



OAK RIDGE NATIONAL LABORATORY

Innovation Crossroads

Starting new energy-related technology companies can be challenging, and that's one reason the number of energy startups has declined significantly over the past decade. Innovation Crossroads is a program supported by the U.S. Department of Energy's (DOE) Advanced Materials and Manufacturing Technologies Office (AMMTO), Building Technologies Office (BTO), and the Tennessee Valley Authority (TVA) that leverages Oak Ridge National Laboratory's (ORNL) unique scientific resources and capabilities and connects the nation's top innovators with experts, mentors, and networks in technology-related fields to take world-changing ideas from research and development (R&D) to the marketplace.

Empowering Aspiring Entrepreneurs

Through an annual national call, top entrepreneurial-minded innovators are selected to join this 2-year program. Participants receive a fellowship that covers living costs and benefits, a travel stipend, a substantial grant for collaborative R&D work at ORNL, and comprehensive assistance to build a sustainable business model.

By embedding the next generation of top technical talent within ORNL, Innovation Crossroads positions entrepreneurial researchers to address fundamental energy, manufacturing, and grid challenges identified by industry.

National lab expertise—ORNL is DOE's largest science and energy laboratory and is home to some of the nation's most significant user facilities. Because Innovation Crossroads entrepreneurs work within ORNL, they have immediate access to essential tools and resources. This access reduces cost, risk, and R&D time, allowing researchers to focus on creating the next generation of game-changing technologies.

Multidisciplinary collaboration—Innovation Crossroads participants work with ORNL's renowned scientists and engineers across many disciplines, including biological and environmental sciences, advanced materials, neutron sciences, nuclear science and engineering, and high-performance computing, providing a platform for accelerating innovation.

Business mentoring assistance—Innovation Crossroads has a growing network of partners who offer a unique entrepreneurial and business mentoring experience. The program facilitates connections with industry executives, investors, entrepreneurs, and other experts from academia, government, and finance who can serve as advisors and mentors to help develop priorities, mature skills, provide guidance, and make connections to their broader networks.

Up to a 2-year stipend with health and travel benefits

Comprehensive business mentoring

Substantial R&D funding provided by ORNL, DOE, and TVA

Our innovators have raised more than \$170 million in follow-on funding

Cohort 7 starts in Summer 2023

"Innovation Crossroads gives science-minded entrepreneurs access to cutting-edge tools and expertise needed to forge the way. The program fuels a young company's product and business development with resources, researchers, and business professionals at the Laboratory, TVA, and other businesses in East Tennessee. In turn, this support accelerates our path from lab to market."

—Quantal Security Founder and CEO **Erica Grant**



Empowering Leaders, Igniting Innovation, Launching Businesses

Innovation Crossroads' impact is far reaching as it enters its sixth year of embedding entrepreneurs at ORNL. The program has supported 31 start-ups that have raised \$69 million in grants and awards, created over 140 jobs, raised \$101.7 million in venture funding, and have more than \$6.2 million in sales revenue.



Cohort 6

Bianca Bailey
Agriwater

Rajan Kumar
Ateios Systems

Alex Stiles
Vitriform3D

Anca Timofte
Holocene Climate

Kim Tutin
Captis Aire

Cohort 5

Caleb Alexander
DayLyte Batteries

Sam Evans
Unbound Water Technologies

Tommy Gibbons
Hempitecture

Shuchi "SK" Khurana
Addiguru

Forrest Shriver
Sentinel Devices

Philip Stuckey
FC Renew

Alumni (Cohort 4)

Renee Carder
PixelEXX Systems

Danielle Castley
Becq

Joe Fortenbaugh
Actinic

Thomas Foulkes
AquaQuant Laboratories

Erica Grant
Quantal Security

Alumni (Cohort 3)

Jesse Claypoole
MantaPoole Technologies

William Fitzhugh
American Nanotechnologies

Hicham Ghossein
Endeavor Composites

Alex Lewis
Electro-Active Technologies

Trevor McQueen
Neptune Fluid Flow Systems

Leila Safavi
Purist

Jesse Thornburg
Grid Fruit

Alumni (Cohort 2)

Donald DeRose
Eonix

Shane McMahon
Lux Semiconductors

Justin Nussbaum
Ascend Manufacturing

Megan O'Connor
Nth Cycle

Matthew Smith
TCPoly

Alumni (Cohort 1)

Anna Douglas
SkyNano Technologies

Matthew Ellis and Samuel Shaner
Yellowstone Energy

Mitchell Ishmael
Shift Thermal



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