

Nº 5
May 2024

eNews

International Federation of Clinical Chemistry
and Laboratory Medicine



Communications and Publications Division (CPD) of the IFCC

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The voice of IFCC

IFCC and Congress President's Welcome Message

May 2024

By Tomris Ozben

Dear Colleagues and Friends,

On behalf of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) and as Congress President, it is my distinct pleasure and honor to welcome you to the 26th International Congress of Clinical Chemistry and Laboratory Medicine (ICCCLM) - IFCC WorldLab Congress organized jointly with the 17th Congress of the Arab Federation of Clinical Biology (AFCB); 10th Annual Meeting of the Saudi Society for Clinical Chemistry (SSCC) and 8th International and United Arab Emirates (UAE) Genetic Disorders Conference in partnership with MZ Events held in Dubai World Trade Centre (WTC) from May 26 to May 30, 2024.

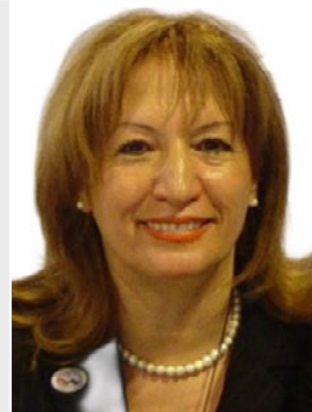
WorldLab Congress stands as a pinnacle event within the realm of laboratory medicine, bringing together scientists, researchers, clinicians, and experts from the In Vitro Diagnostics industry for a rewarding five-day experience of scientific exploration and education. The 3rd IFCC FORUM for Young Scientists and IFCC Council meeting are organized before the main Congress.

The Scientific Program Committee has prepared an exceptional, thought-provoking, and inspirational multidisciplinary program encompassing fundamental concepts, advanced diagnostics, and cutting-edge techniques in laboratory medicine. Esteemed international speakers and key opinion leaders will address various topics including healthcare, recent diagnostic technologies, scientific breakthroughs, and challenges.

Renowned for its comprehensive program, the congress features a dynamic array of plenary lectures, symposia, workshops, and poster presentations, covering a wide spectrum of subjects. It serves as a vital platform for collaboration, innovation, and exchange of cutting-edge knowledge within the field.

WorldLab 2024 serves as a platform to showcase the latest technologies and innovations in laboratory medicine and explore their potential applications in healthcare. This gathering fosters collaboration among researchers and clinicians, ultimately advancing patient care and outcomes. The Congress is accredited by the EFLM CPECS®, a quality assurance mechanism to provide Continuing Professional Development for participants.

My heartfelt thanks for In Vitro Diagnostic Sector, their continuous support and contribution have made possible the accomplishment of this Congress. The In Vitro Diagnostic (IVD) Sector plays a vital role in the Congress by organizing two essential activities. High-level Educational Workshops on important topics with eminent speakers presenting the latest scientific advances in all disciplines relevant to laboratory medicine. The IVD Sector also organizes a great exhibition, providing attendees with a prime opportunity to explore recent technological advancements, products, and services aimed at enhancing laboratory operations. These customized solutions address the specific requirements of clinical



Prof. Tomris Ozben
EuSpLM, Ph.D.

laboratories, ensuring attendees acquire valuable insights and access to state-of-the-art tools in the field.

The objective of this meeting is not only to contribute to the advancement of laboratory medicine and to the dissemination of advanced knowledge, but also to foster the creation of an opportunity to establish professional and scientific links/bridges among the participants.

I would like to extend our gratitude and thanks to all those who have made it possible for this congress to become a reality, especially I would like to thank all the eminent speakers, IVD industry representatives, and all the participants attending the Congress from different countries all around the world. I would like to thank the Professional Congress Organizer (MZ) for their efforts to organize the congress successfully. Fortunately, important sessions of the Congress and exhibition will be available for the colleagues unable to attend the Congress physically. So that the benefits of the Congress will be extended to scientists who did not have the opportunity to participate in the Congress.

I extend my heartfelt wishes to all participants for a delightful stay in Dubai, where the 26th WorldLab promises to be an unforgettable congress. It offers an extraordinary opportunity to engage with leading experts and scientists, enjoy an inspiring scientific program, explore the exhibition, and take part in networking and social activities. May your time here be both rewarding and worthwhile.

Prof. Dr Tomris Ozben, EuSpLM, Ph.D., Full Professor of Clinical Biochemistry

IFCC, President

WorldLab Dubai 2024, Congress President



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Sample position: 300
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IFCC at CACLP 2024 in Chongqing (China)

By **Khosrow Adeli (CA)**, IFCC Past President

The CACLP 2024 held this year in collaboration with IFCC in Chongqing, China from 12th to 17th March, was an excellent occasion that brought together leaders and innovators in the field of laboratory medicine and diagnostics. CACLP (Chinese Association of Clinical Laboratory Practice Expo) is the largest event in the field of IVD in China/worldwide, attended by over 40,000 laboratory professionals and over 1200 IVD manufacturers/exhibitors). As I reflect on my experiences during the conference, I am reminded of the profound impact that collaboration and strategic partnerships can have on advancing scientific research and industry progress.

Being part of such a prestigious event along with Professor Tomris Ozben (who participated virtually) was truly an honour. From attending sessions and engaging in discussions to visiting Ruijin Hospital and participating in strategic meetings, every moment represented a good opportunity to connect with colleagues and contribute to the global scientific community.

One of the highlights of the conference was the 9th China Experimental Medicine Conference (CEMC), where Professor Ozben and I had the privilege of delivering the welcome addresses and participating into the signing ceremony of collaboration agreements: it underscored the importance of interdisciplinary research and industry partnerships in driving innovation forward.

During my time at the conference, I had the pleasure of participating in an interview by CAIVD's media platform, where I had the opportunity to share insights and perspectives on experimental medicine. Additionally, attending the welcome dinner reception and emphasizing the significance of collaboration further reinforced the sense of shared purpose among attendees. We also signed mutually beneficial collaboration agreements between CACLP and IFCC to continue collaborating at future conferences held by IFCC and CACLP over the coming years. CACLP is also assisting to promote the upcoming IFCC WorldLab Congress in Dubai and will also participate together with several Chinese IVD industry leaders.

My presence at the opening ceremony of CACLP & CISCE 2024 was a moment for highlighting the importance of such events in advancing the field of laboratory medicine. It was an opportunity to celebrate achievements, share knowledge, and inspire future generations of scientists and innovators. Throughout the conference, Professor Ozben's video messages resonated with attendees, providing valuable insights into IFCC's objectives and initiatives. Likewise, my engagements, including VIP tours at Zybion Inc. and Snibe Co., Ltd., highlighted the importance of innovation in driving progress in the diagnostics sector.

The IFCC info booth served as a hub of information, attracting visitors and showcasing IFCC's commitment to advancing innovation and excellence in laboratory medicine worldwide. The 1st International Laboratory Medicine and In Vitro Diagnostics Forum closed with success and a sense of optimism about the future of our field.

In conclusion, my experiences at the IFCC x CACLP 2024 were not only professionally enriching but also personally rewarding. I am grateful for the opportunity to have been part of such an event and look forward to continuing to contribute to the advancement of laboratory medicine and diagnostics on a global scale.



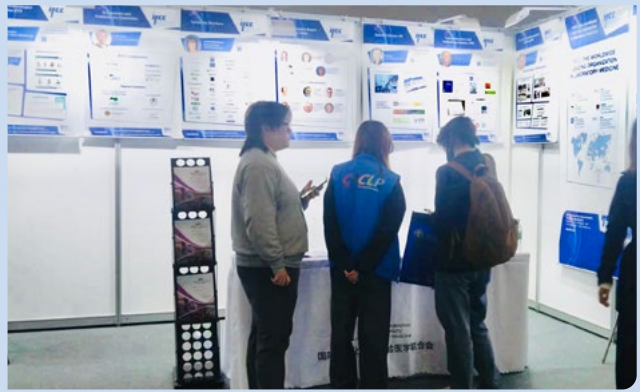
The Opening of the CACLP 2024, in Chongqing, China from 12th to 17th March



Prof Adeli, IFCC past President, during one of the sessions



Prof Ozben, IFCC President, participating virtually into the Congress



The IFCC booth at CACLP 2024

IFCC Distinguished Awards 2024

The IFCC announces the names of the winners of the six 2024 IFCC Distinguished Awards.

Milan, 18 April 2024 - The IFCC is pleased to announce the names of the winners of the six IFCC Distinguished Awards 2024. The IFCC Distinguished Awards are bestowed to laboratory medicine professionals to recognize their outstanding achievements, publicize their exceptional research and contributions to medicine and healthcare, and encourage the overall advancement of clinical chemistry and laboratory medicine.

Prof. Philippe Gillery (France) is the winner of the [2024 IFCC Howard Morris Distinguished Clinical Chemist Award \(since 2020\); IFCC Distinguished Clinical Chemist Award \(1967- 2017\)](#), sponsored by [Yashraj Biotechnology Ltd](#). This prestigious award recognizes specifically an individual who has made outstanding contributions to the science of Clinical Chemistry and Laboratory Medicine or the application of Clinical Chemistry to the understanding or the solution of medical problems. [Click here](#) to read more about Prof Gillery and the 2024 IFCC Howard Morris Distinguished Clinical Chemist Award.

Prof. Terho Lehtimäki (Finland), is the winner of the [2024 IFCC Award for Significant Contributions in Molecular Diagnostics](#), sponsored by [Abbott Molecular](#). This award recognizes specifically an individual who has made unique contributions to the promotion and understanding of molecular biology and its applications in Clinical Chemistry and Laboratory Medicine worldwide. [Click here](#) to read more about Prof Lehtimäki and the 2024 IFCC Award for Significant Contributions in Molecular Diagnostics.

Prof. Etienne Cavalier (Belgium), is the winner of the [2024 IFCC Distinguished Award for Laboratory Medicine and Patient Care](#), sponsored by [Snibe](#). This award recognizes specifically an individual who has made unique contributions in Laboratory Medicine, its application in improving patient care, and having a worldwide impact in clinical medicine. [Click here](#) to read more about Prof Cavalier and the 2024 IFCC Distinguished Award for Laboratory Medicine and Patient Care.

Prof. Allan Jaffe (United States), is the winner of the [2024 IFCC Distinguished Award for Contributions to Cardiovascular Diagnostics](#), sponsored by [Hytest](#). This award honours an individual who has undertaken remarkable scientific work with cardiac markers or immunodiagnostic applications to improve cardiac disease diagnosis. [Click here](#) to read more about Prof Jaffe and the 2024 IFCC Distinguished Award for Contributions to Cardiovascular Diagnostics.

Prof. Zhen Zhao (United States) is the winner of the [2024 IFCC Distinguished Women Scientist Award For Contribution to In Vitro Diagnostics](#), sponsored by [Yashraj Biotechnology Ltd](#). This award recognizes a woman who has made significant contributions to the development or utilization of In Vitro Diagnostics with emphasis on applications in primary healthcare. [Click here](#) to read more about Prof. Zhao and the 2024 IFCC Distinguished Women Scientist Award For Contribution to In Vitro Diagnostics.

Dr. David Barthelemy (France), is the winner of the [2024 IFCC-Gérard Siest Young Scientist Award for Distinguished Contributions in Pharmacogenetics](#), sponsored by [Biologie Prospective](#). This award recognizes an outstanding young investigator or young leader (under 40 years of age) for his/her contribution to advancing the scientific discipline of pharmacogenomics and Personalized/Precision Medicine and/or its impact on research, development, standardization, quality management, regulatory evaluation or utilization in therapy. [Click here](#) to read more about Dr. Barthelemy and the 2024 IFCC-Gérard Siest Young Scientist Award for Distinguished Contributions in Pharmacogenetics.

Prof. Khosrow Adeli, Chair IFCC Awards Committee, stated: "On behalf of the IFCC Awards Committee and the entire IFCC family, I extend my heartfelt congratulations to each and every one of the 2024 Awards winners. May this well-deserved recognition serve as a source of inspiration

and motivation as you continue your journey of contributing to science and education in the field of laboratory medicine. Your dedication, passion, and unwavering commitment to advancing scientific knowledge and innovation have truly set you apart as leaders in your respective fields. This well-deserved recognition not only celebrates your outstanding contributions but also underscores the profound impact of your work on the global scientific community. Your groundbreaking research and discoveries and/or your contribution to clinical laboratory service serve as a beacon of inspiration for future generations of scientists, paving the way for further advancements and breakthroughs. Through your tireless efforts, you have not only expanded the boundaries of human knowledge but also enriched our understanding of the world around us.. As you stand on this remarkable pinnacle of success, know that your achievements resonate far beyond the confines of academia. They serve as a testament to the power of collaboration, perseverance, and intellectual curiosity in driving meaningful change and shaping a brighter future for all."

Prof. Tomris Ozben, IFCC President, stated:" On behalf of the Executive Board of the IFCC, and as the IFCC President, I extend heartfelt congratulations to the recipients of the prestigious IFCC Distinguished Awards. I also wish to express our sincere gratitude to the IFCC societies for their invaluable efforts in nominating outstanding candidates. I extend our sincere gratitude to the sponsors of the IFCC Distinguished Awards".



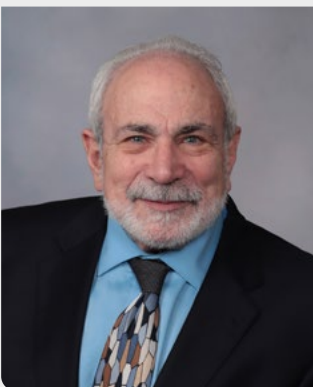
Philippe Gillery



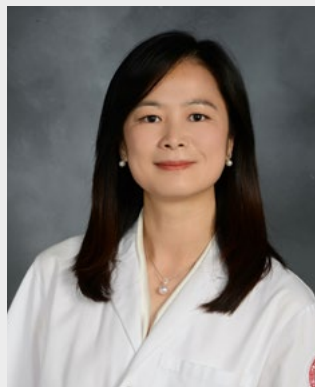
Terho Lehtimäki



Etienne Cavalier



Jaffe Allan



Zhen Zhao



David Barthelemy

Insights from the Professional Exchange Management Program (PMEP) at Hospital Universitario La Paz, Madrid, Spain

By **Dr. Muhammad Zubair**, Multan Institute of Kidney Diseases, Multan, Pakistan

Dr. Muhammad Zubair, Multan Institute of Kidney Diseases, Multan, Pakistan

Participating in the International Federation of Clinical Chemistry and Laboratory Medicine's (IFCC) Professional Management Exchange Program (PMEP) provided a valuable opportunity for a month-long exchange at Hospital Universitario La Paz's Department of Laboratory Medicine in Madrid, Spain. Under the guidance of Dr. Pilar Fernandez-Calle, the Quality Director, I gained a thorough understanding of managing POCT networks, including key performance indicators (pre-examination, examination, post-examination), staff training and competency, quality control (internal and external), introducing new POCT instruments (including the POCT committee's functions), and method verification for POCT instruments. I actively participated in departmental meetings, discussing KPIs, and implementing corrective and preventive actions.

The program significantly enriched my professional development. I participated in journal clubs, discussions on advanced topics like biological variation and data mining, and received valuable guidance on implementing the latest ISO 15189:2022 standards. The welcoming and knowledgeable team fostered a collaborative environment, making this experience even more rewarding.

My time at Hospital Universitario La Paz was invaluable. I gained insights into advanced laboratory practices, quality management, and international accreditation standards. I am deeply grateful to the IFCC, the Pakistan Society of Chemical Pathology (especially its president, Dr. Adnan Mustafa Zubairi), and the entire team at Hospital Universitario La Paz, particularly Dr. Antonio Buño Soto (Head of Department) and Dr. Pilar Fernandez-Calle, whose guidance in quality management and POCT was instrumental.

This exchange program not only enhanced my professional skills but also fostered international collaboration and friendships. I am enthusiastic about using this newfound knowledge to improve laboratory practices and contribute to continuous healthcare improvement at my home institution.



Muhammad Zubair with POCT & Quality Section team members

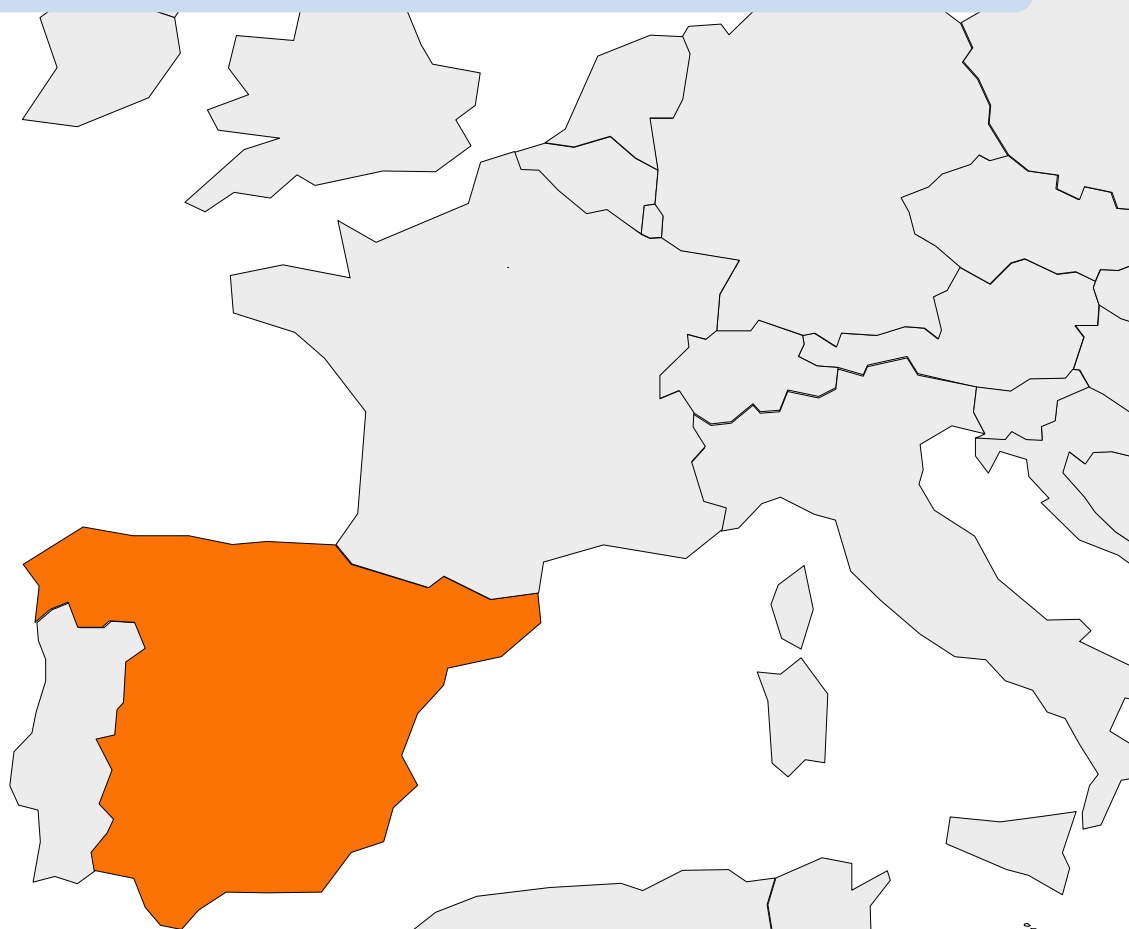


Muhammad Zubair and Dr. Pilar Fernández-Calle

Insights from the Professional Exchange Management Program (PMEP) at Hospital Universitario La Paz, Madrid, Spain



Muhammad Zubair with faculty members of POCT & Quality Department



IFCC: the people

Welcome and thanks to the Chairs

The IFCC extends a warm welcome to the new Chairs of its functional units while expressing gratitude to those who have concluded their tenure in office.

We present here the third group of IFCC Chairs who began their time in office in 2024.

Task Force on Global eLearning/eAcademy (TF-GEL)

Welcome to the new Coordinator for the Asia-Pacific Region, **Dr Tze Ping Loh** (SG) and thanks for his commitment to **Dr Rojeet Shrestha** (NP), who coordinated the IFCC webinars into the region until December 2023 and continues his work as member of the Committee on Internet and Digital Communications (C-IDC).

Tze Ping Loh was born in Penang, Malaysia. He obtained his undergraduate medical degree from the Royal College of Surgeons in Ireland-Penang Medical College, and undertook his fellowship (Royal College of Pathologists, UK) training in chemical pathology at the National University Hospital, Singapore. He currently serves as Senior Consultant and Research Director at Department of Laboratory Medicine, National University Hospital, Singapore. His areas of interest include biomarker discovery and translational research, outcome research of established/ novel biomarker, paediatric general biochemistry and laboratory management.



Dr. Tze Pin Loh, new Coordinator for the Asia-Pacific Region within the Task Force on Global eLearning/eAcademy (TF-GEL)



Dr. Rojeet Shrestha, Coordinator for the Asia-Pacific Region within the Task Force on Global eLearning/eAcademy (TF-GEL) since 2020.

Committee on Public Relations (C-PR)

Welcome to the new Chair of the Committee on Public Relations (C-PR), **Dr María Pasquel-Moxley** (EC) and thanks for his commitment to **Prof Rajiv Erasmus** (ZA), who led the Committee until December 2023 and is now the AFCC Regional Federation Representative on the IFCC Executive Board.

María Pasquel-Moxley has a Professional Degree in Pharmaceutical Biochemistry, an Academic Degree of Dr. in Biochemistry and Pharmacy, Diploma in Hematology from the Central University of Ecuador (UCE), she has diplomas in: Internal Audit ISO 9001: 2015, diploma in ISO 31000: 2018

Risk Management, and Diploma in Integrated Management Systems from the European School of Excellence, she has a professional certification as a Trainer of Trainers. Within the IFCC she is Past Chair and current member of the WG-IANT/RIA, Member for Ecuador RIA/CPD-IFCC, Past Director and current member of the Editorial Board of the electronic journal *Diagnostico In Vitro* DIV/IFCC, guest Editor of the eJournal of the IFCC.

She is also International Editor of the magazine “Laboratorio Clínico” of Spain and member of the Technical Committee for clinical laboratories with ISO 15189 Standard, of the Ecuadorian Accreditation Service (SAE) 2010-2023.

Consultant and Speaker in Quality Assurance in the Clinical Laboratory and Risk Management for Consulting and Training in Ecuador (CONCAPEC) and CEA. María Pasquel-Moxley was Assistant Professor of Biochemistry with duties in the Research Department of the Faculty of Chemical Sciences, Central University of Ecuador (1985-1989). ISO Quality Management Systems Consultant :15189, 17025, 9001 since 2010. General Manager of the Center for Specialized Analysis (CEA), since 1989. She has collaborated as a tutor in the COLABIOCLI / OPS online Courses referring to Quality Management and Good Laboratory Practices with Standard 15189; she was president of the Organizing Committee of the XXII Congress COLABIOCLI 2015 and President of the Organizing Committee of more than 60 scientific events in Ecuador, and internationally, she is a speaker at national and international events in congresses, workshops and symposiums live and online.



*Dr María Pasquel-Moxley, new
Chair of the Committee on
Public Relations (C-PR)*



*Prof Rajiv Erasmus, who
chaired the Committee until
December 2023, now IFCC
Executive Board member*

Task Force on Global Newborn Screening (TF-NBS)

Welcome to the new Co-Chair of the Task Force on Global Newborn Screening (TF-NBS), **Dr. Aysha Habib (PK)** and thanks for his commitment to **Dr. Van Leung-Pineda (US)**, who co-chaired the Task force until December 2023.

Aysha Habib Khan is a distinguished leader in the field of metabolic medicine, both nationally and internationally. Currently serving as an executive council member of the International Society of Newborn Screening (ISNS), she also holds the esteemed position of Co-chair for the IFCC & ISNS Task Force on Global Newborn Screening. Additionally, her role as an Academic Council member in SSIEM underscores her commitment to academic excellence in her field. In her capacity as Vice President of the Pakistan Society of Chemical Pathology (PSCP), Dr. Khan has been instrumental in shaping the landscape of metabolic medicine in Pakistan. Her leadership extends beyond administrative roles; she has played a pivotal role in mentoring the Pakistan Inherited Metabolic Disorders Network (Pak-IMD-Net) and initiated the “EK Sath” initiative, dedicated to educating and supporting patients

and families affected by rare diseases. Dr. Khan's expertise is further evidenced by her leadership in research groups focused on Bone & Mineral Diseases, as well as her role as an executive council member of the Asia Pacific Consortium on Osteoporosis and as Founding President of the Fragility Fracture Network, Pakistan. Her contributions to these organizations reflect her commitment to advancing knowledge and improving patient care on a global scale.

At Aga Khan University, Dr. Khan serves as the Haiderali R Charania Professor of Chemical Pathology, where she has pioneered new sub-specialties within the field, including metabolic bone diseases, biochemical genetics, newborn screening, and point-of-care testing programs. Notably, her establishment of the Biochemical Genetics Laboratory (BGL) at AKUH marked a significant milestone, introducing omics technology and advanced diagnostic tests for Inherited Metabolic Disorders (IMD) for the first time. Dr. Khan's ongoing efforts include expanding the capabilities of BGL and spearheading a newborn screening program for congenital disorders nationally and internationally. Her dedication to advancing research and clinical practice has earned her recognition as a leading pathologist and researcher, particularly in the fields of metabolic bone diseases and inborn errors of metabolism. Beyond her institutional affiliations, Dr. Aysha Habib Khan's contributions have transcended boundaries, garnering respect, and value for her work beyond the confines of AKU. She continues to be a driving force in the advancement of metabolic medicine, both locally and globally.



*Dr Aysha Habib, new Co-Chair
of the Task Force on Global
Newborn Screening (TF-NBS)*



*Dr Van Leung-Pineda, Co-Chair
of the Task Force on Global
Newborn Screening (TF-NBS)
until December 2023*

Working Group on Immunosuppressive Drugs (WG-ID)

Welcome to the new Chair of the Working Group on Immunosuppressive Drugs (WG-ID), **Dr. Caroline Stobe (DE)** and thanks for his commitment to **Dr Christoph Seger (CH)** who was the Chair until December 2023.

Caroline Stobe received her degree in chemistry at the University of Bonn in Germany in 2016. Afterwards she worked in the field of program management, quality assurance and digitalization of academic teaching for the Department of Chemistry at the University of Bonn.

In 2020, she joined the German EQA provider Reference Institute for Bioanalytics (RfB) as head of its calibration laboratory in Cologne. Her ISO 17025 and ISO 15195 accredited laboratory mainly focuses on the development and application of reference measurement procedures for measurands in laboratory medicine. It is listed as reference measurement service for several measurands in the database of the Joint Committee for Traceability in Laboratory Medicine (JCTLM) and has been a member of the IFCC Network for Standardization of HbA1c since 2017.

In order to foster standardization and quality in laboratory medicine, Caroline Stobe engages in national and international societies, committees and research initiatives, e. g. DGKL, JCTLM, EMN-TLM or the EURAMET project 23IND02 COMET.



*Dr Caroline Stobe, new Chair
of the Working Group on
Immunosuppressive Drugs
(WG-ID)*

Committee on Traceability in Laboratory Medicine (C-TLM)

Welcome to the new Chair of the Committee on Traceability in Laboratory Medicine (C-TLM), **Dr Denis Grote-Koska (DE)**, and thanks for her commitment to **Dr Anja Kessler (DE)** who was the Chair until December 2023 and will continue serving in the committee as consultant.



*Dr Anja Kessler, Chair of the
Committee on Traceability in
Laboratory Medicine (C-TLM),
until December 2023.*

Scientific Division Secretary

Welcome to the new Secretary of the Scientific Division (SD), **Dr. Saara Wittfooth (FI)** and thanks to **dr Garry John (UK)** for his commitment in the past term, until December 2023.

Dr. Saara Wittfooth is Assistant Professor of Biotechnology at the Department of Life Technologies, the University of Turku, Finland. She is the leader of the cardiovascular disease diagnostics research of the Department. She received her PhD in molecular biotechnology and diagnostics in 2009. In

2017 she conducted research at Boston Children's Hospital as a visiting Fulbright Senior Scholar. Her research activities are related to the development of highly sensitive immunoassays for biomarkers of various diseases and nucleic acid tests for pathogen detection. In the focus of her research interests are novel cardiac biomarkers, such as long forms of cardiac troponin T, free PAPP-A and cardiac troponin autoantibodies / macrotroponin, and special immunoassays for the detection of these molecules. In 2019 she received the EFLM Cardiac Marker Award for remarkable scientific work in the field of cardiovascular diseases.

She has previously served IFCC as the Chair of the IFCC Working Group on Standardization of PAPP-A. Currently she is involved in the IFCC Committee of Clinical Applications of Cardiac Bio-Markers and the IFCC Committee of Traceability in Laboratory Medicine. She has published over 30 publications in peer reviewed scientific journals, has given more than 30 oral and poster presentations in international congresses and has been listed as an inventor in 2 IVD-related patent applications. She was a member of the Scientific Programme Committee and a session Chair for EuroMedLab Munich 2021. She has acted as the Principal Investigator and Scientific Coordinator for the EU FP7 ACUSEP project and as a Management Committee Member for EU COST action CliniMark. She has served as a funding applicant reviewer for Wellcome Trust. She is also a reviewer for several peer-reviewed journals such as Clinical Chemistry, Clinical Chemistry and Laboratory Medicine, Clinical Biochemistry, Biomolecular Detection and Quantification, Scandinavian Journal of Clinical & Laboratory Investigation. She has been invited as a speaker in many national and international meetings and conferences such as AACC annual meeting 2006, IFCC WorldLab 2017 Durban, IFCC-EFLM EuroMedLab 2009 Amsterdam and 2021 Munich, LabMed 2004 Malmö and 2008 Helsinki.



*Dr Saara Wittfooth, new
Secretary of the Scientific
Division (SD)*



*Dr Garry John, Secretary of
the IFCC Scientific Division (SD)
until December 2023.*

IFCC Calls for Nominations

Participate into IFCC activities and give your contribution! Review the open positions and, if interested, contact your National or Corporate Representative. Currently following call for nomination is open:

Committee and Publications Division (CPD)

Extended deadline

- [Committee on Internet and Digital Communications \(C-IDC\)](#) - web editor position

Please send C-IDC nominations to colli-lanzi@ifcc.org by 31st May 2024



IFCC: the Young Scientists



EXCELLENCE IN LABORATORY PRACTICE : THE FUTURE OF AFRICA

The African Young Scientist at the EgyLab Forum and Africa Federation of Clinical Chemistry and Laboratory Medicine Conference in Cairo, Egypt (28 – 29 February 2024)

By r Dipuo Motshwari, AFCC YS Forum Chair, South Africa



African Young Scientist at the EgyLab Forum and Africa Federation of Clinical Chemistry and Laboratory Medicine Conference in Cairo, Egypt (28 – 29 February 2024).

Dr Dipuo Motshwari (AFCC YS Forum Chairperson), South Africa.

I would like to take this opportunity to express my heartfelt gratitude for the opportunity to attend the EglyLab Forum and Africa Federation of Clinical Chemistry and Laboratory Medicine (AFCC) Conference that took place in Cairo, Egypt (28 – 29 February 2024). I would like to commend the organizing committee, particularly Prof. Rajiv Erasmus, Prof. Rania Elshrkawy, Dr Mabel Charles-Davies and Dr. Mohamed Basiouny, for orchestrating a highly successful conference. The scientific program was exceptional, providing access to a network of esteemed laboratory medicine experts from across Africa, each offering unique perspectives and experiences.

A notable highlight of the conference was the inaugural AFCC Young Scientist (YS) Forum. I extend my gratitude to the dedicated team behind this initiative, including myself as the chairperson of the AFCC YS Forum, Dr. Rami Assaad Khalil as the representative for YS in Egypt, and Dr. Ashlin Rampul, a mentor and the first-ever representative for AFCC YS and a member of the IFCC YS Task Force. This forum granted me an opportunity to give a talk highlighting our unique challenges hindering scientific progress and capacity development in Africa. It also provided a platform to network and engage with fellow YS on meaningful discussions whilst exchanging ideas regarding the future of laboratory medicine and clinical chemistry in our continent. The connections forged during this event have not only expanded my professional network but also opened doors for potential collaborations and personal growth. Serving as the chairperson for the AFCC YS was a profound honor and privilege, and I am deeply grateful for the opportunity. I extend my sincere gratitude to Abbott for their sponsorship of young scientists' participation in this conference. Their support will undoubtedly empower African young scientists to contribute meaningfully to the advancement of laboratory medicine in our region.

Lastly, I am grateful for the opportunity to explore Cairo, a vibrant metropolis with a rich history spanning thousands of years, situated on the banks of the majestic Nile River. The experience was truly unforgettable!!!



Dr. Rami Assaad Khalil (MD, PhD, MRCP(UK), Member of IFCC C-EBLM, Egypt.

I am glad to have participated in the prestigious scientific conference of AFCC and Eglylab. It was a successfully organized international conference, rich in the marked multiplicity of participating nationalities and diversity of subspecialty topics. In addition, it was a great pleasure that the first AFCC – Young Scientists Forum has been born in this conference, in my country Egypt at the bank of the glorious Nile River, as a fruit of cooperation of multinational African young scientists (YS), offering a hope for a promising future of collaboration between Africa YS in the field of research, scientific activities, experience exchange and networking.

I really enjoyed all the talks presented by my colleagues in the YS-Forum. As a member of IFCC

C-EBLM, I presented the topic of Evidence-Based Laboratory Medicine: A demand needed from young scientists. In my talk I delivered the invitation for YS to firstly gain EBLM concepts and attitude, as well as to participate in the synthesis of evidence and lastly – though most importantly – to implement evidence in their clinical laboratory practice. I encouraged all audience to benefit from the published review article authored by IFCC, C-EBLM: A guide to conducting systematic reviews of clinical laboratory tests. I also notified about C-EBLM conducted survey, encouraging the active participation and the widespread among laboratory professionals in the different countries.

I would like to thank all contributing members from IFCC, AFCC, Eglylab and Abbott – who provided the opportunity, by their efforts, support and sponsorship for the achievement and success of this valuable gathering.



Dr. Svitsai Chagonda, Zimbabwe.

I arrived in Cairo in the early hours of the morning and only managed to get a few hours of sleep, I expected the first day of the congress to be long and exhausting, however this was not the case. Upon arrival I was greeted by a friendly welcome team as I received my conference badge and the program. Shortly after, I started to meet many people whom I had only ever communicated with via phone and email. This was a joyous experience for me. Meeting the professors was such an honour, getting to have conversations with people whose work I have cited was an unparalleled experience. It was lovely to meet my fellow young scientists, we instantly got along. We began to have in depth conversations about the work we are doing and how we could potentially collaborate.

After the congress began the sessions were well planned and the talks in each session were complementary. I learnt new things I also had old concepts reexplained in very comprehensive ways giving me a new perspective on how to tackle laboratory issues. I enjoyed hearing about what is taking place in other parts of the continent, and how to improve the laboratories we work in.

This was the first international congress I was to present at, naturally I was very nervous before my presentation. Watching other present their work so passionately, was an inspiration and allowed me to be more at ease before my presentation. My presentation went well without any technical hiccups. After the session, I stepped out to go to the bathroom and one of my new friends sent me a message to quickly come back. To my surprise I had been given an award for the young scientist best presentation. I was stunned, I could not believe that I had been given such an honour. It was lovely to be congratulated by my role models including Professor Rajiv Erasmus and Dr Mabel Charles-Davis. As I went back to my seat I choked back tears of joy, I was overwhelmed by the award and so grateful for the opportunity to have been there. As this was my first international congress this was also my first international award, for which I feel greatly honoured.

I enjoyed the Eglylabs Forum AFCC Congress and would recommend such a congress to anyone who wants to learn from their peers in a meaningful way.



Dr Cecil Jack Weale, South Africa.

I had the opportunity to participate in the Young Scientists' Forum of the 3rd Annual International Forum of The Supreme Council of University Hospitals (Eglylab) in Collaboration with Africa Federation of Clinical Chemistry (AFCC), which took place from 28 – 29 February, in Cairo, Egypt. The conference, is a regionally meeting of high acclaim within the clinical chemistry realm, boasting an overarching theme centred on “Excellence in Laboratory Practice: The Future of Africa”.

I am extremely thankful to Abbott for their support through a travel grant – this assisted greatly in contributing towards the travel expenses, allowing me to attend this gathering of acclaimed clinical biochemist researchers, and present my research findings, in the form of an oral presentation entitled “Exploring the diagnostic capabilities of altered miR-486-5p and miR-novel-chr1_40444 expression patterns in distinguishing prediabetes and T2DM in South Africans”.

The scientific programme of the conference boasted a wide array of thought-provoking sessions. I found several sessions particularly compelling, such as the “AI and Digital Transformation” session, of which I was particularly struck by the talk given by Professor Heba El Baz, entitled “Evidence based application of artificial intelligence in laboratory medicine”. In addition, other sessions aligned well with the theme of laboratory medicine in the era technology, and were especially impactful. These included the “Future of laboratory medicine” session, where I found the presentation by Dr. Ashlin Rampul “Robotics and automation” truly impressive, as well as the “Point-of-care testing symposium”, of which the talks by Professor Adil Khan “Leveraging artificial intelligence in point-of-care testing” and Professor Zemlin’s lecture entitled “Comparing laboratory POCT HbA1c for the monitoring and diagnosis of diabetes mellitus – what is the evidence”, of which both were truly stimulating.

The Young Scientists' Forum took place on the second official day of the congress (29th of February 2024) – a meeting which involved very stimulating and inspiring talks from young researchers from across the continent. This forum laid the foundation for early-career scientists, such as myself, to interact with other emerging researchers in my niche, forging relationships and discussing potential collaborations. This gathering also provided the platform for the initiation of the very first AFCC Young Scientist Task Force, which is to be headed by the distinguished Dr. Dipuo Motshwari – a fellow colleague of mine, at the SAMRC/CPUT Cardiometabolic Health Research Unit, in Cape Town,



South Africa. It was refreshing to bear witness to the cutting-edge research being carried out in our continent, as well as exchange ideas with other next-generation scientists on novel techniques for improved risk stratification, diagnosis and management of disease in our unique African landscape.

In summary, participating in such a distinguished scientific gathering such as the 3rd Annual International Forum of The Supreme Council of University Hospitals (EgyLab) in Collaboration with Africa Federation of Clinical Chemistry (AFCC) 2024 afforded me the opportunity to immerse myself within the network of leading African researchers within my field, as well as fellow emerging researchers, forging relationships with these esteemed individuals from all over Africa. I had the oppo Scientists' Forum of the 3rd Annual International Forum of The Supreme Council of University Hospitals (EgyLab) in Collaboration with Africa Federation of Clinical Chemistry (AFCC), which took place from 28 – 29 February, in Cairo, Egypt. The conference, is a regionally meeting of high acclaim within the clinical chemistry realm, boasting an overarching theme centred on “Excellence in Laboratory Practice: The Future of Africa”.

Mr. Franco Jordan Kandama, Zambia.

The conference was Held in Cairo Egypt from 28-29th Feb, 2024 @Sofitel Cairo Nile El Gezirah Hotel – Egypt under the theme of the scientific program “**Excellence of Laboratory Medicine: The Future of Africa**” The EgyLab Forum 2024 focus was on Clinical Chemistry, Microbiology, Clinical Pathology, Diagnostic Hematology based on newly advanced interventions & technology, artificial intelligence, and telemedicine. The conference venue was really well organized for international level conference and was in an appropriate place and proper atmosphere.

Generally, despite the time that was limited, within two days schedules the conference organized a total of 21 sessions that had power and well-articulated presentation. The 85 different senior speakers from different African countries including Young Scientists presented their magnificent works and advancements in Lab Digitization and Artificial Intelligence in advancing quality laboratory services. The theme made a lot of impact as African Young Scientists were incorporated to present and share on the future of Africa in Laboratory practice.

I gained a lot of knowledge, experience, and insights on a number of lessons such as Green Sustainable Lab and many more that were shared. The conference was really an ideal platform for African countries to present research results, advancement in technologies i.e., Artificial Intelligence (AI), Green and Sustainable Laboratory, Data management, Quality assurance and many other topics that cut across laboratory practice and its future.

Socially, the EgyLab forum 2024 platform provided me with a valuable learning, sharing and collaboration for the future of Laboratory practice in African especially amongst the Young

Scientists. For instance, it was an excellent opportunity to gather, interact and exchange findings and views during conference sessions, coffee breaks and conference lunch. Consequently, I have known several researchers, Young Scientists, Professors, and professionals from different African countries and beyond who have similar research interests and vision in advancing Laboratory medicine. It was a good platform to learn from senior scientist and junior scientist.

My sincere gratitude to AFCC and IFCC for enabling you to attend the conference and represent Zambia. I would like to thank Africa Federation of Clinical Chemistry (AFCC) and IFCC through Prof Erasmus and Dr. Mable Davies-AFCC President and the entire AFCC team for facilitating my travel Grant to attend the conference. And I also thank my local society the Biomedical Society of Zambia through the President Mutale Mubanga for the support.

I do understand there are always challenges in attending events of such magnitude, but all was few challenges that everyone going to a new place for the first time would experience which are manageable.

I presented on the Prevalence of Anemia in adult Diabetic Patients under Research-AFCC Travel Grant Awardees. During my presentation I highlighted on a number of important directions to take in fighting against Non-Communicable Diseases in the Africa and beyond and the much-needed investment in research in NCDs.



Dr Shanel Raghubeer, South Africa.

The 7th AFCC Regional Congress and 3rd EglyLabs Forum in Cairo, Egypt, stands out as a transformative and enriching experience, transcending the boundaries of conventional scientific gatherings. As a participant, I had the privilege of immersing myself in a world of cutting-edge research, fostering connections with esteemed scientists and emerging talents, and contributing to the discourse on crucial health issues. Delivering my talk, titled “Apolipoprotein and low-density lipoprotein receptors in cardiovascular diseases and Alzheimer’s disease: African Evidence” was a highlight of my experience.

The scientific offerings at the congress were excellent, reflecting the dedication and expertise of researchers from across the African continent. The diverse range of topics showcased the richness of the scientific landscape in Africa. Engaging in discussions and attending various sessions allowed for a holistic view of the advancements in different fields, contributing to a more comprehensive understanding of the challenges and opportunities facing our region. One of the most rewarding aspects of the congress was the opportunity to network with both established researchers and young scientists. The inclusive environment fostered meaningful connections and collaborations, transcending the boundaries of disciplines and institutions. Engaging in conversations with fellow attendees provided valuable insights, different perspectives, and potential avenues for future

collaborative research initiatives. The inclusion of a dedicated Young Scientists Forum was an inspired initiative, creating a platform for emerging talents to showcase their work and interact with established researchers. As a participant in the inaugural Young Scientists Forum at an AFCC congress, I felt a profound sense of honour and responsibility. This initiative not only encourages young scientists, but also reinforces the importance of mentorship and knowledge transfer, paving the way for a vibrant future in African research.

Beyond the scientific realm, the congress provided a unique opportunity to immerse myself in the rich cultural heritage of Egypt. Visiting the pyramids was a surreal experience, adding an extra layer of depth to the overall journey. The blend of academic and cultural exploration contributed to a more holistic understanding of the host country and its contributions to the global scientific community. The scientific excellence, networking opportunities, and cultural enrichment collectively contributed to a unique and valuable experience. As we reflect on this congress, it is evident that such gatherings are essential not only for advancing scientific knowledge but also for fostering collaboration, mentorship, and a sense of community among researchers across Africa. I am truly grateful to the conference organizers for their visionary approach and feel privileged to have been a part of this remarkable event.



Dr. Sherif Elsharkawi, MD. PhD, Egypt.

I would like to thank the organizing committee of EGYLAB conference and AFCC for such prestigious conference.

Allow me to be more objective:

Conference venue: Sofitel hotel is a classic hotel with a great heritage in the center of Cairo with nice scenery and beside many nice as well as important establishments. Besides, the hotel and conference theatres were very well equipped, and the registration process was very organized.

Topics: Scientific topics are much updated. It satisfies all tastes of clinical chemistry bringing the basics, reviews, advances, cases, quality, routine as well as molecular aspects of clinical chemistry. Another issue is that parallel running of sessions indicates the conference was full of scientific loads. Despite putting one into dilemma of choosing between two equally interesting objects, it indicates that all sessions are being informative, relevant, and joyful.

Collaboration opportunities: The conference stressed the objectives of cooperation and emphasized a good spirit that we all hope to continue.

Encouragement: The committee allowed young scientists and researchers to talk, gave them malleability regarding choosing the topic and gave constructive encouragements and feedback.

I was honored by Dr Ramy Samir's trust, Prof. Rania and Dr Bassyouny's encouragement, Dr. Ashlin's support, and Prof. Rajiv's kind words and feedback. I was extremely delighted by the whole positive spirit that I never felt before in any conference. Finally, this conference, for me, is a long-lasting beautiful memory that I look forward to be repeated. Thanks for everyone who brought all this science, encouragement and also joy to our experience.



Dr Don M Matshazi, South Africa.

I cannot put into words just how grateful I am to the African Federation of Clinical Chemistry (AFCC) and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), Prof. Rajiv Erasmus and Dr M. Charles-Davies for the critical role they played in ensuring my presence at the 7th AFCC Regional Congress and 3rd Eglylabs Forum. When I received confirmation that my travel scholarship application was successful, I could not contain my joy, as this meant I would finally make my debut trip to Egypt. But more than anything, I was excited for the opportunity to interact with young researchers from all over the world, as well as leading scientists whose talks I was looking forward to. The 7th AFCC Regional Congress and 3rd Eglylabs Forum held at the Sofitel Cairo Nile El Gezirah Hotel provided an important platform for upcoming and seasoned professionals in the field of Clinical Chemistry and Laboratory Medicine to exchange knowledge and discuss ways on addressing challenge and improving healthcare diagnostics and research on the African continent. What stood out for me was the session on “New-born Screening in Developing Countries” and the impressive work that healthcare professionals in Egypt have done to facilitate this critical need. Africa is currently being ravaged by infant and child mortality as well as a substantial number of chronic diseases, and new-born screening endeavours allow for risk assessment and the implementation of corrective measures for better health outcomes. This was in line with the theme of my talk at the conference, which was encouraging African scientists and laboratory professionals to take a preventative approach instead of a curative one, by leveraging genetic testing to identify individuals at higher risk of cardiovascular and cardiometabolic diseases (CVD, CMD), and promptly diagnosing and correctly treating them for improved health outcomes, to reduce the CMD/CVD burden. Also worth noting at the congress was the hosting of the inaugural AFCC Young Scientists' Forum, where presentations of impressive scientific rigour were delivered by laboratory professionals and clinicians from the Cape to Cairo, and everyone in-between.

Overall, the conference allowed us to share our laboratory and research experiences, discuss the latest developments in clinical chemistry and laboratory medicine and forge partnerships for future collaborative efforts. It is my hope that such an event is not a once-off, but rather the beginning of many similar forums to facilitate ongoing professional development and collaboration among African scientists, so that in the end, African problems are solved by people of the African continent.



Ms. Shameem Buleya, Malawi.

The 7th The African Federation of Clinical Chemistry (AFCC) regional congress was a combined activity with the forum of Egyptian laboratories held for the 3rd time in Egypt. This was an activity facilitated by IFCC and AFCC leadership i.e. Prof. R. Erasmus, DR M. Charles Davies, Prof.R.Sharkawy among others held on 27th and 28th of February 2024 in Egypt, Cairo. It included several symposia in the field of Clinical Chemistry, Haematology, Virology, Genetics, Medical Microbiology, Clinical Medicine, Pharmacy and Biomedical Engineering.

My experience at the Congress and in Egypt was immensely enjoyable. The cultural richness of Egypt, its historical landmarks, and warm hospitality left a lasting impression. Exploring the river Nile while attending the conference providing a calming environment. Interacting with fellow attendees and experiencing the vibrant atmosphere of Cairo added a unique dimension to the overall experience.

The Congress itself was a treasure trove of knowledge. Engaging discussions, insightful presentations, and the opportunity to network with experts in the field were highlights. The diversity of perspectives and research showcased at the Congress enhanced my understanding of the global landscape and fellow African countries are advanced in taking diagnostic technology to the next level. The incorporation of AI in medical laboratories is one key area that left me inspired to upgrade myself to the current advancement.

The food breaks provided networking opportunities and social platforms to connect with professionals from diverse backgrounds. These interactions facilitated the exchange of ideas, experiences, and the establishment of meaningful professional relationships. Engaging in informal discussions allowed for a more nuanced understanding of the challenges and opportunities faced by representatives in different countries.

Interacting with both junior and senior attendees was enlightening. Engaging with junior professionals offered a fresh perspective on emerging trends and innovative approaches. On the other hand, discussions with senior attendees provided valuable insights into the historical context of IFCC and the challenges faced over the years. The mentorship opportunities that arose from these interactions were particularly enriching. I can safely attest that I am not at the same level as before. I am motivated to learn more.

Attending the Congress presented a few challenges that required navigation and adaptation. Firstly, language differences posed a barrier during some technical sessions and discussions. While English was the primary language, accents and colloquial expressions occasionally made it challenging to grasp the full context. Additionally, the guide was somehow minimal, looking for cheaper accommodation, dinner and general services was challenging. it would have been better if hotel

recommendations close to the venue were done prior to the activity.

Another notable challenge was the vast amount of information presented. It was at times overwhelming to process and absorb the extensive research findings and advancements in the field. Managing time efficiently and selecting the most relevant sessions for my professional growth became crucial, it became known that 2 days were minimal to the content that was planned.

I express my sincere gratitude to the AFCC and IFCC for enabling my attendance at the conference. Their support made it possible for me to participate in this enriching experience, contributing significantly to my professional development. The commitment of the organising team to advancing knowledge and fostering collaboration within the field is commendable. Attending the conference has exposed me to Cutting-Edge Research. I have learnt about the latest developments, trends, and breakthroughs in fellow African labs.

This platform has enhanced my professional capabilities and helped build network with professionals and potential employers that can lead to job opportunities and career growth. I have gained insights into different perspectives and practices.

I commend this initiative and hope that it extends to fellow laboratorians in the African continent especially the Low Middle-Income-Countries for most topics discussed were rather motivational.

I presented on characteristics and Mortality of HIV patients starting in the era of routine screening for advanced HIV disease at Lighthouse Trust, Lilongwe.



Dr. Kyrollos Fares, Egypt.

I had the honor and the privilege to be able to participate in this highly prestigious event with the collaboration of the AFCC; the EGYLAB 3rd forum. I had a very rich and educative learning experience both on the educational and personal level. Being able to meet and dialogue with this many scientists in one place to share and enrich knowledge and experience is rare. I had the opportunity to participate in the young scientist session. I learned a lot and being able to see this many young researchers giving their best was the perfect motivation for improvement and to strive for the best. Looking forward to the many projects offered during the event and to the active participation in them.



Mr. Kiptim Kibet Peter, Kenya.

First and foremost, I wish to thank the organizers of the AFCC conference in conjunction with Eglylabs forum for giving me an opportunity to be part of the conference through their invitation to be one of the speakers at the conference. It was a great honor to share the podium with our seniors and expert in the field to share with others on the scientific work we are involved in in our countries, I am forever indebted.

For the first time in the history of AFCC we the young scientist from Africa were honored to be part of the main program of the conference. We were given an opportunity to share our work connect with one another and share our aspirations in this profession and embrace all that comes with. This is a true reflection as to the fact that the future is bright for young scientist in Africa. This marks the beginning of more as the young scientist officially become part of the AFCC committees.

It was exciting to learn that Africa federation of laboratory medicine (AFLM) was ready and will continue to work very closely with AFCC to ensure that the practice of laboratory medicine in Africa is strengthened by adopting the tested approaches to achieve minimum standards to be achieved by all laboratories to enhance the quality of laboratory services. As it was rightfully put this will help in reducing duplication and increase effectivity.

For me this was a successful event that I was able to interact and engage with experts in the field and I was able to pick several interesting topics we discussed at the conference to match the theme. The presentation by the IFCC person Prof. Tomris Osben on the Green labs project was very informative and guides us to reevaluate on our day-to-day laboratory processes to cut on wastages of the resources and in turn protect the environment. Non-communicable diseases majorly cardiovascular and diabetes were extensively discussed during the conference and it this helped me to learn more on diagnosis, management, and areas of research focus in these diseases for better diagnosis and management.

I was also privileged to be part of the AFCC POCT committee members to have a meeting with Prof. Adil Khan, chair of the IFCC POCT committee, we had an engaging discussion on the modalities of harmonizing POCT practices in Africa with the help of IFCC committee.

This conference was a huge success, the scientific program was excellent, the hospitality was great, I got an opportunity to connect my fellows and make new connections. Congratulations and a huge thank you for the organizers for this amazing opportunity and conference.



Dr Noha Adel El-Banna, Egypt.

I sincerely thank the organizing committee for inviting me to speak at 3rd Annual International Laboratory Quality and Accreditation Forum. I truly appreciate the opportunity and your consideration. I have enjoyed the scientific program and the speakers' discussions. I am proud that the first AFCC – Young Scientists Forum has been held in my beloved country, Egypt, and the possibility of beginning a future cooperation in scientific activities between African countries.

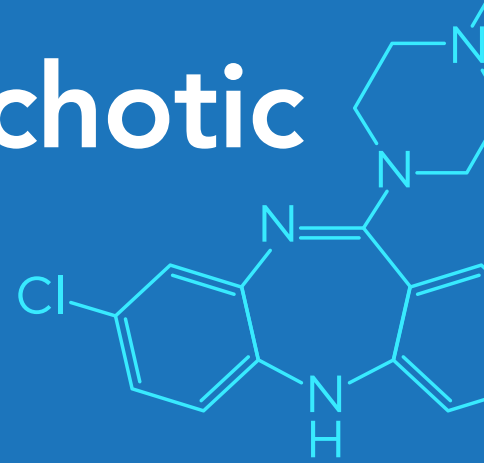
It was a very organized conference and included many interesting topics. Encouraging young scientists of different nationalities to participate in this valuable gathering; helps to exchange scientific experiences.

I presented the topic of: "Molecular Tests Beyond The Usual". My talk was about some molecular tests that are frequently ordered by physicians: "Methylenetetrahydrofolate reductase polymorphism and lactose intolerance genetic tests". These genetic tests are useful diagnostic tools, depending on the genetic variants analyzed, but they are not always appropriate for all populations.

I am grateful to everyone who contributed to the success of this international conference.



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Young Scientist from Nigeria – Summary of Faculty Seminar Presentation

By **Dr. Abiodun Kofoworola Ajeigbe**, Department of Chemical Pathology, Obafemi Awolowo University, Ile-Ife, Nigeria

I present a formal report of my 20-minute presentation on the 21st February, 2024 at the Faculty Seminar of the Faculty of Basic Medical Sciences (FBMS), Obafemi Awolowo University, Ile-Ife, Nigeria.

The Faculty Seminar of FBMS, OAU, Ile-Ife is a monthly meeting of academic staff members to discuss important scientific research and reports for continuous improvements and entrench research methods and innovations. It is a tradition of the faculty and each department takes turns every month for the seminar.

The Department of Chemical Pathology was next in line to host the February edition of the Faculty Seminar and being, an early career researcher in the department, I was assigned the role of presenting a topic for the meeting. The theme of the seminar was “Limitations of HbA1c in a Population of Diverse HB Variant” which was delivered by an invited speaker, Dr. Ashlin Rampul, Specialist Chemical Pathologist, Pathcare South-Africa.

The seminar held at the Board Room of the College of Health Sciences, OAU, Ile-Ife at 1 p.m. WAT, utilized a hybrid mode of meeting and had in attendance, the Dean, Faculty of Basic Medical Sciences, Prof. G.O. Omoniyi Esan, heads of departments, senior professors, and faculty members as well as students.

I presented a case report titled “A Report of Undetectable HbA1c in Asymptomatic Haemoglobin SC Individual in Ile-Ife, Nigeria”. The important findings of the presentation are the poorly diagnosed Hb variants in Nigeria and the inability of Cobas c311 (Roche) and D-10 (Bio-Rad) auto-analyzers to quantify HbA1c in an asymptomatic individual with HbSC. The presentation has implications for the analytical methods and utilization of HbA1c for the screening, diagnosis, and management of diabetes mellitus in a population with diverse haemoglobin variants. The presentation was well received evidenced by the quality of questions that followed.

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THEME: Limitations of **HbA1c** in a Population of Diverse **HB Variant**

Speaker: DR. ABIODUN AJEIGBE

Speaker: DR. ASHLIN RAMPUL
Pathcare, South Africa

Host: PROF. GO OMONIYI-ESAN

21st FEB 2024

COLLEGE OF HEALTH SCIENCES, BOARDROOM

1.00PM - 2.00PM

IFCC FORUM for Young Scientists

By the IFCC Task Force for Young Scientists



We are delighted to invite you to attend the THIRD IFCC YOUNG SCIENTISTS' FORUM, which will be held on 25-26 May 2024 in Dubai.

Young Scientists (YS) 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, the IFCC Task Force for Young Scientists (TF-YS) invites you to register to the "IFCC Young Scientists FORUM", where YS will have opportunities of training and improve communication and networking. The scientific program at the FORUM will provide the young scientists an excellent opportunity for an open discussion platform about scientific and personal experiences, exchange of ideas among colleagues and best practices. Young Scientists will present and discuss their activities in laboratory medicine and benefit from career skills development.

The IFCC is pleased to offer up to 50 IFCC-Sponsored Travel Scholarships plus 5 additional scholarships sponsored by Roche to allow young scientists from IFCC member countries to attend both the XXVI IFCC WORLDLAB Congress and the THIRD IFCC YOUNG SCIENTISTS' FORUM.

The TF-YS is dedicated to making the Third Forum for Young Scientists an unforgettable global event. We look forward to your participation and kindly ask you to complete your registration through the official website.

We look forward to your participation in this enriching and collaborative event!

[Register here for the on-site event!](#)



1st IFCC Young Scientists' Forum, Seoul 2022



IFCC Young Scientists' Forum, Rome 2023

Contribute to IFCC eNews

Enhanced staff satisfaction and resource utilization during the COVID-19 pandemic

Healthcare is one of the most precious resources we have, and our healthcare providers are at the heart of it. It is imperative that healthcare organizations around globe not just value their employees but strive to increase staff satisfaction and protect their safety, where possible.

The COVID-19 has been one of the biggest threats to healthcare worker safety, whether physical safety, or mental health. At the Associação Fundo de Incentivo a Pesquisa (AFIP), in São Paulo, Brazil, an integrated care team recognized that uncertainties related to COVID-19 and concerns about safety for those working in healthcare, including the limited access to diagnosis and treatment facilities, and uncertainties about the virus itself, existed across their facilities.

As such, this team developed and implemented a new health program for employees of AFIP, as well as their families, using already existing infrastructure of the Cuidando de Quem Cuida (CQC) program, which aims to promote employee health care. This program enhanced testing availability, enabling early detection and isolation, as needed, to minimize transmission, while also providing mental support during these trying times.

This initiative has substantially improved access to testing for employees and their families through the development of 6 new sample collection sites, thus enabling earlier patient knowledge of COVID-19 status. This knowledge further protected healthcare worker and patient safety by enabling proactive quarantine and isolation procedures, while also providing insights for staffing and risk mitigation purposes.

For their efforts this integrated clinical care received the UNVIANTS of Healthcare Excellence awards recognition of Achievement. Congratulations to Debora Ribeiro Ramadan, *Director of the Operational Technical Core*, Tatiane Rodrigues dos Santos, *Manager, CQC Program*, Josué Augusto do Amaral Rocha, *Family Physician, CQC Program*, Cristiane Franca Ferreira, *Coordinator of Occupational Medicine*, Paulo Eduardo de Andrade Souza, *Quality Assurance Manager*.



From left to right: Tatiane Rodrigues dos Santos, Paulo Eduardo de Andrade Souza, Jussimara Monteiro Nurmberger, Soraya S De Andrade, Cristiane Franca Ferreira, Debora Ribeiro Ramadan, Gabriel Costa De Carvalho



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History of the use of the mask to face a pandemic

By **Dr. Luis Figueroa Montes**, President of AMPPC, Peru
www.patologiaclinica.pe

If there is an object that symbolizes and represents our collective experiences during the coronavirus pandemic, it is, without a doubt, the face mask. This element is a vital component of public health strategies to contain the pandemic, in addition to physical-social distancing (1).

This massive masking strategy was not evident at the beginning of the coronavirus outbreak. The act of wearing masks was first noted as a phenomenon unique to Asia when the coronavirus began to gain media attention. Medical authorities outside of Asia, including the World Health Organization, were reluctant to impose mass masking. However, later, the use of masks in the general population was framed as an urgent and effective strategy to prevent the transmission of the coronavirus (1).

Let's remember when and why this need began. Many years ago, a doctor of Malay origin saved a population from pneumonic plague in 1911. In 1910, an unknown epidemic swept through northwestern China. The dead numbered in the hundreds every day and the government decided to leave everything in the hands of the doctor Wu Lien-teh. This disease was the pneumonic plague, very contagious and spread by respiratory transmission. In just four months, he put an end to it with a group of non-pharmacological measures, similar to those used today to prevent the transmission of the coronavirus: quarantine, travel restrictions and the manufacture of a special mask with cotton, gauze and several layers of cloth that forced to use in that population. Thus the birth of the surgical mask, very popular in the world now (2).

Let's see some details of those historical moments. In late 1910, before the collapse of the Qing dynasty, a plague swept through northern Manchuria. This epidemic generated more than 60,000 deaths. The mortality rate was 100%. It first appeared in Manzhouli, a Chinese city, and along railway tracks and highways, the disease spread south. The disease was first diagnosed in the Russian city of Harbin. The Qing's ability to contain the plague was questioned and they framed the plague epidemic as a political issue of international importance.

The Manchurian plague forced the Qing government to resort to new strategies (1). China's vice foreign minister recommended Cambridge-trained Dr. Wu Lien-Teh as head of a team to help fight epidemics. Three days later, Dr. Wu dissected the first cadaver of a plague victim and analyzed some organ samples for bacterial cultures (3).

It became clear to Dr. Wu that the organism seen under his microscope appeared to be identical to *Bacillus pestis*, discovered in 1894. But Dr. Wu observed a novel fact. These bacilli were found exclusively in the lungs of the victim, which could suggest that the plague behaved very differently from that of 17 years earlier. Wu then proposed a "bold theory" that the plague in Manchuria had taken a pneumonic (pulmonary) rather than bubonic (ganglia) form (3).

Wu believed that the plague in Manchuria was not transmitted by infected rat fleas, but spread directly from person to person through the air. To block its spread, he designed a cotton gauze mask and recommended that it be worn by doctors and paramedical personnel involved in containing the plague (4).

This was the first time that gauze masks were used in the context of epidemic control (5). Now how could a young doctor like Wu, whose bold theory was somewhat contrary to the medical knowledge of many top foreign epidemiologists, convince Chinese officials to adopt gauze masks in epidemic control?

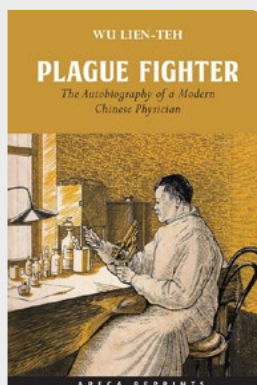
Confident of up-to-date knowledge about bubonic plague, many foreign experts ridiculed Dr. Wu's airborne thesis. They refused to wear masks even when in close contact with plague patients.

Dr. Gérald Mesny, a senior colleague of the Chinese team and a professor at the Beiyang Medical College, was one of them (6).

A few days later, news broke that Dr. Mesny had been infected with the plague when he visited a Russian hospital without wearing a mask, and he passed away days later. Mesny's death soon caused a wave of panic in Manchuria and constituted -the turning point- of the anti-plague campaign by the local government (7).

This historical compilation of the plague bacillus helped to convince of the efficacy of masks and, therefore, to transform them into protective devices. In this sense, the mask cannot be seen as an isolated object but as a “hybrid actor”, that is to say that the power of masks as personal protective equipment does not arise from the mask itself, but from its union with other elements, such as the biomedical understanding of the transmission of microorganisms and human bodies (8).

The mask economy has come to play a dominant role. The proliferation of inexpensive, disposable surgical masks paved the way for the sudden emergence of a universal masking strategy during the coronavirus epidemic. Now we know that we can use them as part of non-pharmacological strategies in public health. We hope that this action is perpetuated in our societies when we have colds, for example.



*First published in 1959,
this edition of Wu Lien-
Tehs autobiography,
reprinted for the Dr. Wu
Lien-Teh Society*
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AI: The Dilemma of Biological and Technological Singularities

By **Bernard Gouget**, Chair IFCC TF-History, ETD EC

Healthcare is one of the major application fields of Artificial Intelligence technologies (AI). All areas of healthcare and all specialties are concerned. Artificial Intelligence is not just the future of medicine; it is already an integral part of everyday medical practice. Most healthcare professionals are already utilizing AI technologies to refine diagnoses, improve decision-making, specify prescriptions, and even predict the progression of diseases. The future of AI in the healthcare domain is undeniably complex, but it holds immense transformative potential, from discovering new biomarkers to alleviating administrative burdens. AI will improve care and redefine the roles of healthcare professionals. This revolution won't happen on its own. It requires collaboration among startups, tech giants, healthcare professionals, regulators, and patients.

Artificial intelligence promises tangible changes by streamlining processes and identifying key insights. However, it is still very challenging for even highly sophisticated algorithms to replace the empathy, intuition, or healing power of the patient-doctor relationship. The true revolution will come when AI models can mimic the clinician's multimodal approach. While AI undoubtedly changes how healthcare professionals work and promises to enhance their capabilities, it will not eliminate the need for their expertise, judgment, and human connection. It is essential to remember that healthcare remains primarily a human endeavor.

Repetitive, data-focused tasks that overwhelm physicians and medical biologists are prime targets for AI. This won't just save time; it will transform the very nature of medical practice and how care is given and received. A recent study presented at the "Major e-Health Trends 2024" by PulseLife (<https://pulselife.com/fr>) shows that one of the main uses of AI in healthcare involves access to medical information for almost half of the 1700 surveyed professionals. They rely on this virtual assistance to enhance their general knowledge. The benefits of AI are clear: improved diagnosis (67%) and reduction in medical errors. Administrative task assistance dominates expectations (71%). However, two-thirds of professionals are concerned about the reliability of sources, the data privacy, compliance with regulations and the potential algorithm biases leading to error risk. The fear of relational deterioration with patients is evident with questioning of medical knowledge. Healthcare professionals will need to quickly embrace this change to shape the future of medicine for the better.

The rapid evolution of Artificial Intelligence offers many opportunities for the future of healthcare and requires intelligent collaboration between humans and algorithms. The AI revolution is not just about technology; it also concerns our interaction with it. AI can detect anomalies or subtle correlations that escape even the most experimented practitioners. Complex AI tools prompt us to decipher the logic of the algorithm and open new horizons of medical understanding. While such findings raise concerns about biases and explainability, they also illustrate a revolutionary shift in medical research by ensuring that these groundbreaking discoveries are used rightly used for the improvement of patient care. As AI promises to enhance our capabilities, it's essential to remember that healthcare remains fundamentally a human endeavor.

Healthcare professionals must urgently embrace this change. Technology can serve as a powerful tool, empowering us to provide better, more compassionate care for all. How we approach AI will define the world we live in tomorrow. Everyone should be able to benefit from human-centered and trustworthy AI while ensuring safety and fundamental rights. Access to quality data is an essential factor in building robust and high-performing AI systems, coupled with robust cybersecurity strategies. Maximizing resources and coordinating substantial investments are essential elements of AI excellence.

In the era of generative AI, those who master the art of communication with these algorithms will have a distinct advantage. Generative and adaptive AI always follows the same principle: analyzing vast amounts of data to predict what could happen by contextualizing some of it. It poses an exciting but unprecedented challenge. We will need to manage a cognitive transition. We are going to move from purely biological intelligence to intelligence interfaced with AI.

It's no wonder that AI, in all its aspects, is at the forefront of the concerns and efforts of the IFCC Emerging Technologies Division. We must quickly jump on the AI train, become complementary than allowing ourselves to be replaced by AI. When we know what Chat GPT does in a few seconds while it takes us hours to put an idea and a text into shape, it's important to shed the any inferiority complex and become complementary. There are domains of AI and domains of neurons. This requires investing a lot of energy to be on the right side and ensure that the neuron remains superior to AI!



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In cooperation with



26th International Congress of
Clinical Chemistry and Laboratory Medicine

17th Congress of Arab Federation of Clinical Biology

10th Saudi Society for Clinical
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8th UAEGDA International Genetic
Disorders Conference

Dubai World Trade Centre (DWTC)
DUBAI - UAE



News from Regional Federations and Member Societies

Acknowledgement to the New Clinical Biochemists

Written by **Dra. QF. Cristina Servetto**, ABU's Vice president

Translated by **Q.F. B.C Laura Yametti**, ABU's Pro treasurer

On Saturday, December 16, 2023, the Uruguayan Biochemist Association (ABU) offered recognition to the 35 Clinical Biochemists (BC) who graduated from 2020 to 2023. This annual event had to be paused because of the COVID 19 pandemic and in 2023 resumed, so the graduates could be received.

The opening ceremony took place in the auditorium where our headquarter is, the Tower of Professionals, and began with the presentation of 3 videos made by ABU to promote the career, one of which was awarded by The Latin American Confederation of Clinical Biochemist (COLABIOCLI).

The ABU's President – QF. BC. Fernando Antúnez- congratulated the new graduates and in his speech emphasized the importance of the role of ABU in defending the Clinical Biochemist profession, in particular in the juridic defense that offers to its associates in situations where are excluded in the Laboral field both public and private.

It was also commented the concerned and occupation for the actualization of the BC offering webinars, conversations, formation courses (some of which have curricular credits as the electives courses for undergraduates), dictated by outstanding professionals both national and international. He also spoke about the agreements between ABU and the Argentinian Biochemist Association (ABA) and the Spanish Association of Clinical Laboratory (AEFA) that allows to our associates to attend to their courses with the same price as to their respective associates.

In this capacitation framework it was referenced the ABU's annual scholarship program to assist to congresses, courses, internships and providing support to pursue specialties abroad.

In addition, the associates have the right to have access to scholarships from both COLABOCLI and The International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).

In this occasion it was also held the official launch of the ABU's Young Professionals Working Group with the Leadership of BC Romina Medeiros, who represents ABU in the COLABOCLI's Young Professionals Working Group.

In her intervention Romina Medeiros explained that *“The working group is in framed in a wider vision of COLABIOCLI that seeks to make our entities more efficient, operatives and dynamics by the creation of strategic groups to impulse the participation of young professionals in each national entity. The goals proposed are ambitious and focussed to strength both our association as each of its members. Among them there is the realization of activities coordinated and integrated and the generation of solid nexus between ABU and the University of the Republic (UdelaR). There is interest in the generation of specialties, professional growth, and the contribution to the knowledge advance in the Clinical Biochemistry field. This group also has the mission to organize congresses and symposiums for all the associates, offering learning and networking opportunities. But above all, it is pretended to generate a working and confraternization space to assess the new professionals to successfully enter in the Laboral field and provide advice to new graduate professionals to consultations related to the professional performance, scholarship presentation among others. It is*

*Acknowledgement to the
New Clinical Biochemists*

wished to create a safe space where concerns and necessities can be asked and at the same time ideas can be converted into reality”.

Her final message was: “We invite each of you to join to this exciting initiative. This is not only a group, but a community that seeks mutual growth, the collaboration and conjunct advance. Together we can achieve much more”.

This new working group is aligned with COLBIOCLI ´s Young Professionals working group and shares its initiatives and plans the realization of joint activities. Some 2024 projects are: the planning in April of the IFCC Global Med Lab Week and the participation in the 3rd Conference of Young Professionals in the XXVI Latin American Congress of Clinical Biochemist to be held from October 3rd to October 6th in Cartagena de Indias, Colombia. It is also projected to organize the 4th conference of Young Professionals in the XV Uruguayan Congress of Clinical Biochemist to be held in Montevideo, Uruguay in 2025.

After the ceremony to the new professionals, there was a cocktail party in the patio in a distended environment that was accompanied by pleasant surroundings and weather.



In the Auditorium of the Professionals Tower.



Welcoming by ABU ´s President, QF. BC Fernando Antúnez



Members of the ABU ´s Young Professionals Group



Clinical Biochemists honoured in the patio of the Professionals Tower

Experts stress the importance of early detection of occult liver disease

From the XXI Conference of the Scientific Committee of the Spanish Society of Laboratory Medicine (SEQCML), which was held on February 29 and March 1

- Early diagnosis reduces morbidity and mortality, possible complications, and the need for advanced therapies such as liver transplantation.
- Liver diseases, whose prevalence are increasing, are diagnosed in advanced stages, when symptoms have developed, which is associated with a poor prognosis in the short and medium term.

Liver fibrosis is one of the late manifestations of chronic liver diseases where liver tissue is replaced by scar tissue, as a result of inflammation caused by alcohol consumption, viral hepatitis, or metabolic syndrome, among other factors. This is a long process, with symptoms that can remain unnoticed for years, so its early identification would prevent its progression into cirrhosis and facilitate the selection of patients for referral to specialists.

In this context, the Spanish Society of Laboratory Medicine (SEQC^{ML}), within the framework of the XXI Scientific Committee Conference, which was held on February 29 and March 1 in Seville, introduced the importance of early non-invasive detection of liver fibrosis in the course, "Use of non-invasive biomarkers in the detection and assessment of liver fibrosis for occult liver disease". Additionally, the various available serum biomarkers were presented, as well as the role of the Clinical Laboratory in the screening and evaluation of fibrosis.

Liver diseases affect a high percentage of the world's population. In the European Union alone, nearly 29 million people suffer from chronic liver disease, according to data from the World Health Organization (WHO). Currently, viral hepatitis uses biomarkers for reference diagnostic tests, and thanks to effective screening strategies and direct antiviral treatment, its impact has decreased significantly.

On the other hand, for both alcoholic liver disease (alcLD) and fatty metabolic liver disease (metHD), no effective diagnostic biomarkers are currently available. This was noted by Dr. Armando Raúl Guerra, coordinator of the course of the XXI Conference of the Scientific Committee and president of the SEQC^{ML} Commission for Biochemical Assessment of Liver Disease, who noted the role of liver fibrosis as the main prognostic factor of both diseases. In his words, "Our screening efforts for occult liver disease should focus on the detection and assessment of the degree of fibrosis, mainly in those cases in which the lesion has advanced and constitutes an imminent danger to the patient's health, even though no other symptoms have yet been detected."

According to Dr. Manuel Morales (researcher at IDIBAPS, CIBERehd and RedFibro), member of the SEQC^{ML} Biochemical Assessment of Liver Disease Commission and physician at the Hospital Clínic of Barcelona, this screening would have a major health impact, since, as he stated, "early diagnosis of the pathology translates into a decrease in associated complications and a reduction in morbidity and mortality and the need for advanced therapies such as liver transplantation." In this way, as Dr. Morales stressed, it would be possible to implement therapeutic interventions aimed at reducing the effects of causal factors, "the implementation of new lifestyles and diet, the optimization or initiation of treatments for diabetes or obesity. and monitoring for the appearance of future complications."

What is more, according to Dr. Morales, when establishing a screening strategy the inclusion criteria in these programs should be clarified. "In addition, it is necessary to carry out more cost-effectiveness studies that maximize all the causal factors and representation in different health systems."

Paradigm shift

Today there is no established health policy for screening the population for liver fibrosis. However, according to Dr. Morales, “we are undergoing a paradigm shift with regard to the diagnosis of liver fibrosis, “which is translating into a need to establish screening strategies for fibrosis using non-invasive diagnostic markers.” In the opinion of Dr. María Patricia Sanz, member of the SEQC^{ML} Biochemical Assessment of Liver Disease Commission, this is particularly true in populations with a very high risk of metabolic liver disease, such as patients with type 2 diabetes, “who would benefit from referral to a Hepatology specialist.”

Dr. Adrià Juanola Mayos, hepatologist at the Hospital Clínic of Barcelona, (IDIBAPS and CIBERehd researcher), defined non-invasive biomarkers as measurable and observable indicators in the human body that are used to detect, diagnose or monitor diseases or health conditions without requiring invasive procedures. These markers, according to the specialist, would allow the early detection of liver fibrosis “by reflecting the biochemical, molecular, and structural changes that occur in the liver during the development of the disease.”

In the words of Dr. Juanola, the main advantage of non-invasive markers is that obtaining them does not imply significant risks for the patient’s health, since they do not require invasive procedures such as biopsies or other methods that may cause discomfort, pain or complications. “This makes them especially useful in early diagnosis at a population level, as well as monitoring the progression of the disease and evaluating the effectiveness of treatments, since they can be collected more frequently and less traumatically than invasive biomarkers.”

The work of the Clinical Laboratory is fundamental in the implementation, dissemination, and appropriate use of serum biomarkers for liver fibrosis. According to Dr. Laura de La Hoz, member of the SEQC^{ML} Commission for Biochemical Assessment of Liver Disease, the interpretation of the results by a Clinical Laboratory professional is critical for taking full advantage of these markers, since various factors other than liver fibrosis can affect the results. “Comments added to the laboratory report can neutralize these deviations and protect the true value of these tests,” she explained.

In the opinion of Dr. Armando Raúl Guerra, president of the SEQC^{ML} Biochemical Assessment of Liver Disease Commission, for this process to develop its true potential, “the physician must be involved from the beginning in the conception of the tests, the evaluation of their diagnostic performance, and in the design of related health strategies in each Ministry and Healthcare Management entity. In addition, they must be involved in teaching and disseminating this tool among their clinical colleagues, whether in Primary or Specialized Care.”

With the implementation of serum fibrosis markers there is the opportunity to stop liver disease at an earlier stage, where, as Dr. Guerra recalled, “therapeutic interventions are of lower material and personal cost, and have the potential for a greater impact on improving the patient’s quality of life.”



Armando Raúl Guerra Ruiz



Laura de la Hoz Gil



Manuel Morales Ruiz



María Patricia Sanz de Pedro

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Residentes del Laboratorio Clínico - SEQC

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Cardiovascular risk stratification using high sensitivity Troponin I – Workshop at Indus Hospital and Health Network, Karachi, Pakistan

By **Fatima Kanani**, Indus Hospital and Health Network

A hybrid session on “Cardiovascular risk stratification using high sensitivity Troponin I” was held as part of pre-conference workshop in ICON 24- a flagship biennial multidisciplinary conference of Indus Hospital and Health Network, conducted pan Pakistan from 20-27th January 2024. The workshop was conducted by Section of Chemical Pathology at Indus Hospital, Karachi. It was held under IFCC auspices and endorsed by Pakistan Society of Chemical Pathology, and was accredited for three CME hours. It was attended by around 45 participants, virtually and physically. Dr. Sohail Khan, eminent interventionalist cardiologist spoke about cardiovascular prevention. He emphasized upon the growing burden of cardiovascular diseases in Pakistan and the probable contributing factors. He mentioned that in Pakistan one heart attack occurs every four seconds and forty deaths occur every hour due to heart related diseases. The importance of risk assessment and life style modifications was stressed. Diet control, physical activity, lipid lowering medications and most of all, risk assessment in clinics and the use of troponins in this regard was addressed.

Dr. Christopher Viraunis discussed at length how high-sensitive troponin I can be used for screening asymptomatic individuals for risk analysis. Describing the high-sensitive troponin reference limits, he said that individuals in the top five of the troponin-I distribution compared with the bottom five had a 160% increase in mortality from cardiovascular causes. An important point of discussion was that troponin levels can predicts cardiovascular events. A threshold of 6 ng/L is as considered high risk. These levels can be reduced by statin therapy. Troponin decrease at one year is associated with reduced risk of future coronary events regardless of cholesterol lowering.

Mr. Umar Ansari, from Abbott digital solutions, elaborated the role of machine learning and deep learning applications in laboratory clinical decision support systems. This was discussed in the context of cardiology patients. Clinical decision systems are capable of giving personalized interpretative comments based on lab results, serial changes, demographics, risk factors and presentation, and the features can be customized according to the laboratory requirements.

The three-hour workshop gave meaningful insights into the underused clinical utility of high sensitivity troponin test.



Dr. Umar Ansari giving a talk on “Patient care through state-of-the-art informatics using Clinical Decision Support (CDS) system”



Dr. Sohail Khan giving a lecture on “Cardiovascular burden in Pakistan - Current Clinical Practices and Preventive Strategies”

*Cardiovascular risk stratification using
high sensitivity Troponin I*



Group photograph of on-site participants



News from Japan Society of Clinical Chemistry (JSCC)

2023 Article Award

By **Hideo Sakamoto**, Ph.D. International Exchange Committee of JSCC

The Japan Society of Clinical Chemistry (JSCC) Article Award is given to a person who had made outstanding academic research in clinical chemistry. In 2023, Masayuki Takai, Ph.D. was the winner of the Article Award. At the 63rd Annual Meeting of JSCC in Tokyo, Japan from October 27 to 29, 2023 award winner Dr. Masayuki Takai was congratulated by Dr. Takashi Miida, President of JSCC for his outstanding work in clinical chemistry. In this issue, we would like to introduce winner of Article Award to distribute his outstanding work.

Masayuki Takai, Ph.D. (Chief Investigator of Immunology and MDx Unit, R&D center, Shino-test Corporation) is the winner of the 2023 JSCC Article Award, entitled with “Establishment of a novel ELISA system for measuring periostin independently of formation of the IgA complex”.

In this article Dr. Takai and his team investigated whether the formation of the periostin-IgA complex affects the original periostin ELISA system.

Periostin is a protein involved in the pathogenesis of various diseases, including allergic and fibrotic diseases. It can potentially be used as a serum biomarker because of its ability to move easily from the site of production into body fluids, such as blood. Recently, it was reported that periostin forms a complex with IgA in the human serum via intermolecular disulfide bonds. The formation of this complex decreases the affinities of various anti-periostin monoclonal antibodies. However, it remains unclear whether the periostin-IgA complex formation affects the original ELISA system for periostin (SS18A×SS17B).

In this study, Dr. Takai investigated whether the periostin-IgA complex formation affects the original ELISA system and whether it is possible to establish a novel ELISA system that is not affected by the complex formation.

He showed that the serum periostin value measured by the original ELISA system was significantly higher in the reducing condition than in the non-reducing condition. This suggests that the formation of the periostin-IgA complex decreases the periostin values obtained using the original ELISA system. In addition, complex formation was found to affect SS18A, which is the primary antibody in the original periostin ELISA system, as assessed using immunoprecipitation assays in both the non-reducing and the reducing conditions. Furthermore, Dr. Takai used immunoprecipitation assays to demonstrate that several anti-periostin monoclonal antibodies were less affected by complex formation, and established a novel ELISA system (SS16A×SS17B) that was able to measure periostin independently of the IgA complex.

Although at present the clinical utility of the values obtained using this novel ELISA system remains unclear, Dr. Takai believes that it has a unique utility for clinical applications not covered by the original ELISA system. Therefore, this researcher anticipates that the novel ELISA system will contribute significantly to medicine in the future.



Masayuki Takai, Ph.D. winner of the 2023 JSCC Article Award

Ushering in the New Age of medical Laboratories: from modeling to practices

By **Bernard Gouget**, JIB 2023 International Coordinator, IFCC-ETD EC, IFCC LABAC representative, **Jean Marc Giannoli**, LABAC President, **Francois Blanchecotte**, JIB 2023 President

Every year, the Days of Innovation in Biology (JIB 2023) emerge at the forefront of current events with the mutations in the healthcare system, the ongoing evolution of the discipline, and the patient care journey. The 2023 edition, held in November at the Palais des Congrès in Paris, placed an even greater emphasis on the international participation. This edition benefited from the presence of Professor Tomris Ozben, IFCC President (2024-2026), Dr. Alexander Haliassos, IFCC treasurer. Dr. Christian Haddad, President of the Arab Federation of Clinical Biology (AFCB), came with a significant delegation from Lebanon and representatives of IFCC-AFCB. Dr. Myrna Germanos-Haddad, President of the Lebanese Biologists Association (ADBL), coordinated the session on healthcare centers in times of war with speakers such as Dr. Youssef Saab from Médecins Sans Frontières and Professor Mariam Klouche, who focused her initial intervention on women's health before discussing recent advances in tuberculosis diagnostics with Professor Florence Doucet-Populaire from CHU Antoine Bécclere APHP. Dr. Mathias Orth, chair of the EFLM Task Group on DTCT, sensitized us to "the Whys and Hows of DTCT" and ongoing work at EFLM, which he coordinates as the TF chair.

Professor Tomas Zima former Rector of Charles University in Prague (Czech Republic), who is also the President-elect of EFLM for the term 2024-2025, along with Professor Elvar Theodorsson from Linköping, Sweden, a city renowned for its cathedral and as a hub of the Swedish aerospace industry due to the Saab aerospace factory, assisted us in elucidating the concept of Analytical Performance Specifications (APS).

Firstly, the Stockholm Conference in 1999 was a milestone in attempting to reach a consensus on how quality specifications should be established, and a hierarchy of models was set up. In 2014, 15 years later, the first EFLM Strategic Conference held in Milan allowed for conceptualizing the APS concept. More recently, in 2023, the APS was at the core of the agenda of the 5th Symposium on the Cutting Edge of Lab Medicine in Europe (CELME) in Prague, Czech Republic. The JIB 2023 provided an opportunity to review and discuss the three different models previously agreed upon and to provide practical examples of how this can be implemented.

Medical laboratories must estimate and validate the measurement uncertainty (MU) of tests performed using analytical performance specifications (APS). Defining APS precisely and offering insights into the practical clinical application's suitability is crucial. APS criteria delineate the requisite quality for analytical performance to furnish laboratory test information that meets clinical needs for patient care and enhances health outcomes. The objective of setting analytical performance standards is to enhance the accuracy of tests for improved patient outcomes, thereby enhancing the diagnostic efficacy of tests (resulting in better, faster, and more appropriate diagnoses, aiding in better treatment processes), and reducing the incidence of misdiagnosis. The central query concerning APS revolves around determining the necessary quality level and the acceptable level of uncertainty for patient safety or an acceptable risk of harm resulting from decisions based on a laboratory test result.

The 1st Strategic Conference of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM), held in Milan (Italy) on November 24–25, 2014, facilitated the establishment of a consensus through three models, which were subsequently published by S. Sandberg et al. in CCLM under the title "Defining analytical performance specifications: Consensus Statement from the 1st Strategic Conference of the European Federation of Clinical Chemistry and Laboratory Medicine" (Clin Chem Lab Med 2015; 53(6): 833–835). According to the authors, the hierarchy was streamlined and delineated by three distinct models for setting analytical performance specifications.

There is a general consensus that certain models are better suited for specific measurands than others. These three models operate on different principles, assuming the availability of high-quality studies or data for each. Hence, any proposed analytical performance specifications should always be accompanied by an explanation of the rationale, the source, and the quality of the evidence supporting the recommendation.

The three models are as follows:

Model 1: Effect of analytical performance on clinical outcomes This model is applied when the measurement plays a central and well-defined role in decision-making for a specific disease or clinical scenario, and test results must be interpreted within established decision limits. However, this model is nearly impossible to implement due to a scarcity of relevant studies.

Model 2: Based on components of biological variation (BV) of the measurand. This model is applied to measurands characterized by high homeostatic control or a “steady state” status in healthy individuals. However, many studies used to determine BV lack population diversity. There are limitations to this approach, such as the need to carefully assess the relevance and validity of biological variation data, including factors like the presence of a steady state, appropriate time intervals, the impact of intercurrent illnesses, and measurand concentrations. Model 2 should not be used for measurands lacking sufficient homeostatic control (e.g., most hormones). The biological variation database is available on the EFLM webpage.

Model 3: State-of-the-Art Based This model addresses the highest attainable level of analytical performance technically feasible when a measurand does not have a central diagnostic role or strict homeostatic control. It is applicable to any measurand and specimen type.

APS is closely linked to the measurement of uncertainty, which should be defined, for instance, in ISO 15189:2022 (part 3.19., 7.3.4.). The total contributing sources of uncertainty in the laboratory include the uncertainty of reference material, IVD-MD calibration uncertainty, IVD-MD imprecision, and the individual lab’s performance in the medical laboratory. The measurement uncertainty is important for giving objective information about the quality of individual laboratory performance, identifying analytes that need analytical improvement for their clinical use, and asking IVD manufacturers to work to improve the quality of assay performance.

In his presentation, Elvar Theodorsson outlined how APS can be utilized in healthcare systems that incorporate multiple labs and measuring systems. He noted that APS are typically compared to the repeatability uncertainty of results from a single in-vitro diagnostic medical device (IVD MD) over short periods, particularly beneficial for point-of-care IVD MDs and short-term disease conditions

In conglomerates of laboratories where multiple in vitro diagnostic medical devices (IVD MDs) are employed, alongside patients with chronic illnesses, it’s common for patient samples to undergo analysis using up to five IVD MDs, occasionally sourced from different manufacturers. However, not all measurement systems within the laboratory conglomerate are consistently utilized. In such cases, it’s pertinent to assess an intermediate reproducibility uncertainty in comparison to the Analytical Performance Specifications (APS). This assessment aids in understanding the reproducibility uncertainty and its contributing factors, which should guide strategies aimed at minimizing bias and improving overall measurement accuracy, rather than being directly compared to the APS.” Here are the recommended measures in brief:

1. Establish shared responsibility for the quality of each measurand among all stakeholders in the conglomerate of laboratories.
2. Employ consistent use of stabilized control material across all laboratories within the conglomerate.

3. Implement split-sample or big-data patient result techniques to monitor and mitigate bias.
4. Ensure accessibility of control results from all laboratories within the conglomerate, presented graphically and with relevant statistical summaries.
5. Reduce the diversity of measuring procedures, measurement systems, and frequency of lot-number changes across the conglomerate of laboratories.

Variance component analysis (VCA) should be utilized, employing data from commutable control samples, to compute reproducibility uncertainty and assess the relative impacts of key factors contributing to measurement uncertainty. These data serve as invaluable resources for reducing measurement uncertainty, ultimately benefiting the patients served by the conglomerate of laboratories.

APS plays a crucial role in routine laboratory operations across various domains, including EQA analysis, method selection, verification, comparison, and validation. It serves as a guiding framework for numerous decisions that influence laboratory performance. The selection of APS should be informed by the impact of measurand performance on patient management, with most practical specifications being derived from biological variation and state-of-the-art standards.

The choice of APS model in the laboratory should be based on available data, the quality of evidence, and alignment with the specific analyte. Different test applications may warrant different APS, and distinct criteria should be tailored for each measurand. APS selection should prioritize the impact of laboratory test performance on patient management, including medical decisions and subsequent actions.

Furthermore, APS should reflect an acceptable risk level for medical decisions, though estimating this risk of harm can be challenging. Therefore, careful consideration and evaluation are essential in determining appropriate APS for effective and safe patient care.

APS still raises numerous questions and uncertainties, particularly concerning preanalytical and postanalytical processes. It remains unclear how precise data medical doctors require for decision-making in clinical processes. Determining the acceptable level of uncertainty for different analytes in clinical medicine is also ambiguous. Clinical decisions necessitate consistent laboratory results across different measurement procedures, meaning results should be equivalent within an uncertainty that aligns with an acceptable risk of harm resulting from decisions based on a lab test result.

Despite its importance, the meaning of APS remains poorly understood, with many professionals lacking familiarity with the topic. There is a critical need to disseminate understanding of APS throughout the entire medical laboratory community. APS should transition from being solely a laboratory concept to becoming an integral part of clinical practice, encompassing analytics characteristics and involving IVD manufacturers.

Through this APS session and other international sessions at JIB 2023, various topics have demonstrated that laboratory medicine and medical biologists hold the keys to improving the health status of populations. To achieve this, promoting an integrative approach and considering the individual within a humanistic, preventive, and transdisciplinary framework is also important. This approach is particularly relevant as it considers all health determinants, including individual, social, economic, and environmental factors.

*Ushering in the New Age of medical
Laboratories: from modeling to practices*



From L to R: Tomas Zima (CZ), Alexander Haliassos (GR), Anne Vassault (FR), Bernard Gouget (FR), Elvar Theodorsson (SE), Tomris Ozben (TR), Jean-Marc Giannoli (FR)



From L to R: Dr Francois Blanchecotte, JIB 2023 President, Dr Gregory Emery, Director General of Health, Ministry of Health and Prevention (MoHP) (courtesy of Renaud Degas, Agence de presse Pi+)



From L to R: Dr Francois Blanchecotte President of the Syndicat Des Biologists (SDB) and JIB 2023 President, Dr Gregory Emery, Director General of Health, MoHP, Prof. Tomris Ozben, IFCC President, Dr Bernard Gouget, JIB 2023 International coordinator, IFCC Labac representative, IFCC-ETD, Executive Committee (courtesy of Renaud DEGAS, Agence de presse Pi+)

News from the IFCC Website

Call for submission Submissions for the fifth WHO model list of essential in vitro diagnostics (EDL 5)

Deadline: 30 June 2024, 12PM CEST

EDL Secretariat is pleased to announce the [opening of the call for submissions for the fifth edition of the WHO model list of essential in vitro diagnostics \(EDL 5\)](#). Details of the call including the deadline, priorities and submission process can be found [here](#). We encourage you to prepare an application and invite you to reach us at EDLsecretariat@who.int to express your intention to apply for the EDL 5.



IFCC's Calendar of Congresses, Conferences & Events

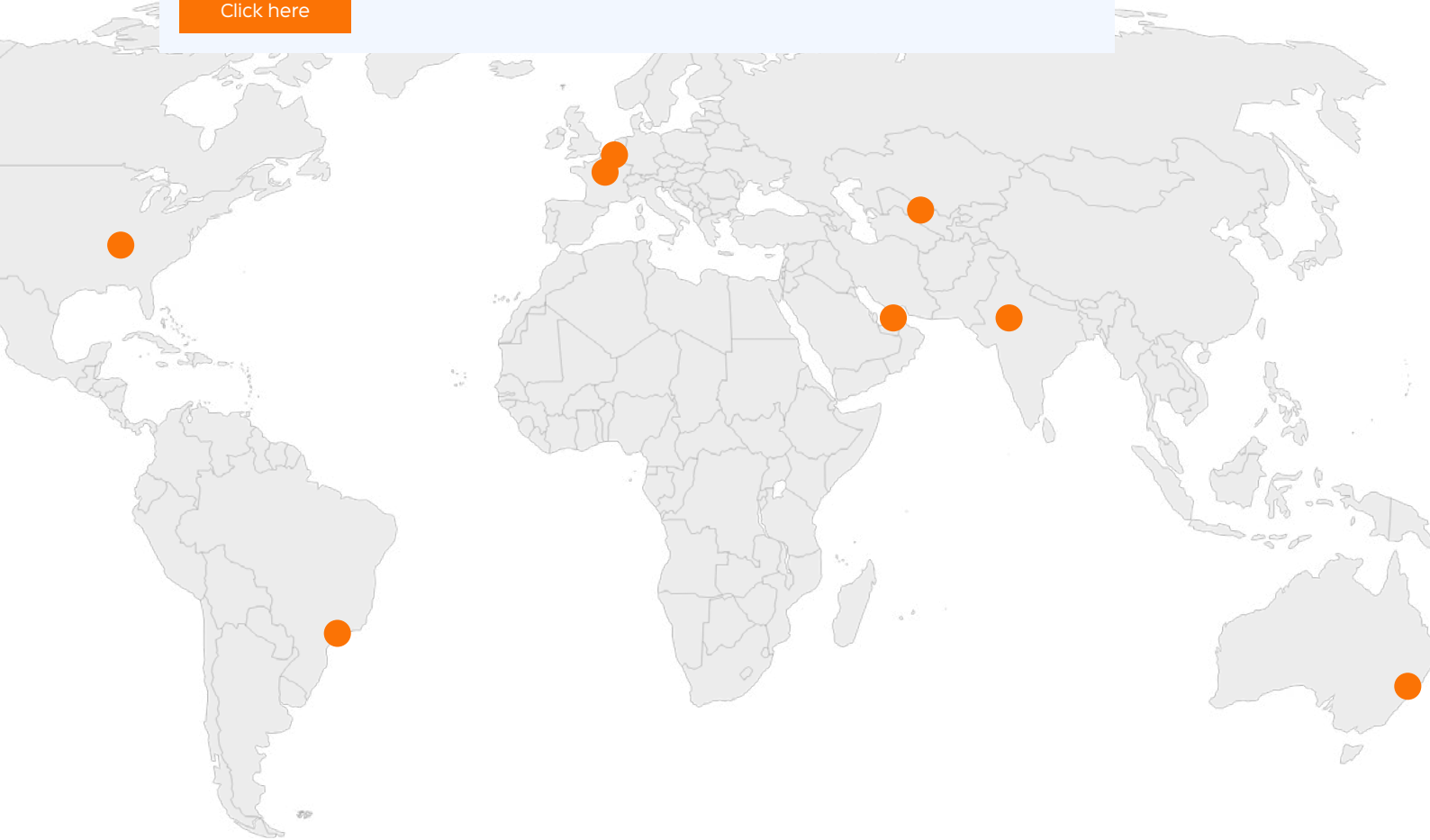
IFCC and Regional Federation Events			
Date		Title	Place
May 26 - Jun 30, 2024		XXVI IFCC WORLDLAB - Dubai 2024	Dubai, UAE
May 26, - Jun 30 2024		AFCB Congress in conjunction with the XXVI IFCC WorldLab Dubai 2024 Congress	Dubai, UAE
May 26, 2024		3rd IFCC Forum for Young Scientists	Dubai, AE
Oct 3 - 6, 2024		XXVI COLABIOCLI 2024	Cartagena, CO
Oct 31 - Nov 3, 2024		APFCB 2024 Sydney	Sidney, AU
May 18 - 22, 2025		XXVI IFCC-EFLM EUROMEDLAB 2025	Brussels, BE
Oct 25 - 30, 2026		XXVII IFCC WORLDLAB 2026	New Dehli, IN
Oct 10 - 13, 2027		APFCB 2027 KUALA LUMPUR	Kuala Lumpur, MY
Date to be selected		XXVII IFCC-EFLM EUROMEDLAB 2027	Venue to be selected
Date to be selected		XXVII IFCC WORLDLAB 2028	Venue to be selected

Date to be selected		XXVII IFCC-EFLM EUROMEDLAB 2029	Venue to be selected
Date to be selected		XXVII IFCC WORLDLAB 2030	Venue to be selected

Corporate Member Events with IFCC Auspices		
Date	Title	Place
May 7 - Jun 29, 2024	Peripheral blood smear, blood count interpretation, and clinical correlation	Quality Consulting online event, MX
May 18, 2024	InterQCTopics: Integrating Validation, Verification, and Measurement Uncertainty with ISO 15189: Enhancing Laboratory Quality and Compliance	Quality Consulting online event, MX
May 18, 2024	International Symposium on Laboratory	SNIBE, Tashkent, Uzbekistan
Jun 20, 2024	International Symposium on Laboratory	SNIBE, Paris, FR
Sep 14, 2024	Inter-QCTopics International seminars on Quality Control : Laboratory screening for infectious agents in blood services: methods and quality control	Quality consulting online event, BR
Nov 16, 2024	Inter-QCTopics International seminars on Quality Control: Patient blood management – what is the role of the laboratory according to ISO 15189?	Quality consulting online event, HR

Other events with
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Communications and Publications Division
(CPD) of the IFCC

The Communications and Publications
Division publishes ten editions of the e-News
per year, including two double issues.

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