PARTNER PERSPECTIVE

HELPING INNOVATORS SUCCEED

Ian McWalter
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CMC Microsystems has a long history of enabling innovative research in micro- and nano-electronics.

One recent example is Dr. Marc-André Tétrault at Université de Sherbrooke. As an undergraduate he contributed to research that helped two leading academics, Drs. Réjean Fontaine and Roger Lecomte, create the world's first small-animal imaging system using Positron Emission Tomography (PET), with semiconductor-based light conductors.

That work continues to bear fruit. Dr. Tétrault's contributions to two generations of small-animal PET scanners (called LabPET) have enabled higher quality images, dramatic reductions in imaging time, and lower trace dosing requirements, leading to better, safer imaging. These innovations also led to the commercial success of the first generation of the LabPET imaging technology, now used in laboratories worldwide.

This work benefited from the involvement of a considerable team of collaborators from across Canada's National Design Network® (CNDN), including other academics, industry and government. But, as Dr. Tétrault himself has pointed out, none of these endeavours would have been possible without his access to the tools, expertise and industrial fabrication capabilities provided through CMC Microsystems.

Fundamental to CMC's management of CNDN has been a long-term understanding of, and planning for, access to the emerging industrial technologies needed to keep researchers, students and companies at the leading edge of science and innovation in Canada. It also ensures that their knowledge is transferable to the wider world.

For Dr. Tétrault, support from CMC helped him to advance enhancements in small-animal PET imaging that hold great potential for the development of whole-body scanners for humans. It also enabled his development of novel design and programming methods and manufacturing techniques that are now helping successive generations of professors and their students to build on this body of knowledge.

We congratulate Dr. Tétrault on his success, and we look forward to assisting future generations of researchers across Canada's National Design Network. We also welcome the imminent emergence of the federal government's Innovation Superclusters Initiative, where we anticipate even greater opportunities for CMC Microsystems to help Canada's innovators succeed.