

Clarius Ultrasound is Helping to Deliver Faster COVID-19 Diagnosis



A PoCUS for COVID-19 project team is deploying more than eighty Clarius portable handheld ultrasound scanners across the province of British Columbia for faster COVID-19 diagnosis.

Co-led with a group including St. Paul's Hospital emergency physician and UBC Faculty of Medicine clinical assistant professor Dr. Oron Frenkel and Director of echocardiography at Vancouver General Hospital and UBC cardiologist and professor of medicine Dr. Teresa Tsang, [The Digital Technology Supercluster project](#) will provide clinicians in rural settings with point of care ultrasound (PoCUS) technology, supported by artificial intelligence (AI) research developed at UBC and a robust educational network.

Rural and remote health care practitioners with limited access to specialists will be able to diagnose pneumonia from suspected COVID-19 patients in real time. The team will build Canada's first ultrasound library for lung disease, including COVID-19. Leveraging AI, the on-demand platform will use collected data to train machine learning models, which will be accessible to all users right at the point of care.

"This means even physicians with limited experience using handheld ultrasound scanners will be able to obtain fast, accurate results," explains Dr. Frenkel, "and ultimately, this will transform the way remote areas can deal with COVID-19 in their communities."

Data from pandemic hotspots suggest PoCUS can help detect up to 33 per cent more cases of COVID-19 pneumonia than some current lab tests alone. It is also less expensive and avoids the delays patients in some remote communities have experienced with their lab test results.



We're proud to be involved with this dedicated team in the fight against COVID-19. It's gratifying to know that Clarius scanners will be used by physicians at acute care centers in our local communities and across the province to quickly help seriously ill patients.
- Laurent Pelissier, CEO & founder of Clarius

The Digital Technology Supercluster COVID-19 program is investing \$60 million to deliver solutions to some of the biggest health and safety problems created by COVID-19. In addition, these projects will build expertise and capacity to address and anticipate issues that may arise in future health crises.



Ultrasound has been a game changer for rural care in general, allowing immediate diagnoses for triaging and expediting trauma cases to higher levels of care. The establishment of the COVID network means physicians will be able to share their images with any specialist and receive immediate feedback. All of a sudden, even novice ultrasound users will be able to gain valuable, potentially life-saving information.
- Dr. Virginia Robinson, Rural Coordination Centre of BC (based in Fernie)

About Clarius:

Clarius' mission is to make accurate, easy-to-use and affordable ultrasound tools available to all medical professionals. Its handheld wireless ultrasound scanners connect to iOS and Android devices, delivering high resolution ultrasound images traditionally only available with bulkier, high end systems. More than 600,000 scans have been performed by 20,000 users since Clarius introduced its first portable scanner in 2016. Clarius scanners are available in more than 50 countries.

About Providence Health Care:

Providence Health Care (PHC) is one of Canada's largest faith-based health care organizations, operating 17 health care facilities in Greater Vancouver. PHC operates one of two adult academic health science centres in the province – St. Paul's Hospital – performs cutting-edge research in more than 30 clinical specialties, and focuses its services on six "populations of emphasis": cardio-pulmonary risks and illnesses, HIV/AIDS, mental health, renal risks and illness, specialized needs in aging and urban health and is home to the B.C. Centre for Excellence in HIV/AIDS.

About UBC:

When curiosity and drive fuel a vision for a better world, the University of British Columbia opens doors to opportunity. A world-leading centre of teaching, learning and research excellence, UBC transforms personal initiative into innovation, and new ideas into impact. UBC supports inspired students, faculty and staff on their journey of discovery, and challenges them to realize their greatest potential.

About the Rural Coordination Centre of B.C.:

RCCbc seeks to improve the health of rural people and communities of BC by: supporting physicians and healthcare provider health and practice; growing relationships through collaboration and partnerships; augmenting feedback loops; and enhancing innovation. These goals are achieved through communication, facilitation, collaboration, evaluation, and sharing of best practices. RCCbc supports and develops provincial initiatives by engaging and coordination with rural healthcare providers to facilitate the development of local and / or regional solutions, frameworks and networks. Though rural focused, RCCbc sees value in applying rural solutions to benefit all health professionals facing similar challenges.

About St. Paul's Foundation:

St. Paul's Foundation raises funds to support compassionate, inspired care at Providence Health Care's 17 health care sites in BC, including St. Paul's Hospital. The funds we raise help put patients and residents first, through a collaborative, integrated approach that includes the best in clinical care, world-class research and education. Through fundraising and strategic partnerships, the Foundation supports Providence – a founding member of Canada's Digital Technology Supercluster – in building on its long history of innovation, leading research and advancements in care for the people of British Columbia and beyond.

About Digital Technology Supercluster:

The Digital Technology Supercluster solves some of industry's and society's biggest problems through Canadian-made technologies. We bring together private and public sector organizations of all sizes to address challenges facing Canada's economic sectors including healthcare, natural resources, manufacturing and transportation. Through this 'collaborative innovation' the Supercluster helps to drive solutions better than any single organization could on its own. The Digital Technology Supercluster is led by industry leaders such as D-Wave, Finger Food Advanced Technology Group, LifeLabs, LlamaZOO, Lululemon, MDA, Microsoft, Mosaic Forest Management, Sanctuary AI, Teck Resources Limited, TELUS, Terramera, and 1Qbit. Together, we work to position Canada as a global hub for digital innovation.

About the COVID-19 Program:

The Digital Technology Supercluster's COVID-19 Program invests in projects that contribute to improving the health and safety of Canadians, supporting Canada's ability to address issues created by the COVID-19 outbreak. In addition, these projects will build expertise and capacity to address and anticipate issues that may arise in future health crises.

More information from project collaborators: [Canadian Digital Technology Supercluster](#), [The University of British Columbia](#) & [Providence Health Care](#).