
The Peter Munk Cardiac Centre Innovation Committee

More than 40 projects have been launched so far and some of these projects, all funded by philanthropy, have significantly changed and influenced the way health care is delivered in Ontario and across Canada

by Shelley White



William Charnetski is a big believer in “celebrating our champions” here in Ontario. But touting our homegrown accomplishments is something we, as Canadians, don’t always do well enough, says Ontario’s chief health innovation strategist. ¶ “It feels like with anything other than hockey, we seem to require that people go elsewhere and establish themselves, [to] gain the inherent credibility that makes them more popular at home,” he says. ■

Talking up the province's health-care success stories has been a priority for Mr. Charnetski and his team since he took on the newly created position in Ontario's Ministry of Health and Long-Term Care in 2015. So when he attended a meeting of the Peter Munk Cardiac Centre (PMCC) Innovation Committee, Mr. Charnetski knew he was witnessing an exciting Ontario health-care story worth celebrating.

"I love the structure," says Mr. Charnetski of the dynamic committee that's been called the *Dragons' Den* of health care. "It's obviously [comprised of] smart, passionate, hard-working people. The notion that the hospital's doing it this way is important, and it's important for us to showcase the work that's being done."

Created in 2012 by Dr. Barry Rubin, Medical Director of the PMCC, and cardiologist Dr. Harry Rakowski, E.D. Wigle Chair in Hypertrophic Cardiomyopathy Research, the PMCC's Innovation Committee reinvented the wheel when it comes to funding health-care projects. Instead of small groups of doctors making funding decisions, the committee is made up of more than a dozen people of diverse backgrounds and skill sets, and several committee members come from outside of the medical field entirely. Surgeons, scientists and cardiologists mix with hospital administrators, entrepreneurs and business leaders on the committee, and everyone has an equal vote.

Submissions are accepted quarterly instead of annually, and over 1,000 employees at the PMCC can submit a proposal, from nurses to radiologists to anesthesiologists.

The PMCC's Innovation Committee is an exciting concept that could provide a model for other health-care organizations to follow, says Mr. Charnetski.

"To have it organized in the way that the committee is organized is potentially really powerful, when you're one of Canada's biggest hospitals," he says.

He applauds the fact that the PMCC's Innovation Committee combines the expertise of those in the health-care realm with those in the business world.

"I truly believe that the optimal solutions to the challenges that face the health-care system will come from the collaboration of the public sector and private sector," says Mr. Charnetski. "That's a critical success factor for me."

A 'UNIQUE AND NIMBLE PROCESS'

When Drs. Rakowski and Rubin came up with the idea for the PMCC's Innovation Committee, they were looking for a "unique and nimble process," says Dr. Rakowski.

"The idea was to get not just physicians, but [also] other people who were non-physicians – allied health-care professionals and business leaders – to really look at [ideas] and ask, 'Is this truly innovative?'" he says. "The key things are: Is it going to have [an] impact? Is that impact measurable? And is it cost-effective?"

While traditional granting bodies require pages and pages of detailed proposals, applicants to the PMCC's Innovation Committee must only answer 10 questions, plus commit to a cost-effectiveness study. And while most funding organizations are proud of the fact that they reject 85 per cent of proposals, says Dr. Rakowski, he and Dr. Rubin wanted to buck that trend.

Instead of simply turning away unsuccessful applicants, the committee provides constructive input and guidance, helping them improve their proposal and possibly submitting again a few months later.

"Our goal is to fund as many good ideas as we can," he says. "So we're going to help you improve your proposal, we're going to work with you.



The Peter Munk Cardiac Centre (PMCC) Innovation Committee was created by Dr. Barry Rubin, right, and Dr. Harry Rakowski. They were looking for a "unique and nimble process" to evaluate and launch innovative proposals to impact cardiac and vascular care. William Charnetski, opposite page, is Ontario's chief health innovation strategist. He says the PMCC committee is an exciting Ontario health-care story worth celebrating.

CHANGES ON THE WAY

Though the core philosophy of the PMCC's Innovation Committee will continue as is, Dr. Rakowski says there are changes planned to improve its effectiveness and efficiency. The PMCC has recently acquired some unique pieces of equipment, he says, so they plan to incorporate specific categories of funding to help understand how this new technology can be best utilized.

For example, the PMCC acquired a PET-MRI scanner, which allows physicians to see a fused image of both an MRI (which looks at structure) and a PET (which

looks at metabolic function). "There are certain diseases where that information may be vitally important to decision-making, so we're specifically funding some of those [projects]," he says.

The PMCC will also soon be getting a leading-edge piece of equipment in partnership with an Israeli company that produces holographic 3-D imaging. The machine can take any three-dimensional image set – from echocardiography or MRI, for example – and create a holographic image of the heart. The PMCC will be the first in the world to use the device for a cardiac application, says Dr. Rakowski, and so they are soliciting projects to help them discover its potential benefits.

Dr. Rakowski says the PMCC's Innovation Committee may expand its research in areas such as information technology, genomics and personalized (or precision) medicine, targeting treatments to individual patients. And the makeup of the committee will also be changing soon, with a venture capitalist joining this year.

Regardless of these moves forward, Dr. Rakowski says the committee will remain true to its original vision. It's important for the committee to retain its independence, he says: "Not being beholden to anybody or having institutional bias or favouritism to anybody." Dr. Rakowski notes that even committee co-founder Dr. Rubin is treated the same as everyone else – one his proposals was recently sent back to the drawing board.

"We have a vision, and we are committed to it," says Dr. Rakowski. "If you lose that intimacy or the nimbleness, then you simply become an administered bureaucracy. And [what helps to make] this committee unique are those qualities, which we obviously don't want to lose." ▮

We're going to look at your research project and improve the design. We're going to look at your budget and streamline, so you can achieve the same thing but spend less money. We want you to succeed."

Marnie Weber has been a member of the PMCC's Innovation Committee since its inception. Ms. Weber is Executive Director, Strategic Developments, at University Health Network (UHN), and she says that it can be challenging to take an innovative idea from concept to changing practice.

"We're a big research engine in Canada, but that's insufficient to bring something into clinical practice," says Ms. Weber. "How do you actually get it spread across other organizations in Ontario? And how do we ensure that it becomes a core part of the health-care system?"

People who like to research and are driven to advance the practice of medicine are not necessarily entrepreneurially minded, says Ms. Weber. And that's why the mix of people on the PMCC's Innovation Committee is key to its success.

"The committee is formed both with very smart business people, but also people who are keeping an eye [as] to what's relevant to patients and what's relevant to society," she says. "[The medical professionals] on the committee are great educators, clinicians and researchers. And the laypeople bring the perspectives of the general public and what matters to patients or family caregivers, as well as their own business investment backgrounds. So you get this great dynamic of people trying to understand and see where this idea can go further."

The committee spends about \$1-million per year, raised through philanthropy, says Dr. Rakowski. The amount given to each applicant varies, but they look at the funds as seed money, with the end goal of

helping the recipients be self-sufficient.

The PMCC's Innovation Committee is funded in its entirety by generous philanthropic donors who put their trust in the panel to direct funding to projects with opportunities for greatest impact.

More than 40 projects have been funded by the PMCC's Innovation Committee so far, some of which have gone on to influence and even change practice in Ontario. One example is a blood conservation project pioneered by anesthesiologist Dr. Keyvan Karkouti (see story on page 46). An initial seed investment of \$80,000 resulted in multinational, multicentred trials, additional funding and an additional generation of studies, says Dr. Rakowski.

"It is saving blood product consumption by about 40 per cent, which translates into fewer complications of blood product delivery and health-care cost savings," he says.

Another example is an "anti-oxidant cocktail" created by UHN interventional neuroradiologist Dr. Kieran Murphy that reduces the negative effects of X-rays on DNA (see story on page 48). Like Dr. Karkouti's project, that initial seed funding resulted in additional research studies, says Dr. Rakowski. Now, Dr. Murphy has produced a product with "commercial potential and tremendous health benefit for low cost."

The PMCC's Innovation Committee is a model that can be replicated elsewhere because it runs on philanthropy, says Ms. Weber. Interest has been coming in from government and other health-care institutions, as well as elsewhere in the UHN.

"Other programs within the UHN have said, 'If cardiac can do it, we should have something similar, too,'" she says.