



**IUPAC**  
**Chemistry and Human Health Division**



**IFCC**  
**Scientific Division**

**Committee/Subcommittee on Nomenclature, Properties and Units (C-SC-NPU)**

Minutes for the Committee meeting in Linköping, Sweden  
Venue: Linköping University, Department of Biomedical Engineering (IMT)

- Tuesday October 06. 2015 – Committee meeting 9:00 to 17:00
- Wednesday October 07. 2015 - Committee meeting 9:00 to 16:00

Item
<p>The meeting opens Tuesday 06. October 9:00 a.m. Welcome, and apologies for absence</p> <p>Participants: Robert Flatman (Chair) (RF) Urban Forsum (UF) Karin Toska (KT) Gunnar Nordin (GN) Helle Møller Johannessen (HMJ) Ulla Magdal Petersen (Secretary) (UMP) Daniel Karlsson (DK)</p> <p>Apologies from: Rene Dybkær Gilbert Hill Dave Armbruster Johan den Dunnen Florian Scherrer Ariadna Padró Miquel</p> <p>The need to get more active committee members was discussed. Not all of the Scandinavian IFCC member societies have appointed corresponding members - C-NPU members will contact them. A Users' group supporting both the Steering Committee and the C-SC-NPU could be useful - members could be e.g. industry, government, or laboratory representatives. A yearly workshop may help users in their National work. Observers from NRCs is a possibility, and NRCs could support National participation in projects.</p>
<p>The agenda was approved with minor changes.</p>
<p>Minutes from last meeting in Copenhagen 2015 were approved.</p>
<p>Members and corresponding members of the C-NPU 2015:</p> <p><b>Titular members</b></p> <ul style="list-style-type: none"><li>• R. Flatman Chair AU 2nd 2015 01 - 2017 12</li><li>• U. Forsum Member SE 2nd 2014 01 - 2016 12</li><li>• A. Jabor Member CZ 1st 2013 03 - 2015 12</li><li>• F. Scherrer Member FR 1st 2015 02 - 2017 12</li></ul>

- K. Toska Member NO 1st 2015 02 - 2017 12
- R. Dybkaer Consultant DK

#### Working group on the Silver Book revision

- G. Féraud Chair FR
- R. Dybkaer Member DK
- X. Fuentes-Arderiu Member ES
- D. Kang Member JP
- C. McDonald Member US
- G. Hill Expert Corresponding Member CA

#### Members elected via IUPAC projects

Members of current IUPAC projects initiated by the C-SC-NPU are all Elected Members of the IUPAC subcommittee, with RF serving as Chair and UMP as Secretary. Members Elected via current IUPAC projects are:

##### 2001-070-1-700 (Properties and units for urinary calculi )

- Gunnar Nordin (chair)
- Pedro de Araujo
- René Dybkaer
- Urban Forsum
- Antonin Jabor
- Wolf Külpmann

##### 2006-008-1-700 (Mapping of IFCC-IUPAC laboratory coding system to SNOMED CT)

- Ulla Magdal Petersen (chair)
- Ivan Bruunshuus
- Urban Forsum
- Daniel Karlsson
- Gunnar Nordin

##### 2009-005-1-700 Demonstration of NPU-SNOMED CT mapping/harmonization of terms used in clinical laboratory sciences

- Forsum, Urban
- Karlsson, Daniel
- Magdal Petersen, Ulla
- Nordin, Gunnar

##### 2010-035-3-700 (Establishing definitions for non-referenced terms in the NPU terminology)

- Helle Møller Johannessen (chair)
- Ivan Bruunshuus
- Robert Flatman
- Urban Forsum
- Ulla Magdal Petersen
- Gunnar Nordin

##### 2013-009-5-700 (Properties and units in clinical molecular biology and genetics – supplement)

- Ulla Magdal Petersen (chair)
- Johan den Dunnen
- Xavier Fuentes-Arderiu
- Ariadna Padró i Miquel
- Jens Michael Hertz

##### 2014-017-1-700 (Piloting SCT mapping)

- Daniel Karlsson (chair)
- Robert Flatman

- Urban Forsum
- Ulla Magdal Petersen
- Helle Møller Johannessen

2004-023-1-700 Internationally agreed terminology for observations in scientific communication (VIN)

Gunnar Nordin (chair)

- René Dybkær
- Urban Forsum
- Xavier Fuentes-Arderiu
- Gunther Schadow

Corresponding members

- |                                      |   |
|--------------------------------------|---|
| • Gilbert Hill Canada                | Society of Clinical Chemistry (CSCC)                          |
| • Ulla M. Petersen Denmark           | Society of Clinical Biochemistry (DSKB)                       |
| • Aracelis Germán                    | Colegio Dominicano de Bionalistas (CODOBIO)                   |
| • Alessandro Marocchi Italy (SIBioC) | Society of Clinical Chemistry and Clinical Molecular Biology  |
| • Masayuki Totani Japan              | Society of Clinical Chemistry (JSCC)                          |
| • Dalius Vitkus Lithuania            | Lithuanian Society of Laboratory Medicine                     |
| • Nada Majkic-Singh Serbia           | Society of Medical Biochemists of Serbia (DMBS)               |
| • Ariadna Padró-Miquel Spain (SEQC)  | Sociedad Española de Bioquímica Clínica y Patología Molecular |
| • Arden Forrey U.S.                  | American Association for Clinical Chemistry (AACC)            |
| • Dave Armbruster                    | Corporate Member - ABBOTT Diagnostics                         |

René Dybkær sends greetings; he has not been well and is unable to travel.

There has been no contact to IFCC Titular member Antonin Jabor. His first term this series ends this year. GN will contact him.

There is a need to attract new members, and encourage the societies to participate via Corresponding Members.

IFCC member societies may appoint Corresponding Members. Members of IUPAC project groups under this committee are all Elected Members.

#### Budget for the meeting

Very little has been spent on travel expenses this year. HMJ, UMP and KT are covered by national funding for this meeting. Ressources for documents like standards (Silver Book II, ISO 80 000) and handbooks are needed; RF will ask Graham on how to purchase these. The IFCC budget (10 000 CHF) is able to cover this if allowed (Later received info: 3,700 CHF has been spent on the NPU website work)

#### Date and place of next meetings

- C-SC-NPU meeting Thursday 17. and Friday 18. March 2016 - IFCC AGM in Madrid March 8-21. RF is investigating availability of meeting rooms. Room is available at the AGM for Friday only, RF has booked that - and is waiting for for local advice on a room for Thursday.
  - Alternatives considered were the Scandinavian Conference on Health Informatics 2016, Gothenburg, Sweden, April 6-7 2016, and the XXXV Nordic Congress in Clinical Chemistry June 14-17, 2016 in Odense, Denmark.
- Possible second C-SC-NPU meeting in 2016 - IUPAC Div. VII will meet in September in Copenhagen 3.-4.-5.-6. 2016. Meeting rooms can be available at the Danish Health Data Authority (formerly the National Board of eHealth)
- Participants of the 3 IUPAC SNOMED CT 'mapping projects' (2006-008-1-700, 2009-005-1-700, 2014-017-1-700) will meet November 18. 2015 in Linköping to see how ressources may best be utilized.
- Meetings via Skype, Google Hangout, join.me etc. can be set up ad hoc.

#### Report from members (short items not on the agenda)

Participation in an AACC symposium was again a lost opportunity. RF will write David Armbruster for advice on action for next year.

GN reported from VIM WG2 and GUM WG1, both on behalf of RD and as appointed member of VIM WG2. One purpose is to include nominal properties in VIM4, which may be expected in a year or so. Demand from BIPM that VIM needs to be more readable, an annotated version is a possibility. Suggestions to GN welcome.

#### Project report: Vocabulary for nominal properties and nominal examinations — basic and general concepts and associated terms (IUPAC project 2004-023-1-700)

VIN is published on IFCC site as a CCLM paper, approved by IFCC as a recommendation, but refused by PAC, because of 'major issues'. Help is needed on math and statistics on nominal properties. Internal consistency has been achieved now, abbreviated terms are in use, and the group awaits a new PAC review. The document may have to be published as a Technical Report rather than a Recommendation. Some of the concepts should go into VIM4.

#### Project report: Silver Book Revision

Silver Book II is submitted for final publication, it will not be free. GB has asked for a motivated recommendation. CCA title discussed - RF to submit draft outline to committee. UMP+HMJ will try to produce examples of why the Silver Book is necessary.

#### Project report: The definition project for non-referenced terms (IUPAC project 2010-035-2-700)

No change since last meeting. 1200 terms to be handled yet.

#### Project report: The Molecular Diagnostics revision project (IUPAC project 2013-009-5-700).

Work is ongoing, but the project will probably be delayed. UMP will circulate the present draft of the Technical Report to the group.

#### Project report: The 2006 SNOMED CT Mapping project (IUPAC project 2006-008-1-700)

Existing studies will be transferred to IUPAC project 2014-017-1-700. Project will be terminated.

#### Project Report: Demonstration of NPU-SNOMED CT mapping/harmonization of terms used in clinical laboratory sciences (IUPAC project 2009-005-1-700)

Existing studies will be transferred to IUPAC project 2014-017-1-700. Project will be terminated.

[Project report: Piloting CNPU-SNOMED CT mapping. \(IUPAC project 2014-017-1-700\)](#)

Funding is weak.

The plan is to map elements first, (like the LOINC work) but element mapping between NPU and SNOMED CT (SCT) show low correspondence. Manual mapping of 7000+ active elements is not attractive, and the quality will be higher if it can be done rule based.

The project will cover 400 d-k-o-p's, but it is difficult to select a representative data set - 'the most common' is entirely dependent on context. KT and GN will each deliver 100 common NPU's and UMP and HMJ will select 2 sets of 100 NPUs, one a random sample from the 'Danish Short Names' collection, and the other selected by other means, before the November meeting in Linköping.

DK will set up a Doodle and call a meeting November 2015 between all 3 'mapping project' participants for information pooling. If resources allow, KT will join.

The LOINC/SCT mapping is ongoing, based on 11 templates. Anyone from a SCT member country can apply for access to LOINC mapping documentation.

The NPU database function and its information model is in need of upgrading. We need to discuss functions needed, and their cost. At the Scandinavian meeting in Trondheim (August 2015) it was mentioned that the NPU user countries could collaborate.

[Suggestions for new projects.](#)

- Promotion: Should be a continuous function under the Steering Committee. All fields of laboratory science need to be included. UFs publications are relevant. Conferences, CDs, pixibooks are possible. Making the Silver Book easier is important.
- Dynamic manual 'easy read', frequently updated to include the newest decisions and additions to the terminology: This should be a continuous function under the Steering Committee, but IUPAC may fund a project for the first edition? The Danish manual may serve as input. Can also be part of a promotion project.
- European standardization work - Recommended by IUPAC, but how to get the NPU terminology 'CEN certified'? UMP and HMJ will look into it.
- Microbiology update - KT will chair a project, and try to find member candidates, Urban to support. We need international participants - Ask DA? UF will write to Swedish societies.
- Immunology update - KT same procedure - HMJ to join in. Participants from abroad needed. DA?

[Report from IUPAC AGM and Division VII meeting in Bousan, Korea](#)

See appendix

[Report from the NPU Steering Committee](#)

New documents are on npu-terminology.dk.

Negotiations with IHTSDO are suspended - we need to try again - and produce use cases? As member countries Sweden/Denmark do not need to ask SCT for agreement/permission to map NPU to SCT, but a formal agreement is useful in promotion. DK to look into situation. There are several initiatives - EU is considering asking for a common membership. Norway is also looking into SCT.

New NPU-terminology website is being launched, but how do we manage running information output? Keep thinking about what could/should be communicated.

IUPAC wants committees to publish their minutes from meetings on the IUPAC website, but minutes sent to IUPAC for publication by HMJ have not appeared there. Should they be on npu-terminology.dk? RF will send synopsis of this meeting to Graham.

[Report from Norway - implementation of the NPU terminology](#)

Drugs of abuse: cut-off levels are generally the same in Scandinavian countries, but the NPU codes in use differ. KT, GN, HMJ will join in clarifying national uses.

An article on NPU use in pharmacology demonstrated some misunderstandings, and KT will clarify the issues in a short text in that journal.

KT will supply copy of her summary.

#### Report from Denmark

Maintenance workload is increasing. Cooperation between some of the Danish Regions, sharing it-systems and harmonizing data, is causing large amounts of NPU coding requests. The Danish Release Centre is recruiting an employee more for NPU work, and there is hope of some temporary student assistance too, financed by income from services rendered to Norway.

From 2016 the Danish eHealth Authority will be reorganized into the Danish Health Data Authority, formally leaving the Statens Serum Institut organization, but physically staying on the premises.

#### Report from Sweden - reopening of the NPU database.

UF participates in project on national information models for (requests and) reports with Inera - a company that manages a Swedish health portal for both citizens and professionals.

EQUALIS has the money (2 full time persons) for National Release Center (NRC) work - public commitment is almost in place, and EQUALIS will be recruiting soon - the database will be a jour and running by the end of October. The Swedish translation of microbiology codes needs updating - work is ongoing.

EQUALIS is applying to SC for recognition as NRC. Swedish Board of Health is expected to acknowledge this. The Swedish patient data platform NPÖ relies on NPU coding (new platform will launch in December)

A system similar to AACCs Lab Tests Online will be established in Sweden.

Work on Drugs of Abuse is in progress, Scandinavian harmonization of NPU use will be required.

#### Terminology issues

- Suggested new concepts for molecular genetics. The committee advised against the system 'DNA fragment' for plasma investigations involving e.g. fetal DNA, the definition is not clear and the system is basically just 'DNA(P)'. Gene investigations abound in immunology/hematology/transfusion science, and help is needed in that field.
- Suggested term reference for allergens - [IUIS nomenclature](#) is accepted as a NPU referee terminology.
- Specification of synthetic recombinant antigens for determination of autoantibody properties relates to technique, and does not belong in the NPU property definition.
- Large analysis panels and chip arrays are often 'tests for everything', or investigation groups relating to broad clinical problems or symptoms. They are difficult to define in NPU language. Individual result values may be well-defined, e.g. specific genetic variants having clear NPU definitions, but 'NPU language' cannot be used for problem-oriented requesting, and we should not try. Web pages exist with listings of commercial chip arrays etc., but stability and completeness is unknown.
- Calculated properties defined mainly by the calculation procedure - like eGFR - usually exist in several versions. A NPU definition may refer to an authoritative recommendation of a specific procedure, e.g. from WHO, but where no external reference exists, NPU language can only describe very simple calculations like BMI.

#### Items left for further work after the Copenhagen meeting 2015

- Virtual meetings (via e.g. Skype, Lync or Hangout) to supplement the physical C-NPU meetings (UMP) No proper solution yet - works best for small group meetings.
- NPU on Wikipedia (RF) - content was finalized and accepted. RF will move content from 'sandbox' to Wikipedia.
- Project Urinary calculi. (IUPAC project 2001-070-1-700, no communication from chair Antonin Jabor). GN will look into possible futures for the project.

#### Miscellany

Nothing

The meeting closed Wednesday 07. October, 2015 at 16:00

## Appendix

### **Report on IUPAC Division VII meeting in August 2015, in Busan, Korea. HMJ 06-10-2015**

The last IUPAC **strategic plan** is from 2003. The current IUPAC president Mark Cesa decided, that the plan must be updated in order to move IUPAC into the future. A committee was formed to check the strategic goals. A questionnaire was developed and sent out to IUPAC members and associates. The evaluation indicated, that IUPAC has a unique role as a leader in chemical nomenclature, terminology and symbols, and as a valuable contributor to chemical knowledge, especially in developing countries.

The evaluation also uncovered criticism, such as the IUPAC-website and the slowness to react on changes.

The present draft of the new strategic plan is briefly discussed. The discussion identifies two topics that should be included in the strategic plan:

- Importance of cooperation with other unions.
- Better dissemination of the outcomes of IUPAC projects in the chemical community and as to the general public.

**The financial situation of IUPAC** was difficult last year. This was in part due to low discipline of adhering organizations to pay their yearly fee. For the biennium 2014-2015 Division VII had a budget of 54800 USD. It is a general rule to spend about 70% for projects and 30 % for travel and other activities.

Project is typically supported with 5000-7000 USD. When a project is terminated or stopped and money is left, then the money does not go to the Division, but to IUPAC.

A prototype of the **new IUPAC** website was presented. It will have a part that is accessible by everyone and log-in for members. It will be colorful and interesting. A search machine will allow one to find documents, including old documents.

#### **Update on Emeritus Fellows Program**

One person can be honored by each subcommittee per biennium. The honored persons in the period 2014-2015 were Doug Templeton (TRA), former president of Division VII, who guided the Division through difficult waters, and Robin Ganellan (DDD – Drug Design and Development) chaired MCDD for many years and is still active. The NPU subcommittee has yet to decide if someone will be honored.

#### **The NPU terminology as a Standard**

It was suggested by M. Chorghade that the NPU-system should also be expanded to other, less developed countries. A contact with WHO might be useful.

It is suggested by R. Andersson from the Chemical Institute of Canada, to make the NPU terminology as a standard. Once it is an established standard for example of the Canadian Standardizing Association (CSA), it can become an international standard. It was also suggested, that one should not wait with this step until one has a perfect product.

#### **Next Division VII meeting**

Will be in **Copenhagen, Denmark, Saturday Sept 3 - Sunday Sept 4, 2016,  
Monday Sept. 5 meeting for project groups**