

Innovation Crossroads

**A partnership between Oak Ridge National Laboratory, Tennessee Valley Authority, and the Department of Energy Advanced Manufacturing Office
as part of the Lab-Embedded Entrepreneurship Program
FY 2019**

Dan Miller
Director, Innovation Crossroads, Oak Ridge National Laboratory

Gary Rawlings
Technology Consultant, Innovation Crossroads, Oak Ridge National Laboratory

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This presentation does not contain any proprietary, confidential, or otherwise restricted information.

Overview

- **Team**

- Dan Miller, Director
- Gary Rawlings, Technology Consultant
- Kelly Wampler, Business Specialist

- **Key Milestones**

- Program originally announced on September, 2016
- Cohort 1 began May 8, 2017
- Cohort 2 began May 7, 2018
- Cohort 3 began June 3, 2019
- Demo Day at Launch Tennessee's annual 36|86 conference on August 28-29, 2019
- Cohort 4 applications open this September, 2019

- **Status**

- Each cohort of innovators is appointed to a one-year contract with the option to renew for a second year
- Seven innovators on-boarded June 3, 2019, joining five innovators from Cohort 2
- Four innovators from Cohort 1 graduated the program in May 2019

Total Project Budget (FY 2019)	
DOE Investment	\$2.5 Million
TVA Investment	\$1.4 Million
ORNL Cost Share	\$0.5 Million
Project Total	\$4.4 Million

Project Objective(s)

- Innovation Crossroads is an entrepreneurial fellowship program that selects 4-7 technology innovators each year through a national solicitation. The objectives of the program are to reduce the risks associated with a technology-based startup and to help the technology innovators establish a clear path for building a successful company that can disrupt the market in energy or advanced manufacturing.



Technical Innovation

- **Traditional Energy Startups:**
 - It is increasingly difficult to support new technology-based start-up companies
 - They require scientific expertise, disruptive business models, and offer several rounds of capital
- **Innovation Crossroads Solution:**
 - Provide access to world-class R&D capabilities at ORNL
 - Stipends for the innovators to allow full-time dedication to startup
 - R&D funding to prove technology before entering market
 - Comprehensive business model development mentorship

Technical Approach

- **Scientific Assistance:**
 - Match innovators with ORNL researchers and lab capabilities best suited to advance their ideas
- **Business Assistance:**
 - Each innovator establishes an advisory board and holds quarterly meetings
 - Worked with LaunchTN and TAEBC to establish the Energy Mentor Network
- **Resources Available to Innovators:**
 - FedTech entrepreneurship training related to venture financing and early stage operations
 - Energy I-Corps Training
 - Opportunities to participate in the Energy Mentor Network
 - Matching funds for grant-writing and SBIR grants from LaunchTN
 - Entrepreneurial speaker series
 - Free financial advisory services provided by PYA
 - Free legal services provided by the UT College of Law legal clinic
 - Opportunities to work with Bredesen Center PhD students at the University of Tennessee on market research and customer discovery

Results and Accomplishments

- **Measure of Success:**

- Bring top technology innovators to ORNL
- Team each innovator with engaged and supportive ORNL researchers
- Help innovators develop sound business models and vet them with potential customers, partners, and investors
- Help innovators establish a runway toward a successful technology business by the conclusion of their two-year fellowship



Don DeRosa
Eonix
\$200k NYSERDA
Award



Shane McMahon
Lux Semiconductors
\$50k Fusehub Award



Justin Nussbaum
Ascend Manufacturing
\$25k BRAG Award



Megan O'Connor
Nth Cycle
Forbes 30 Under 30
Energy



Matt Smith
TCPoly
Raised \$125k seed
investment

Transition (beyond DOE assistance)

- Tennessee Valley Authority (TVA) joins the Department of Energy's Advanced Manufacturing Office to provide funding support for cohort 3
- 60 applications were received from 28 states for cohort 3
- 12 innovators representing 12 startup companies currently participating in the program
- 4 alumni innovators have raised over \$3 million combined in additional funds to continue operations
- Applications for cohort 4 will open this September

Cohort 3 Application Demographics

