DESCRIPTION

The Journal of Molecular Biology provides high quality, comprehensive and broad coverage in all areas of molecular biology. The journal publishes original scientific research papers that provide mechanistic and functional insights and report a significant advance to the field. The journal encourages the submission of multidisciplinary studies that use complementary experimental and computational approaches to address challenging biological questions.

Research areas include but are not limited to: Biomolecular interactions, signaling networks, systems biology Cell cycle, cell growth, cell differentiation Cell death, autophagy Cell signaling and regulation Chemical biology Computational biology, in combination with experimental studies DNA replication, repair, and recombination Development, regenerative biology, mechanistic and functional studies of stem cells Epigenetics, chromatin structure and function Gene expression Membrane processes, cell surface proteins and cell-cell interactions Methodological advances, both experimental and theoretical, including databases Microbiology, virology, and interactions with the host or environment Microbiota mechanistic and functional studies Nuclear organization Post-translational modifications, proteomics Processing and function of biologically important macromolecules and complexes Molecular basis of disease RNA processing, structure and functions of non-coding RNAs, transcription Sorting, spatiotemporal organization, trafficking Structural biology Synthetic biology Translation, protein folding, chaperones, protein degradation and quality control !!! Important information for NIH authors !!!

AUDIENCE

Molecular biologists, biochemists, structural biochemists, geneticists, virologists and cell biologists.

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INTRODUCTION
The *Journal of Molecular Biology* provides high quality, comprehensive and broad coverage in all areas of molecular biology. The journal publishes original scientific research papers that provide functional and mechanistic insights and report a significant advance to the field. The journal encourages the submission of multidisciplinary studies that use complementary experimental and computational approaches to address challenging biological questions.

In addition to research Communications and Articles, the journal welcomes submission of Methods Notes Databases/ Web Servers, Brevia, Perspectives and Reviews

Research areas include but are not limited to: DNA replication, repair and recombination, gene expression, epigenetics and chromatin structure and function, RNA processing, functions of non coding RNAs, transcription, structure, chemistry, processing and function of biologically important macromolecules and complexes, Biomolecular interactions, systems biology, Computational biology, Translation, protein folding, processing and degradation, Sorting, spatiotemporal organization, trafficking, signal transduction and intracellular signaling, Membrane processes, cell surface proteins and cell-cell interactions, Molecular basis of disease, Methodological advances, both experimental and theoretical, including databases.

The Journal will not, as a rule, publish papers which fall outside the areas defined above.

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The *Journal* aims to publish novel and significant research in the general areas of molecular genetics and structural biology. Acceptance of papers for publication in the *Journal* is at the discretion of the Editors. All manuscripts are reviewed initially by the Editorial Board and only those papers that meet the scientific and editorial standards of the *Journal* will be sent for outside review. Authors may indicate in their cover letter a suitable Editor to whom the paper could be allocated. However, the *Journal* reserves the right to reallocate manuscripts to the most appropriate Editor.

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The *Journal of Molecular Biology* discourages authors from submitting multiple manuscripts on closely related topics. Submission of two or more related manuscripts intended for simultaneous publication will be permitted only under exceptional circumstances. Authors wishing to submit related manuscripts must obtain prior permission from the Editors.

The Board will editorially reject papers, without outside review, if in their opinion the paper falls outside the scope of papers normally published by JMB, if the paper lacks originality, or if the paper fails to meet expected technical standards. The following specific points are brought to the attention of authors:
(a) **Originality.** The Board will reject those papers that it considers to provide only slight or incremental advances over previously published material.

(b) **Methodology papers.** Papers that deal only with new methods and do not contain important new results discovered by means of these methods will be accepted only when the general applicability and interest of the method are immediately obvious and clearly documented in the manuscript. Improvements on existing methods will in general be viewed as appropriate to more specialized journals unless it can be shown that they lead to important new insights that were not accessible with current technologies.

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Papers dealing with amino acid sequences of proteins or with nucleotide sequences must carry a statement that the data have been deposited with an appropriate data bank, e.g., the European Molecular Biology Laboratory (EMBL) or GenBank Data Libraries. The data base accession number must be given at the end of the Materials and Methods section of the manuscript under the separate heading 'Accession numbers'. For example: Coordinates and structure factors have been deposited in the Protein Data Bank with accession number 2XYZ. Lengthy nucleotide sequences will be published only if, in the judgement of the Editorial Board, these results are of general interest and importance.

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For papers describing structures of biological macromolecules, the atomic coordinates and the related experimental data (structure factor amplitudes/intensities and/or NMR restraints) must be deposited at a member site of the Worldwide Protein Data Bank (http://www.wwpdb.org): RCSB PDB (http://www.pdb.org), MSD-EBI (http://www.ebi.ac.uk/pdbe/), PDBj (http://www.pdbj.org), or BMRB (http://www.bmrb.wisc.edu). Manuscripts must carry a statement that coordinates and structure factors (or NMR restraints) have been deposited in the Protein Data Bank. The accession number(s) must be cited in the manuscript at the end of the Materials and Methods section. Authors must agree to release the atomic coordinates and experimental data immediately upon publication. Small angle scattering (Small angle X-ray and neutron scattering (SAXS and SANS)) data and structural models must be deposited at SASDBD (https://www.sasbdb.org) prior to submission. The database accession numbers must be cited in the manuscript and authors must agree to release the experimental data and structural models immediately upon publication.

For papers reporting structures determined by electron microscopy, the 3D map must be deposited at either the EMBL-EBI or RCSB EMDB site (http://www.emdatabank.org). The fitted atomic coordinates must be deposited at a member site of the Worldwide Protein Databank (see links above). The database accession numbers must be cited in the manuscript and authors must agree to release the atomic coordinates and experimental data immediately upon publication.

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NMR assignment data must be deposited in the BioMagResBank (BMRB; http://www.bmrb.wisc.edu). The accession number(s) must be cited in the manuscript at the end of the Materials and Methods section. Tables listing resonance assignments will not be published in the Journal but may be deposited as Supplemental data that will be actively linked to the online version of the paper. Supplemental data must be included with the manuscript submitted for review (see below for full instructions).

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In keeping with NIH guidelines, the Journal considers it to be good practice for cultured cell lines to be authenticated. A description of the methods used to authenticate cells should be included in the Materials and Methods section. Authors are expected to check that cell lines used in their experiments are free from mycoplasma infections.

**Types of paper**

The Journal of Molecular Biology will publish full Articles, Communications, Reviews, Perspectives, Brevia, Methods Notes, Databases/ Web Servers.
**Articles** are not limited in length but the editors recommend that in most cases they should be no longer than 15 printed pages with no more than 10 figures and 4 tables. Note that 1 printed page is roughly equivalent to 2.5 pages in a Word document using double spacing and Arial Font 11.

**Communications** are brief papers that make a specific well-documented point. In general, a Communication should include no more than four figures and tables. The text will be continuous, with technical and methodological detail printed in the legend to the tables and figures.

**Reviews** are scholarly and balanced accounts of progress in fields of interest to the general reader. Reviews should be no longer than 12 printed pages and with no more than 12 figures and tables. Authorship is normally by invitation: an Editor should be consulted in advance by anyone wishing to submit an unsolicited Review.

**Perspectives** are brief reviews that present a sharply focused view of a rapidly advancing area of research. Authorship is normally by invitation: the Editor-in-Chief or Scientific Editor should be consulted in advance by anyone wishing to submit an unsolicited Perspective.

**Brevia** are brief notes that report a specific well-documented result. Brevia are limited to a single page, including references and captions, and contain only one figure or table. Details of methods must be provided as Supplemental Material.

**Methods Notes** report novel methods of immediate and general interest and applicability. Methods Notes are limited to 5 pages, including references and captions, with a maximum of 3 displayed items (figures or tables). Additional details required to implement the new method must be provided as Supplemental Material. Preliminary enquiries about the suitability of a submission to this section are encouraged.

**Databases** and **web servers** are descriptions of new or updated databases and web servers of broad interest to the general readership of the journal. The database/server must be freely available to the academic community. The journal has set some limits on the length of the database/server articles. The journal requires that database/server articles should have less than 5000 words including title, abstract, legends, acknowledgements and references, a maximum of 3 displayed items (figures or tables) that in total will occupy less than one and a half (1 1/2) printed pages, and less than 50 references. Additional details required to implement the new method must be provided as Supplemental Material. Normally, the title of the paper will start with the database/server name. If the requirement to start with a name is not appropriate, please consult with the journal. On submission, the authors must in their covering letter identify any previous publications reporting this (or a closely-related) database/server and explain why this paper presents a substantial advance. Related databases/servers must be reported and referenced in the article. Preliminary enquiries about the suitability of a submission to this section are encouraged.

**Contact details for submission**

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- Computational biology
- Translation, protein folding, processing and degradation
- Sorting, spatiotemporal organization, trafficking, signal transduction and intracellular signalling
- Membrane processes, cell surface proteins and cell-cell interactions
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<th>Details</th>
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<td>Audio</td>
<td>MP3</td>
<td>MPEG-1 or MPEG-2 format required; highest possible quality required; audio bit rate at least 128 kbps</td>
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<td>MPG</td>
<td>Acceptable video format; MPEG-1 or MPEG-2 format required; highest possible quality required</td>
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