

Research Project Proposal INSTRUCTIONS

GlycoMIP research proposals are **completed by the Project Advocate (PA) with the PI(s)** FOLLOWING a proposal submission through the User Portal. The PA will forward the final proposal as a PDF file to the GlycoMIP Program Coordinator (mills@vt.edu) to be filed with other project documents (signed agreements, Biosketches, etc.). Proposals must include the following.

Project Title (Project ID, assigned by the Program Coordinator following successful submission)

PI/Co-PI Name(s)

GlycoMIP Project Advocate Name

Submission Date

Section I: Project Summary (1-2 pages)

1. Project Overview and Goals (Provide brief overview of the project)
 - a. Provide concise motivation for the proposed work
 - b. Describe desired outcomes (goals), and indicate if new products/materials may be generated
2. Relevant to glycomaterial synthesis, characterization, modeling and/or automation, describe the extent to which the proposed research activities advance the following:
 - a. Tools and methods
 - b. Knowledge
 - c. Technologies
 - d. Training of next-generation glycomaterials researchers
3. Intellectual Merit. Describe the potential for the project to advance knowledge and understanding **within the glycomaterials community** or across related fields.
4. Broader Impacts. Describe how the project is expected to **benefit society or advance desired societal outcomes**, including:
 - a. What outcomes are to be shared with GlycoMIP community (non-proprietary projects only)
 - b. What material(s), data or model(s) are to be added to the GlycoMIP databases (non-proprietary projects only)
 - c. Briefly describe any planned collaborations within and outside of GlycoMIP related to this project
5. (For In-House Research ONLY) Specify the GlycoMIP Specific Research Objectives (SRO) addressed in this proposal. Current SRO's are available through the Research page of the website (glycomip.org).

Section II: Research Plan (1-2 pages)

1. User Research Team (List of team members and project roles)
 - a. Identify any team members who are expected to travel to user facility
2. Background (Include hypothesis and/or preliminary data, as appropriate)
3. Approach and Proposed Activities:
 - a. Describe the scientific approach to be employed for each proposed activity



- b. Explain the need for use of the GlycoMIP user facility, including anticipated deliverables from the GlycoMIP facility.
 - i. Describe samples to be provided by the User, including quantity
 - ii. Expected analysis, data and data format, etc.
- c. In Table format, list the Project Milestones and anticipated Milestone Durations (in months).

Project Deliverable/Milestone	Expected Timeline (months)
Example: Deprotect, purify and characterize (NMR) synthesized material.	3-5

4. Describe Research Activities to be Performed Elsewhere.
 - a. What activities will occur at your home institution?
 - b. What activities will occur at other institutions or laboratories?
 - c. List any synergistic (non-GlycoMIP) services to be used.

Section III: References (no page limit)

Section IV: PI/Co-PI Biosketch(es) (in NSF format – uploaded with User Portal submission as a separate document; will be appended to the proposal prior to review)

NSF Instructions: [U.S. NSF – About Biographical Sketch](#); Template: [NSF Biosketch 20-1](#)

Proposal Review Process and Criteria

All research proposals will be reviewed for feasibility and written feedback provided to the PI and PA.

External proposals (research outside of GlycoMIP's *In-House Research Program*) will be reviewed by the *GlycoMIP Reviewer Pool* comprised of representatives from academia, industry and/or national user facilities, and appointed on the basis of their scientific and technological expertise. Review criteria will include:

- Alignment of project scope with GlycoMIP focus, such as advancing tools or methods development, knowledge, technologies and/or the training of next-generation glycomaterial researchers.
- How use of GlycoMIP capabilities are critical to the success of the project.
- Level of user participation and commitment to ensuring project success.
- Intellectual merit (potential to advance knowledge within the field or across different fields).
- Broader impacts (potential to benefit society or advance desired societal outcomes).

GlycoMIP In-House Research proposals will be reviewed by the GlycoMIP Leadership Team, under the guidance of the assigned Project Advocate. Additional review criteria will include the support of GlycoMIP's in-house research goals.