



## **Annual Meeting of the ACS Committee on Nomenclature, Terminology, and Symbols**

San Francisco National Meeting, Spring, 2010  
Monday, March 22, 2010, 2- 5 pm, Marriott Marquis Hotel, Pacific J meeting room.

### **Report on Biochemical and Carbohydrate Nomenclature**

The IUPAC-IUBMB Joint Commission on Biochemical Nomenclature (JCBN) met in Braunschweig, Germany May 1—2, 2009, with Dietmar Schomburg as chairman. As noted in an earlier report, JCBN has responsibility for general biochemical nomenclature: proteins, nucleic acids, and carbohydrates, along with steroids, terpenoids, and alkaloids, plus the major and important task of enzyme classification with the addition of new entries and the updating/correcting of existing entries.

The commission will hold its next meeting in Cambridge, UK, April 16—18, 2010, together with a special session on April 15 to discuss items of particular concern in the area of carbohydrates. The detailed agenda for that meeting has not yet been circulated, but one of the topics for the April 15 session is expected to be the nomenclature of flavonoids. The naming of these complex plant glycosides is frequently the source of confusion, and a working group has been set up by Dr Amelia Rauter (Lisbon) to address the topic. Project funding has been requested from IUPAC.

Also scheduled for the April 15 session is discussion of the previously reported plan for an abbreviated version of the 1996 IUPAC-IUBMB carbohydrate recommendations. This document would focus particularly on the needs of biochemists and glycobiologists, while omitting the large body of recommendations of primary interest to organic chemists. A preliminary outline of its scope is given here.

#### **Outline Proposal for a Supplement to the 1996 IUPAC-IUBMB Carbohydrate Recommendations (2-Carb)**

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This document expands and updates those sections of 2-Carb that deal with simple sugars, oligosaccharides, polysaccharides, and glycoconjugates of primary interest to biochemists, enzymologists, and glycobiologists.

1. Preamble – basics of monosaccharide names, 3-letter abbreviations and their modifiers (uronic acids, amino and deoxy sugars)
2. Glossary of terms (from 2-Carb)
3. Lists of Trivial Names and Systematic Equivalents
4. Nucleotide Sugars and Sugar Phosphates

5. Oligosaccharides and Polysaccharides
  - a. Abbreviated Descriptors
    - i. Standard (full detail)
    - ii. Condensed form
    - iii. Arrays (pictographic displays)
  - b. Cyclic Oligosaccharides and Inclusion Complexes
6. Polysaccharides - Common Names and Structural Equivalents (selected examples)
7. Glycopeptides
8. Glycoproteins
9. Peptidoglycans
10. Glycodendrimers
11. Glycoclusters
12. Glyconanoparticles

Any comments, suggestions, and additional proposals will be welcomed.

Respectfully submitted,

Derek Horton