina di Laboratorio: ponte tra presente e futuro in Sanità)		integrated cultural vision already in the near future. We must build bridges between us professionals inside and outside the Company, between the laboratory with the healthcare world and in general with citizens and society. If the pandemic has highlighted the extraordinary role of laboratory diagnostics, the need to demonstrate skills to govern innovation in the very complex and constantly evolving articulation of medicine to produce health emerges even more.
		The Conference has also included a Session entirely dedicated to SIBioC. Young Researchers, who have had the opportunity to present and discuss the results of their research.
		The Conference has been an opportunity for improvement and cultural growth for all of us.

# **EDUCATION EVENTS**

Name of the meeting	Starting from	То	Event Type
Aggiornamenti in tema di covid-19	05/05/2022	05/05/2022	WEBINAR NO ECM - COLLANA FOCUS ON SIBIOC
Competenze professionali: vecchi e nuovi paradigmi	13/06/2022	13/06/2022	WEBINAR NO ECM - COLLANA FOCUS ON SIBIOC
Focus on "valore e remunerazione degli esami di laboratorio: nuovi lea e tariffe"	26/09/2022	26/09/2022	WEBINAR NO ECM - COLLANA FOCUS ON SIBIOC





Focus on "etica nell'intelligenza artificiale in medicina di laboratorio"	18/10/2022	18/10/2022	WEBINAR NO ECM - COLLANA FOCUS ON SIBIOC
Focus on "tra regolamentazione e necessità cliniche"	24/11/2022	24/11/2022	WEBINAR NO ECM - COLLANA FOCUS ON SIBIOC
Focus on "ipotiroidismo congenito: screening neonatale, test di conferma, diagnosi"	12/12/2022	12/12/2022	WEBINAR NO ECM - COLLANA FOCUS ON SIBIOC
Fare valore in medicina di laboratorio: value based healthcare	28/06/2022	28/06/2022	WEBINAR NO ECM
Fgf-23 dal laboratorio alla clinica: un update	10/03/2022	10/03/2022	WEBINAR ECM
Principi per l'implementazione e la gestione del point-of-care- testing (poct): indicazioni essenziali. Un documento da condividere e il ruolo della medicina di laboratorio nella "nuova normalità"	30/03/2022	30/03/2022	WEBINAR ECM
Il sistema renina-angiotensina- aldosterone nell'ipertensione arteriosa	31/03/2022	31/03/2022	WEBINAR ECM
Il monitoraggio terapeutico del farmaco: il ruolo del laboratorio nell'ambito della terapia centrata sul paziente	05/04/2022	05/04/2022	WEBINAR ECM
Aggiornamenti sulle variabili preanalitiche in medicina di laboratorio	31/03/2021	31/03/2022	CORSO FAD
Il ruolo del laboratorio nel management dei doac: dosaggio dei farmaci ed interazione laboratorio-clinica	30/06/2021	29/06/2022	CORSO FAD
Highlights del 52° congresso nazionale sibioc 2020	30/07/2021	29/07/2022	CORSO FAD
Variabilita' biologica	05/11/2021	04/11/2022	CORSO FAD
Aggiornamenti sulla diagnostica delle gammopatie monoclonali	27/11/2021	26/11/2022	CORSO FAD
Crioglobulinemia: laboratorio e clinica, una collaborazione virtuosa per la corretta gestione di una patologia rara	12/12/2021	11/12/2022	CORSO FAD
Il ruolo del laboratorio nel management dei doac: dosaggio dei farmaci ed interazione laboratorio-clinica	30/06/2022	31/12/2022	CORSO FAD
La trombocitopenia indotta da eparina e sindromi correlate: aspetti clinici e laboratoristici	20/07/2022	31/12/2022	CORSO FAD
Aggiornamenti sulle variabili preanalitiche in medicina di laboratorio	01/04/2022	31/12/2022	CORSO FAD

# **REGIONAL MEETINGS**

Name of the meeting	Starting from	То	Event Type
Aggiornamenti sulle veq regionali e sui sistemi di gestione qualità	28/04/2022	28/04/2022	Ancona

Big data ed intelligenza artificiale in medicina di laboratorio	18/05/2022	18/05/2022	Bologna (ibrido online)
36° convegno di medicina di laboratorio - esami su urine: oltre l'ecmu	26/05/2022	26/05/2022	Vicenza (ibrido online)
Il laboratorio "molecolare": tecnologie avanzate a disposizione della diagnostica in vitro	09/06/2022	09/06/2022	Alessandria
Corso teorico-pratico di spettrometria di massa in medicina di laboratorio: ivd/ltd - verifica/ validazione metodi - troubleshooting	05/09/2022	07/09/2022	Salerno
25° congresso multidisciplinare sibioc abruzzo-molise	15/09/2022	16/09/2022	Chieti
Garantire la qualità della medicina di laboratorio per garantire la qualità della sanità di prossimità in lombardia	27/10/2022	27/10/2022	Milano

The organization of our society is further based on regional delegations, with a delegation for each Italian region by means of a network of 19 Regional delegates. The Regional delegates meet constantly with the Executive Board. The aim of the delegations is to promote local scientific initiatives, including educational activities such as courses, conferences and symposia.

Following the Covid19 pandemic, we have experienced a significant increase in the emerging and crucial role of web seminars and online continuous education programs, disseminating professional education training on new analytical technological skills and new diagnostic strategies in Laboratory Medicine.

#### INTERNATIONAL RELATIONS

Several speakers from all over the world attended the meeting in Genoa in October, and gave oral presentations and took active parts to Educational Workshops.

Moreover, many of our SIBioC members have held or are currently holding important roles in EFLM and IFCC.

# **ADDITIONAL INFORMATION**

An important SIBioC project has been the management of the Italian version of labtestonline (www.labtestonline.it). This tool is an essential communication tool with the public, offering correct information, guaranteed by laboratory professionals. Following the AACC's release of accountability as the reference edition, from this year, the Italian website will be managed by SIBioC. The success of this initiative, proven by over half a million monthly site visits, confirms the both the opportunity and need for Laboratory Professionals to play a proactive and informative communication.

Another activity promoted by our society is the, Biochimica Clinica (BC), which is SIBioC's official scientific journal. BC publishes 4 quarterly issues, with an additional issue dedicated to the Proceedings of the National Congress (electronic version only). The other issues are planned to be dedicated to topics of particular interest, selected by the Editorial Committee. BC publishes both in Italian and English (official SIBioC documents are published in English) and is indexed in Scopus, EMBASE, and others. Journal content is available to the SIBioC members with a number of articles published as open access.





Name of the meeting	Date	Topic		
The 62nd Annual Meeting of the Japan Society of Clinical Chemistry	<b>Date</b> 2022/9/30-10/2	<ol> <li>3 Special Lectures:         <ol> <li>Promoting Innovation by Academia: Guide from Government Policies</li> <li>Function of the idling brain</li> <li>Mathematical Modeling of Complex Systems and its Applications to Research on Pre-Disease States</li> </ol> </li> <li>3 Educational Lectures:         <ol> <li>Recent progress in allergy studies</li> <li>The lesson of 'Toyama paradox' on life-style related disease and the molecular mechanisms of insulin reistance</li> <li>Interdisciplinary collaborative study by clinical chemists</li> </ol> </li> <li>1 International symposium         <ol> <li>Current status and future perspective of traditional medicines</li> </ol> </li> <li>8 Symposia:         <ol> <li>Hemostasis and coagulation tests: further clinical approaches</li> <li>Detection and approach of abnormal reactions in automated biochemistry analyzers</li> <li>Considering Questions in Clinical Chemistry Testing</li> <li>Expansion from pre-disease science to clinical chemistry research through collaboration between mathematical science and life science</li> <li>Pitfall Case Report and Discussion Meeting in Clinical Testing 2022</li> </ol> </li> </ol>		
		<ol> <li>Pitfall Case Report and Discussion Meeting in Clinical Testing 2022</li> <li>Translational research from pharmaceutical research to clinical chemistry - discovering drug targets, developing analytical methods, and verifying its usefulness -</li> </ol>		
		<ul> <li>7. Clinical tests and device for laboratory, companion and industrial animals</li> <li>8. Extracellular vesicles and circulating microRNAs - From Clinic to Bench</li> </ul>		

#### **EDUCATION**

In all annual meeting of JSCC and regional meetings in Japan, educational lectures on various clinical chemistry related subjects, such as standardization, analytical methods, and laboratory related trouble shootings were performed by the specialists of clinical chemistry. In addition, clinical chemistry related companies held various types of symposiums and educational meetings in all over Japan all the year round.

Educational Lecture for Certified Clinical Chemistry and Immunochemistry Quality Assurance Medical Technologists and Professions were held in Toyama on Oct 2, 2022.

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
Hokkaido branch: The 32 <sup>nd</sup> branch general & regular meeting	Sep 17, 2022	Each branch supervises the meeting of each region
Tohoku branch: The 33 <sup>rd</sup> branch general & regular meeting	Aug 6, 2022	Each branch supervises the meeting of each region
Kanto branch: The 30 <sup>th</sup> branch general meeting	Jun 25, 2022	Each branch supervises the meeting of each region
Koshinetsu branch: The 40 <sup>th</sup> branch general & regular meeting	Jul 9, 2022	Each branch supervises the meeting of each region

Tokai&hokuriku branch: The 32 <sup>nd</sup> branch general & regular meeting	Oct 12, 2022	Each branch supervises the meeting of each region
Kinki branch: The 31st branch general meeting	Mar 6, 2022	Each branch supervises the meeting of each region
Chugoku & Shikoku branch: The 32 <sup>nd</sup> branch general & regular meeting	Feb 11, 2022	Each branch supervises the meeting of each region
Kyusyu branch: The 33 <sup>rd</sup> branch general & regular meeting	Mar 5, 2022	Each branch supervises the meeting of each region



#### INTERNATIONAL RELATIONS

#### **SD Committees:**

- Reference Standardization of Thyroid Function Tests (C-STFT): Akira Hishinuma, Member
- Nomenclature, Properties and Units (C-NPU) in collaboration with IUPAC: Koh Furuta, Member

### **SD Working Groups:**

- Standardisation of Albumin Assay in Urine in collaboration with NKDEP (WG-SAU): Yoshihisa Itoh, Member
- Immunosuppressive Drugs (WG-ID): S Masuda, Member
- Pancreatic Enzymes (WG-PE): Shigeru Ueda, Member
- Fecal Immunochemical Testing (WG-FIT): S Takehara (Member), Y Doi, M Fujimura, T Fukuda, H Hayashi, A Horikawa, S Wu, Y Masuda, Corp. Member

## **Education Management Division (EMD) Committees:**

• Education in the Use of Biomarkers in Diabetes (C-EUBD): Asako Sato, Member

#### **Emerging Technologies Division (ETD) Committees:**

• Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM): Kazuhiko Kotani, Member

#### **International Journal Editor**

• Associate Editors for Annals of Clinical Biochemistry: Kazuhiko Kotani

#### **Editorial Board of Clini Chimica Acta:**

- Nobuo Okumura, Editorial Board
- Masato Maekawa, Editorial Board
- Takashi Miida, Editorial Board
- Minoru Tozuka, Editorial Board
- Katsuyuki Nakajima, Editorial Board
- · Akihiro Inazu, Editorial Board

#### **ADDITIONAL INFORMATION**

About 2,000 members including MD and PhD belong to JSCC and 9 blocks were divided as each centre of JSCC.

The annual meeting is held once a year and more than 300 papers are discussed in the meeting and the regional meetings were held once a year in each region and interesting symposiums and special lectures are planned by an annual president of the meeting.





Name of the meeting	Date	Topic
The Korean Society of Clinical Chemistry (KSCC) 2022 Biannual Fall Meeting	November 10, 2022	Session 1. The current state of the laboratories with regard to quality management VII
		Session 2. Genetic Testing in Clinical Chemistry
		Session 3. Current trends with regard to the Biomarker II
		Session 4. Latest Practice of Protein Electrophoresis Test
		Workshop. Clinical mass spectrometry workshop: Automation of Mass spectrometry

#### **EDUCATION**

# Review Course (Online; November 11 - November 27, 2022)

- RC1. Clinical chemistry general overview
  - 1) The financial management of clinical chemistry testing
    - 2) Laboratory specialist role is required for the management committee position
  - 3) Statistical quality control

# Review Course (Online; November 11 - November 27, 2022)

- RC2. Clinical chemistry special tests
  - 1) Carbohydrate and diabetes test
  - 2) Laboratory diagnosis of the hepatobiliary disease
  - 3) Use of diagnostic tests in gastrointestinal and pancreatic disease
  - 4) Renal function tests

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
16 <sup>th</sup> APFCB council meeting	26 <sup>th</sup> June 2022	Participating council meeting
24th IFCC & 16th APFCB Congress	26 <sup>th</sup> to 30 June 2022	Hosting the event

#### **INTERNAL RELATION**

From June 26 to 30, 2022, the 24th International Congress of Clinical Chemistry and Laboratory Medicine & the 16th Asia-Pacific Congress of Clinical Biochemistry were held at Coex, Seoul, Korea. The KSCC collaborated with the IFCC organization and the Asia-Pacific Federation of Clinical Biochemistry to host the event.

From October 28 to 31, 2022, IFCC General Conference 2022. The representative of KSCC participated the conference.

#### ADDITIONAL INFORMATIONS

# The Officer Bearer of KSCC (2023)

# 1. President: Yong-Wha Lee

Department of Laboratory Medicine and Genetics, Soonchunhyang University Bucheon Hospital, Soonchunhyang University College of Medicine, 170 Jomaru-ro, Wonmi-gu, Bucheon 14584, Republic of Korea.

e-mail: lywmd@schmc.ac.kr, kscc1111@gmail.com

# 2. Secretary General: Sollip Kim

Department of Laboratory Medicine, University of Ulsan College of Medicine and Asan Medical Center, 88 Olympic-ro 43-gil, Songpa-gu, Seoul 05505, Republic of Korea. e-mail: sollip kim@amc.seoul.kr

## 3. Treasurer: Sung Eun Cho

Green Cross Laboratories, 107, Ihyeonro 30beon-gil, Giheng-gu, Yongin-Si, Gyeonggido, 16924, Republic of Korea. e-mail: secho0824@gmail.com

# 4. Scientific Affairs Director: Jae-Woo Chung

Department of Laboratory Medicine, Dongguk University Ilsan Hospital, Goyang, Gyeonggi-do, 10326, Republic of Korea.

e-mail: jwchung@dumc.or.kr

# 5. International Affairs Director: Sang-Guk Lee

Department of Laboratory Medicine, Severance Hospital, Yonsei University College of Medicine, 50-1 Yonsei-ro, Seodaemun-gu, Seoul 03722, Republic of Korea. e-mail: COMFORTER6@yuhs.ac

# 6. Secretary: Kyunga Choi

Office address: A-1105, Asterium Seoul, 372 Hangang-daero, Yongsan-gu, Seoul 04323, Republic of Korea.

e-mail: kscc@kscc.or.kr

# 7. Official Email of KSCC: kscc1111@gmail.com



## **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Association meeting	02.03.2022.	HPV laboratory diagnostic
Association meeting	11.05.2022.	News from the company Mindray in laboratory diagnostics
Association meeting	16.06.2022.	Mapping of laboratory tests using the Loinc examination classifier
Association meeting	24.11.2022.	Automation in laboratory diagnostics

#### INTERNAL RELATION

XVI Baltic Congress in Laboratory Medicine, 22 – 24 September 2022. In Tallin, Estonia





Name of the meeting	Date	Topic
14 <sup>th</sup> Annual Conference of the Lithuanian Society of Laboratory Medicine (LLMD) (on-line)	28-04-2022	Actualities of strengthening quality management systems of medical laboratories
National LLMD Conference (on-line)	05-05-2022	Biomedical diagnostics of 2022: science and practice
Regional LLMD Conference (hybrid)	27-05-2022	The role of laboratory diagnostics and treatment during infections and pandemics. Have all the lessons been learned?
National LLMD Conference	06-09-2022	Trends of laboratory medicine technologies
National LLMD Conference (hybrid)	12-10-2022	What clinicians should know, and what laboratories should perform (dedicated to World Thrombosis Day)
National LLMD Conference (on-line)	25-11-2022	Laboratory medicine in 2022  – new diagnostic opportunities

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
XVI Baltic Congress of Laboratory Medicine	22 – 24 September 2022	Co-organizer of the Congress

#### **REGIONAL RELATIONS**

Lithuanian Society of Laboratory Medicine (LLMD) is member of Baltic Association of Laboratory Medicine (BALM). Other 2 members of BALM are: Latvian Society of Laboratory Specialists and Estonian Society of Laboratory Medicine. The main task of the Association – organization of Baltic Congresses of Laboratory Medicine held every second year in one of the Baltic Countries (upcoming scheduled for 2022).

#### **INTERNATIONAL RELATIONS**

LLMD is the member of IFCC and EFLM, partner of the Global World Thrombosis Day Movement.



# **NATIONAL MEETINGS**

Name of the meeting	Date	Торіс
General assembly + conference	30.06.2022	"Role of rituximab in transfusion medicine"
Conference	15.12.2022	"Famous poisonings from Antiquity to the present dasy"



Name of the meeting	Date	Торіс	
Myanmar Medical Technologist Association Executive members' Meeting	12 May 2022	Development and organization of Myanmar Medical Technologist Association	
Meeting with Myanmar Medical Council	21 June 2022	Registration and license for Medical Technologist and Technician	
Meeting with Myanmar Medical Council	13 September 2022	Registration and license for Medical Technologist and Technician	

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
Asia Association of Medical Laboratory Scientists (AAMLS) 28 <sup>th</sup> Board of Directors' Meeting (Virtual Meeting)	11 February 2022	Singapore Association of Medical Laboratory Scientists (SAMLS)
Asia Association of Medical Laboratory Scientists (AAMLS) 29 <sup>th</sup> Board of Directors' Meeting (Virtual Meeting)	10 June 2022	Singapore Association of Medical Laboratory Scientists (SAMLS)
Asia Association of Medical Laboratory Scientists (AAMLS) 30th Board of Directors' Meeting Suwon Convention Center, Suwon, Korea	7 October 2033	Korean Association of Medical Technologists (KAMT)

#### **REGIONAL RELATIONS**

Participating in Asia Association of Medical Laboratory Scientists (AAMLS) webinars.

#### **INTERNATIONAL RELATIONS**

Delegates of Myanmar Medical Technologist Association (MMTA), Mr Win Min Than (Vice President) and Ms Nang Shwe Yin (Foreign Relation Officer) attended the 35th World Congress of International Federation of Biomedical Laboratory Scientists (IFBLS) & 2022 The 60th Congress of the Korean Association of Medical Technologists at Suwon, Korea on October 5-9, 2022.

MMTA delegates attended Virtual meetings of IFBLS, Chief delegates meeting 2022 on 1 October 2022 and General Assembly of Delegates (GAD) 2022 on 8 October 2022.

Organizing the Medical Technologists to participate in International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) and AAMLS webinars.



Name of the meeting	Date	Торіс
ChemCon, organized by Pakistan Society of Chemical Pathology- Karachi Chapter Under the Auspices of International Federation of Clinical Chemistry & Laboratory Medicine	26th-27 <sup>th</sup> November, 2022	Metabolomics: Revolutionzing Chemical Pathology
PSCP Executive Council Meeting	25 <sup>th</sup> November 2022	National Meeting
Workshop By Indus Hospital and Health Network, Karachi, Pakistan	Friday, 25 <sup>th</sup> November 2022	Workshop on Metabolomics (Closed meeting, by invitation only)

#### **EDUCATION**

- Chemical pathology Conference 2022 at PC Krachi, CME on 25th November 2022 with international guests speakers of IFCC
- Short Intensive Training (SIT) Course in Chemical Pathology (PSCP) by many PSCP faculty and supervisors
- Hybrid Seminar 'Value of POCT' for PSCP members in Karachi by Roche and Aga Khan University on 31st March 2022 in Movenpick Hotel, Karachi
- Invited lecture: Interleukin 6-a hype or hope? At IFCC-Snibe Conference, Grand Hyatt Hotel Dubai delivered by Dr Lena Jafri Section Head and Associate Professor Chemical Pathology Aga Khan University

Pak IMD activities: The working group of PSCP-Pak-IMD-Net formed in 2019 for strengthening the diagnostics, educationand research in the area of inherited metabolic disorders (IMDs) is a group for PSCP members and associate members with special interest in IMDs. With the mission of capacity building of laboratorians to develop diagnostics of newborn screening and IMDs all members of the Pak-IMD-Net collectively made significant contributions to our mission in 2022. In Feb 2022 we conducting a CME Seminar Rare Link with following objectives: understand the clinical utility of newborn screening testing of rare inherited metabolic disorders, describe the tests for follow up testing of these rare disorders and interpret newborn screening tests and second tier tests through case discussions

International Guest Speakers included Dr George Sayhoun Director and Chief Scientific Officer of Med Labs, Jordan and Dr Samir Munir Paediatric Inherited Metabolic Medicine, Great Ormond Street Hospital for Children, London, United Kingdom

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
APFCB conference South Korea, Seoul	June 27 <sup>th</sup> , 2022	Prof. Aamir Ijaz from PSCP chaired a sciencific session

#### INTERNATIONAL RELATIONS

 Lecture at international level- Invited lecture by Dr Lena Jafri Section Head and Associate Professor Chemical Pathology Aga Khan University on Workplace-Based

- Assessment in Chemical Pathology talk in a South African Clinical Chemists SAACB Expert Seminar Series via Zoom. Oct 2022
- Lena Jafri as PSCP member and IFCC POCT committee corresponding member was Invited panellist at WHO Meeting in Vevey Switzerland: To Review Technical consultation on WHO prequalification requirements for Blood Glucose meters and HbA1c POC assays; 8-10 Nov 2022
- International Federation Clinical Chemistry World Lab Seoul attended by 4 PSCP members (2 scholarships)
- PSCP celebrated IFCC 70th anniversary and dedicated the title page of society NEWSLETTER SPECTRUM for IFCC





Name of the meeting	Date	Topic
General Conference Meeting	25 <sup>th</sup> , March, 2022	General Assembly Meeting
PMTA Social Solidarity Fund Meeting	24 <sup>th</sup> , June, 2022	Yearly meeting of the asembly members of the Social solidarity fund.
Laboratory Services Pricing Committee	11 <sup>th</sup> , August, 2022	Pricing all the lab.services
Private Labs. Committee	25 <sup>th</sup> , August, 2022	New regulations for Private labs. Licensure.
QC Committee	16 <sup>th</sup> ,October, 2022	EQAS and ISO 15198 Accreditation

#### **EDUCATION**

Lecture Name	Lecturer	Date
Lab. Diagnosis of Haemophilia	Mahmood Sroor	25-3-2022
Hb Electrophoresis Interpretation	Ibraheem Alsalhi	25-3-2022
Time management	Sylvia Jawabrah	12-6-2022
Management of Hepatisi B	Sylvia Jawabrah	12-6-2022
Diagnosis of Autoimmune Diseases	Mohamad Alqadi	26-8-2022
Thalassemia Diagnostic Approach	Ayman Najjar	26-10-2022
Antimicrobial Agents: Classifications and General Considerations	Itaf Hadiah	25-11-2022
Emergence and spread of Resistant Baceria in Palestine	Mousa Hindyah	25-11-2022
Multidrug Resistant Enerobaceria From ESBL to CRE	Mamoun Ibeidiah	25-11-2022
Lab. Medicine in Palestine: Reality and Chalenges	Osama Najjar	23-12-2022
Ab testing for Viral Infections	Robin Abu Ghazalah	23-12-2022
Clinical Bioinformatics and Genomics	Mahmoud Ruziqat	23-12-2022

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting		
COVID-19 National Epidemiology Committee	2022	Policy for PCR tests. Policy for Rapid Ag test. Monitoring COVID-19 Labs.		
ISO 15189 Accreditation Unit in the Ministry of Economics	All the year			
Lab. Reagents and instruments registration Unit in the Ministry of Health.	All the year			
Lab. Licensure in ministry of Health	All the year			
Continuing Education department in Ministry of Health.	All the year			
National Medical Research department in the Palestinian Universities	All the year			

#### **REGIONAL RELATIONS**

Member of the AFCB.

PMTA president is the Past president of the AFCB.

PMTA is a member in the following:

- SO 15189 Accreditation Unit in the Ministry of Economics.
- Lab. Reagents and instruments registration Unit in the Ministry of Health.
- Lab. Licensure in ministry of Health.
- Continuing Education department in Ministry of Health.
- National Medical Research department in the Palestinian Universities.
- Palestinian Allied Health Profession Associations.
- General Safety Committee in each Governorate.

#### **INTERNATIONAL RELATIONS**

Member in the IFCC.

More than 3000 participation from our members in the IFCC live webinars.

### **ADDITIONAL INFORMATION**

Since 2010 we establish the Palestinian National Laboratory Professionals week to raise the awareness of the vital role of the lab. in the health cycle. In this week (from 24<sup>th</sup> April – 1<sup>st</sup> of May) we do more than 100 activity in all our 11 subcommittees in Palestine. The final day 1<sup>st</sup> of May which is also the International Labour day we make a festival for our members and their families.



# **PARAGUAY**ASOCIACIÓN DE BIOQUÍMICOS DEL PARAGUAY (ABP)

#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Meeting at the MSPyBS with the Vice Minister of Comprehensive Health Care, Dr. Hernán Martínez	March 9/2022	Carrying out rapid tests for the detection of SARS-CoV-2





Meeting at the Central Public Health Laboratory for the reviw of the Manual of good practices	March 18/2022	Dr. Laura Mujica and Bioq. Verónica Baruja were nominated as reviewers of the manual as representatives of the ABP	
Extraordinary General Assembly of the Association of Biochemists of Paraguay	April 30/2022	Presentation of reports and balance of the 2021 financial year.	
Extraordinary General Assembly of the Association of Biochemists of Paraguay	May 28/2022 June 11/2022 July 8/2022	General reform of the ABP Bylaws	
Meeting with Biochemical Scientific Societies	July 21/2022	ocialization of Resolution S.G. N° 307 on the requirements for registration and authorization of specialist titles for health professionals.	
Meeting with the National Institute of Health	November 14 /2022	Request the participation of ABP representatives as evaluators within the framework of Resolution S.G. N° 466/2020 "WHICH APPROVES THE REGULATION FOR THE ASSESSMENT OF COMPETENCES FOR HEALTH PROFESSIONALS WITH DEGREES OBTAINED ABROAD, FOR ACCESS TO THE PROFESSIONAL QUALIFICATION OF THE MINISTRY OF PUBLIC HEALTH AND SOCIAL WELFARE"	

#### **EDUCATION**

- Microbiota Virtual Course, June 24 and 25/2022
- Speakers: Dr. Marcelo Arango and Dr. Pablo Peña
- Continuing Education Conference: Quality Management in Clinical Laboratories, July 29 and 30/2022
- Speakers: Lic. Quim Marta Torres (ARG), Dr. Sergio Tinoco (MEX), Dr. Natalia Rossaro (ARG), Dr. Gabriel Migliarino (ARG) and Dr. Alba Garzon (COL)
- Workshop: Keys to write and publish a scientific article and not die trying, July 27/2022
- Speaker: Susana Segura Muñoz (CR/BRA)
- Virtual Conversation: "What do editors pay attention to?", September 7/2022
- Speakers: Dr. Miriam Espínola de Canata, Dr. Margarita Samudio, Nélida Blanca Soria Rey and Dr. Angélica Leguizamón

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
Ordinary meeting of the Executive Committee of the Latin American Confederation of Clinical Biochemistry	May 20/2022 (Zoom)	
Meeting about the PEEC-PNCQ program	September 22/2022 (Zoom)	

# **REGIONAL RELATIONS**

- Ordinary General Assembly that took place during the development of the XXV LATIN AMERICAN CONGRESS OF CLINICAL BIOCHEMISTRY in the city of León
   Guanajuato, Mexico, on April 1, 2022
- Participation of the President of ABP: Dr. Mercedes Álvarez in the
- XXV Congress COLABIOCLI 2022, León Guanajuato -Mexico from March 30 to April 2, 2022. Participant: Dr. Mercedes Álvarez.
- IFCC travel grants designated to allow young scientists from selected countries to attend the XXV COLABIOCLI Congress 2022, León-Mexico from March 30 to April 2, 2022.
- Grantee: Bioq. Verónica Baruja and the Bioq. Sarah Benegas.
- Course on Strategic Planning in Laboratories and Leadership of Young Professionals".

- Participants: Bioq. Delia María José Isasi and Bioq. Pamela Palmerola Benitez. Date: June 27 to August 8/2022
- Virtual Seminar: The laboratory in monitoring the main cause of death worldwide, Speakers: QF. BC. Ana Lena, Dr. Clarisa Da Costa, Dr. Mónica Molinas, Moderator: BQ. Johanna Gimenez. Date: August 2 / 2022
- 2022 Colabiocli Management Scholarship awarded for an internship at the INEI-ANLIS National Brucellosis Laboratory Dr. Carlos G. Malbrán, scholarship holder: Bioq. Silvana Benitez Cataldi.
- "Course on Quality Management and good laboratory practices to strengthen Virological and Genomic Surveillance of Covid-19". Participants: Bioq. Andrea Stefanía Gómez and Fátima Raquel Fleitas, Date: August 1 to September 22/2022.
- Virtual Course: "Production of blood components in transfusion medicine". Participants: Bioq. Carmen Volkart, Bioq. Irene Iliou, Bioq. Soledad Iriarte and Bioq. Nathalia Lezcano, Date: September 6 to October 28, 2022.
- "Seminars for Academic Units Training Biochemists or equivalent titles in Latin America and the Caribbean", Participant: Bioq. Pamela Mancuello. Date: November 24 and 25, 2022 in Villa Carlos Paz – Córdoba province – Argentine Republic.
- 1st Latin American Conference of young clinical laboratory professionals, participation of the representative of the Bioq Young Professionals Working Group. Johanna Giménez, date: December 9 and 10/2022 in Cochabamba Bolivia.

#### INTERNATIONAL RELATIONS

# Report: Prof. Dra. María Montserrat Blanes González

Member of the Congress and Conference Committee C CC Member of the Working Group Iberoamerican Nomenclature and Translation

- Activities as a member of the C CC Congress and Conference Committee, IFCC
  - Face-to-face meeting:
    - 1 XXV International IFCC Congress Seoul Korea June 2022
    - 2 IFCC General Conference. Brussels Belgium 29 to 31 October 2022
- Member of the COC Central Organization Committee. XXII Euromedlab IFCC EFLM Congress Munich 2022.
  - Participation in the face-to-face meeting called by the IFCC Executive Committee
  - Attendance as a Participant
- Activities as a member of WG IANT
  - A Speaker in the framework of the XXVIII Congress of SANAC Andalusian Society of Clinical Analysis. CLINICAL LABORATORY AND POCT. Spain Seville March 2022. Topics: Experience in the development of the WG IANT CPD IFCC years 2008 to 2021. Latin American consultation report on the training of graduates in biochemistry and equivalent titles 2019-2021
  - B.- Attendance at WG IANT meetings
    - 1.- XXV COLABIOCLI Congress León Guanajuato Mexico April 2022
    - 2. XXV International IFCC Congress. Seoul Korea June 2022
    - 3. IFCC General Conference. Brussels Belgium 29 to 31 October 2022.





1 - XV National Congress of the College of Clinical Laboratorians of Panama October 13 to 15 2022. Plenary Lectures: Standardization of hormones, technical problems that influence clinical interpretation. Audit of Standard 15189. Future prospects in tumor markers.

2.- XX National Congress of the Dominican College of Bioanalysts. Santo Domingo Dominican Republic November 30 to December 3. Plenary conference The Syndemic in the world Epidemiological context of Cancer. Lecturer of the Intra-congress Course: Laboratory update in oncology. Management of clinical guidelines. Dominican Republic Santo Domingo November 30 to December 3

- IFCC General Conference. Brussels Belgium 29 to 31 October 2022. Assistance as delegate
- Webinars Organized by IFCC. Participation in 9 (nine)

# Prof. Dra. Graciela Russomando

Member of the Clinical Molecular Biology Committee Curriculum (C-CMBC) period (2021-2023) IFCC

# Johanna Isabel Giménez Palacio

Member of the COLABIOCLI Group of Young Scientists



# **RUSSIA**

ASSOCIATION OF LABORATORY SPECIALISTS AND ORGANIZATIONS "FEDERATION OF LABORATORY MEDICINE" (FLM)

Name of the meeting	Date	Topic
XXVII All-Russian Scientific and Practical Conference "Clinical Laboratory: contribution to the fight against the pandemic"	April 4-6	The central issue of the conference is laboratory support for diagnosis, assessment of treatment efficacy, prevention of COVID-19 coronavirus infection.  Important topics of the conference are clinical biochemistry, hematology, immunology, cytology, general clinical tests, molecular diagnostics, hemostasis, digitalization of laboratory tests, and to highlight technological breakthroughs in microbiology, genetics, drug monitoring and other related disciplines.





4 <sup>th</sup> Clinical and Laboratory Forum of Laboratory Medicine Specialists	June 23-24	<ul> <li>Biomarkers on the way to personalized medicine within the framework of clinical guidelines</li> <li>"Visualization" of blood cells and their derivatives in a modern laboratory - from flow cytometry to electron microscopy</li> <li>Diagnosis of emergency conditions and clinical recommendations</li> <li>Obstetrics and gynecology - new solutions in the diagnosis of pregnancy complications</li> <li>Endocrinology - evolution of clinical recommendations</li> <li>Postcovid homeostasis disorders</li> <li>Neurology and Cardiology at the crossroads of opinions</li> <li>Research at the place of treatment in the outpatient clinic and hospital</li> <li>Domestic laboratory equipment and test systems - realities and prospects</li> <li>Nomenclature of medical services - lessons of discussion of regulatory legal acts</li> <li>Educational projects in laboratory medicine</li> </ul>
VIII Russian Congress of Laboratory Medicine and Russian Diagnostic Summit, Moscow	September 6-8	Scientific and educational program of the Congress is built around the most topical issues of laboratory medicine. The Congress will include both traditional specialized forums, such as "Sepsis Day", "Personalized Medicine", "Molecular Diagnostics", "Clinical Cytology" Preanalytics Forum, "Economics and Organization of Diagnostic Services", and new Forums to cover rapidly developing areas: "Artificial Intelligence in Medicine", "Point of Care Testing", "COVID-19". Thematic sections of clinical and laboratory orientation are being prepared: hematology, oncology, infectious diseases, dermatovenerology, parasitic diseases, bacteriology.
Interdepartmental cooperation in laboratory diagnostics	December 15-16	Clinical laboratory diagnostics, bacteriology, virology, laboratory genetics, medical biochemistry, medical biophysics, medical cybernetics, medical microbiology

# **EDUCATION**

All meetings under the auspices of Federation of Laboratory Medicine (FLM) accredited by the Coordination Council for the Development of Continuing Medical and Pharmaceutical Education of the Ministry of Health of the Russian Federation.

Taking part in national conferences allows to get from 3 to 18 CME for laboratory specialists in the field of clinical laboratory, bacteriology and healthcare organization.

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
"Issues of oncology: immunochemical markers and hematological parameters in the diagnosis of oncological diseases"	March 11	Partial organization of the meeting
Volga Regional Forum	April 20	Full organization of the meeting





December 15

# **NATIONAL MEETINGS**

School of Clinical Cytologist. Online

Name of the meeting	Date
4 <sup>th</sup> International Meeting in Clinical Chemistry & Laboratotory Medicine & 8th Annual Meeting Saudi Society for Clinical Chemistry, Saudi Arabia (virtual meeting)	6 <sup>th</sup> Nov. – 8 <sup>th</sup> Dec. 2022

Full organization of the meeting

Saudi Society for Clinical Chemistry held many activities during the year of 2022. Some activities were held online and others were held as hybrid. Activities were including workshops, webinars, conferences seminars, awareness and booth participation in different exhibitions. The main national meetings held by the SSCC in 2022 are summarized in the table below.

The 8th Annual conference was held as hybrid meeting from 6th to 8<sup>th</sup> December 2022 in Riyadh. A pre conference workshop was held on 6th December 2022 covering the topics on Toxicology Workplace Drug Testing and Point-of-Care Testing (POCT).

The keynote speakers for the conference was Prof. Khosrow Adeli, president of the IFCC. Other international guest speakers were invited; Prof. abderrazek hedhili, ex-president of the AFCB and Prof Kenneth Andrew Sikaris, Director of Chemical Pathology, Australia. Dr. Laila abdelwareth, Acting Executive Director National Reference Lab/Cleveland Clinic Abu Dhabi, UAE, Dr. Manal Al kindi, Chemical Pathologist, Oman Medical Speciality Board Royal Hospital, Dr. Nafila Alriyami, Sultan Qaboos University Hospital and other known national speakers.

The conference was accredited by the Saudi Commission for Health Specialties for 15 CMEs with more than 500 delegates attended the meeting. The Scientific Program included 10 sessions with more than 35 speakers, 40 posters and 40 presentations. The speakers were international (Australia, Canada, UAE, Oman), regional and national.

This scientific program included sessions about laboratory management, research, and the need to know the potential and limitation of laboratory biomarkers of diseases and its application in clinical practice. The sessions also covered the importance of prenalytical phase in the different areas of the laboratory and the common interferences in laboratory tests.

The Industry Workshop session provided by the collaborators presented the topics on the use of biomarkers, renal disease management, new generation lab automation, point of care testing and toxicology.

The exhibition court included booths for different collaborators namely Roche, Siemens, Snibe, Abbott, Abdulla-Fouad (Sebia), Beckman, Waters, Binding Site, and Randox.

By the end of the meeting there was Poster Session Awards Announcement with more than 40 posters printed, and 5 prizes for best 5 posters.

Summary of the main national meetings held by the SSCC in 2022:

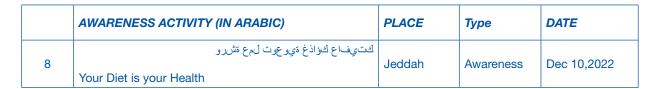
ACTIVITY	PLACE	TYPE	DATE	CME
General Concept of Safety in Medical Laboratories	Online	Workshop	Jan 08,2022	3 Hrs.
Hemostasis Seminar	Online	Webinar	Jan 31,2022	2 Hrs.
Series Laboratory Biomarkers of Diseases Growth Hormone Disorders	Online	Workshop	Feb 15,2022	2 Hrs.
Culture Free Sepsis Diagnosis	Online	Webinar	Feb 22,2022	2 Hrs.
Laboratory and Diagnostic Congress	Virtual	Conference	20-22 Feb 2022	24 Hrs.
The Role of SARS-CoV-2 Rapid Antigen POCT Test During the Pandemic	Online	Workshop	Mar 28,2022	
Laboratory Day Accreditation	Online	Seminar	Mar 31,2022	8 Hrs.
Innovations and Advancements in Point-Of-Care Blood Gas Testing	Online	Webinar	April 07,2022	2 Hrs.
Utilization of Testosterone Hormone and Herpes Simplex Virus	Alkhobar		May 25,2022	2 Hrs
Utilization of Testosterone Hormone and Herpes Simplex Virus	Almedina		May 28,2022	2 Hrs
Immunoassay Workshop	Jeddah	Workshop	May 30,2022	4 Hrs.
Immunoassay Workshop	Abha	Workshop	June 01,2022	2 Hrs
Utilization of Testosterone Hormone and Herpes Simplex Virus	Riyadh		June 02,2022	2 Hrs.
The Role of SARS-Cov-2 Rapid Antigen POCT Testing During the Pandemic	Online	Webinar	June 07,2022	2 Hrs.
Utilization of Testosterone Hormone and Herpes Simplex Virus	Qassim	Workshop	Aug 8,2022	2 Hrs.
Utilization of Testosterone Hormone and Herpes Simplex Virus	Hail	Workshop	Aug 11,2022	2 Hrs.

ACTIVITY	PLACE	TYPE	DATE	CME
Utilization of Testosterone Hormone and Herpes Simplex Virus	Tabuk	Workshop	Aug 13,2022	2 Hrs.
Forensic Evidence in Criminal Investigation	Jeddah	Workshop	Aug 23,2022	3 Hrs.
Analyzation of hormonal profile in investigation of female infertility and diagnosis of thyroid	Al-Jouf	Workshop	Aug 30,2022	2 Hrs.
Analyzation of hormonal profile in investigation of female infertility and diagnosis of thyroid	Najran	Workshop	Sep 06,2022	2 Hrs.
Analyzation of hormonal profile in investigation of female infertility and diagnosis of thyroid	Jazan	Workshop	Sep 08,2022	2 Hrs.
The Controversy over Different HbA1c as Measured by Different Techniques	Online	Workshop	Oct 5,2022	2 Hrs.
Utilization of Testosterone Hormone and Herpes Simplex Virus	Almedina	Workshop	Oct 19,2022	2 Hrs.
Utilization of Testosterone Hormone and Herpes Simplex Virus	Abha	Workshop	Oct 26,2022	2 Hrs.
Point-of-Care Testing (POCT) Workshop	Riyadh	Workshop	Nov 10,2022	4 Hrs.
Plasma Proteins Science Day 2022	Online	Webinar	Nov 10,2022	
4 <sup>th</sup> International Meeting in Clinical Chemistry & Laboratory Medicine & SSCC 8th Annual Meeting	Riyadh Hybrid	conference	Dec 6-8,2022	15 Hrs.
1st Low Carb Society Workshop	Jeddah	Workshop	Dec 10,2022	6 Hrs.
Hormone and Immunoassay Workshop	Dubai	Workshop	Dec 11,2022	5 Hrs.
Total				84 Hrs.

# **EDUCATION**

• Other free educational activities including SSCC journal, awareness, awareness days, webinars and booth participation were held throughout 2022 and focused on different topics as follow:

	AWARENESS ACTIVITY (IN ARABIC)	PLACE	Туре	DATE
1	ا ميمه الميارول الميار الله الله الميمة الم	Online	Awareness	Feb 28,2022
2	ناضهر ماي صور يركسالا Fasting Ramadan and Diabetes	Online	Awareness	April 16,2022
3	هيلع ظفاح كالعراق فارعا How to keep your heart safe	Online	Awareness	Sep19,2022
4	ينطول المويل عم انمازت يويح عمتجم, ةي فاعل المافت حا يدوعس ل ا Comunity Health in the National Day	Online	Awareness	Sep 22,2022
5	هٔ دالولا پِشْیِدحِل رِکْسِمِلا صحفالاً Newborn screening awareness	Online	Awareness	Sep 26,2022
6	وتىيىكىل ماظنىل قوناڭىل قودنىلا قاماكىتىم قىي حص قاي ح Healthy life with Keto Diet	Online	Awareness	Oct 12,2022
7	رئىسلىل يىملىاعلىا مويىلىا عمُ انىمازت لىافىطالىاو يرئىسلىا ضررم Diabetes in Children (International Day of Diabetes)	Online	Awareness	Nov 15,2022



	BOOTH EXHIBITION	PLACE	Туре	DATE
1	Medlab Middle East	Dubai	Booth	24-27 Jan 2022
2	Lab international Day	Albaha	Booth	Mar 09,2022

	JOURNALS ISSUED	DATE
1	Journal of SSCC issue 1	March 2022
2	Journal of SSCC issue 2	June 2022
3	Journal of SSCC issue 3	Sep,2022
4	Journal of SSCC issue 4	Dec ,2022

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
MedLab Dubai	Jan 24-27, 2022	Speakers from SSCC participated in the Scientific Sessions of Med Lab 2022, Dubai.
		•"Booth exhibition by Booth

# **REGIONAL RELATIONS**

- 1st March 2021 the SSCC joined the Arab Federation Clinical Biology (AFCB) and has become part of the one of the regional federation of the IFCC. This will support the society to share common goals for education of laboratory medicine with the AFCB.
- The Tunisian Society of Clinical Biology (STBC), invited the SSCC to attend the XXXVth National Days of Clinical Biology (JNBC 2022) which was held in Hammamet-Tunisia from May 26<sup>th</sup> to May 28<sup>th</sup>, 2022. The SSCC was represented by Dr Anwar Borai.

# **INTERNATIONAL RELATIONS**

- SSCC participated with a lecture 2nd EFLM –AFCB conference February 18-20, 2022, Laboratory Medicine for Mobile Societies, (Crete, Greece). The speaker was Dr Ali Al Odaib "Overview of the National Newborn Screening Program in Saudi Arabia".
- SSCC application in Feb 28 2022 to the IFCC to host the WorldLab 2024 in Dubai was accepted. Therefore, the SSCC will be the hosting society. The following link can be used for the event: https://dubai2024.org/





# Photos from different events throughout 2022

The 8th Annual meeting for the SSCC held on 6th to 8th December 2022:



























Report & prepared by Anwar Borai, PhD, FAACC SSCC representative to the IFCC



# **SERBIA**SOCIETY OF MEDICAL BIOCHEMISTS OF SERBIA (DMBS)

# **NATIONAL MEETINGS**

Name of the meeting	Date
Serbian Congres of Medical Biochemistry and Laboratory Medicine & 16 <sup>th</sup> Belgrade Symposium for Balkan region: "Laboratory Medicine Management: Leadershiš Skils for Effective Laboratory"	September 12-14, 2022, Belgrade,

After the postponement of two years, caused by the global pandemic, on 12–14<sup>th</sup> September 2022, the Serbian Society of Medical Biochemists of Serbia (SMBS) had the pleasure to organize the 22<sup>nd</sup> Serbian Congress of Medical Biochemistry and Laboratory Medicine with international participation together with the 16th Belgrade Symposium for Balkan Region. The meetings were organized together with the University of Belgrade – Faculty of Pharmacy, and under the auspices of IFCC, EFLM, Balkan Clinical Laboratory Federation (BCLF), Ministry of Education, Science, and Technological Development, and Ministry of Health of the Republic of Serbia.

We had the pleasure to welcome Prof. Mario Plebani, President-Elect of EFLM, who greeted the audience on behalf of EFLM President and the Executive Board. His presence was enabled by the EFLM program »Invite an EFLM Executive Board Representative at your National Congress«. SMBS was very happy to host Prof. Plebani and is thankful to the EFLM for supporting our national congress in this way. Suzana Savić, Fuculty Vice-Dean greeted the Congress audience and Prof. Branislava Miljković, SUFUS president on behalf of the Pharmaceutical Society of Serbia. Prof. Plebani opened the Congress with the remarkable plenary lecture »Laboratory medicine in the era of COVID-19: lessons for the future«.

After the plenary lectures, the Award of the Foundation »Magistra Milica Marković« was presented. The Foundation recognizes and awards medical biochemists or laboratories for promoting the technological and organizational work principles of clinical laboratories, improving the quality of laboratory services, and for promoting the profession. This year's laureate were the »Aqualab« laboratories.

The 16<sup>th</sup> Belgrade Symposium for Balkan region drew a lot of attention from colleagues from the neighboring countries. This Symposium continued the fourteen years long tradition of EFLM Symposiums for Balkan Region. In 2019 it was renamed to Belgrade Symposium for Balkan Region, when the pandemic postponed the consecutive one for two years. The first session was dedicated to the professional challenges in the era of innovational technologies. The speakers in this session were Gilbert Wieringa, Wytze Oosterhuis and Snežana Jovičić. In his talk entitled "Meeting the leadership challenge of disruptive innovation", Gilbert Wieringa indicated the emerging leadership challenges for specialists in laboratory medicine as the consequence of the 21<sup>st</sup> century artificial intelligence driven algorithms that are reducing the need for expert human resource. Wytze Oosterhuis presented the added value by interpretative commenting, as one of the activities that can support physicians and help to improve patient treatment outcomes, reflective testing, but also the challenges it is facing.

Between the sessions the promotion of two monographs, recently published by the SMBS, took place. One was "Scientific Foundation "Professor Ivan Berkeš", dedicated to the life and work of the esteemed Professor Ivan Berkeš, to the review of the previous scientific conferences organized to honor his legacy, also to the Foundation "Professor Ivan Berkeš", and to the laureates of its annual award. All 48 laureates that received this award from 1998 to this day were invited and they received their copy of the book. The other monograph presented was "Professional Activities of Serbian Laboratory Medicine Specialists in Balkan Region", dedicated to the history of Balkan Clinical Laboratory Federation and the role of SMBS as one of the founders and its spiritus movens. Both books were authored by Prof. Nada Majkić Singh and Prof. Snežana Jovičić.

During these three days Belgrade hosted almost 300 participants from Serbia and neighboring countries (Bosnia and Herzegovina, North Macedonia, and Montenegro). The Congress passed in the spirit of exchanging experience, vivid discussions during the lectures, but also at the poster session, showing how much the in-presence meetings and events were missed during the previous pandemic years. We all hope that these days are behind us.



Opening XXIII Serbian Congress & 16th Belgrade Symposium for Balkan Region.



Professor Mario Plebani welcome address to the participants on behalf of the EFLM.

# THE TWENTY THIRD ANNUAL SCIENTIFIC CONFERENCE "PROFESSOR IVAN BERKEŠ" AND REPORT ON AWARDS SCIENTIFIC FOUNDATION CEREMONY IN 2020, AND 2021, YEARS

The Twenty Third Annual Scientific Conference »Professor Ivan Berkeš« was co-organized and hosted by the Faculty of Pharmacy, University of Belgrade. It gathered over 200 participants – students, older colleagues who were the students of Professor Berkeš, young graduated medical biochemists, and teachers of the Faculty of Pharmacy. Traditional guests were the family members of Professor Berkeš – this year Ivan Berkeš, his grandson. This traditional meeting of students and Professors of the Faculty of Pharmacy, honoring the legacy of one of its most distinguished professors was held on 15. December 2022. Prof. Dr. Nada Majkić-Singh, traditionally the organizer, with her opening words greeted the participants and reminded us of the history, the idea of foundation, and the significance of the Conference, as well as of the life and work of the Professor Ivan Berkeš, whom it honors.

In 2020, the Society of Medical Biochemists of Serbia marked the 110<sup>th</sup> anniversary of the birth of Professor Ivan Berkeš, on which occasion the Monograph-LIFE AND WORK OF PROFESSOR IVAN BERKEŠ and FOUNDATION LAUREATES were prepared: WHERE ARE THEY AND WHAT ARE THEY DOING TODAY? (Authors: Nada Majkić-Singh and Snežana Jovičić). This Monograph has been presented during XXIII Serbian Congress of Medical Biochemistry and Laboratory Medicine in September 2022, and during this Scientific Conference the short review has been presented. This year's recipients were: Đorđe Stanivuk (Master of Pharmacy-Medical Biochemist) and Jovana Živanović (Master of Pharmacy)

#### **EDUCATION**

- 1. Quality Indicators: pre-preanalytical and pre-analytical phases of laboratory diagnostic investigation
- 2. Laboratory Management
- 3. Novelties in Laboratory Medicine
- 4. QM development and application in accredited laboratory
- 5. Laboratory safety
- 6. Validation of the Laboratrory Methods
- 7. Laboratory Medicine Environmental Health and Safety

# 17th Conference of the Scientific and Technical Committee - Accredited laboratories

In front of the Society of Medical Biochemists of Serbia (SMBS), the Conference of the Scientific and Technical Committee - Accredited Laboratories was successfully held for the 17th time this year. This Conference is traditionally held within the framework of the International Convention on Quality organized by the Unified Association for Quality of Serbia (JUSK-ICQ). The National Symposium was held on June 10, 2022, from 10 a.m. to 4 p.m., via the online Cisco webex platform. Chairing this conference in front of SMBS were Professor Dr. Nada Majkić-Singh, Assistant Professor Dr. Neda Milinković, EuSpLM (Department of Medical Biochemistry, University of Belgrade-Faculty of Pharmacy) and Dr. sci. Iva Perović Blagojević, EuSpLM (Service for laboratory diagnostics, Clinical Hospital Center "Dr. Dragiša Mišović-Dedinje", Belgrade). Attendees had the opportunity to participate interactively and hear the latest information related to quality in routine medical biochemical laboratories. After each lecture, the attendees could check their knowledge and solve a test with questions related to the content of the previous lecture. The content of the presentations, presentation of lectures and lecturers were rated with the maximum score of excellent (5).



# **REGIONAL MEETINGS**

Name of the meeting	
IXXIX BCI F Meeting	Cooperation with all Societies from Balkan region, members of Balkan Clinical Laboratory Federation (BCLF) (see www.bclf.info)

# **INTERNATIONAL RELATIONS**

Participations in Meetings organised by IFCC and EFLM:

Dr Snežana Jovičić

Corresponding Member PFLM-WG:

Zorica Šumarac, corresponding member of the EFLM WG-PRE Activities in 2022: Participation in projects of the EFLM WG-PRE:

- 1. Venous Blood Sampling Guideline
- 2. Catheter sampling
- 3. Diagnostics pathway/Demand management
- 4. Awareness Campaign
- 5. Unsuitable Specimens
- 6. Management of Haemolysed Specimens practical recommendation
- 7. Haemolysis in blood tubes for glucose
- 8. Manufacturer declarations
- 9. Citrate tubes
- 10. Stability project

EFLM Task Group for Syllabus Course

IFCC LEPS, laboratory errors and patent safety.

Activity of Corresponding members in 2022:

WG: Postanalytical Phase (WG-POST)	Svetlana	IGNJATOVIC	Corresponding Member	Serbia	3 <sup>rd</sup> term: 2017-2018
WG: Preanalytical Phase (WG-PRE)	Zorica	SUMARAC	Fulli Member	Serbia	3 <sup>rd</sup> term: 2017-2018
WG: Accreditation and ISO/CEN standards (WG-A/ISO)	Neda	Milinković	Corresponding Member	Serbia	3 <sup>rd</sup> term 2017-2018
WG: Register (WG-R)	Snezana	JOVICIC	Corresponding Member	Serbia	1st term: 2017-2018

Jelena Munjas: Corresponding Member of the International Federation of Clinical Chemistry and Laboratory Medicine IFFCC Task Force for Young Scientists

Svetlana Ignjatović: Corresponding Member of EFLM WG-POST.

Neda Milinković: Corresponding member of EFLM WG Accreditation and ISO/CEN Standards

# **ADDITIONAL INFORMATION**

The Society of Medical Biochemists of Serbia published international JOURNAL OF MEDICAL BIOCHEMISTRY, the Official Journal of the Society, in which many scientists from region published own papers www.dmbj.org.rs/jmb; SCIndex https://scindeks.ceon.rs/journaldetails.aspx?issn=1452-8258&lang=en





#### **NATIONAL MEETINGS**



Name of the meeting	Date	Topic
		Basic principles and practical aspects of POC testing in primary healthcare (invited speakers)
		• COVID-19
XIV. SSCB Congress with international participation under the auspices of the European Federation of Clinical Chemistry and Laboratory Medicine	October 9-11, 2022 Demänovská Dolina	Changes into act no. 362/2011 coll. in connection with the implementation of the regulation (EU) 2017/746 of the European Parliament and the council (IVDR)
		Nutrition
		Hepatology
		History of clinical biochemistry in the Slovak Republic
		• Posters

#### **EDUCATION**

- SSCB EB promoted and popularized a campaign for education and training opportunities available to laboratory professionals via EFLM Academy 2022 (16 SSCB members became EFLM Academy 2022 members, 2 titled EuSpLM)
- SSCB EB published a new design and extended a scope SSCB website www.sskb.sk
- Published Instructions for the registration procedure of the Slovak laboratory professionals in the EFLM Register of Specialists in Laboratory Medicine (EuSpLM) European specialist in laboratory medicine. Laboratórna diagnostika, XXVII(1/2022), 27-38 https://doi.org/10.5281/zenodo.6457215

# INTERNATIONAL RELATIONS

- The EFLM Newsletter n. 4/2022, p.9 12, Section "Cofee time with the EFLM President" Jan Balla, National Representative, Slovak Society of Clinical Biochemistry, https://www.eflm.eu/upload/docs/2022-Jul-Aug-EuroLabNews.pdf
- The EFLM Newsletter n. 5/2022, p.5 Honorary Membership awarded to Prof. Tomris
  Ozben on the occasion of the SSCB Congress, Slovakia, October 2022
  https://www.eflm.eu/upload/docs/2022-Sep-Oct-EuroLabNews.pdf
- The EFLM Newsletter n. 6/2022, p.25 29 News from Slovak Society of Clinical Biochemistry (SSCB) XIV SSCB Congress Celebrating its 30th anniversary as an independent organization https://www.eflm.eu/upload/docs/2022-Nov-Dec-EuroLabNews.pdf
- Several SSCB members of EFLM and IFCC Units 2 SSCB members in 1 EFLM Task Force 4 SSCB members in 5 IFCC Committees 1 SSCB member on the Editorial board of the Electronic Journal of IFCC – eJIFCC

# **ADDITIONAL INFORMATION**

- SSCB AWARDS 2020 2022
  - "Professor Ivan Pecháň Price Award 2022", Laureate Pavel blažíček, Associate Professor
  - SSCB Honorary Membership Professor Tomris Ozben, Professor Sverre Sandberg,
  - Professor Antonin Jabor
  - Silver Medal Propter Merita 4 members
  - Bronze Medal Propter Merita 4 members
  - Letter of Appreciation 9 members
- Two extended issues of the SSCB periodical professional journal "LABORATORY DIAGNOSTICS"
  - https://www.sskb.sk/2022/literatura/casopisy-sskb/laboratorna-diagnostika-archiv/
- Regular twice-a-year publications in the journal "MONITOR OF MEDICINE SkMA" https://sls.sk/web/monitor-mediciny-sls-2022/
- POCT survey conducted in cooperation with GPs in primary care
- Regular online and face-to-face meetings of the SSCB organized once a month



# SLOVENIA SLOVENIAN ASSOCIATION FOR CLINICAL CHEMISTRY AND LABORATORY MEDICINE (SZKKLM)

# **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Personalised Laboratory Medicine	10. 3. 2022	Personalised Laboratory Medicine
New Approaches and Topics in Laboratory Medicine	2. 6. 2022	Hematology laboratory diagnostics, Diagnostics of TBC, Diagnostics of neurodegenerative diseases
Hemostasis	6. 12. 2022	Hemostasis

#### **EDUCATION**

- 1. Hemolysis (May 2022)
- 2. Anemias (May 2022)
- 3. Point of care testing POCT (May 2022)
- 4. Contemporary approaches to urinalysis (June 2022)

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
6 <sup>th</sup> Slovenian Congress of Clinical Chemistry and Laboratory Medicine with international participation	19 20. 10. 2022	Organizer (www.szkklmkongres.si/2022/en)



# **REGIONAL RELATIONS**

- 1. EFLM National Representative: Lidija Gobec
- 2. EFLM Profession Committee: Evgenija Homšak president
- 3. EFLM WG Distance Education and e-learning: Darko Černe expert member
- 4. EFLM WG Congresses and Postgraduate Education: Evgenija Homšak expert member
- 5. EFLM WG Accreditation and ISO/CEN Standards: Pika Meško Brguljan full member
- 6. EFLM WG for Register: Greta Štrakl corresponding member
- 7. EFLM WG Laboratory Medicine Credit Points: Mojca Božič Mijovski full member
- 8. EFLM WG Postanalytical Phase: Alenka Trampuš Bakija corresponding member
- 9. EFLM WG Test Evaluation: Janja Marc full member
- 10. EFLM WG Autoimmunity Testing: Manca Ogrič full member
- 11. EFLM TF European laboratory Day: Evgenija Homšak full member
- 12. EFLM TF Young Scientist: Rok Kogovšek full member
- 13. EFLM TF Green and Sustainable Laboratories: Lidija Gobec full member

# **EDUCATION**

- 1. IFCC National Representative: Blaž Krhin
- 2. IFCC Committee on Molecular Diagnostics: Katarina Trebušak Podkrajšek
  - corresponding member
- 3. IFCC Committee on Mobile Health and Bioengineering in Laboratory medicine:
- 4. Evgenija Homšak corresponding member
- 5. IFCC Task Force on Global Newborn Screening: Barbka Repič Lampret
  - corresponding member

#### **ADDITIONAL INFORMATION**

Publication of the fourth (4) issue of the journal "Laboratorijska Medicina (Laboratory Medicine)".



# **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Cardiometabolic Health & Diabetes Africa Congress	22-25 February 2022	Improving Cardiometabolic Health: A Personalized Approach
Stellenbosch Laboratory Management module	22-25 March 2022	General laboratory management (various SAACB members)

# **EDUCATION**

The following webinars were held:

- Dr Sten Westgard: The evolution of QC.
- Dr Graham Beastall: Traceability in Laboratory Medicine: what is it and why
  is it important for patients
- Prof Joris Delanghe: Modern Urinalysis
- Prof Damien Gruson: Diabetes: from differential diagnosis to risk estimation



- Prof Dr. Matthias Orth: Normalizing laboratory data to aid continuity
- Dr Lena Jafri and Dr Hafsa Khan: Workbased Assessment in Chemical Pathology training

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
AFCC- Botswana Institute of Clinical Laboratory Professionals	3 Nov 2022	Sponsored travel and accommodation
International Year of Basic Sciences for Sustainable Development (IYBSSD 2022) Southern African	3 Mar 2022	Member of the South African Basic Sciences platform



# **REGIONAL RELATIONS**

The SAACB participated in the inauguration of the latest AFCC society, the Botswana Institute of Clinical Laboratory Professionals by sponsoring the travel and accommodation of 3 speakers in Gaborone on 3 Nov 2022.

The SAACB also participates regularly in any regional AFCC meetings that are held.

# **INTERNATIONAL RELATIONS**

The SAACB has also become a member of WASPALM (World Association of Societies of Pathology and Laboratory Medicine) and was officially inducted during the XXXI WASPALM conference in Punta del Este on 29 Sep-2 Oct 2022.

The SAACB also organized a symposium at the XXXI WASPALM conference in Punta del Este on 29 Sep-2 Oct 2022.

# **ADDITIONAL INFORMATION**

The SAACB is the daughter society of the Federation of South African Societies of Pathology (FSASP) and holds his annual meeting during the FSASP conference. The last FSASP conference was held in 2018 at Spier Wine Estate in Stellenbosch, Western Cape. Owing partly to the Covid pandemic, there have been no conferences since then but a joint one with the FSASP and National Health Laboratory Service (NHLS) is planned in September 2023. However, the SAACB initiated a series of Expert Seminars to circumvent the lack of face-to-face meetings. The SAACB has had to adapt and with this in mind, the SAACB Expert Seminar Series was launched.



# **NATIONAL MEETINGS**



Name of the meeting	Date	Topic
XVI National Congress of Clinical Laboratory (LabClin).	Málaga, 19-21 Octobrer 2022	
XIX Meeting of Scientific Committees.	28-31 March 2022. Virtual meeting.	<ul> <li>Laboratory role in detection and follow-up of prostate cancer.</li> <li>Clinical laboratory on chronic hepatic disease.</li> <li>The hormone laboratory in the diagnosis and follow-up of neuroendocrine tumors.</li> <li>Pathophysiological implications and innovation in the diagnosis of Cardiovascular disease.</li> <li>Internal audit as a tool for improvement in accreditation. How Implement it in the clinical laboratory.</li> <li>COVID-19 update. what about after the pandemic?</li> </ul>
II External Quality Assurance Programs Conference	November 15 <sup>th</sup> 2022. Virtual meeting.	<ul> <li>What's new in SEQCML programs?.</li> <li>FAQCS Answers.</li> <li>2021 Results.</li> <li>Quality assurance of serum indexes.</li> </ul>

#### **EDUCATION**

#### Annual Educational Program 2021-2022: :

•	XXV General Educational Program 2021- 2022	650
•	VIII Clinical Cases in Hematology Program 2021-2022	467
•	VII Clinical Cases General Educational Program 2021-2022	415
•	Reproduction and genetics. Program 2021-2022participants	387
•	Clinical Cases of Neurological Diseases. Program 2021-2022 participants	190
•	Clinical Cases of Toxicology. Program 2021-2022participants	347

# SEQC<sup>ML</sup> Academy: Virtual courses and webinars.

- Clinical cases in hematological biology. January 2022.
- Gammapathies. Approach from the clinical laboratory. January 2022.
- Quality assurance strategies in the clinical laboratory. April 2022.
- How to measure the most heterogeneous protein in the human body. April 2022.
- Farmacogenetics and clinical cases. May 2022.
- Screening for preeclampsia in the first trimester of pregnancy. May 2022.
- The laboratory in the management of acute coronary syndromes. June 2022.
- Welcome to the emergency laboratory. June 2022.
- Practical workshop of the analytical quality committee. June 2022.
- Machine learning and data science in Clinical Laboratory. September 2022.

- Introduction to the preanalytical phase, The beginning of the sample. September 2022.
- Oxidative stress and its implication in cancer, cardiovascular and neurodegenerative diseases. October 2022.
- Critical reading of scientific laboratory articles. October 2022.
- Advances in congenital adrenal hyperplasia. November 2022.
- From lipid profile to metabolic profile. November 2022.
- Clinical cases in the study of monoclonal gammapathies. December 2022.
- Inter-hospital sessions. December 2022.

#### **REGIONAL RELATIONS**

SEQC<sup>ML</sup> has relationships with:

- The European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)
- The Federation of European Societies on Trace Elements and Minerals (FESTEM)
- The Ibero-American Working Group WG IAN through "Radio Microscopio"
- The Latin-American Confederation of Clinical Biochemistry (COLABIOCLI).

#### **INTERNATIONAL RELATIONS**

SEQC<sup>ML</sup> has relationships with:

- The International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).
- The Clinical and Laboratory Standards Institute (CLSI)

#### ADDITIONAL INFORMATION

SEQC<sup>ML</sup> organizes 60 EQAS programs (8 accredited according to ISO 17043) with more than 350 magnitudes (140 accredited). Participation is high with more than 700 registered centers and over 8,500 registrations per year. EQAS programs include both analytical and extra analitical phases. SEQC<sup>ML</sup>- EQAS Programs and Educational Programs are expanding to Latin-American countries.

SEQC<sup>ML</sup> maintains the Spanish version of Lab Tests Online with more than 300 tests and a glossary with more than 500 contents. The LTO ES website has been completely renewed in 2022 and has received an average of 620,000 visits per month last year.

Advances in Laboratory Medicine / Avances en Medicina de Laboratorio (Adv Lab Med) is the official journal of the Spanish Society of Laboratory Medicine (SEQC<sup>ML</sup>). Adv Lab Med is a bilingual Open Acces journal, and publishes both in English and Spanish. Adv Lab Med is indexed in PMC and Scopus.

The SEQC<sup>ML</sup> is committed to multidisciplinary work and maintains agreements with other medical societies such as Spanish Society of General and Family Physicians, Spanish Society of Internal Medicine, Spanish Society of Cardiology and Spanish Society of Nephrology among others.

SEQCML has a total of 2979 memberships (December 2022), of which nearly 400 are members of 33 Commissions/ Committees/ Working Groups and more than 40 are SEQC<sup>ML</sup> Representatives in International Federations (IFCC/EFLM/FESTEM/CLSI/ICSH). It is worth highlighting the SEQC<sup>ML</sup> commitment to promoting the participation of young scientists in both national and international groups.





# **EDUCATION**



Conducted monthly educational activities on virtual flatform.

- 1. How to handle analytical issues of HbA1c test on HPLC platform.
- 2. Inhouse reagents preparation: a blessing or a threat.

# **INTERNATIONAL RELATIONS**

- 1. Sri Lanka was selected as a one of the countries for the IFCC EQA pilot project with initial six laboratory. After successfully participation it was upgraded to 12 labs and the project is being implemented very successfully.
- 2. Dr. B. K. T. P. Dayanath represented IFCC 70th General conference.
- 3. Dr. Udara Senarathne, a committee member for young scientist's forum of IFCC participated for IFCC worldlab in Korea and shared her experience with other participants.
- 4. Dr. Gawri Abenayaka received a travel grant and the experience gained there was shared with others.
- 5. ACBSL members were actively participated for the IFCC webinar series and share what they gained from there among scientific community.
- 6. BD preanalytical webinar was well receptor by good number of labs.

# **ADDITIONAL INFORMATION**

- The new knowledge and experience gained through the IFCC is used by ACBSL members to share and provide consultancy services with different groups of laboratory services.
- The members of ACBSL provide institutional and national level consultancy and expertly opinions for the development of the medical laboratory sector in Sri Lanka



# **SWITZERLAND** SWISS SOCIETY OF CLINICAL CHEMISTRY (SSCC)

Name of the meeting	Date	Topic
Molecular Diagnostics 2022, virtual meeting, Zurich	29 April 2022	Clinical and Molecular Basis of Human Eye Diseases, CAR T-Cell Therapy, Genetics in Bipolar Disorders, Differentiation of Human Materials in Forensic Investigations, Disentangling the Genetics of Lean Body Mass, Single Cell RNA Sequencing, DNA-Traces from the Environment Show What the Eye Can't See

SSCC Annual Assembly 2022, Olma St.Gallen	14 – 16 September 2022	Likelihood Ratio, Reference Change Values, Point of Care Testing coming of age – What it Means for the Future of the Core Lab, Current topics in Cardiac Markers, Liquid Biopsy: Status quo and applications outside oncology, Smart use of LC/MS, Genetics in a clinical setting. Nucleic acid approaches and platforms, Pharmacometabolomics guided by breath analysis, Pharmacogenetics and Clinical Decision Support, Pharmacogenetic Testing vs TDM in Switzerland: where we are, How Big Data and Artificial Intelligence impact patients
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# **EDUCATION**

26 days of further education as a CAS in laboratory medicine, which is part of the further education curriculum in laboratory medicine in Switzerland. This CAS is offered in German at the University of Zurich (https://www.cas-labmed.uzh.ch/de.html) and in French at the University of Geneva (https://www.unige.ch/formcont/cours/cas-medecine-laboratoire).



Name of the meeting	Date	Topic
35èmes Journées Nationales de Biologie Clinique	26, 27 & 28 May, 2022	Biology at the center of the care process
2èmes Journées Tunisiennes de Biologie Praticienne	27 & 28 October, 2022	Cancer and biology

<b>Date</b> 18-19/02/2022	<b>Place</b> Tunis	Theme Management of laboratory equipment	dance 34
19/02/2022	Kébili	4th Day of Clinical Biology of Kebili	90
04/03/2022	Tunis	Validation and Verification of methodsof medical biology laboratories	30
11-12/03/2022	Tunis	The metrology in the medical laboratories	28
25-26/03/2022	Tunis	Audit of the quality management system	25
01/12/2022	Monastir	Biological Risk Management in Medical Laboratories	27
16/12/2022	Tunis	Approach of the immunological assessment in case of autoimmune disease of the central nervous system	33



# **REGIONAL RELATIONS**

Faculty of Pharmacy of Monastir Tunisian Union of Private Laboratories Tunisian Society of General and Family Medicine

# INTERNATIONAL RELATIONS

- 1. IFCC
- 2. AFCB (Arab Federation of Clinical Biology)
- 3. FIFBCML (Francophone International Federation of Clincal Biology and Laboratory Medicine)
- 4. BIOMED J (France)
- 5. JIB (France)
- 6. SFBC (French Society of Clinical Biology)
- 7. ALAM (Algerian Association of Medical Laboratories)
- 8. SMCC (Moroccan Society of Clinical Chemistry)
- 9. AMBM (Moroccan Society of Medical Biology)
- 10. SFM (French Society of Microbiology)
- 11. GSCC-CB (Greek Society of Clinical Chemistry-Clinical Biochemistry)
- 12. Lebanese Union of Biologists
- 13. Palestinan Society of Medical Laboratories

#### **ADDITIONAL INFORMATION**

The president of our national society is Prof. Manel Chaâbane (cmanel@yahoo.fr) (since the elections of the executive board hold in February 20<sup>th</sup>,2021)

She is the current representative of our national society.



Name of the meeting	Date	Topic
	10.40	International Symposium on Immunoassay-Based Diagnostic Innovations: Hot Topics and Recent Advances
January 18-19, 2022	Common Reference Intervals for Immunoassay-Based Parameters:     Prof. Dr. Yeşim Özarda (Chair of the IFCC Reference Ranges and Limits of Decision Committee)	
EFLM Webinar	February 22, 2022,	Biological Variation of CBC Parameters as a Pointer Towards Individual Reference Intervals
		TBS's EFLM representative Prof. Dr. Abdurrahman Coşkun

		ITBS -BD Preanalytical Phase Symposium
		Session 1
		<ul> <li>Studies of Ministry of Health Examination and Diagnostic Services         Department - İbrahim Karakuş</li> <li>Results of the preanalytic phase clinician awareness questionnaire-</li> </ul>
		Güzin Aykal  • Approach to HIL indexes - Oğuzhan Zengi
		Session 2
TBS Symposium	February 23, 2022	<ul> <li>Effect of preanalytical stage errors on cost - Pınar Eker</li> <li>Occupational diseases, problems and solutions arising from the preanalytical phase in laboratory medicine - Çiğdem Sönmez</li> </ul>
		Session 3
		<ul> <li>Quality factors in the preanalytical process - İpek Çınaroğlu (BD)</li> <li>Preanalytical phase in dynamic endocrinological tests- Oytun Portakal</li> </ul>
		Session 4
		<ul> <li>Capillary blood: A special sample and considerations in the preanalytical phase – M. Fatih Alpdemir</li> <li>Diurnal rhythm and preanalytic phase- Murat Cihan</li> </ul>
		Multiple myeloma
		Moderator: Oytun Portakal
TBS Webinar	April 5, 2022, Online	<ul> <li>Hakan KAYA (Cancer Care Northwest and Washington State University, USA)</li> <li>Yahya BÜYÜKAŞIK (Hacettepe University Faculty of Medicine Department of Hematology)</li> <li>Mohannad Ali YACOUB (MSL-The Binding Site)</li> </ul>



#### Session 1

#### Opening Conference Moderators Nur OLGUN

Surgery and Inflammation: Surgical Inflammation - İskender SAYEK

#### Session 2:

Pathophysiology Of Inflammation Moderators Dicle GÜÇ, Safiye AKTAŞ

- Pathophysiology of Inflammation Şevket RUACAN
- Inflammation Biochemistry, Mediators and Mechanisms Eser YILDIRIM SÖZMEN
- Inflammation and Immunity Haluk Barbaros ORAL

#### Session 3:

Diagnosis-Biomarkers And Tests-I Moderators Semra DEMOKAN, Mehmet SENES

- Classical and New Biomarkers in Inflammation Günnur DİKMEN
- Biomarkers Used in the Diagnosis of Sepsis Necati GÖKMEN
- Biomarkers Used in the Diagnosis of Hyper-inflammation (COVID-19)
   Tanıl KOCAGÖZ

#### Session 4:

Diagnosis-Biobarkers And Tests-Ii Moderators Oya İTİL, Ferhan SAĞIN

- Lung Diseases and Inflammation Ali VERAL, Tuncay GÖKSEL
- Clinical Molecular Imaging in Inflammation Oğuz DICLE
- The Role of Nuclear Medicine in Clinical Molecular Imaging in Inflammation - Zehra ÖZCAN

# April 27-29, 2022, Online

# Session 5:

Inflammation Based On Diseases-I Moderators: Fatoş ÖNEN, Aylın SEPİCİ DİNÇEL

- Rheumatological Diseases and Inflammation Servet AKAR
- Effects of Inflammation on Drug Metabolism and Pharmacogenetic Factors Melih BABAOĞLU
- Metabolic Syndrome, Obesity and Inflammation Koray ATILA
- Movement and Inflammation Bilge KARA

#### Session 6:

Inflammation Based On Diseases-II Moderators Rüchan SERTÖZ, İbrahim PETEKKAYA

- Cancer and Inflammation Selman SÖKMEN
- Inflammation and Aging Ahmet Turan IŞIK
- Cardiovascular Inflammation Uğur CANPOLAT

#### Session 7:

Inflammation Based On Diseases-III

Moderators: Nuh Zafer CANTÜRK, Mehmet Ali KOÇDOR

- Inflammatory Response in Wound Healing and Tissue Repair
   Özlem SİLİSTRELİ
- Trauma and Inflammation Anıl Murat ÖZTÜRK
- Inflammation and Ozone Therapy Hamit Selim KARABEKİR

Symposium: Turkish VIIth In Vitro Diagnostic (IVD) Symposium

(TBS Izmir Branch)

#### Session 8

Inflammation Based On Diseases-III

Moderators: Nuh Zafer CANTÜRK, Mehmet Ali KOÇDOR

- Inflammatory Response in Wound Healing and Tissue Repair
  - Özlem SİLİSTRELİ
- Trauma and Inflammation Anıl Murat ÖZTÜRK
- Inflammation and Ozone Therapy Hamit Selim KARABEKİR

#### Session 8

Inflammation Based On Diseases-IV
Moderators: Hale AKBAYLAR, Meltem TAŞBAKAN

- Inflammation and Transplantation Tarkan ÜNEK
- Inflammation and Bowel Diseases Müjde SOYTÜRK
- Inflammation and Microbiota Nur ARSLAN
- Diabetic Foot Sevki ÇETİNKALP

#### Session 9:

Anti-Inflammatory Approaches To The Treatment Moderators: Aysun PABUÇCUOĞLU, Hülya YAZICI

- New Approaches in Anti-Inflammatory Treatment (Nanotechnology Applications) - Özgen ÖZER
- Herbal Anti-Inflammatories Erdem YESİLADA
- Acupuncture and Mesotherapy Treatments in Inflammation
  - Nüket KARABEKİR

## Session 10:

In Vitro Diagnostics: Innovative Examples Moderators: Füsun ÖZMEN, Oytun PORTAKAL

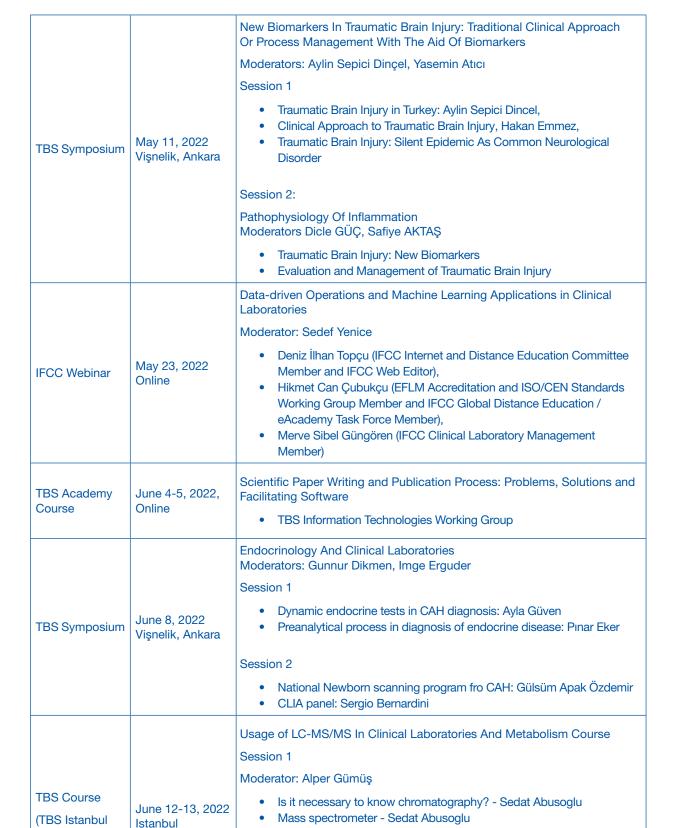
- Development and Production Story of Rapid Test Kits Kağan Etka YÖRÜK (Vitrosens Biotechnology)
- Point-of-Care Tests Ilgın ÖZTÜRK Kartal YAĞLIDERE (TURKLAB Medical Devices)
- 'A Scaling Up Story' in Production of an Analysis in the IVD Industry from 100 L Production to 40 Tons per Lot - Salih UCA (Archem Diagnostics)

### Session:11:

In vitro Diagnostics And Future Panel In Diagnosis Of Inflammatory Moderators: Diler ASLAN, Doğan YÜCEL

- Clinical Use of Cytokines as Inflammation Markers Sedef YENİCE
- IVD in Inflammation Diagnosis and Future Biochemistry Nuray ULUSU
- IVD Medical Devices in Inflammation: Present and Future Muhittin SERDAR





Current approaches in chromatographic analysis (Rotakim)

spectrometer in endocrine system evaluation - Ali Ünlü

Abusoglu

• Does the mass spectrometer work like a routine autoanalyzer? Sedat

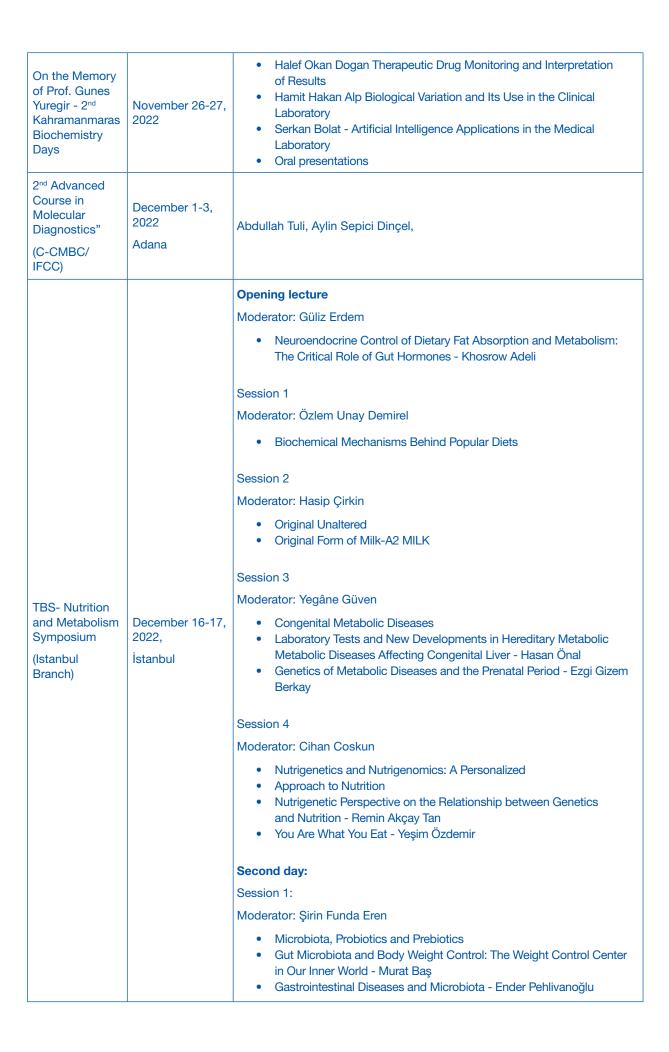
• Usage areas of mass spectrometer in clinical laboratory, use of mass



Branch)

		Session 2
		Moderator: Cihan Coşkun
		<ul> <li>Metabolism laboratory operation at Istanbul Başakşehir Çam and Sakura City Hospital - Ayla Yıldız</li> <li>Preanalytical variables in metabolic diseases - Sedat Abuşoğlu</li> <li>Can we give correct results with the method we have established? Method validation – Sedat Abuşoğlu</li> <li>Maintaining quality in the use of mass spectrometry - Ali Ünlü</li> </ul>
		Session 3
		Moderator: Hasan Önal
		Simple tests and routine biochemistry - Merve Aslantaş
		<ul> <li>Amino Acids - Hamide Sevinç Genç</li> <li>Organic acids - Bengü Arslan</li> <li>Acyl carnitines – Tarık Yıldırım</li> <li>Lysosomal tests - Nurcan Third Ergün</li> <li>Transferrin electrophoresis in CDG - Bilge Noyan</li> <li>Neurotransmitters in metabolic diseases - Nihal Coşkun</li> </ul>
		Session 4
		Moderator: Oguzhan Zengi
		The role of the laboratory in the diagnosis and follow-up of metabolic diseases in the presence of cases - Ayla Yıldız
International 11th "Beginners Course in Molecular Diagnostics"	September, 4-10 2022 Niğde	By IFCC Committee on Clinical Molecular Biology Curriculum (IFCC C-CMBC) Committee Chair and Members, under the TBS framework
TBS Capillary Electrophoresis Workshop	October 27, 2022 İzmir, Çeşme	Dr. Adnan Haşimi Medisis
TBS Course: Cell Culture Before and After Putting on the Lab Coat: Experimental Design and Data Presentation	October 26 and 30, 2022, İzmir, Çeşme	Ali Burak Özkaya
TBS Computer Applied Clinical Lab Statistics Workshop	October 26 and 30, 2022, İzmir, Çeşme	Doğan Yücel, Muhittin A.Serdar, Oğuzhan Zengi, Deniz İlhan Topçu, Hikmet Can Çubukçu, Serkan Bolat, Habib Özdemir, Murat Cihan
International Biochemistry Congress 2022 // 33rd National Biochemistry Congress	October 26-30 2022, Ilica Hotel, İzmir Çeşme	









Moderator: Ferhan Girgin Sağın

- Macro Benefits of Micronutrients in Health Orcun Kürüm
- Effects of Bioactive Molecules in Foods on Inflammation and Cancer

#### Session 3:

Moderator: Tanju Besler

- The Effects of Polyphenols on Inflammation Eser Yıldırım Sözmen
- Effects of Propolis and Polyphenols on Cancer Oğuz Öztürk
- Oral presentation
- Investigation of the Effects of Black Nut in a Nontransgenic Experimental Alzheimer Model Created by Streptozotocin - Fulya Özsoy

#### Session 4

The Relationship between Obesity, Cardiometabolic Diseases and Nutrition Moderator: Ayliz Velioglu Ogunc

- Can We Control Atherosclerosis With Nutrition? Gokcen Orhan
- Normal Weight Obesity and Cardiovascular Risk Factors Güliz Erdem

#### Session 5:

Scientific Perspective in Nutrition

Moderator: Oguzhan Zengi

- Effects of Artificial Sweeteners and High Fructose Corn Syrup on Metabolism - Hakan Boyağa
- Food Biochemistry Murat Cihan
- Oral presentation
- Monosodium Glutamate (MSG): Biochemical Structure and Effects on Metabolism - Günseli Öneş

#### **EDUCATION**

- "Authorship In Scientific Publications": Prof. Dr. Ferhan Sağın, Thursday, June 16,2022
   Online Meeting
- TBD Prof. Dr. Nazmi Özer Science Award continued to be given to scientists who attended our congress in 2022.
- Specific to this year, "FEBS-Open Bio Poster Award" was given.
- To encourage students to do research we gave "TJB Science Award" within the scope of the congress. (TJB: Turkish Journal of Biochemistry)
- We continue the publish of TJB by De Gruyter.
- TBS granted registration or accomodation bursary for 80 young scientists in International Biochemistry Congress 2022 // 33rd National Biochemistry Congress

#### **REGIONAL RELATIONS**

TBS participated in various working groups of "Turkish Ministry of Health":

 At the request of the Ministry of Health, General Directorate of Health Services, Department of Investigation, Diagnosis and Treatment Services, "Opinion on the "Draft Regulation on Clinical Trials of Pharmaceuticals and Biological Products" prepared by the Turkish Medicines and Medical Devices Agency, 7 January 2022.



- Upon the request of the Ministry of Health, General Directorate of Health Services,
  Department of Investigation, Diagnosis and Treatment Services, the opinions of the
  TBS were given on "which laboratory specialization falls into the field of interventional
  competence by evaluating the spermiogram test together with TUKMOS", February 14,
  2022.
- Upon the request of the Ministry of Health, General Directorate of Health Services,
   Department of Investigation, Diagnosis and Treatment Services, the opinions of the TBS were given on "Draft Revision of Medical Laboratories Regulation", October 8, 2022.
- Chair of our society Doğan Yücel, was assigned at Ministry of Health Medical Laboratory Scientific Commission on 10.03.2022

TBS participated in various meetings of "Turkish Medical Association"

- Prof. Dr. Z. Günnur Dikmen and Prof. Dr. Ali Ünlü attended Specialization at Medicine Proficiency Boards Experience Sharing and Education Meetings as representatives of our society in March and April 2022.
- We continue to attend the meetings of the. "Coordination Board of Specialist Associations (UDEK)" of Turkish Medical Association.

## INTERNATIONAL RELATIONS

TBS participates in studies of working groups and task forces of IFCC and EFLM committees:

- Our colleagues who represent our country and society abroad successfully, especially in IFCC ve EFLM, Prof. Dr. Sedef Yenice, Dr. Deniz İlhan Topçu and Dr. Hikmet Can Çubukçu were accepted to talk, in a session titled "Developing Laboratory Data-Based Processing Including Use of Machine Learning Models Towards Clinical Decision Support" in AACC 2022 Congress in Chicago on 24-28 July 2022.
- At the EFLM Strategic Conference, (May 25-27, 2022) Dr. Merve Sibel Güngören who
  is the member of the IFCC Clinical Laboratory Management Committee, talked about
  "Crossing the chasm: Strategies for digital transformation in clinical laboratories".
- TBS represents other scientific or professional bodies in Turkey such as EFLM, BCLF, IUBMB, and FEBS.



# **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Organization of the XIV Uruguayan Congress of Clinical Biochemistry	May 11 to 13, 2023	Clinical Biochemistry: Combining science with a vocation for service.
Collaboration with the Organization of the XIII SLEIMPN 2024 Congress	October 22-25, 2024	Inborn errors of metabolism and neonatal screening

# **EDUCATION**

- January 2022: COLABIOCLI Scholarship awarded to our colleague BC Diana Landoni.
- April 21 to May 21, 2022: Call for ABU scholarships.
- May 2022: ABU-University of Montevideo agreement for ABU members



- June 2022: Course on "Strategic Planning in Laboratories and Leadership of Young Professionals" (COLABIOCLI)
- June 2022: Sponsorship granted to the webinar "Sample Preparation for Clinical Analysis" organized by the Committee for Standardization and Quality Control (CECC) and diffusion among ABU members,
- July 2022: 4 half sponsorships were received for our members to attend the WASPaLM World Congress to be held at the Punta del Este Convention Center, Uruguay.
- August 2022: ABU Scholarships. As a result of a call made in May 2022: the scholarship commission must declare void the call made in April-May since the applicants did not meet the requirements of the call established in the Scholarship Regulations.
- August 2022- Reconsideration of the Diploma of Quality Assurance Specialist in the clinical laboratory-
- (2020 -) The agreement with ABA in relation to refresher courses for our partners remains in force.

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
Latin American Congress of COLABIOCLI (Mexico)	March 30 to April 2, 2022	With active participation of several members of ABU.
CALILAB 2022 Congress. Mar del Plata. Argentinian	November 7 to 9, 2022	With active participation of several members of ABU.
"V Forum of Academic Training Units for Biochemical Professionals and Equivalent Degrees in Latin America and the Caribbean"	November 24 and 25, 2022	Title Equivalency

#### **REGIONAL RELATIONS**

- June 2022. Questionnaire on laboratories in the Latin American Region. Collaboration with COLABIOCLI.
- August 2 to 4, 2022. "The laboratory in monitoring the leading cause of death worldwide." Speakers: López E. (Ur.), Antúnez F (Ur.) and Lena, AM(Ur.), Medeiros R. (Ur.) Organized by the group of Young Professionals of COLABIOCLI.
- From September 29 to October 2, 2022, in the Punta del Este Convention Center took place. the XXXI World Congress of the World Association of Societies of Pathology and Laboratory Medicine (WASPalM), together with the XXVI Congress of the Latin American Association of Clinical Pathology/Laboratory Medicine (ALAPAC/ML) and the XVIII Uruguayan Congress of Clinical Pathology (SUPAC) where ABU carried out the commercial launch of the XIV Congress of Clinical Biochemistry.
- July 2022: Names were provided to form the database on possible candidates to integrate the Latin American Training program, requesting the reliability and protection of said information.
- July 2022. Management of the COLABIOCLI letter that empowers ABU to coordinate activities of common interest with the PAHO headquarters in Montevideo, Uruguay.
- (2022) Member of the Audit Commission of COLABIOCLI Q:F, BC Fernando Antúnez
- (2020-) Past president of COLABIOCLI. Prof. Dr. Stella Raymondo.
- (2021-) Regional Representative of COLABIOCLI before the IFCC with multiple interventions in regional and global activities: Dr. Ana María Lena
- (End of 2021, formalized in 2022) The first prize was obtained in the COLABIOCLI for the best promotional video of the Clinical Biochemist: Made by Dr. Ana María Lena



 November 24 and 25, 2022) "V Forum of Academic Units Training Biochemical Professionals and Equivalent Degrees in Latin America and the Caribbean" held in Villa Carlos Paz, Córdoba, Argentina; This event was organized by the Academic-Trade and Management Commission of COLABIOCLI, CUBRA, FeBICo, and under the auspices of IFCC, attended by the director of the Department of Clinical Biochemistry of the Faculty of Chemistry of Montevideo, Uruguay, Dr. BC Patricia Esperón, with a scholarship from ABU.

#### **INTERNATIONAL RELATIONS**

- 1. 28-31 October 2022, IFCC General Conference. Brussels. Belgium, with the assistance of the president of ABU. Q.F. BC Fernando Antunez.
- 2. July 2022. A video was made with a greeting from ABU in homage to the IFCC on the occasion of celebrating its 70th anniversary, and it will take place at the Brussels Conference.
  - Prof. Dra. Stela Raymondo having been designated for this purpose.
- 3. 28-31 October 2022, IFCC General Conference. Brussels. Belgium, "First annual Global Art Competition in honor of the 70th anniversary of the IFCC: 1st prize. video. Author Dr. BC Ana Ma. Lena.
- 4. (2022) Obtaining an IFCC scholarship to do an internship at Laboratorio Fares Taie, by BC María Fernanda Larrambebere.
- 5. (2022) Obtaining a Full Member Position in the C-PR by MSc.. BC. María. Schroeder
- 6. (2022) Application of various Corresponding Members to calls for positions in various committees and WG within the IFCC, some of which have not yet been resolved.
- 7. (1993 ) Dr. Stella Raymondo will celebrate this year 30 years in the position of RN If-CC of Uruguay
- 8. (2022) Numerous Corresponding Members in Committees, WG and TF shipments where they interact permanently.
- 9. (2022) BC Cecilia Queijo, who represented the Uruguayan Biochemical Association in the IFCC TF-NBS, traveled to Central America to strengthen the issue of Inborn Errors of Metabolism.

#### **ADDITIONAL INFORMATION**

- 1. January 2022. The XIV Uruguayan Congress of Clinical Biochemistry begins to be organized to be held from May 11 to 13, 2023. Victoria Plaza Hotel. Montevideo. Uruguay.
- 2. April 2022. Code of Ethics: It has been decided that the most appropriate thing will be to use the IFCC Code of Ethics, adapted to our reality.
- 3. August 2022. It has been decided to collaborate with an annual economic support for radio "El microscrópico" since it is considered a very important bulwark for the dissemination of laboratory activities in the world and especially in Latin America.
- August 2022. AQFU-ABU Magazine. Editorial Committee of the Clinical Biochemistry Section: Responsible Editor: Prof. Dr. Cristina Servetto. Associate: Prof. Dr. Estela Raymondo.
- 5. (2022) In the union, work continues with public organizations to avoid omissions in calls to Clinical Biochemists.
- (2022) Participation in the Uruguayan Organization for Technical Standards remains active, performing and leading the Clinical Laboratory standards translation group for the country with the collaboration of the BC. Ana Piana. Professionals with equivalent degrees also attend
- 7. (2022) There is the participation of a significant group of colleagues in the order Graduates in the Council, Senate and Technological Pole of the Faculty of Chemistry and with ABU Representatives in the Standardization and Quality Control Committee

of the CECC.

8. (2020 -)As a country in which COLABIOCLI was officially achieved, the greatest possible support is being provided with aspects of procedures before public and private organizations in collaboration with the regional entity.2020-





#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
		This meeting allows attendees to connect with global leaders in clinical chemistry, molecular diagnostics, mass spectrometry, translational medicine, lab management, and other areas of breaking science in laboratory medicine.
AACC Annual Scientific Meeting & Clinical Lab Expo	July 24 – 28, 2022	In addition, attendees can hear about vital research and learn about important changes in the field. With more than 250 educational opportunities in the form of lectures, plenary sessions, scientific sessions, and roundtable sessions, you can design an educational experience that meets your need to stay ahead of changes in the field.
		Lastly, our attendees may view our Clinical Lab Expo, where they can learn about cutting-edge technology at the AACC Clinical Lab Expo featuring 800+ exhibitors and 200+ new products/services.

#### **EDUCATION**

# **Online Education**

#### CERTIFICATE PROGRAMS

#### 1/1/2022 - 12/31/2022:

- Basic Concepts and Clinical Applications of Flow Cytometry Certificate Program
- Basic Principles and Architecture of Laboratory Information Systems Certificate Program
- Clinical Laboratory Leadership and Management Certificate Program
- Fundamentals of Molecular Pathology Certificate Program
- Introductory Liquid Chromatography Mass Spectrometry for the Clinical Laboratory Certificate Program
- Laboratory Operational Management Certificate Program
- LC-MS/MS Troubleshooting for the Clinical Laboratory Certificate Program
- Point of Care Specialist Certificate Program
- Practical Approaches to Quality Control in the Clinical Laboratory Certificate Program
- Principles of Clinical Toxicology Certificate Program
- Regulatory Affairs for Laboratory Compliance Certificate Program
- Statistical Methods for Clinical Laboratorians Certificate Program

# **WEBINARS**



Title	Progam Date
Como Implementar el Control de Calidad: Teoría y Practica	January 12, 2022
Buenas Prácticas de Control de Calidad: Uso de las Reglas de Westgard de Control de Calidad	July 8, 2022
Consejos Practicos para Mantener un Buen Programa de Control de Calidad	October 11, 2022
NT-proBNP and Heart Failure: How to Test and Analyze	January 18, 2022
Point of Care Testing in the Emergency Department: Challenges, Opportunities and Vision for the Future	March 15, 2022
The Use of Urine Albumin-to-Creatinine Ratio to Screen for CKD in Underserved Populations	April 19, 2022
Mass Spectrometry in Diagnosis of Protein Misfolding Diseases	April 26, 2022
The Pressing Need for Data Analytics Literacy in Laboratory Medicine	May 4, 2022
The Five Ws (Why, Who, What, Where, When) of Reimbursement and Regulation for Diagnostics	May 12, 2022
Best Practices for Optimizing Laboratory Resources and Utilization During a Global Supply Shortage	May 17, 2022
New Insight! Non-Invasive Sample Collection for Infectious Disease Testing	July 26, 2022
Establishing QC Targets and Ranges for Multiple Instruments	August 24, 2022
The Next Evolution of Molecular Testing Post COVID-19	September 8, 2022

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting	
Global Lab Quality Initiative Workshop: Introduction: Training in POC and Risk Management (Santa Cruz, Bolivia)	September 28, 2022 – 29, 2022	With the Sociedad Boliviana de Bioquímica Clínica (SOBOBIOCLI)	
Global Lab Quality Initiative Workshop: Verifying Assay Performance: Steps To Follow To Verify Manufacturer's Claims (Santa Cruz, Bolivia)	November 17, 2022 – 18, 2022	With the Sociedad Boliviana de Bioquímica Clínica (SOBOBIOCLI)	
AACC Middle East	October 7, 2023 -	AACC Middle East is a two-day conference held in partnership with Life Dx that brings the latest in laboratory medicine to the Middle East region and showcases diagnostic innovations at a dynamic exposition. The conference covers a range of timely topics from infectious diseases to big data to prenatal emerging technology, as well as core laboratory areas in sample transport, lab management, and quality assurance. Each session is presented by experts in AACC's scientific leadership.  AACC Middle East attendees have the opportunity to network with their peers and experts from the U.S. and the Middle East to share knowledge on new breakthroughs in laboratory medicine.	

International CPOCT	September 21 – 23, 2022	Attendees are given opportunities to learn the latest in POCT from interdisciplinary experts, engage with companies in the exhibit hall, and network with peers during poster hall receptions. The symposium promises to deliver stimulating discussions on the latest science and cutting-edge technological advances through a keynote lecture, scientific sessions, panel discussions, and interactive poster receptions.
POCT Boot Camp	May 5 – 6, 2022	POCT Bootcamp is a one-day, workshop-style accredited meeting. The target audience for this medical event are POC coordinators, managers, supervisors, medical directors and/or others who perform POC testing in hospitals, clinics, or other patient care settings.
Preanalytical Conference	March 25 – 26, 2022	The preanalytical phase is a critical part of laboratory medicine and essential to delivering quality patient care. The preanalytical phase is also a source for the majority of laboratory diagnostic errors with some of the greatest challenges for laboratory professionals. The most common preanalytical errors include challenges with patient preparation, sample collection and transportation, and preparation for analysis and storage. The good news is that these errors can be minimized by forward-thinking healthcare professionals who are proactive in finding collaborative solutions to overcome them.  AACC's Preanalytical Phase Conference provides real answers to real problems facing laboratory medicine. This 1.5-day program is hosted by experts in the field who will share their wisdom, experiences, and triumphs working in the ever-changing landscape of the preanalytical phase. The conference includes plenaries and main sessions covering timely topics in transgender medicine and lab automation along with core areas of the preanalytical phase. In addition, the conference will also include interactive breakout sessions for small group discussions, poster sessions, and other opportunities to network with leaders in the field.  This conference is designed to meet the needs of clinical laboratory physicians, supervisors, managers, and other laboratory professionals overseeing and/or carrying out preanalytical phase processes.

# **REGIONAL RELATIONS**

Member of the North American Federation of Clinical Chemistry and Laboratory Medicine.

# **INTERNATIONAL RELATIONS**

AACC maintains memoranda of understanding with several national societies for the purposes of mutually beneficial education exchanges.

# **NATIONAL MEETINGS**



Name of the meeting	Date	Topic
The 24 <sup>th</sup> Scientific Conference of the Society of Clinical Biochemists of Hanoi and Northern Provinces of Vietnam	7-8/01/2022 in Hanoi	Covid pandemie, Oncology, Immunology, QA & QC, Endocrinology
Scientific Conference of the Society of clinical Biochemists of HoChiMinh City and Southern Provinces of Vietnam	29/7/2022, HoChiMinh City	New techniques in the Laboratory diagnostics of diseases
XII National Congress of the VACB	21/10/2022, Ha Long	
The 25th Scientific Conference of the Socity of Clinical Biochemiists of Hanoi and Northern Provinces of Vietnam	21-22/10/2022, Ha Long	Immunology, Oncology, Nephrology, Cardiology, QA & QC

# **EDUCATION**

The VACB organized 4 Training courses (online) in 27-28/6/2022 (Hepatology, Gastroenterology), 4/7/2022 (Biology markers in Cardiology), 11/7/2022 (Nephrology, Disturbances of water and electrolytes), 25/7/2022 (Diabetes).

# **REGIONAL RELATIONS**

Good relations with APFCB

# **INTERNATIONAL RELATIONS**

Frequent and good relations with IFCC

# **ADDITIONAL INFORMATION**

The VACB is preparing the 60th Anniversary of the foundation of the VACB ( 1963 - 2023 ). The Jubilee Anniversary will be in August of 2023 in Hanoi.

# **AFFILIATE MEMBER SOCIETIES**





#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Labac National Conference Paris (France)	October 19 2022	Developing Quaity control strategies based on risk management
Journées Francophones de Biologie Medicale	October 5 2022	IVDR :What you need to know. IFCC/EFLM coordination B.Gouget
JIB Paris 2022 LABAC	1st décember 2022	Opening ceremony Outstanding speakers invited by LABAC  Pr K ADELI, IFCC President Pr T OZBEN, EFLM President Pr Nader RIFAI, Editor in chief AACC Clinical chemistry Pr Tony Badrick, Royal college of Pathologists of Australasia (AU)

# **EDUCATION**

1. Organization of Continuous training programmes for medical biologists (one day)

Two national sessions:

- 23/11/22: Quality control and quality assurance in Lab medicine
- 8/11/22: Metrological tracability in Laboratory medicine as driver for accurate results
- 2. Speaker at EuroMedlab 2022

EDUW 18 - 14.00-15.00 SYSMEX Room 13b

Title: Towards a smarter lab with digitally enhanced solutions

Chair: Theo Hofman - Sysmex Europe GmbH

**Speakers:** Dr. Jean-Marc Giannoli – Biogroup Laboratories, Neuville-sur-Saône, France **Title:** Value of combining QC and patient results for decision support on analytical

performance

3. Participation at many congresses as attendee:

Lab quality days: International congress on quality in lab Medicine Helsinky April 2022 AACC Chicago July 2022

- 4. FCC TF GLQ, Member 2021-2023
- 5. JIB 2022, Paris Dec 1-2

Opening session with the IFCC et EFLM Presidents JM Giannoli and B Gouget chairs of the session on: the Future of the scientific publications after the COVID 19, Pr Nader Rifaï, Speaker

6. Collaboration with the SFBC

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
EUROMEDLAB 2022	EDUW 18	Speaker
IFCC General Conference, Brussels	October 2022	Participation at the TF GLQ meeting

# **REGIONAL RELATIONS**

Participation of LABAC members in International and regional meetings

# **INTERNATIONAL RELATIONS**

LABAC representatives:

IFCC: B Gouget EFLM: B Gouget

- EFLM/IFCC EuroMedLab Munich 2022 (Dr Giannoli, Workshop Sysmex)
- Task Force on Global Lab Quality (TF-GLQ) (Dr J.M. Giannoli, Member, 2021-2023)

# **ADDITIONAL INFORMATION**

The status of affiliate member is to be changed in order to facilitate a perfect integration of our members in the functional units





Name of the meeting	Date	Topic
The 13 <sup>th</sup> International & 19 <sup>th</sup> National Congress on Quality Improvement in Clinical Laboratories	17-21 May 2022	Quality Improvement in Clinical Laboratories
The 23rd International Congress of Pathology and Laboratory Medicine	28-29 Dec. 2-4Feb. 2022	The Congress of Pathology and Laboratory Medicine
13th International Congress of Medical lab and Clinic	5-9 Feb. 2022	The congress of Medical lab and Clinical
34rd International conference on Pediatric diseases	27-30 Oct. 2022	conference on Pediatric diseases and pediatric Nursing

#### **EDUCATION**

- 1. Webinar Laboratory diagnosis of hemoglobinopathies and A1C.
- 2. Webinar Laboratory diagnosis of thalassemia.
- 3. Webinar Laboratory tests in kidney diseases
- 4. Webinar Laboratory tests in liver diseases
- 5. Webinar Basic definitions in the field of immunoassay.
- 6. Webinar The requirements of the internal quality control program of the immunoassay department.
- 7. Webinar Blood sugar: laboratory and bedside.
- 8. Webinar Lipids and cardiovascular diseases
- 9. Webinar Eliza technique, date of holding
- 10. Webinar An overview of the interpretation and application of biochemistry laboratory formulas
- 11. Webinar An overview of the interpretation and application of laboratory formulas: quality control hematology blood bank
- 12. Webinar Quality control of basic tools in microbiology department
- 13. Course Quality control in microbiology department
- 14. Course Quality control in the test to determine antimicrobial sensitivity (antibiogram)
- 15. Course Covid-19 vaccination
- 16. Course Hyalans, hyphomycetes with a transverse wall
- 17. Course Challenges of quality control in the biochemistry department
- 18. Course Serology of Covid-19
- 19. Workshop Risk and cost management training in clinical laboratory
- 20. Webinar Laboratory aspects of gonadal hormones
- 21. Webinar Laboratory aspects of cortical hormones of adrenal glands
- 22. Webinar Laboratory aspects of thyroid hormones
- 23. Webinar Laboratory aspects of growth hormone and prolactin
- 24. Webinar Eliza technique in the laboratory
- 25. Webinar Principles and interpretation of tests for autoimmune diseases



- 27. Webinar Laboratory tests in kidney diseases
- 28. Webinar Internal and external quality control in the biochemistry department of the medical diagnosis laboratory
- 29. Webinar Reference domain and domain in biochemistry experiment
- 30. Webinar Validation and confirmation of bias accuracy in biochemistry testing
- 31. Webinar Testing errors and allowed errors in biochemistry testing
- 32. Webinar Investigating the clinical value of genetic biomarkers in leukemias
- 33. Webinar Dimatiseus mushrooms
- 34. Webinar Zygomysts
- 35. Webinar Hemovigilance and blood bank
- 36. Webinar Complications caused by various types of blood product injections
- 37. Webinar Erythroid and platelet hematomorphology
- 38. Webinar Diagnosis of the morphology of lymphoid neoplasms
- 39. Webinar Challenges of quality control in the biochemistry department
- 40. Webinar Laboratory diagnosis of the most common superficial skin fungal diseases
- 41. Webinar Quality control of basic tools in microbiology department
- 42. Webinar Quality control in microbiology department
- 43. Webinar Laboratory quality control (uncertainty of quantitative measurements)
- 44. Webinar Laboratory quality control (certifying inaccuracy and estimating inaccuracy by CLSI EP15-A3 method
- 45. Webinar Analysis of information in the clinical laboratory and familiarity with related statistical software
- 46. Webinar Final control and interpretation of laboratory results
- 47. Webinar Challenges of confirmation and validation of biochemical methods
- 48. Webinar Challenges of confirmation and validation of biochemical methods
- 49. Webinar Interpretation of graphs and results of advanced counters
- 50. Webinar Risk and cost management in the clinical laboratory
- 51. Webinar Introduction of tests related to thyroid 33
- 52. Webinar Laboratory diagnosis of hypothyroidism
- 53. Webinar Laboratory diagnosis of hyperthyroidism
- 54. Webinar Managing the challenges of interpreting thyroid tests

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
IACLD General Assembly	18 May 2022	Elected Board of Directors by the General Assembly of IACLD
Meeting of the accreditation institution	4 Jun. 2022	Accreditation coordination meetings IACLD
Assembly of Scientific Associations	20 Jun. 2022	The meeting of the election committee of scientific associations
IVD Committee	20 Jun. 2022	In Vitro diagnostics technology management meeting
Big Data Committee	29 Jun. 2022	Big Data Project meeting for determine reference ranges
Education committee	6 Feb. 2022	Education committee meeting





#### **REGIONAL RELATIONS**

- Relation with Medical Council of the Islamic Republic of Iran
- Relation with Iranian Blood Transfusion Organization
- Relation with Pasteur Institute of Iran
- Realtion with universities of medical sciences
- Relation With Medical scientific associations
- Relation with Reference laboratory
- Relation with Health reference laboratory
- Member of Council of Iranian Scientific Associations

# INTERNATIONAL RELATIONS

- International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)
- Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB)
- Asia-Pacific Accreditation Cooperation (APAC)

# **ADDITIONAL INFORMATION**

Executing the External Quality Assurance Program for laboratories across Iran Publication of a Three-monthly printed Journal in persian called Laboratory & Diagnosis Executing the eduction courses & education webinars medicine laboratory Holding meetings of the national assembly of laboratory science associations with the presence of representatives of associations in laboratory science, pathology and DCLS Holding meeting with the following organizations:

- 1. Institute of Standards & Industrial Research of Iran
- 2. National Medical Device Directorate
- 3. Ministry of Health and Medical Education
- 4. Health Reference Laboratory
- 5. Medical Council of the Islamic Republic of Iran



- 6. The Parliament of Iran
- 7. Supreme Insurance Council
- 8. Insurance organizations (Social Security Organization, Armed Forces Social Security Organization, Iran Health Insurance Organization)
- 9. Center for Strategic Studies
- 10. 10. Milad Tower International Conference Center
- 11. Food and Drug Organization
- 12. Organization of medical equipment and supplies
- 13. Scientific Societies Commission
- 14. Deputy Education Minister of the Ministry of Health and Medical Education



Name of the meeting	Date	Topic
Academic Conference	November 12, 26 And December 3	Bacterial Co-Infections In Patients With Sars-Cov2 Infection
2 <sup>nd</sup> Virtual National Congress for the Analysis of Quality Assurance and ExpoQuim 2022	March 18, 19 And 20, 2022	Quality Assurance
Academic Conference	April 30, 2022	COVID 19: Current Situation And Prospects, Diagnosis And Management
First Knowledge Olympics Young Promises	August 20, 2022	Biosafety: venous blood samples and microbiolog emerging parasites
National Congress Of Clinical Chemists And Expoquim Guadalajara 2022	September 12 to 17, 2022	Various topics related to the clinical laboratory, 50 invited professors, 10 conferences, 6 symposiums, 1 magisterial conference
Chemical Day Conferences	December 3, 2022	5 master lectures with national and international speakers on various topics related to the clinical laboratory

#### **EDUCATION**

The National Federation of Clinical Chemists CONAQUIC A.C. brings together 36 professional associations from the 32 States that make up the Mexican Republic, each one carries out academic activities endorsed by the Federation, in 2022, 73 academic events were held that together represent 3,394 hours of Continuing Education, in addition to this, the Federation held national events which represent 82 hours of academy, adding a total of 3476 total hours of Continuing Education in 2022.

The first knowledge Olympics were held trying to bring students closer to the last years of their professional career, for which the knowledge Olympics were given the name of "promising youngsters" in which Chemistry students from 14 Universities of the country.

# INTERNATIONAL RELATIONS

Now the only international relationship is with the IFCC



Name of the meeting	Date	Topic
Assembly	February 5, 2022	IFCC MEMBERSHIP APPLICATION PROPOSAL
	June 11, 2022	VIRTUAL CONGRESS REPORT 2022
	September 3, 2022	PROPOSAL FOR THE CREATION OF REGIONAL SCHOOLS

#### **EDUCATION**

VIRTUAL ACADEMIC SESSIONS WERE HELD WITH THE FENACQC AWARENESS PROGRAM DURING EVERY TWO MONTHS

IN THE MONTHS OF FEBRUARY TO MARCH THE VIRTUAL PRE-CONGRESS COURSES WERE CARRIED OUT AND THE 2022 VIRTUAL CONFERENCE WAS HELD IN APRIL IN DECEMBER A SPECIAL FORUM WAS HELD FOR CHEMICAL DAY

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Topic
WORK MEETINGS FOR CERTIFICATION	April 9, 2022	REVIEW OF DOCUMENTATION OF APPLICATIONS FOR CERTIFICATION
	September 23, 2022	UPDATE OF FORMATS FOR CHEMICALS TO BE CERTIFIED
	July 23, 2022	DIGITALIZATION OF THE CERTIFICATION PROCESS

#### **REGIONAL RELATIONS**

WITH THE SCHOOLS OF EACH STATE OF THE COUNTRY, WITH THE FACULTY OF MEDICINE OF THE FACULTY OF NUEVO LEON, WITH THE PACAL QUALITY CONTROL PROGRAM

# **INTERNATIONAL RELATIONS**

WITH THE IFCC
WITH QUALITY ACADEMICS

#### **ADDITIONAL INFORMATION**

During the last semester of 2022 we had meetings with the congress committee for the organization of the Congress of Veracruz 2023





The Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL) continuously strengthen its diplomatic relationship and collaboration with the IFCC for continuing educational activities and development with its regular application to the IFCC Visiting Lecturer Program despite the global pandemic situation. With this program, the PCQACL is privileged to invite renowned Speakers in the field of Laboratory Medicine and other relevant medical fields during the PCQACL Annual Convention. Hence, we are so grateful to the IFCC for being able to invite the following IFCC- VLP Speakers for the Virtual 19th PCQACL Annual Convention this year.



**Dr. Kenneth Andrew Sikaris, BSc(Hons), MBBS, FRCPA, FAACB, FFSc** The IFCC Member to the Committee on Reference Intervals and Decision Limits, Dr. Kenneth Andrew Sikaris has graced with his virtual presence, the PCQACL 19<sup>th</sup> Annual Convention Opening Ceremonies as the Keynote Speaker addressing over two thousand delegates comprising Pathologists, Medical Technologists, clinical laboratory Supervisors and Managers with his Keynote Message on the Introduction of the Global Reference Intervals Database (GRID) initiative of the IFCC: "Understanding impact of Age/Gender Reference Intervals"

# Jose C. Jara Aguirre, M.D, (DABP), FAACC, FASCP, FCAP

The Medical Director of Clinical Chemistry Laboratory & Point of Care Testing Division of Pathology & Laboratory Medicine of the Children's National Hospital, Washington, DC, Dr. Jose C. Jara Aguirre has also been one of our invited eminent IFCC-VLP Speakers in the virtual 19th Annual Scientific sessions. He presented the topic "Practical investigation approach for detecting and solving the most common interferences" held on Sept. 10, 2022.



#### **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
Virtulal 19th PCQACL Annual Convention	September 8 - 10, 2022	" Redefining Global Challenges into Quality Laboratory Standards "

The Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL) has conducted its Virtual 19<sup>th</sup> Annual Convention with the team "Redefining Global Challenges into Quality Laboratory Standards" held last September 8-10,2022 through an online platform facilitated by the Progressive Productivity Solutions. This event was well attended and participated by almost 2,000 delegates from the different clinical laboratories and medical institutions nationwide. An array of scientific lectures and panel discussions by renowned and distinguished Speakers are all very informative and relevant to the present time. The presentations have really satisfied and fulfilled the gain in knowledge and learning updates of our convention participants.

The PCQACL 19th Annual Convention started with the hybrid Pre-Convention Workshop on CBC and POCT held on Sept. 7, 2022 at Crowne Plaza Galleria Hotel physically attended by 123 delegates and virtually by 305 participants. The first day of the 3-day main Convention on September 8, 2022 started with the Opening Ceremonies highlighted by the Keynote Address

of Dr. Kenneth Andrew Sikaris on the Introduction of the Global Reference Intervals Database (GRID) initiative of the IFCC: "Understanding impact of Age/ Gender Reference Intervals" and this was followed by the pre-recorded scientific sessions covering the track on Global Challenges with the following presented lectures on the topics: 1) Plenary lecture: Covid 19 - "The Philippine General Hospital Study on SARS-COV2 antibodies" 2) Plenary lectures: Inclusivity -"New EGFR formula: Removing race from the equation" and 3) "Gender sensitivity in reporting laboratory results". Another highlight on the first day of the convention is the PCQACL Best Laboratory Practices Contest participated competitively by the different hospitals and clinical laboratories nationwide.

The second day of the convention on Sept.9, 2022 was loaded with the following lectures and panel discussion topics: 1) Panel Discussion1 - "Role of National Reference Laboratories in the Philippines in Standardization, 2) Plenary lecture on Miniaturization- "Interactive session: Interesting cases in electrophoresis" 3) Plenary lecture: "Biofabrication in the Hospital of the Future – a Filipino experience establishing a 3D printing research laboratory" 4) Plenary lecture: "Updates in Tumor marker analysis", 5) Plenary lecture: "Value of Cell Free DNA (cfDNA) in Clinical Testing", 5) Panel Discussion 2- "Diaspora on the frontlines: a tale of laboratory professionals", and Panel Discussion 3: "Caring for healthcare workers: Concept of Total Wellness".

Onward to the third day on Sept. 10, 2022 was the track on Standardization with the following lectures and panel discussion topics: 1) Panel Discussion 4 - "Standardization: CBC and PBS", 2) Panel Discussion 5 - "Standardization: Coagulation studies", 3) Plenary lecture on Practical investigation approach for detecting and solving the most common interferences, 4) Plenary lecture on "Achieving standardization through quality method validation program", 5) Plenary lecture on "Quality control measures for novel drugs interfering with pre-transfusion compatibility testing (Daratumumab and Anti-CD47)", 6) Plenary lecture on the topic "What do Data, Analytics and Tech Leaders Need to do to Adapt, Survive and Thrive in 2022 and Beyond". This last day of the convention was highlighted with the culminating activities of the 3-day convention and the Closing Ceremonies graced with the virtual presence of Dr. Minerva P. Calimag, Past President of the Philippine Medical Association as the Guest of Honor.

The PCQACL Continuing Education, Training & Research (CETR) Committee has successfully conducted the virtual 19th PCQACL Annual Convention and made it possible via Zoom App online platform through the technical assistance of our IT Provider (Progressive Productivity Solutions) on the technical issues, queries and concerns of the participants with the guidance and supervision of the PCQACL Committee on Information, Communication & Technology System (ICTS).

# **EDUCATION**

The Committee on Continuing Education, Training & Research of PCQACL has conducted the following Free Webinars last year:

Title	Speaker/s	Date	Number of Participants	In Collaboration with Diagnostic Industry Partner
P.O.W.E.R. 5 Philippines' Cell Morphology Day	Dr. Francisco Tria IV topic: "Hamatologic Malignancies" Dr. Alejandro E. Arevalo Topic: "Red Cell Cases"	April 21, 2022	1,364 registered participants	Sysmex Philippines, Philippnes
P.O.W.E.R. 6  Transitioning into the New Normal	Dr. Tse Weitopic: "Utilizing Covid Panel testing as new algorithm and beyond"  Mr. Christopher Cotreau and Dr. Eric Morreale topic: Elevating Quality: "Assay Verification, Calibration and Linearity for SARS-COV2 Testing"	May 31, 2022	892 registered participants	Jarc Group company
P.O.W.E.R. 7  Taking a Leap Towards Urinalysis Standardization and Quality Improvement	Dr. Hu Qiongying	June 30, 2022	1,389 registered participants	Mindray Philippines
P.O.W.E.R. 8 Philippines in the battle against Tuberculosis	Dr. Lara Mae Angeles topic: "Challenges and Updates in TB Diagnostics"	August 25, 2022	1,340 registered participants	Labmate Pharma Inc.
P.O.W.E.R. 9 Safe Practice in Blood Grouping Determination	Ms. Christine Joy P. Miranda, RMT	October 31, 2022	1,964 registered participants	Labmate Pharma Inc.
P.O.W.E.R. 10  Blood Tumor Markers; Clinical Applications and Laboratory Assessment; What's New!	Dr. Rehab Helmy Mohamed Ibrahim	Nov. 24, 2022	1,360 registered participants	Mindray Philippines
P.O.W.E.R. 11 The Novel Biomarkers for HCC Surveillance and Early Detection	Dr. Jennifer Thompson	Dec. 28,2022	1,039 registered participants	Roche (Philippines) Inc.

The PCQACL Academy also conducted the Online Certificate Training Program on Peripheral Blood Smear: Standardization, Updates, and Morphology Review which started on May 19, 2022 up to May 19, 2023 featuring some of the country's Best Hematopathologists as follows:

- 1. Arvin C. Faundo, MD, FPSP lecture topics: "Start right with a Good Blood Smear" and "Red Blood Cells Disorders"
- 2. Alejandro E. Arevalo, MD, FPSP lecture topics: "Lymphocytes, Monocytes, and Plasma Cells"



- 3. Januario D. Veloso, MD, FPSP, FCAP- lecture topics: "Neutrophils, Eosinophils, and Basophils"
- 4. Rose Lou Marie C. Agbay, MD, FPSP lecture topics: "Platelets" and "Tips and Recommendations on Final Report"
- 5. Janelyn Alexis Dy-Ledesma, MD, FPSP- lecture topic: "Resolving Discrepancies in CBC with the help of Histograms"

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
Amidst the challenging times of the COVID-19 pandemic with the national and international travel restrictions for safety reasons, some of the members of the PCQACL Board of Trustees still managed and were able to attend the following webinars conducted by the IFCC:		
ANCLS Annual Forum	December 20, 2022	Dr. Marissa A. Orillaza, Chair of PCQACL

#### REGIONAL RELATIONS

and Research has attended this annual forum

Member of Asian Network for Clinical Laboratory Standardization and Harmonization (ANCLS)

Member of Asian - Pacific Federation of Clinical Biochemistry and Laboratory Medicine (APFCB)

PCQACL was a Member of Clinical and Laboratory Standards Institute (CLSI) and this has given PCQACL the authority to be the distributor of their books and other documents in the Philippines, procuring of such in bulk and distributing them to facilitate their adoption and implementation by the clinical laboratories.

#### **INTERNATIONAL RELATIONS**

The PCQACL is an active member of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).

The IFCC-Visiting Lecturer Program has always been requested to provide Speakers / Panel Discussants at the plenary lectures / panel discussions of the PCQACL's annual conventions, seminar-workshops and other scientific sessions. However, in adherence to the existing COVID - 19 pandemic safety protocols, we just got the opportunity to have our invited IFCC-VLP Speakers shared their pre-recorded presentations in the Virtual 19 PCQACL Annual Convention.

### **ADDITIONAL INFORMATION**

PCQACL Officers and Board of Trustees, Standing Committees and Chairpersons for C.Y. 2022

# **Officers**

President: Sarah Jane L. Datay-Lim, MD, FPSP Vice-President: Paulo Enrico Belen, MD, DPSP



Secretary: Estela Marie C. Tanchoco, MD, FPSP, MBA

Treasurer: Gerrick Joseph C. Dolor, RMT Auditor: Erlinda C. Pijuan, RMT, FPSP P.R.O.: Anacleta P. Vadez, MD, FPSP

Assistant Secretary: Josefina S. Soriano, RMT Assistant Treasurer: Benzon C. Pisico, RMT

Immediate Past President: Emil Bryan M. Garcia, MD, FPSP Founding President: Tomas P. Maramba, Jr., MD, FPSP

#### **Trustees**

Elizabeth Y. Arcellana-Nuqui, MD, FPSP

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Bernadette R. Espiritu, MD, FPSP

Rodelio D. Lim, MD, FPSP

Auditor: Erlinda C. Pijuan, RMT P.R.O.: Anacleta P. Vadez, MD, FPSP

Joanna Marie S. Carpio, RMT

# **Standing Committees and Chairpersons**

Committee on Membership: Maximo A. Saavedra, Jr., MD, FPSP

Committee on Continuing Education, Training & Research: Marissa A. Orillaza, MD, MSCE, FPSP Committee on Advocacy & International Relations: Elizabeth Y. Arcellana-Nuqui, MD, FPSP

Committee on Information, Communication & Technology Systems: Benzon C. Pisico, RMT

Committee on Finance: Erlinda C. Pijuan, RMT

Committee on Publications & Public Relations: Anacleta P. Valdez, MD, FPSP

Committee on Annual Convention: Gerrick Joseph C. Dolor, RMT

Committee on By- Laws & Legislation: Anacleta P. Valdez, MD, FPSP / Atty. Joyce Mendoza

Committee on Nominations & Elections: Aileen Riego-Javier, MD, FPSP

Committee on Awards: Edna May Lasap-Go, MD, FPSP Committee on Special Projects: Januario D. Veloso, MD, FPSP



# **NATIONAL MEETINGS**

Name of the meeting	Date	Topic
The VIII edition of the Bronchopulmonary Cancer Regional Conference (partnership)	16-17 September 2022	Bronchopulmonary Cancer diagnosis, monitoring and prognostic
The Preventionist Conference (partnership)	27-28 May 2022	Role of bacteriology specialists in prevention and laboratory microbiological diagnosis



# **EDUCATION**

# **NATIONAL EVENTS**

- Medical Conferences such as RAML National Conference 25-27 May, XXVIII National Conference of Clinical Hematology and Transfusion Medicine 5 – 9 October, XV National Conference on Microbiology and Epidemiology 3-5 November 2022
- Medical Congresses the XXX National Congress of Endocrinology 19-22 June 2022
- postgraduate courses organized by the faculty of medicine and the faculty of biology,

# as well as by the national medical societies

#### **REGIONAL EVENTS**

The on-line EFLM Syllabus Course through the EFLM e-learning platform, this major EFLM educational resource being designated by the EFLM Task Group for Syllabus Course to support the harmonization of postgraduate education of Specialists in Laboratory Medicine in Europe. This course includes more than 40 modules covering the four main sections of the EFLM Syllabus, all available on-line for the OBBCSSR members enrolled into the EFLM Academy.

- The EFLM Lessons in Immunochemistry, a new on-line EFLM educational activity for EFLM Academy Members wich includes in 2022 a serie of 4 webinars concerning the immunochemistry markers associated to a specific disease focusing on analytical aspects and pre/postanalytical issues
- The EFLM webinars organized starting from February 8, 2022 (e.g."Patient-focused laboratory medicine: how can we communicate directly with patients")
- The EFLM Postgraduate Course devoloped by the EFLM Working Group on Congresses and Postgraduate Education "How to write and publish a good scientific and professional article" helded on-line 26 October - 15 November 2022
- 3rd EFLM Strategic Conference SMART and GREEN LABORATORIES "How to implement IVDR, emerging technologies and sustainable practices in medical laboratories?" 25-27 May 2022 (virtual) available whitout registration fee for the EFLM **Academy Members**

#### INTERNATIONAL EVENTS

- The webinars produced on behalf of the IFCC in 2022 attended on-line live or watching recordings (e.g."Laboratory & Analytical Aspects of High-Sensitivity Cardiac Troponin Assays", "Reliable biological variation estimates - where to find them and how can they safely be applied?" etc.)
- Other IFCC eAcademy resources e.g webinars series recorded before 2022

#### **REGIONAL MEETINGS**

Name of the meeting	Date	Topic
EFLM General Meeting (Munich)	11.04.2022	OBBCSSR being an Affiliate Member, the National Representative attended the meeting on-line
24 <sup>th</sup> IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine,	10-14 April 2022	Attended on-line



the 3<sup>rd</sup> EFLM Strategic Conference SMART and GREEN LABORATORIES

27-28 May 2022

OBBCSSR being an Affiliate Member, the National Representative attended the meeting on-line



#### **REGIONAL RELATIONS**

- The NEB General Secretary of OBBCSSR, EuSpLM MSc Dorina Popa, senior medical biochemist, is the OBBCSSR National Representative for EFLM and NR in the EFLM Task Force "Green & Sustainable Laboratories".
- The OBBCSSR Vicepresident, EuSpLM Dr.Georgeta Sorescu, specialist medical chemist, is a Full Member in the EFLM WG "Harmonisation" (WG H).
- The Chairman of the Accreditation and Endorsements Commission of OBBCSSR, EuSpLM Dr.Adina Elena Stanciu, senior research scientist I and senior medical chemist, is a Full Member (only for the WG – LMCP) in the WG "Laboratory Medicine Credit Points" (WG- LMCP).

#### INTERNATIONAL RELATIONS

The OBBCSSR President, EuSpLM Dr. Constanta Popa, as National Representative for IFCC,

- prepared and sent to Dr David Kinniburgh, IFCC Executive Board Secretary, the requested report regarding the activities of our NS during 2021, document included in the IFCC Annual Report for 2021
- keeped in touch with the IFCC President, Prof.Khosrow Adeli and the IFCC Executive Board also with Prof. Tomris Ozben as the EFLM Regional Representative for time in office March 2022 - December 2023.
- designated the OBBCSSR NR for EFLM, EuSpLM Dorina Popa, as NS Representative to the IFCC Council meeting helded on-line in Munich April 14 2022
- prepared and sent to IFCC President, Prof.Khosrow Adeli, the OBBCSSR response to the SM for the Aniversary Conference
- designated Mrs. Dorina Popa, EuSpLM, as NS Representative on behalf the OBBCSSR to the IFCC Council meeting helded on-line in Munich April 14 2022
   Both OBBCSSR President Dr. Constanţa Popa for IFCC and EuSpLM Dorina Popa for EFLM as OBBCSSR National Representatives are in permanent contact with these international associations of laboratory medicine specialists, concerned also with mediating the scientific events organized and disseminating the information received through IFCC eNews and EFLM LabNews. Our National Society as IFCC and EFLM Affiliate Member aggree with any decision/ recommendation according to the EFLM and IFCC bylaws

# **ADDITIONAL INFORMATION**

- In order to ensure the permanent improvement of patient safety, Dr. Constanţa Popa and Dr.Georgeta Sorescu published in 2022 the book "Quality control of medical analysis results" intended for labs management and specialists in laboratory medicine
- In December 27 IFCC confirmed trough Dr.Paul Hamilton as Coordinator the OBBCSSR proposal to organize in September 11 2023 the webinar "Laboratory medicine a critical role for patients in disease diagnosis and monitoring" within the IFCC webinar series.

Name of the meeting	Date	Topic
The first memorial scientific- professional conference "Predrag Maric"	February 11, 2022, Belgrade, Serbia	Invited lecture
12 <sup>th</sup> Serbian Congress of Diabetes with international participation	March 20-25, 2022, Belgrade, Serbia	Invited lecture
9 <sup>th</sup> Congress of the Association of Preventive Pediatrics of Serbia with international participation	March 31- April 02, 2022, Sokobanja, Serbia	9 <sup>th</sup> Congress of the Association of Preventive Pediatrics of Serbia with international participation
The Third Conference of Private Sector Health Workers	May 7-8, 2022,	The Third Conference of Private Sector Health Workers
National seminar: Modern laboratory diagnostics in translational research and clinical work	May 13-14, 2022, Sokobanja, Serbia	Invited lecture
Fabry expert meeting	May 16, 2022, Belgrade, Serbia	Invited lecture
Abbott Quality Day 2022	September 2 <sup>nd</sup> , 2022, Belgrade, Serbia	Invited lecture
VI Congress of Association of Coronary Units of Serbia with international participation	September 16-18, 2022, Vrnjacka Banja, Serbia	Invited lecture Scientific Committee Membership
Challenges and opportunities in early diagnosis of Alzheimer's disease - present and future	November 18-19, 2022, Belgrade, Serbia	Invited lecture
50 <sup>th</sup> Symposium Novelties in medicine	December 5-9, 2022, Belgrade, Serbia	Invited lecture

# **REGIONAL MEETINGS**

Name of the meeting	Date	Society's contribution for the meeting
7 <sup>th</sup> Serbian Biomarker Symposium-2022 SERBIS: Prevention in focus	March 17-18, 2022, Belgrade, Serbia	Congress President
The First World Conference: Fighting COVID-19 Pandemic - Health Challenges. Collective knowledge. Global health.	March 26-28, 2022, Belgrade, Serbia	Invited lecture
20 <sup>th</sup> CardioS International congress of clinical cardiology and heart failure	April 08-09, 2022, Belgrade, Serbia	Scientific Committee Membership Invited lecture
TEUROMEDLAB 2021 – 24th IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine	April 10-14, 2022, Munich, Germany	WG meetings Abstract presentations





10 <sup>th</sup> Santorini Conference - Systems Medicine and Personalised Health & Therapy	May 23-26, 2022, Santorini, Greece	Invited lecture
IFCC WORLDLAB 2022, 24th International Congress of Clinical Chemistry and Laboratory Medicine & 16th Asia-Pacific Congress of Clinical Biochemistry	June 26-30, 2022, Seoul, South Korea	Invited lecture
Serbian conference on interventional cardiology, cardiovascular imaging and drug therapy-SINERGY 2022	September 08-09, 2022, Belgrade, Serbia	Invited lecture
AFCB- EFLM LM4MS Second Conference. Laboratory medicine for mobile societies in our area	October 02-05, 2022, Creta, Greece	Invited lecture
ESPT Congress 2022	November 09-10, 2022, Belgrade, Serbia	Congress President Session chairmanship
Journées de l'Innovation en Biologie JIB 2022	December 1-2, 2021, Paris, France	Invited lecture

# **REGIONAL RELATIONS**

IFCC General Conference, October 28-31, Brussels, Belgium

# **INTERNATIONAL RELATIONS**

IFCC Affiliate Membership

IFCC Communications and Publications Division (CPD) eJIFCC (WG-eJIFCC), Sanja Stankovic

IFCC ETD Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM), Sanja Stankovic

**EFLM Science Committee** 

EFLM WG: Cardiac Markers, Corresponding Member Sanja Stankovic

EFLM Task Force: Green and Sustainable Laboratories (GSL) Sanja Stankovic

EFLM Communication Committee

Task Group "European Lab Day" Sanja Stankovic

European Society of Pharmacogenomics and Personalised Therapy (ESPT) General Secretary/Board Member Sanja Stankovic

# **ADDITIONAL INFORMATION**

SCLM joined the EFLM Academy (55 members in 2022)



IFCC OFFICE
Via Carlo Farini 81
20159 Milan – ITALY
Tel: +39 02 66809912
e-mail: ifcc@ifcc.org
www.ifcc.org