

# Research Is a Public Good

Investments in UVM research from federal grants and other sources create real benefits for Vermont and the nation.

## FY24/25 Federal Funding Sources

Health and Human Services

\$92.4 M

Department of Agriculture

\$58.4 M

National Science Foundation

\$16.7 M

Department of Commerce

\$7.9 M

Department of Defense

\$7 M

Department of Energy

\$6.8 M

Department of Education

\$4.7 M

Other

\$11.3 M

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# \$266.4M

## FY24/25 External Research Support

Designated an R1 institution, the University of Vermont is among the nation's top research universities. UVM faculty scientists and scholars secured over 660 awards to launch 1,000+ new projects in the 2024-25 fiscal year.

| Source                  | Amount   |
|-------------------------|----------|
| Federal Government      | \$202.4M |
| Foundation & Non-Profit | \$11.3M  |
| State & Local           | \$6.5M   |
| Industry                | \$4.5M   |
| Philanthropy            | \$41.7M  |
| TOTAL                   | \$266.4M |

# 2,730

Vermonters were employed to perform and support research at UVM in FY2024. (Based on the National Science Foundation's Higher Education Research and Development Survey)

## UVM Innovations: In the last 10 years...

# 136

patents were issued to UVM faculty and researchers

# 411

inventions were disclosed

# 30

start-ups were incubated at UVM.

# \$1.3B

## UVM's Impact on Vermont

11,000 +  
Jobs supported

\$78M  
in State and local tax revenue

4,000 +  
employed

Data above is based on a 2016 study to be updated in 2025; significantly increased economic impact is anticipated.

## Featured Start Ups

### Benchmark Space Systems

develops affordable propulsion systems for small satellites.

### Verde Technologies

develops lightweight, flexible solar panels using the mineral perovskite as an alternative to traditional silicon panels.

### Packetized Energy

started up in 2016 providing patented technology to enhance power grid responsiveness and resilience. The company was acquired by EnergyHub.

# UVM Research has IMPACT



**Preventing RSV** Virsevimab (Beyfortus), developed by UVM alum and Associate Professor Sean Diehl, PhD '03, has helped prevent thousands of infant hospitalizations from RSV. The disease is especially dangerous for infants under 6 months, historically hospitalizing up to 80,000 U.S. children under age five each year. Approved by the FDA in 2023, the antibody is nearly 90% effective in preventing hospitalizations.

**Launching a Lyme Disease Vaccine Trial** Lyme disease cases have more than doubled in the past 20 years—yet no approved human vaccine exists. Kristen Pierce, MD, an infectious disease specialist at UVM Medical Center, leads the VALOR trial to change that. This international study, focused on Lyme-endemic areas in Europe and the US, has promising Phase 2 results showing strong immune response and good safety.

**Exploring Stroke and Brain Health** Investigators at the Larner College of Medicine have been studying stroke and cognitive disorders in the US for more than 20 years. Better understanding of racial and geographic patterns of brain disease is one focus.

**Sourcing Seeds for the Future** A multi-year partnership among UVM, The Nature Conservancy, CARSI, Appalachian Forest Restoration, and the US Forest Service is developing seed sourcing strategies to help forests adapt to climate change.

**Alleviating Anxiety Using Biosensors** Big data scientist Chris Danforth, PhD co-leads the LEMURS study using biosensor rings that track student stress and anxiety and promote healthier behaviors through real-time feedback.

**Helping People with Autism** Laura Lewis, PhD aims to help autistic youth express themselves authentically and build fulfilling relationships. Her research addresses the mental health toll of masking autism and seeks to shift harmful perceptions about the condition through a new education program.

**Treating Substance Use Disorder** "Contingency Management" treatment pioneered by Stephen Higgins, PhD, founding director of UVM's Vermont Center on Behavior and Health, is helping individuals with addictive behavior improve their lives. Grounded in behavioral economics, the now widely-used approach offers immediate financial incentives for healthy choices to effectively change persistent unhealthy behavior.

**Providing Leading-Edge Medical Advances to Rural Areas** Over 1,000 active clinical trials at the Larner College of Medicine and UVM Medical Center offer many residents of Vermont a wide range of innovative care led by UVM researcher-physicians.

**Developing Resilient Electric Grids** Mads Almassalkhi, PhD and Hamid Ossareh PhD, in the College of Engineering and Mathematical Sciences, lead a center focused on innovative ways of integrating renewable energy and demand-side resources into power grid operations, reducing dependence on fossil fuels and building grid resilience.

**Preventing and Responding to Natural Disasters** Drone and satellite imaging and analysis in UVM's Spatial Analysis Lab supports disaster planning and response across Vermont—helping assess crop damage, guide recovery efforts, and protect public health in the wake of extreme weather events.

**Making Smart Bandages for Safer Healing** Amber Doiron, PhD, UVM biomedical engineering professor, is developing materials to prevent biofilms—dangerous bacterial infections that affect 6M people and cause 200,000 deaths each year.

**Mapping the Brain for Better Understanding** Larner College of Medicine scientists recently made a substantial advancement by successfully mapping the entire brain of *Drosophila melanogaster* (fruit fly), which has long served as a powerful model for understanding biological underpinnings of behavior.

Nearly  
**50**

Research centers across UVM share expertise to help Vermont farmers, educators, businesses, individuals, families, and communities flourish.

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Learn more at  
[uvm.edu/ovpr/centers-and-institutes](http://uvm.edu/ovpr/centers-and-institutes)

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