NEWS RELEASE

Alberta Innovates Provides $12.4 million to Advance Health Innovations

EDMONTON, ALBERTA, February 26, 2024 – Some of the most common reasons for a visit to an emergency department are injuries to your shoulders, arms, elbows and wrists. Determining the extent of these types of injuries may take months from booking an MRI until the scan. An X-RAY requires both time and an expert to interpret the results, causing a delay in treatment. What if there was a better way to determine these upper-body injuries? Dr. Abhilash Hareendranathan, from the Faculty of Medicine and Dentistry at the University of Alberta, is a recipient of an Accelerating Innovations into Care (AICE)-Concepts award from Alberta Innovates, and believes he has an answer to that question.

Dr. Hareendranathan is looking at using Point of Care Ultrasound (POCUS) to determine injuries in the upper body. The method is faster, safer, and provides immediate information for clinicians. The challenge is, conventional POCUS requires significant training time and expertise to interpret the results. Dr. Hareendranathan has developed an artificial intelligence tool to aid with that. The **Ultrasound Arm Injury Detection (US-AID)** allows healthcare providers to collect high-quality scans that provide accurate results to treat upper-body injuries.

Dr. Hareendranathan was successful in Alberta Innovates' **AICE-Concepts** program. This unique opportunity is part of the suite of AICE programs designed to advance health technologies toward market adoption with the aim of providing positive economic and health impacts for Alberta. He was one of 10 applicants who were successful in this year's competition. Awardees will share nearly $6.3 million dollars in funding. Projects include everything from new diagnostics for detecting infectious diseases to new personalized treatments for brain disorders. Applicants have between 24 – 36 months to complete their projects.

LevMax-Health, another Alberta Innovates' program, is also announcing its funding results today. **LevMax-Health** helps cultivate a health innovation ecosystem in Alberta. It provides support for emerging areas of health research that are developing solutions for unmet clinical needs. Projects funded by **LevMax-Health** include faster detection of brain MRIs for newborn infants, all the way to advanced wearable robotics. This year, 10 awards are being provided to researchers and innovators around Alberta for a total of $6.1 million. Projects must be completed between 24 – 36 months.

QUOTES

"We congratulate all the successful applicants. Funding medical innovations is critically important to advancing technologies from the lab into clinics around Alberta. That's not only good for health innovation but to providing health care for all Albertans."

Nate Glubish, Minister of Technology and Innovation

"Creating innovation in the health system requires support at all levels, from the earliest stages right through to those that are commercially viable. When innovators like those in the AICE-Concepts and LevMax-Health programs succeed, we achieve better patient outcomes and a stronger economy."

Laura Kilcrease, CEO, Alberta Innovates

AICE-Concepts

Applicant	Institution	Project Title
Mohammed Almekhlafi	University of Calgary	Wearable Sensors for Real-Time Monitoring and Detection of Stroke in Hospitalized Patients
Philip Barber	Andromeda Medical Imaging Inc.	Role of the Simple Perfusion Reconstruction Algorithm (SPIRAL) on streamlining acute stroke diagnosis and treatment
Richard Fahlman	University of Alberta	Integrating Dark Data into Diagnostic Biomarkers
Christiaan Fulton	ChromaCare Labs Inc.	Mobile-based At-home Lab Testing (MALT)
Abhilash Hareendranathan	University of Alberta	Automatic Detection of Upper Limb Injury from Ultrasound Images by AI: US-AID
Walter Maksymowych	University of Alberta	Metabolomics Precision Diagnostics and Prognostics for Chronic Inflammatory Arthritis
Samuel Pichardo	University of Calgary	NovuSTIM: Neurostimulation device for personalized brain disorders treatment
Dylan Pillai	University of Calgary	MAPLAMP: Machine Learning-Aided Precision in LAMP Diagnostics for Accurate Quantification and Prediction of Infectious Disease Outcomes
Robert Sheldon	42 Health Sensor Holdings Ltd.	Development of diagnostic and prognostic algorithms with artificial intelligence for a wearable blood pressure monitor
Lindsey Westover	University of Alberta	BackSCNR: Scoliosis management through non-invasive surface topography
		Total: $6,298,500

LevMax-Health

Applicant	Institution	Project Title
Adam Cheng	University of Calgary	Evaluation of an Augmented Reality and Screen-based Decision Support System for Cardio-pulmonary Arrest: A Multicenter, Randomized Controlled Trial
Nils Forkert	University of Calgary	Developing an improved computer model of healthy and impaired visual processing
Ping Liu	University of Calgary	Novel mortality risk prediction tools to inform shared decision making for people with kidney failure
Robert Miller	University of Calgary	Improving Diagnostic Test Selection in Patients Being Evaluated for Coronary Artery Disease
Milad Nazarahari	University of Alberta	An Intelligent Robotic System for Minimally-supervised Data-driven Teleassessment and Personalized Telerehabilitation Poststroke
Emily Rogers-Bradley	University of Calgary	Advancing wearable robotics for health applications
Tolulope Sajobi	University of Calgary	Development and evaluation of a patient-centered electronic outcome assessment (strokePRO) system for acute stroke trials

Roberto Souza	University of Calgary	Faster Newborn Brain MRI: Translation of Fast MRI Models Trained on Adult Data to Newborns
Eleni Stroulia	University of Alberta	An Alberta-centred Community-Tailored Implementation of the AVOID Real-world Intervention for Older Adults
Roger Zemp	University of Alberta	Multi-Contrast High-Speed Metabolic and Molecular Virtual Histology on a Cart
		Total: $6,172,080

Alberta Innovates manages nearly 1,300 projects in a portfolio valued at $1.33 billion. We work with innovators in all sectors of the economy and all corners of the province to drive entrepreneurship, applied research and industry development. With our impact-based funding programs and services, we are transforming energy systems for a net-zero world, promoting the responsible use of land and water, leveraging provincial strengths in agriculture, and contributing to improved health and well-being by harnessing digital tech and data. We are also advancing emerging technologies and strengthening entrepreneurship for a strong and diversified economy. We operate in 11 locations with more than one million sq. ft. of industrial testing and lab facilities, and 600 acres of farmland. We employ nearly 600 highly skilled scientists, business and technical professionals. From funding to commercialization, we are Alberta's innovation engine! See what entrepreneurs say about our coaching and support.

Learn how Alberta Innovates.

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