

NeuraSignal's Robotic TCD Powers New PFO Workflow at Royal Columbian Hospital

NeuraSignal showcases Royal Columbian Hospital's use of the robotic NG2 system to improve PFO detection and stroke prevention with automated cerebral screening.

LOS ANGELES, CA, UNITED STATES, July 22, 2026 /EINPresswire.com/ -- [NeuraSignal Inc.](#), a neurovascular technology company advancing robotic transcranial Doppler ultrasound, is showcasing Royal Columbian Hospital's use of the NeuraSignal [NG2 Intelligent Ultrasound system](#) in a stroke workflow designed to improve detection of patent foramen ovale, or PFO, in patients with cryptogenic stroke and transient ischemic attack.



Though often asymptomatic, a PFO can allow blood clots to travel to the brain and cause a stroke. Detecting and closing clinically significant PFOs can reduce the risk of recurrent stroke in properly selected patients under 60.

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*Robert Hamilton, CEO of
NeuraSignal*

Royal Columbian Hospital, part of Fraser Health and among the first programs in Canada to deploy robotic-assisted transcranial Doppler in stroke care, has incorporated the technology as a front-end screening step for right-to-left shunt detection. The workflow helps clinicians identify PFOs that may be missed by conventional diagnostic approaches and better target patients for confirmatory testing and closure planning. Unlike traditional manual TCD, the NG2 system automatically positions and maintains ultrasound probes,

reducing operator dependency and making cerebral blood flow assessment more scalable

across hospital settings.

"Robotic TCD gives stroke programs a more practical way to [identify right-to-left shunts](#) earlier in the diagnostic pathway," said Robert Hamilton, CEO of NeuraSignal.

The technology was used in the care of a 37-year-old Maple Ridge resident treated at Royal Columbian Hospital after suffering a stroke. On April 29, Dr. Razi Khan, Dr. Greg Walker and the cardiac team repaired the opening with a minimally invasive closure device while the patient was awake, using robotic-assisted TCD to measure cerebral blood flow in real time.

"PFO related strokes are missed far too often, often in young, active patients. Closing a PFO early can mean decades of protection against a second stroke. Accurate screening makes that possible," said Dr. Walker.

At Royal Columbian Hospital, PFO closure volume has increased from 8 to 10 procedures in 2022 to 36 in 2025. The increase reflects a broader shift in how stroke teams can operationalize PFO screening when testing is noninvasive, repeatable and easy to integrate into clinical workflow. For stroke programs, Royal Columbian Hospital's experience shows scalable PFO screening strengthens secondary prevention.

About NeuraSignal Inc.

NeuraSignal Inc. is a neurovascular technology company transforming cerebrovascular care through robotic transcranial Doppler ultrasound. The company's NG2 Intelligent Ultrasound platform automates cerebral blood flow assessment to make stroke diagnosis, monitoring and PFO detection faster, more accessible and more reliable.

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