

## Special Issue

# In Search of Selective High-Affinity Compounds to Inhibit Carbonic Anhydrases

### Message from the Guest Editor

Carbonic anhydrase (CA) is a fascinating enzyme that has been studied for over 80 years. Humans have 12 catalytically active, Zn-bearing isoforms of CA. Numerous drugs have been developed that target CAs, and the enzyme has worked as a model protein for a large number of biochemical and biophysical studies. Isoform CA IX is highly overexpressed in numerous cancers, making it a potential anticancer target for diagnostics and therapy. Despite ongoing clinical trials, however, no drug targeting CA IX has yet been approved as an anticancer agent. I would like to invite you to submit papers to this Special Issue that address any research topic from organic synthesis and characterization of novel compounds that bind CAs to the structural studies that describe novel compound binding to CAs all the way to the biological mechanism CA IX and other isoforms play in cancer and other diseases. Any preclinical or clinical developments in the application of carbonic anhydrases as drug targets are welcome.

### Guest Editor

Prof. Daumantas Matulis

Department of Biothermodynamics and Drug Design, Institute of Biotechnology, Life Sciences Center, Vilnius University, Saulėtekio 7, LT-10257 Vilnius, Lithuania

### Deadline for manuscript submissions

closed (15 March 2020)



## Biomolecules

---

an Open Access Journal  
by MDPI

---

**Impact Factor 4.8**  
**CiteScore 9.2**  
**Indexed in PubMed**



[mdpi.com/si/2861](https://mdpi.com/si/2861)

*Biomolecules*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomolecules@mdpi.com](mailto:biomolecules@mdpi.com)

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





# Biomolecules

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



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



## About the Journal

### Message from the Editorial Board

*Biomolecules* is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

---

### Editors-in-Chief

Prof. Dr. Peter E. Nielsen

Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, USA

---

### Author Benefits

#### Open Access

— free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Biochemistry)