



HOW DOES FEDERAL FUNDING IMPACT A UNIVERSITY RESEARCH LAB?

Federal research funding is important in keeping labs and research running smoothly. Cuts in funding for research at the federal level take a toll on the work—and the people—in university labs. It can cause researchers to triage one project over another, limit the research being done, or sometimes let go of promising ideas that might have been a breakthrough.

Here's the perspective of one doctoral student from the University of Nebraska Medical Center on the impact of federal funding on his university research lab...

“Our federal grant pays for everything and everyone in the lab...from graduate student stipends, research technician and postdoc salaries to all of the equipment that we use—including microscopes, plate readers, computers, and incubators.”



—Derek Moormeier, Ph.D.
student, UNMC

How does the federal grant application process work?

The federal grant application is a very intensive process which takes several months and requires a lot of collaboration from researchers in a lab to gather the data to apply for the grant. Grant agencies are very selective about funding—for example, NIH is funding less than 15% of grants at the moment—so in order to get funded you have to have a very well written, thought-out research plan to convince your peers reviewing the grant that your research should be funded.

Why should funding research be a high priority for our nation?

Throughout US history, medical advances resulting from federally funded research have improved health outcomes. If we don't have the resources to look at these challenges in a new light, we are limiting our capabilities for the future.

Additionally, federal funding of research creates jobs for a wide variety of people. Faculty who are the principal investigators (PI) have big ideas and write the grant proposals, but most of the people who do the laboratory work are postdocs, technicians, and graduate students.

What's a day in the lab like?

On a typical day, a researcher could be in the lab from 5:30 a.m. until the end of the day—taking samples from growing bacteria, writing for a publication or a fellowship proposal, attending a research seminar, or meeting with collaborators to find ways to save money or gather expertise for a research experiment. Most researchers work well over 40 hours a week conducting research that will ultimately benefit those outside the lab.



What are the career options for graduate students and postdocs who work in research labs?

Most grad students will do a postdoc, which is like residency after completion of coursework for those in medical school, to see what the life of a researcher is really like. Some postdoc students work as research technicians, who keep established laboratory techniques and experiments going while managing everyday activities like ordering materials or assisting with large experiments.

After serving as a postdoc in a research lab, you could go into academia or industry—for example in our field, you could work in vaccine development, drug delivery or pharmacology, or even food science where microbiologists study foodborne illnesses. Research labs are great training grounds for future professors and industry researchers.