

MOLECULAR BIOTECHNOLOGY TRAINING PROGRAM (MBTP) REQUIREMENTS – GAANN

The **GAANN Biotech Fellowship** support for students is funded by the United States Department of Education. The MBTP Program, a multi-disciplinary pre-doctoral research training program was established with the goal of enhancing students' research and training in molecular biotechnology beyond the exposure provided by their doctoral programs. The Fellowship is intended for graduate students who intend to become university teachers and/or researchers.

Fellows are selected for a two-year period, based on academic performance, after nomination by the student's faculty advisor, selection by the MBTP Executive Committee, and approval by the Graduate School. Funding for the second year is contingent upon satisfactory progress and MBTP participation during the first year of the fellowship and the availability of funds.

Coursework

- Completion of a **Biotechnology Minor** (included in student POW)
 - BIT 510, Core Technologies in Molecular and Cellular Biology
 - 2 advanced BIT laboratory module courses in specific and current technologiesOR
 - 3 advanced BIT laboratory module courses if placing out of BIT 510.
- BIT 815 Capstone Biotechnology **Spring 2024**
- BIT 811 Professional Development (or equivalent) **Fall 2024**
- BIT 815 Research Ethics (or equivalent) **Fall 2023**
- BIT 815 Rigor & Reproducibility in Research **Spring 2023**

Service Project

Trainees will propose and complete a service project that is intended to foster the development of biotechnology by encouraging this career route among K-12 or undergraduate students.

Professional Development

Trainees will join faculty in attending an annual Molecular Biotechnology Research Symposium, typically in October or November. These events will provide opportunities for Trainees to hear from and interact with distinguished researchers in the academic and industrial biotechnology community. Poster presentations *are required at each event*, and oral presentations by fellows are encouraged at least once, either during the support period or immediately thereafter. Trainees are encouraged to interact with the MBTP throughout their graduate career. Next events: potential date in Spring 2023 TBD and **Thursday, November 2, 2023**.

Annual Reports

Students will be required to complete an annual report form on their progress, accomplishments, and activities. This report will be due in March/April of each year.

IDP

Federal granting agencies have mandated that all students and postdocs receiving supporting funds are required to use individual development plans (IDP) to provide structure for tracking career development and learning goals. IDPs will be completed and discussed with the Fellow's mentor and/or an MBTP Executive Committee member in the spring semester of each year of support. Students are encouraged to use the AAAS online tools for creating or modeling an IDP at <http://myidp.sciencecareers.org/> but can also create their own form.

Research Ethics Training

Students must participate in a short refresher training module three years after completing initial research ethics training (BIT 815K or equivalent approved class). This training is valid for three years and should be current before completing the PhD. This training is available through CITI at the following link: <https://research.ncsu.edu/sparcs/compliance/rcr/>

Teaching Experience

Fellows are required to meet GAANN statutory requirements with a program that:

- Provides instruction on effective teaching techniques
- Provides supervision of the fellow's teaching performance
- Provides evaluation of the fellow's teaching performance

Supervised teaching combined with evaluation will be through mentorship over two semesters, and should include training in lesson preparation and also course planning if applicable. This can be done with the PI, faculty in the student's home or related department, or the Biotechnology Program. This is *not* a teaching assistantship position.

Instruction on Teaching for GAANN Fellows at NC State

Until this year, The Graduate School has offered a Teaching and Communication Certificate.

Understaffing and reorganization has resulted in a loss of many of the workshops that were offered. For students joining the program in 2022 until further notice, please choose from the following options.

Option 1:

Professional Portfolio Development Series with Dr. Katie Homar at The Graduate School (or equivalent substitution) plus 6 hours of workshops through OFD or DELTA. Dr. Homar will offer the Portfolio series in Spring 2023 on Tuesdays from 1:00-3:00pm. Registration will open in December and be posted [here](#). Additional workshops currently available can be found here:

[Back to Basics](#) workshops through the Office of Faculty Excellence

[Workshops through DELTA](#) can be found on the calendar at the bottom of the page. Examples:

- Applying Universal Design Principles to Teaching: Increasing Equity, Access, and Engagement [AOE-DELTA-UDLACC](#)
- Applying Universal Design Principles to Teaching: Increasing Equity, Access, and Engagement - AOE-DELTA-UDLACC
- Gamify Your Course with Moodle and our Gamification Module! - AOE-DELTA-GAMIFYOL

Option 2:

[Inclusive Teaching Certification](#) through Office of Faculty Excellence

Option 3:

[Teaching in Biomedical Sciences Certificate](#) through the Centennial Biomedical Campus

Alternative training may be proposed and is subject to approval by the Program Directors. Please email your questions to Laura Schenkman (lrschenk@ncsu.edu) for assistance.