



**UNIVERSITY
OF ALBERTA**

Innovation Catalyst Grant

Entrepreneurial Fellowship

Cohort 1



Thomas Jones, PhD

Founder and CEO



JONES MICROWAVE INC.

Microelectronic solutions for advanced radar and communication applications in 5G/6G telecommunications, defense, satellite, and instrumentation markets.

[Award feature](#)



Preetam Anbukarasu, PhD

Founder and CEO



Advanced nanosensors and machine learning algorithms for cardiovascular health monitoring.



Kyle Scheuer, MSc

Founder and CEO



Ultrasonic microphones using light-based sensing to enable real-time process monitoring, fault detection, and non-destructive testing in diverse industrial environments.

[Nature](#)



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Keith Cleland, MSc

Co-founder and CEO



**AQUA-CELL
ENERGY**

Salt water flow batteries providing abundant, on demand energy for 12-100 hours to enhance grid resiliency and align demand with production.

[NAIT Feature](#)



Tyler Johnson, PhD

Co-founder and CTO



ATMOSE

Affordable and deployable aerosol technologies to reliably monitor air quality when and where it matters.

[Aerosol Scientist Spotlight](#)



Mohammad Sobhani,

PhD, CTO



Handheld/wearable ultrasound systems for 2D/3D ultrasound imaging and bedside monitoring with quantum leap improvements in resolution, sensitivity, speed, and intelligence.



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Cohort 2



Rémy Samson, MSc

Co-founder and CEO



Advanced manufacturing company capable of automatically generating robot programs fully based on real-world data.



**Ghulam Muhammad Ali,
PhD, MBA**

Founder and CEO



AI-powered communication tool to streamline heavy mobile crane operations and enhance safety and inclusivity across the construction industry.



Peter Atrazhev, MSc

Co-founder and COO



AI-driven, decentralized, distributed energy resource orchestration tool, minimizing load variability and increasing grid resilience and hosting capacity.

T.rex AI



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Cohort 3



Clayton Coutu, MSc

Co-founder and CTO

[You-Tube](#)



Multi-tasking autonomous mobile robots that adapt to different industrial jobs through modular attachments.



Behnam Mazdouri, PhD

Co-founder and CEO



Microchip-based phase shifters and phased array antenna technologies for 5G and beyond communication systems.



Mardin Fallah, PhD

Founder and CEO



Genetic medicine platform aimed at developing RNA-based therapies targeting age-related diseases.



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Cohort 4



Anthony Ness, PhD

Founder and CEO



Producing research reagents and novel multi-use immunoassays to reduce test costs and waste.



Tanay Kumar, PhD

Founder and CEO



Advancing agriculture through microbubble-enhanced water activation technology, delivering synthetic-free solutions for healthier crops and more efficient production.



Cole Christianson, PhD

Founder



Developing a new type of nasal cannula for improved portable oxygen delivery.



Soroush Mirkiani, PhD

Founder and CEO



Developing intraspinal microstimulation implants to restore function after spinal cord injury.





The Innovation Catalyst Grant (ICG) provides a **\$250,000 award** to recent graduates of advanced STEM programs commercializing science-based products and services with a hardware component. The award is administered by the University of Alberta, University of Calgary and University of Lethbridge with participation and oversight by the Ministry of Technology and Innovation.

University of Alberta recipients to date are as follows (by cohort and by sector):

Cohort 1: January 2023

- Jones Microwave, Thomas Jones
- Synapsis Medical, Preetam Anbukarasu
- Ultracoustics Technologies, Kyle Scheuer

Cohort 2: January 2024

- Aqua-Cell Energy, Keith Cleland
- Atmose, Tyler Johnson
- CliniSonix, Mohammad Sobhani
- Elementiam, Rémy Samson
- SensiImage Technologies, Ghulam Ali
- T.rex AI, Peter Atrazhev

Cohort 3: January 2025

- Aro Robotic Systems, Clayton Coutu
- Phase Metron, Behnam Mazdouri
- RNA Revive, Mardin Fallah

Cohort 4: January 2026

- AIR BioSolutions, Anthony Ness
- Aqiva, Tanay Kumar
- PulmVita, Cole Christianson
- RISE NeuroProsthetics, Soroush Mirkiani

Health Innovation

- RNA Revive, Mardin Fallah
- PulmVita, Cole Christianson
- AIR BioSolutions, Anthony Ness
- RISE NeuroProsthetics, Soroush Mirkiani
- CliniSonix, Mohammad Sobhani

Energy

- Aqua-Cell Energy, Keith Cleland
- T.rex AI, Peter Atrazhev

5G/6G, Defense

- Jones Microwave, Thomas Jones
- Phase Metron, Behnam Mazdouri

Robotics

- Elementiam, Rémy Samson
- Aro Robotic Systems, Clayton Coutu

Ag Tech

- Aqiva, Tanay Kumar

Industrial Sensors

- Ultracoustics, Kyle Scheuer
- Atmose, Tyler Johnson

Construction

- SensiImage Technologies, Ghulam Ali

Cohort 5 to start in 2027

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