

Special Issue

New Insights into Protein Glycosylation

Message from the Guest Editor

To understand life in an integrated manner, it is essential to understand protein glycosylation: a growing and high-impact field exploring the structure and function of the carbohydrates that clothe most living cells. In this Special Issue, we hope to take an interdisciplinary approach, particularly highlighting work in chemistry and biology, to summarize the current status and discuss the future development and prospects of protein glycosylation in terms of its functions and analytical methods. Protein glycosylation in extracellular or membrane proteins includes *N*-linked glycosylation and mucin-type *O*-linked glycosylation starting with GalNAc in addition to *O*-Fuc, *O*-Gal, *O*-Glc, *O*-GlcNAc, *O*-Man and *O*-Xyl, and *C*-Man. There are also a variety of nucleocytoplasmic proteins modified with *O*-GlcNAc by OGT. Their functions are involved in diverse biological processes such as cellular signaling, immunity, neural function, pathological conditions such as cancer, and viral infections, including COVID-19.

Guest Editor

Prof. Dr. Hideyuki Takeuchi

School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka 422-8526, Japan

Deadline for manuscript submissions

closed (10 May 2022)



Molecules

an Open Access Journal
by MDPI

Impact Factor 4.6
CiteScore 8.6
Indexed in PubMed



mdpi.com/si/67787

Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

[mdpi.com/journal/
molecules](https://mdpi.com/journal/molecules)





Molecules

an Open Access Journal
by MDPI

Impact Factor 4.6
CiteScore 8.6
Indexed in PubMed



[mdpi.com/journal/
molecules](https://mdpi.com/journal/molecules)



About the Journal

Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Reaxys, CaPlus / SciFinder, MarinLit, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).