



# Innovation Crossroads

Starting new companies is a challenge, and start-up funding has declined over the past decade. Innovation Crossroads, supported by the US Department of Energy's (DOE's) Advanced Manufacturing Office and the Tennessee Valley Authority (TVA), leverages Oak Ridge National Laboratory's (ORNL's) unique scientific resources and capabilities and connects the nation's top innovators with experts, mentors, and professional networks in technology-related fields to take world-changing ideas from 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 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 number of partnerships that offer a unique business mentoring experience. Innovators have opportunities to participate in Launch Tennessee's Energy Mentor Network. They are also supported by the University of Tennessee (UT) Anderson Center for Entrepreneurship and Innovation and can work with interns from the UT Bredesen Center, who assist with market research and customer discovery. Additionally, each innovator establishes his or her own advisory board and is introduced regularly by Innovation Crossroads staff to potential customers and investors. Other established partnerships provide legal, finance, and accounting assistance to Innovation Crossroads innovators.

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 \$21 million in funding

Cohort 5 starts in June 2021

"Innovation Crossroads provides hard-tech entrepreneurs with unmatched resources, guidance, and expertise to rapidly advance and expand their core technology. The program makes development of seemingly impossible technologies possible."

**Leila Safavi, Purist Inc.**



# Empowering Leaders, Launching Businesses

R&D funding from industry partners supports collaboration opportunities with researchers across ORNL. Innovation Crossroads continues its partnership with the TVA to fund additional innovators for Cohort 5, set to begin in June 2021.



## Cohort 4

Renee Carder  
*PixelEXX Systems*

Danielle Castley  
*Becq*

Joe Fortenbaugh  
*Actinic*

Thomas Foulkes  
*AquaQuant Laboratories*

Erica Grant  
*Quantum Lock Technologies*

## Cohort 3

Jesse Claypoole  
*MantaPool 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  
*Active Energy*



INNOVATION  
CROSSROADS

OAK RIDGE NATIONAL LABORATORY

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