Biochemistry: Scope and Content

Scope
Biochemistry provides an international forum for publishing exceptional, rigorous, high-impact research across all of biological chemistry. This broad scope includes studies on the chemical, physical, mechanistic, and/or structural basis of biological or cell function and encompasses the fields of chemical biology, synthetic biology, disease biology, cell biology, nucleic acid biology, neuroscience, structural biology, mechanistic enzymology, and biophysics.

Content
Biochemistry publishes original research in three formats: Communications, Research Articles, and, for the description of new biological chemistry methods, a new format called From the Bench. Biochemistry also publishes review articles, called Perspectives, as well as Viewpoints that focus attention on recent, significant discoveries in the field reported in Biochemistry or elsewhere. All manuscripts are submitted online at https://acs.manuscriptcentral.com/acs; choosing a manuscript type is the first step in the online submission process. Templates are available for both Communications (where they are required) and Articles (where they are preferred, but optional).
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FROM THE BENCH. Biochemistry From the Bench submissions are designed to report fundamentally new (or significantly improved) experimental, computational, or bioinformatics methods of interest to members of the biological chemistry community. To enhance the practical relevance of each paper, From the Bench submissions must include a detailed description of the method, including all technical details necessary to ensure reproducibility, and the results of a validation study that demonstrates a clear advantage of the new method when compared to currently available approaches. Application of the method to provide new biological insight is not required.
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Disclosing Conflicts of Interest
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Biochemistry: Formatting your Submission

General Considerations

**TEXT.** Manuscripts must be prepared using accepted word-processing software as defined [here](#). LaTeX users should follow the detailed guidelines available at [this site](#).

**TABLES.** Tables may be prepared in Microsoft Word, Microsoft Excel, or LaTeX and must be embedded in the word-processing file. Authors are asked to number tables consecutively using Arabic numerals and include a descriptive heading that explains the table. Please designate footnotes with a letter and cite in the table by italic superscript letters, labeling sequentially by lines of the table.

**GRAPHICS.** Manuscripts should be submitted with all graphics embedded in the word-processing document near where they are discussed and would appear in the final publication. Separate graphic files may also be included with the submission package. Additional acceptable file formats for graphics are TIFF, PDF, or EPS (vector artwork). EPS is preferred for line-art figures. TIFF files are preferred for photographs.

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**NAMING, NUMBERING, LETTERING.** All graphics should be numbered consecutively beginning with Figure 1 and using Arabic numerals. Boldface Arabic numerals should be used for numbering structures. Lettering should be ≥6 points, and lines should have
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**TITLE.** Titles should clearly and concisely reflect the emphasis and content of the paper and be accessible to a broad audience. Do not use trade names of drugs or abbreviations. Serial numbers may be used only if consecutive papers appear in the same issue of *Biochemistry*.

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**ABSTRACT.** All Communications, Research Articles, From the Bench, and Perspectives contributions should contain an abstract. The Abstract should, in fewer than 250 words, succinctly present the problem studied, the experimental approach employed, and the major findings, conclusions, and significance of the work. The
Abstract should be self-explanatory and suitable for direct reproduction. Footnotes or undefined abbreviations may not be used.

**INTRODUCTION.** The Introduction should state the motivation for the investigation and its relationship to other work in the field. Extensive reviews of the literature should be avoided. The last paragraph of the introduction should summarize the major findings, conclusions, and significance of the work, without reproducing the abstract. The Introduction has no header.

**MATERIALS AND METHODS.** Materials and experimental details should be described in sufficient detail to enable others to repeat the experiments. UniProt Accession IDs and/or protein IDs ([http://www.uniprot.org/](http://www.uniprot.org/)) should be provided for all proteins that are purified and/or characterized. Names of products and manufacturers should be included only if alternate sources are deemed unsatisfactory. Articles reporting data from experiments on live animals must include a statement identifying the approving committee and certifying that such experiments were performed in accordance with all national or local guidelines and regulations. Results from experiments involving humans or tissue samples must additionally include a statement that informed consent was obtained from the subject or from the next of kin. Novel experimental procedures should be described in detail, but published procedures should merely be referred to by literature citation of both the original and any published modifications. In submitting a manuscript to *Biochemistry*, authors agree to make available to interested academic researchers for their own use any materials reported in their manuscript that are not otherwise obtainable. Such requests should respect the purpose for which an author has prepared the materials being requested in order to avoid conflicts of competition with the originating laboratory.

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**Target-based Screening.** Bioactive molecules identified through target-based and/or phenotypic screening assays should include thorough structure-activity relationship (SAR) characterization and detailed biophysical testing for functional validation and artifactual assay activity. Counterscreens for irreversible inhibition as well as nonspecific activity by pan-assay interference compounds (PAINS) should be performed. Full concentration response curves, binding constants, compound stability and purity should be measured and reported for all compounds of interest. Screening hits should be reviewed for resemblance to known PAINS chemotypes, either using *in silico* tools (found [here](#)) or through careful literature review.

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Manuscripts evaluated beyond this initial assessment are reviewed by at least two independent experts, who return written comments, transmitted faithfully to the author, typically within 4 weeks (2 weeks for Communications). Reviewers are expected to disqualify themselves if their evaluations could be marred by even an appearance of a conflict of interest, such as a prior or current association with the laboratory of the author or a preconceived opinion about the work. Authors are required to recommend at least four experts who could offer expert and unbiased reviews and are not members of the Editorial Advisory Board. Authors may also identify in their cover letter as many as three individuals who should be excluded from the potential reviewer pool; these exclusions must be accompanied by an explanation. Members of the Editorial Advisory Board cannot be disqualified from participating in the final disposition of a manuscript.
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