

Hi everyone, my name is Debmalya Mitra. I am an Associate Research Scientist and Core Manager at Columbia University Irving Medical Center, working at the Center for Radiological Research. My work focuses on the development of something called a radiomitigator, which is a way to reduce the negative effects of radiation on the human body, to minimize health risks associated with increasingly common treatments for cancer, like radiation therapy.

In today's world, the risk of radiation exposure is increasing, in part because radiation is widely used in cancer treatment. Exposure to high levels of radiation can lead to serious health complications known as Acute Radiation Syndrome. My research specifically targets the gastrointestinal form of this condition, which is one of the most severe and life-threatening types.

The radiomitigator I work on is also being developed in collaboration with the biomedical company Synedgene. Currently, there are no FDA-approved treatments specifically designed to mitigate gastrointestinal Acute Radiation Syndrome, making this research both pioneering and critically important for future patient care.

Because of this partnership with the private sector, there's a strong likelihood that if our research is successful, it could not only fulfill an important social need, but also lead to the production of new drugs and therapy regimes that would also drive job creation in our state.

Before 2025, my department at Columbia relied on several grants from the NIH to fund our research. When our grants expired, we applied for new funding from NIH - right before the federal government decided to freeze all applications from Columbia. As a result, the department was forced to let many of my colleagues go, including two researchers each with over 10 years of experience at Columbia. Now I've taken on some of the work these colleagues had done, but the department does not feel the same. Almost everyone I worked with on a daily basis has left, and our department is worse off without the NIH funding.

Because this work is being developed at Columbia University in New York, it strengthens New York's position as a global leader in biomedical research. Beyond its scientific impact, successful development of this radiomitigator has the potential to reduce healthcare costs, improve patient outcomes, and translate into real-world solutions through industry partnership. This type of translational research also helps create jobs and supports economic growth, while ultimately improving and saving lives.

All of this is being threatened by short-sighted decision-making at the national level, and I hope as New Yorkers we choose to expand state-level funding for scientific and biotechnology research being done right here in New York, so we can keep moving forwards.