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

Minutes of the Committee meeting in Budapest, Hungary 2018
Venue: Novotel Budapest City Hotel, Alkotas utca 63-67, Budapest, Hungary

Friday 9th of November 2018
9:00 to 17:00

<table>
<thead>
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<th>Item</th>
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<tr>
<td>1. The meeting opened at 09:00</td>
<td>All</td>
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<td>• Partipants:</td>
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<td>o Karin Toska (KT, chair)</td>
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<td>o Eline van der Hagen (EVDH)</td>
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<td>o Young Bae Lee Hansen (YBLH)</td>
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<td>o Helle Møller Johannessen (HMJ, via Skype)</td>
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<td>o Ulla Magdal Petersen (UMP, via Skype)</td>
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<td>o Gunnar Nordin (GN, via Skype)</td>
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<td>o Daniel Karlsson (DK, via Skype)</td>
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<td>• Apologies from</td>
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<td>o Alice Lund</td>
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<td>2. The Minutes from last meeting in Helsinki (circulated earlier, no comments received) were approved.</td>
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<td>3. Members and corresponding members 2018</td>
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<td>Titular members</td>
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<td>• Karin Toska, Chair (NO)</td>
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<td>• Young Bae Lee Hansen, Member (DK)</td>
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<td>• Antonin Jabor, Member (CZ)</td>
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<td>• Florian Scherrer, Member (FR)</td>
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<td>• Eline van der Hagen, Member (NL)</td>
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<td>• René Dybkaer, Consultant (DK)</td>
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<td>Members elected via IUPAC projects</td>
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<td>2010-035-3-700 (Establishing definitions for non-referenced terms in the NPU terminology)</td>
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<td>• Helle Møller Johannessen (chair)</td>
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<td>• Ivan Bruunshuus</td>
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<td>• Gunnar Nordin</td>
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<td>2014-017-1-700 (Piloting SCT mapping)</td>
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<td>• Daniel Karlsson (chair)</td>
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<td>• Ulla Magdal Petersen</td>
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4. Budget for the meeting
- YBLH, EVDH and KT are funded by IFCC.

5. Date and place for next meetings – suggestions
- Paris July 2019 in connection with IUPAC jubilee congress
- Barcelona May 2018 in connection with Euromedlab
- Skypemeeting Februari 2019, Doodle arranged
- Meeting in fall 2019
- Possibly Worldlab Seoul, Korea May 2020

6. Reports from
- IUPAC; Helle Møller Johannessen
  The last meeting was a 2 day meeting in August in Boston. In 2019 the 100 year jubilee will be celebrated in Paris. President Macron was invited/ has accepted. The C-NPU is invited to make some presentation/promotion.
  Mission IUPAC: All reports (technical, glossary etc) have to be fair, findable, etc. NPU is called as good example for this. More focus should be on projects to close when they are planned to end.
- Denmark; Ulla Magdal Petersen
  Main focus: The need for a new IT system for the NPU system. The goal is one system with both an International and a Danish part, and possibly facilities for the Swedish and Norwegian NRCs to manage their National data and input requests on-line. However, there is no support/funding from the government so far. Money comes only from the Danish Board of eHealth, therefore political support from the Danish government is needed. A more modern/more international information model must be developed. Business as usual for the rest.
- Norway; Karin Toska
  Norway is busy implementing the NPU system. A lot of hospitals chose different codes for the same analysis, hence harmonization is
needed. Codes might be chosen wrongly by non-experts (physicians, IT-personnel). 3000-4000 codes are actively used. The project results in a good overview of what tests are actually performed in laboratories across the country. Suggestion from Young Bae: Develop guidelines how to chose codes for different workfields.

- Sweden; Gunnar Nordin and Daniel Karlsson
  Project implementation of NPU code: Region by region, speciality by speciality, currently the region of Gothenburg is in the process. Clinical chemistry is generally no problem. The microbiology and immunology fields do encounter problems/lack of codes (CD markers, new allergy tests). There are complaints that the NPU codes cannot support complex information describing samples, methods, anatomy etc. Filing ‘allowed combinations’ of NPU codes and other information may be a solution. Swedish national codes are made while waiting for NPU codes, hopefully these can be converted to NPU codes later. Codes are being used for presentation at the National patient portal. EQUALIS has started to assess use of NPU codes, checking correctness of implementation at local labs, to discover discrepancies.

  Swedish project on a broader information model: Aiming to present laboratory data in a complete way including e.g. anatomical location: SNOMED CT is investigated as supplementing terminology for the needed information types. Outcome of the information model will be published.
  A separate organisational background is needed for this work. IFCC has shown interest in filing ‘methods’.

  New IT system: Needs to be substituted to administer codes for Swedish users.
  Norwegian eHealth is implementing NPU in the Danish HealthTerm system. Sweden will follow that work, waits and sees what happens in Norway. No decisions made yet.

- Netherlands; Eline van der Hagen
  In the Netherlands LOINC/SNOMEDct are used, C-NPU codes are not used. Daniel to send Eline contact information from SNOMED CT users the Netherlands.

- Present members (short items not on the agenda)
  Daniel: Organized a workshop (with the University of Nebraska), about interfacing SNOMED CT/laboratory terminologies. Usecases involved both NPU and LOINC coding. A network is funded by US government to link LOINC to SNOMED CT

7. Report from the NPU Steering Committee; Helle Møller Johannessen
   It is not clear what support or help British NHS is seeking from the NPU. They are going to make test lists/catalogs that seem to be based on SNOMED CT. Does not seem as if the NPU terms/elements are used. The NHS has been through organisational changes, but absolutely want to collaborate. They are aiming for a solution for the UK based on SNOMED CT codes, and may need more SNOMED content in the laboratory field. NHS have a clinical background, and this may conflict with the metrological NPU world view. We need to make sure that NHS understand that work is ongoing and need to continue in the future to combine the different information views. This has to be clarified.

8. Project reports:
   - 2010-035-3-700 Establishing definitions for non-referenced terms in the NPU terminology (HMJ)
     2 tasks: 1) Element terms without definition, no external reference. When switch to new system, they get imported 2) Make a guideline

| 2018 Helsinki | 3(6) |
• 2014-017-1-700 Piloting SCT mapping (DK)
  Has been finalized, can be closed in opinion of Daniel. The work continues, but the project is over for about a year. Minor report on the product is needed. There is a report, it has to be put in the right format. Helle is going to arrange template report.

• 2016-044-2-700 Online dynamic NPU manual (YBLH)
  Goal: updated encyclopedia/Wikipedia of medical laboratory/metrological terminology including principles/special rules, freely accessible on NPU website. The cooperation with Insoft company ended, as costs were too high, around 50000 dollars. Thus another company has to be found. Confluence point (SharePoint), a tool to share documents, is much cheaper, 15 dollars a month. Young Bae shows the concept (website under construction).

  Stakeholders: C-NPU members (specialists), National Release Centers (specialists and practical knowledge), International laboratorians.

  TO DO: Review of the prototype by the stakeholders: 2-3 C-NPU, 2-3 from National Release Centres, 3-5 laboratorians via IFCC. Extra stakeholder: IUPAC, are experts.


• Allergology (reference source CLSI) - upcoming miniproject (RC) Is in pre-project stage. Agreed to make a paper about the scope/problem in 1) terminology 2) what is allergology/what is been examined. How to select a database, must be done in collaboration with people working with the CLSI database. Gunnar started writing. Engage as many top level experts as possible.

• Subtypes of lymphocytes – WG decided at Skype meeting in January 2018 (HMJ RC)
  A meeting is planned for the spring 2019. No action yet

9. Terminology issues

• InChi and InChiKey are now in NPU pilot use for describing ‘unnamed chemicals’. It is suggested to invite a IUPAC division VIII representative in Paris for more information on the system. (YBLH)
  Slides demo. CAS is a product of the US chemical society, we don’t have access to the complete database. An alternative was needed, as waiting for a CAS identifier was no option, therefore InChi/InChikey (from IUPAC) has been used as alternative. Helle will find an expert in division VIII, important to have some fair questions prepared.

• List structures – different types. Is there a need to classify and describe them? (YBLH)
  Slides demo. The header is defining the kind-of-property examined and defines the list content, the content can vary. A panel has a defined content. There are at least 3 types of lists in use. However, few systems in use today are able to handle the list information in a structured way. The NPU lists are not structured to handle several levels of information. DK: Systems able to handle lists do exist.

• Investigations of Bacterial DNA is increasing – sequences, variants, genes. What source databases exist? Miniproject? (YBLH)
  Slides demo. The nomenclature suggested by the Human Genome Variation Society is not clinical/patient friendly. Several issues exist, hence a project is needed. What is LOINC doing? YBLH will look for microbiologists interested.

• Units, blood types, chemical expressions, isotopes etc. use italics or raised or lowered characters (letters and numbers) to present correctly. What is the best future choice - formatting tags (HTML or...
XML) or the UniCode Character set? (UMP)
When designing the new NPU management system, we should ensure that everythings looks right in our publications from the beginning. Not all needed raised or lowered characters exist in UniCode, so UniCode alone is not a solution. What is published now (HTML formatted) looks ok on the website, but not in published files. We do not know how the terms look in user systems.

- Norm and ‘normalization’. Should the use of ‘actual/norm’ be limited?
  Examples circulated (UMP)
  Decided to continue the use of terms with the concept ‘norm’, and file definitions/explanations.

- ‘Free’, ‘conjugated’, and ‘non-complexed’ in a bilirubin context – should this specific use be continued? Examples circulated (UMP)
  Debate on principle vs practise. 2 codes: bilirubine glucuronide; bilirubine conjugated (glucuronide+albumine)? Are both needed and in use? Discussion postponed till next meeting.

- Confirm use – when and when not? International references? (HMJ)
  Postponed.

- Molar mass for chemicals. Is it useful? What format should we use? (HMJ)
  The presentation of the molar mass as supplemental information about the component may be useful in some cases, but not as a separate deliverable.

10. Suggestions for new projects

- General promotion project

- Specific project for the IUPAC Jubilee Paris congress (poster/presentation/exhibition)
  Helle started a project submission form.
  - How to visualize use of NPU terminology.
  - To make a movie to present as a video on site.
  - To support the video material, make flyers.
  - Ask IUPAC for travel money.
  - Helle is seeking for a place in the exhibition room.

- Microbiology revision project

11. Miscellany

- Definition of concept of unit
  - C-NPU recommends to keep the definition from the 8th revision.

- Widening the scope of C-NPU
  - KT suggested widening the scope of the committee to investigate the ‘laboratory information model’.
  - RF suggested to contact Howard Morris on need for a broader view on lab information
  - GN: Maybe not widening the scope, but widening the discussion.
  - Agreed that Howard Morris should be involved. Discussion and contact could involve cooperation with HL7.
  - Also SNOMED CT, LOINC; Phytus project Australia was mentioned. Device classifications exist in SNOMED CT and in European projects (IVDR), HL7 cooperation needed.

- Report from KT as C-NPU chair to IFCC scientific division
  - Paper from Young Bae on behalf of the C-NPU has been submitted: Recommendations on measurement units — why and how
  - There will be a vacancy for a titular member of C-NPU, as Antonin Jabors term ends now.
12. The meeting closed Friday, November 9th 2018 at 17:00