Patient-Focused Research Growing in Saskatchewan

A recent Canadian study that found no evidence linking blocked veins to multiple sclerosis – the basis of the controversial "liberation therapy" – grabbed media headlines and the attention of multiple sclerosis patients worldwide.

Co-authored by University of Saskatchewan medical researcher Dr. Katherine Knox, the study published in The Lancet found that that a narrowing of veins leading from the brain to the heart is relatively common and is unlikely to be the cause of multiple sclerosis.

"This was an important study to do because many of my patients were going out of country to get their veins opened," said Knox.

The project reflects the growing importance of patient-focused research that fosters evidence-informed health care decisions. Several health studies have shown that 50 per cent of patients do not get treatments that are proven effective, and up to 25 per cent get care that's not needed or potentially harmful.

Saskatoon's health research community is among the leaders in research that puts patients first. It's one reason the Saskatoon Health Region (SHR) leads the country in growth in health research income, with an 82 per cent increase over the past year.

Advancing this new approach is the fact the SHR and the U of S have formed a joint office to catalyze health research and innovation. It is led by Beth Horsburgh who is both SHR Vice-President of Research & Innovation and U of S Associate Vice-President Health Research.

The office supports initiatives that foster new services, drugs and technologies, generating evidence to improve health outcomes – ranging from evaluating the need for endoscopy procedures, to developing best practices for reducing MRSA bacterial infection in hospitals and long-term care facilities.

"Building research partnerships among health service providers, academics, government, and industry is key to our success," says Horsburgh.

"We have more than 360 ongoing clinical research studies in the health region and 80 per cent involve U of S researchers – so it just makes good sense to work together on integrating research with effective health care delivery to benefit patients, families and communities."

U of S brain surgeon Dr. Michael Kelly does clinical research to improve stroke treatment.

One such joint initiative – the eight-bed Saskatchewan Centre for Patient-Oriented Research based at Saskatoon City Hospital – is funded by the U of S College of Medicine, U of S, SHR, and the Saskatchewan Cancer Agency.

With 15 highly trained staff, the centre supports trials for cutting-edge treatments and technologies. More than 200 clinical studies have been conducted through SCPOR since its inception three years ago, and the number of new studies has increased by almost 30 per cent.

One SCPOR-supported study involves the first human trial of a stent-like device that promises to improve treatment for complicated brain aneurysms. The industry-sponsored study is led by Dr. Michael Kelly, a neurosurgeon who returned to Saskatoon after doing fellowships in the U.S. and now holds a chair in clinical stroke research funded by Saskatchewan Health Research Foundation, the Heart and Stroke Foundation, and U of S. The project is expected to have Health Canada approval by the end of December, and will start this winter.

"This model has enabled significant growth in clinical trials research because support is provided for handling contractual issues, logistical challenges, and ethics correspondence. This is allowing researchers to focus on actually conducting the research, which is often very complicated," said Kelly, who has a dozen SCPOR studies under way.

"When approached by companies to do these studies, it used to take weeks and months to get started. Now disclosure agreements are executed in a few business days and companies can see our efficiency."

The joint research approach, combined with the presence of Canada's only synchrotron and a new multi-disciplinary health sciences facility, is attracting stellar researchers. Among them is Dr. Bogdan Popescu who came to U of S from the Mayo Clinic to become Canada Research Chair in Biomedical MS Research.

Popescu, at the Cameco MS Neuroscience Research Centre at Saskatoon City Hospital, is advancing understanding of MS in a province that has one of the highest rates of MS in the world. He uses tissues from MS patients to understand how the disease develops and synchrotron technology to investigate naturally occurring metals, research he hopes will translate into targeted and better treatments for some MS patients.

"By bringing together the engagement of our patients, families and communities, the knowledge needs of our health care system, and the skills and passion of our research community, we are improving patient safety, our culture of evidence-based practice, and Canada's health care system," said Maura Davies, SHR President and CEO.