Call for Papers

ACM-BCB 2027 Research Track

18th ACM Conference on Bioinformatics,
Computational Biology, and Health Informatics
UMass Boston · Boston, Massachusetts, USA · August 10–13, 2027

Call for Research Papers

The 18th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB 2027) invites original research contributions at the intersection of computing, biology, health, and medicine. The conference brings together researchers and practitioners advancing methods, systems, and applications in bioinformatics, computational biology, and health informatics. Accepted Research Track papers will be published in the ACM conference proceedings and presented at ACM-BCB 2027, held August 10–13, 2027 at UMass Boston.

Topics of Interest

Topics include, but are not limited to:

- Haplotypes and population genomics
- Computational drug discovery
- Multi-omics integration and analysis
- Genomic variation and disease
- Phylogenetics
- Protein analysis, structure, and dynamics
- Biomedical imaging analysis and informatics
- Metagenomics and microbiomes
- Pharmacogenomics
- Biological networks and systems biology
- Biomedical knowledge graphs
- AI and machine learning in biology, medicine, and healthcare
- Explainable AI and AI interpretability
- Trustworthy AI and agentic AI
- Natural language processing for biomedicine and health
- Large language models (LLMs) for biomedicine and health
- Semantic representation of LLMs
- Harmonization of multimodal health data
- Health data spaces, ontologies, and standards
- Computational phenotyping
- Multimodality biomedical data analysis
- Biomedical and health data analysis, management, and visualization
- Wearable sensor informatics
- Computational epidemiology
- Computer-assisted diagnosis and recommendation systems
- Security and privacy of biomedical and health data
- Social media analysis for healthcare
- Digital twin for healthcare

Important Dates

All deadlines are 11:59 PM Anywhere on Earth (AoE).

Milestone	Date in 2027
Abstract preregistration	March 19
Full paper submission	March 26
Final acceptance notification	May 28
Camera-ready submission	June 25
Conference	August 10–13

Submission Requirements

Originality. Submit original work that has not been published and is not under review elsewhere. Prior preprints and technical reports are permitted; authors should avoid citing their own preprint in the anonymous submission.

Paper format and length. Regular Research papers must be 8–10 pages, including references, in the double-column ACM SIG conference format. Optional appendices may follow the references beyond the page limit. Reviewers may choose whether to consider appendices, so the paper must stand on its own.

ACM template. Use the official ACM Proceedings Primary Article Template. Do not modify the prescribed style files or formatting.

Abstract preregistration. A meaningful abstract consistent with the final paper must be registered by March 19, 2027. New submissions cannot be started after the abstract deadline. The full paper is due March 26, 2027.

Authorship. The author list must be final at full-paper submission. Later changes require Program Chair approval. All listed authors must satisfy ACM authorship requirements.

Submission system. The Research Track paper-submission portal will be announced on the conference website.

Double-Blind Review

Research Track submissions are reviewed double-blind. Remove author names, affiliations, acknowledgments, and grant identifiers from the manuscript. Cite your own prior work in the third person, and anonymize code, supplementary files, datasets, and repository links. Prior preprints and technical reports are allowed, but authors should avoid citing their own preprint in the anonymous submission.

Submissions are evaluated for originality, technical soundness, significance, clarity, and relevance to ACM-BCB. The review process has two cycles, allowing authors to respond to feedback and revise their manuscripts before the final decision on May 28, 2027. Intermediate instructions and deadlines will be provided through the submission system.

Publication and Presentation

Accepted Research papers will appear in the ACM conference proceedings. Camera-ready preparation instructions and applicable ACM publication requirements will be provided to accepted authors.

Accepted work must be presented at the conference in the format assigned by the program committee. At least one author of each accepted paper must register by the applicable author-registration deadline.

Multiple-Submission Policy

A manuscript may not be under review at another journal, conference, or archival workshop at the time of submission and may not be submitted elsewhere during the ACM-BCB 2027 review period. Submissions must not overlap significantly in content or results with work published, accepted, or under review elsewhere.

Authors submitting related papers to ACM-BCB 2027 must ensure that the submissions make clearly distinct contributions. Identical or closely related work submitted to more than one ACM-BCB 2027 track will be treated as duplicate submission and may be rejected without review.

Ethics, Human-Subjects Research, and Confidentiality

All authors are subject to the ACM Code of Ethics and ACM Publications Policies, including the policy on research involving human participants and subjects. Work involving patient data, clinical deployment, or human subjects should state the ethical and regulatory basis on which it was conducted, including ethics or IRB approval and consent or waiver arrangements where applicable.

Submissions are confidential during review. Committee members with conflicts of interest do not participate in the review or decision for the affected submission. Authors must avoid including confidential information they are not authorized to disclose.

Policies. Authors should review the ACM Publications Policies before submission, including current policies on authorship, research involving human participants, and use of generative AI tools.

Contact

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General Chairs:

- Wei Ding, UMass Boston, USA
- Fusheng Wang, Stony Brook University, USA
- John Quackenbush, University of Chicago, USA

Conference website: https://acm-bcb.org/research.php