Special Issue

New Insights into Integrins: 2nd Edition

Message from the Guest Editor

Integrins were originally identified as a family of receptors for extracellular molecules and cell surface molecules in the 1980s. We and other labs discovered that integrins also interact with soluble ligands such as growth factors. Almost a decade ago, several growth factors were found to bind to integrins and cognate receptors simultaneously and generate integrin-growth factor–cognate receptor ternary complex, and growth factor mutants defective in integrin binding are defective in signaling and act as antagonists. It has been recently shown that a6b1-FGF2-FGFR ternary complex plays a critical role in stem cell maintenance. Also, we identified an allosteric site of integrins, which is distinct from the classical RGD-binding site. Several integrin ligands bind and induce integrin activation in an allosteric manner. Site 2 was shown to be a binding site for inflammatory lipid mediator and is involved in inflammatory signaling in innate immunity. The integrin-growth factor interaction and allosteric activation through site 2 would be new therapeutic targets. This issue on “New Insights into Integrins” is designed to facilitate the progress of newly opened fields of integrins.

Guest Editor

Prof. Dr. Yoshikazu Takada

1. Department of Dermatology, University of California School of Medicine, Research III Suite 3300, 4645 Second Ave., Sacramento, CA 95817, USA
2. Department of Biochemistry and Molecular Medicine, University of California School of Medicine, Research III Suite 3300, 4645 Second Ave., Sacramento, CA 95817, USA
3. VA Northern California Health Care System, 150 Muir Road, Martinez, CA 94553, USA

Deadline for manuscript submissions

25 July 2026

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/264814

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

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

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)

MDPI