

For three Yale researchers with federal grants intact, snags remain

BY ANNA KOONTZ
STAFF REPORTER

Nikhil Malvankar has dedicated over 20 years to studying how a common soil bacteria survives without oxygen. His research depends on the support of American taxpayers.

Despite the volatility of federal research funding during President Donald Trump’s second term, it continues to support researchers whose grants have remained fully or partially intact. Three such professors at Yale — who are currently receiving federal funds for studies ranging from molecular biophysics to reproductive sciences to cell biology — told the News that the funding has enabled their work, even as grant policy changes cause complications.

“I’m just really fascinated by this country and how much faith they have shown in basic science,” said Malvankar, an associate professor of molecular biophysics and biochemistry who is from India. “I just hope that going forward, we can continue keeping the faith.”

The first year of Trump’s second term impacted about 120 grants at Yale, including 50 terminated grants that were later reinstated, according to Michael Crair, Yale’s vice provost of research.

Labs currently receiving federal funding still experience the effects of recent policy changes — such as a longer application process for future grants and difficulties with international collaborations.

Bacterial breathing

Malvankar and his longtime colleague, researcher Sibel Ebru Yalcin, use federal funding from the National Science Foundation and Department of Energy to research how *Geobacter* bacteria survive without oxygen.

For bacteria living deep within the ground and ocean, protein nanowires act as “snorkels” that exhale electrons, Malvankar said in a Zoom interview. Understanding how the bacteria breathe has implications for environmental and human health.

“We were able to find something which is not just new from basic science, it also has a lot of applications to cure diseases and maintain our environment,” Malvankar said.

However, Malvankar said that Trump administration policy changes have “greatly affected” his lab’s work. Some of his funding

programs were cancelled or substantially reduced, he said, and program managers that he worked with for the past decade have now left federal agencies.

Malvankar said that research projects, even those without “immediate use in everyday life,” are opportunities to train younger scientists and provide a foundation for future discoveries. He cited the decades of mRNA research that enabled the rapid development of COVID-19 vaccines.

In addition to federal funding, Malvankar noted that philanthropic foundations and private funding have been important in developing his research.

“They helped us to get necessary preliminary data, which allowed us to build a much stronger proposal to be competitive for federal research,” he said.

Reproduction lab relying on slower processes

Binyam Mogessie — an assistant professor of molecular, cellular and developmental biology and of obstetrics, gynecology and reproductive sciences — has dedicated his career to studying reproductive health.

“These are really timely problems,” Mogessie said in a

phone interview. “They just don’t wait even if you choose not to do the research.”

The Mogessie Lab receives federal funding from the National Institute of Health, or NIH, to research female meiosis and reproductive longevity. The lab studies the processes and failures of egg formation with the goal of improving assisted human reproduction technologies.

Beyond deepening our understanding of biology, Mogessie’s research has a “large consequential impact at the socioeconomic level,” he said. Extending female reproductive life would provide women with more flexibility when deciding when to pursue a career or start a family.

Federal funding currently enables the lab to maintain an average workforce of about six to ten people. Since grants only last for a few years, Mogessie is continually applying for new funding. He estimated that he wrote 12 or 13 applications in 2025 alone, half of which were for federal funding.

Complications with policy changes and government shutdowns slow the application and approval process, limiting researchers’ ability to secure funds, Mogessie said. But federal grants

remain unparalleled, he said.

“No one funds at the level of the NIH,” said Mogessie. “The loss of federal funding would be completely catastrophic to the American research landscape.”

Split from Irish collaborators

One of the least understood aspects of physiological regulation is how forces from gravity, muscle contraction and blood flow affect our tissues, Martin Schwartz said. The professor of medicine, biomedical engineering and cell biology researches the processes by which those forces affect the functions and behaviors of cells and tissues.

Schwartz’s research, largely funded by the NIH, contributes to the development of new treatments for disease.

“You have to understand the basic mechanisms in order to develop therapeutics. And working across that whole spectrum, from very fundamental to applied, is what I love about it,” Schwartz said over Zoom.

Although Schwartz’s lab is well-funded, he said policy changes under the second Trump presidency have limited his ability to work with international researchers.

Schwartz had been working with a lab in Ireland until it got “kicked off” the grant and lacked

funding to continue, he said. “The Trump administration simply decided that no NIH money was going to go outside the country.”

An increasing number of foreign researchers have also lost interest in coming to the United States, Schwartz said. Those that do wish to work in America can experience difficulties with visas. One of Schwartz’s postdoctoral researchers recently visited his sick father in China and was not allowed to return despite having a J1 visa, he said.

Schwartz also expressed concerns about “political meddling that will distort who gets funded.” He referenced the recent discontinuation of vaccine research and closure of departments based on ideology.

At the same time, Schwartz is optimistic that “the political tide is turning.”

“After Trump’s attempt to drastically slash NIH and NSF budgets, Congress reinstated their budgets,” Schwartz said. “So resistance is building.”

The Malvankar Lab has offices on Science Hill and on Yale’s West Campus in West Haven.

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XIMENA SOLORZANO / HEAD PHOTOGRAPHY EDITOR

Three Yale professors described their experiences with federal funding and some complications affecting their work.

With data and Yale consultants, soup kitchen nearly triples meals

BY TED CLARKE
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A New Haven soup kitchen last year boasted a 185 percent increase in meals, which its leaders attributed to a new data-driven approach to fighting food insecurity.



WIKIMEDIA COMMONS

In recent years, New Haven’s Community Soup Kitchen has been expanding its services using a data-driven approach and digital infrastructure built by Yale students.

When a new executive director and board chair took the helm of the Community Soup Kitchen in January 2023, they set out to shrink the gap between meals served by local food banks and the total meals food-insecure residents needed. Since then, they have added five new

locations across the city and nearly tripled the number of meals they served, according to a February internal report provided to the News.

“I’ve never seen a soup kitchen run in such a way,” Xinzhi Qiu ’27, who has worked with a team of fellow Yalies to streamline the kitchen’s operations since August 2024, said. “Even some companies don’t run in such a data-driven way.”

Eleven of 16 city neighborhoods face poverty rates above 25 percent, according to a report by the local nonprofit DataHaven, leaving more than 16,000 residents food insecure even after accounting for Supplemental Nutrition Assistance Program, or SNAP, benefits and meals already being served by food banks and pantries.

Throughout 2023, the kitchen’s senior leadership drew on data from the city, the Connecticut Foodshare and DataHaven to calculate the number of meals that food insecure New Haveners needed but existing resources did not provide. According to the February report, this gap was approximately 2.5 million meals a year.

The kitchen’s executive director, Winston Sutherland, and its board chair, Gregory DePetris, sketched out a three-year plan — included in the February report — that would ultimately close 15 percent of the gap, or roughly 374,000 meals annually, by 2027.

The kitchen has operated

out of a hub at Christ Church, at 84 Broadway, for nearly five decades, Sutherland said in a Zoom interview. The kitchen offers free dine-in, takeout and delivery meals, as well as running public shower and clothing distribution programs, according to its website.

In April 2024, the kitchen launched its first sub-agency in the Newhallville neighborhood. Within nine months, the sub-agency’s daily meals served grew from 40 to 230, according to the kitchen’s February report, which chalks the increase up to the success of the new neighborhood-driven model.

The kitchen now operates out of five neighborhood sub-agencies — in Newhallville, the Hill, Dwight and two locations in Fair Haven — plus its original downtown location. According to the report, the organization maintains an 87 to 93 percent program efficiency rate across the sites, which means that the vast majority of every dollar raised goes directly to food service.

DePetris also noted that the kitchen has expanded its food supply channel since implementing its new strategic plan.

“I think the success that we’ve had so far has attracted a lot of partners into the mix,” he said. “Recently, Trader Joe’s in Hamden made us one of the principal recipients of their food rescue program.”

Qiu collaborates with the kitchen through Yale’s Urban Philanthropic Fund, a student

investment organization that provides consulting services to local nonprofits.

In the past year and a half, Qiu and his fellow student analysts have helped build the digital infrastructure that replaced the kitchen’s pen-and-paper record keeping with real-time data dashboards, he said in an interview with the News. Qiu added that he has been impressed by the rapid pace of the kitchen’s expansion.

DePetris and Sutherland’s changes to the kitchen’s operations have coincided with cuts to federal assistance for food-insecure people. The federal One Big Beautiful Bill Act, which President Donald Trump signed into law last July, tightened SNAP eligibility requirements and reduced benefit levels nationwide.

“The second half of every month, we serve between 20 and 25 percent more meals than the first half of the month,” DePetris said, attributing the pattern to SNAP benefits running short before the month’s end.

Since the megabill’s enactment, the number of visitors to the kitchen has spiked, according to Sutherland. He noted that this heightened traffic may also stem from increased awareness of the kitchen’s services.

The Community Soup Kitchen was founded in 1977.

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