

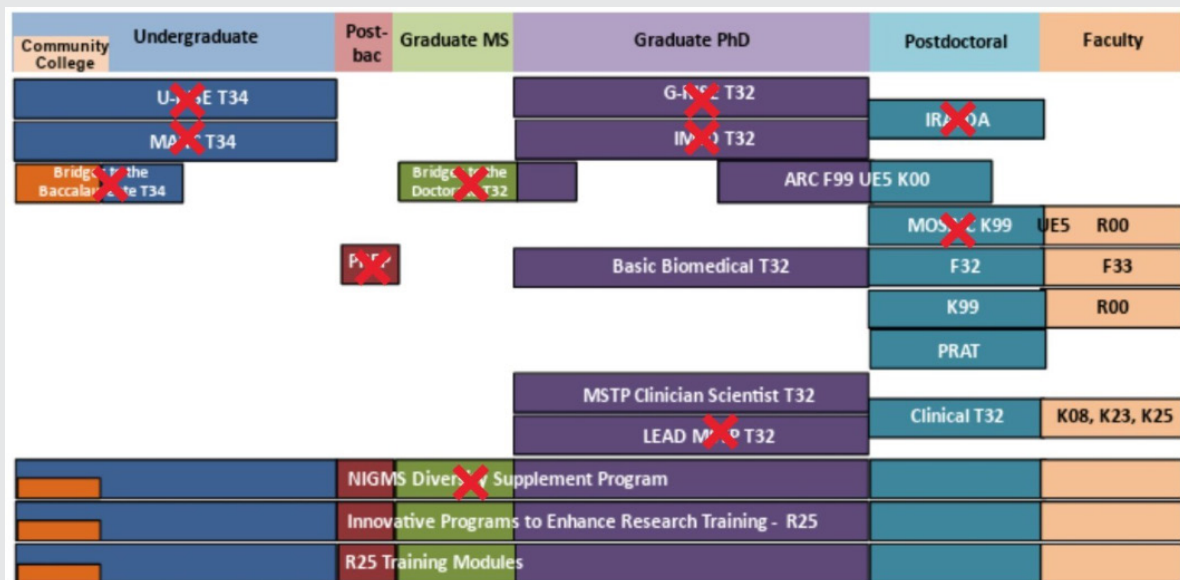
National Institutes of Health training programs

America has maintained the world's largest and strongest scientific workforce for nearly a century, thanks in large part to the National Institutes of Health (NIH) and the National Science Foundation (NSF). Its investment in training the next generation of scientists in the biomedical sciences has ensured that the scientific workforce maintains a competitive pool of highly qualified talented scientists, driving innovative breakthroughs.¹

The largest extramural program training program is the Ruth L. Kirschstein National Research Service Awards (NRSA) program, which supports pre- and postdoctoral research training awards to both institutions and individuals. In 2023, the NRSA program invested in **over 17,000 graduate students and postdoctoral fellows**² to ensure America's next generation is equipped with the skills, knowledge and technology they need to drive tomorrow's discoveries.

Until recently, the National Institutes of General Medical Sciences (NIGMS) ran 20 programs that directly trained hundreds of students and scholars in biomedical research. And the National Science Foundation runs a prestigious fellowship program, the Graduate Research Fellowship Program, that funds 2,000 early career scientists and ensures the quality, vitality and strength of the scientific workforce stay intact. However, in April 2025, both NIGMS programs and the NSF fellowship program were cut either entirely or severely downsized, damaging the scientific workforce pipeline and enterprise.

These cuts have decreased NSF GRFP awards by half, NIH research training programs by 55%, removing **all** training programs for community college, undergraduate and master's students, and postbaccalaureate scholars, **half** of the graduate training programs and a **third** of postdoctoral programs, which will negatively impact science in all sectors, including industry.



¹ National Research Council (US) Committee on National Needs for Biomedical and Behavioral Research Personnel. Meeting the Nation's Needs for Biomedical and Behavioral Scientists. Washington (DC): National Academies Press (US); 1994. Appendix A, Historical Overview. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK236727/>

² The National Institutes of Health (NIH): Background and Congressional Issues. (2025, April 16). <https://www.congress.gov/crs-product/R417052>

Short-term impacts

- Training for thousands of scholars will be halted nationwide.
- Research in dozens of labs will be paused.
- Students will be dissuaded from entering science research fields.

Long-term impacts

- Slowing scientific innovation by reducing laboratory manpower, especially at low-resourced institutions.
- Losing any return on investment from training to pool of talented domestic and foreign scientists.
- American trained scientists will seek jobs outside of the country, resulting in a significant brain drain.

Snapshot of NIH training programs cuts

At the NIH, training programs are designed to support every stage of a researcher's career from the undergraduate level up to experienced investigator.

To ensure the scientific pipeline remains intact, the ASBMB urges Congress to invest in NIH and NSF training programs that maximize the talent pipeline at all career stages.

Stages of a scientific research career

Career stage	Stage description
Community college, undergraduate and postbaccalaureate	Current students or recent recipients of bachelor's degrees who are studying or working in scientific research.
Predoctoral/graduate training	Graduate students working toward a research or clinical doctorate degree. Usually involves working on highly structured research projects under the supervision of an experienced mentor.
Postdoctoral	New doctorate recipients who gain further training to help transition to a career as an independent researcher.
Early career researcher	Scientists who have recently obtained independent positions as investigators, faculty members, clinician scientists, or industry scientists.
Established investigator/faculty	Scientists who have demonstrated expertise in their research field through a record of independent and original scientific contributions. They often serve as mentors to trainees at undergraduate, predoctoral, and postdoctoral levels.