

Special Issue

Single Molecule Tracking and Dynamics

Message from the Guest Editor

The foundations for many of the methods that enable single particle tracking and single molecule imaging are now well established, this area of research is remarkably vibrant. Advances in research on photoactivated proteins and permeable dyes have enabled applications to progress from imaging cell membranes to imaging intracellularly with single molecule sensitivity and specificity. Concomitant with these developments, optical instrumentation and methods that were once restricted to an individual's laboratory are now widely commercially available. This terrific progress has been highlighted by a series of recent Nobel Prizes, including the 2022 prize for developments and applications in click chemistry and bio-orthogonal chemistry. The advent of ubiquitous pattern recognition approaches has simplified the analysis of tracking results. These methods have reduced the number of experimental errors and significantly increased the confidence in analytical interpretation of acquired data. Since their inception, single molecule tracking approaches have enabled the verification of proposed models. Contemporary applications continue to push the boundaries and establish new frontiers.

Guest Editor

Dr. Ben Ovryn

Department of Physics, New York Institute of Technology, Old Westbury, NY, USA

Deadline for manuscript submissions

closed (30 April 2024)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/171798

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle
Marche, Via Ranieri 65, 60100 Ancona, Italy

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, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

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