

Letter to GlycoForum

New and updated glycoscience-related resources at NCBI

The [Symbol Nomenclature for Glycans \(SNFG\)](#) (Varki et al. 2015) was originally developed as a collaboration amongst the [Consortium of Glycobiology Editors](#) of the recently released third edition of the *Essentials of Glycobiology* textbook (published by [Cold Spring Harbor Laboratory Press](#)), and the [Programs of Excellence in Glycoscience](#) of the National Heart, Lung, and Blood Institute (NHLBI), following discussions among an extended community [SNFG Discussion Group](#) that represents some of the major contributors in the field.

As detailed in a recent [blog post](#) from the National Center for Biotechnology Information (NCBI), with the release of the third edition, the primary SNFG site (formerly [Appendix 1B](#) in the limited version of the book that was released in October 2015) has been separated from the book in order to provide greater functionality, and easy access for the user. The SNFG is now also part of the new [NCBI Glycans Page](#), which is dedicated to resources and developments in glycosciences. The SNFG has undergone an update as of June 2017, and includes a list of some useful external resources that have adopted the SNFG, as well as some [software programs](#) that support the SNFG standard.

NCBI resources currently do not allow expansion of this effort into the kind of support provided for other major macromolecule classes such as DNA, RNA and proteins. However, the [NCBI Glycans Page](#) does also highlight some useful external resources that have adopted the SNFG (such as [GlyTouCan](#)) (Tiemeyer et al. 2017) for better integrating the study of glycans into the mainstream of biology, and will be further developed over time, based on interest and usage by the scientific community. An initial connection with the

Swiss Institute for Bioinformatics [ExPASy Glycomics Resource Page](#) portal for glycomics and glycoproteomics has also been established. It is hoped that further integration with other ongoing glycan bioinformatics efforts at NIH and broad international support will eventually result in the much-needed re-inclusion of glycans into a more complete approach to biology and medicine, and the effective training of new generation of biomedical investigators who incorporate glycosciences into their research agendas (Agre et al. 2016).

While the NCBI-supported pages originated from the Editors of the textbook, the plan is to hand over future management to community advisory groups.

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References

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