

MEDICAL DEVICE DEVELOPMENT AT UHN

The UHN Biophotonics group has extensive experience in developing medical devices for both in vitro tests and clinical applications. We have a world-class biophotonics facility comprising 2,500 sq. ft. of lab space with \$3 million of equipment.

Our team of experts, including more than 30 professional engineers, biologists, chemists and physicists, offers 10 years experience developing in-house, clinic-ready instruments and commercial devices.

Located within Canada's largest teaching hospital, we have access to other clinical services, such as blood sample testing and clinical study design.

Capabilities

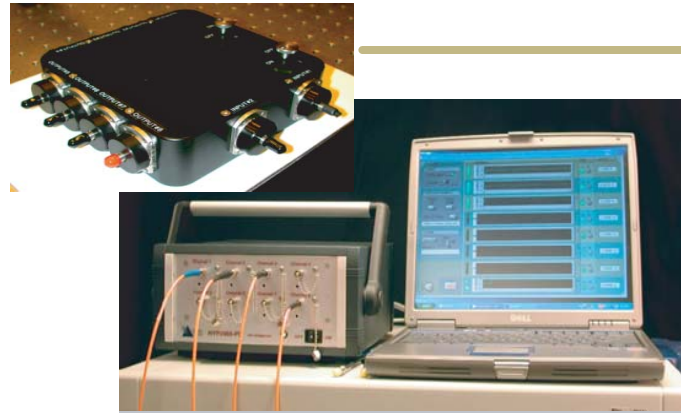
- project evaluation; from dreamed idea to mature research project,
- electronic design and circuitry; both breadboard and professional prototyping,
- optical engineering design and prototyping,
- mechanical and package design,
- small quantity device assembly and testing
- pre-clinical and clinical testing throughout device development.
- clinical trial ready with necessary regulatory approvals
- contact with potential users who will perform required FDA trials.

Contact Information

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CARDIOGENICS: POINT-OF-CARE DIAGNOSTICS DEVICE

Cardiogenics came to us with an idea for a chemiluminescent biosensor for point-of-care testing of heart disease. Using our extensive optics facility, we helped them test the initial concept, then worked with them to design the concept and turn it into a manufacture-ready device.

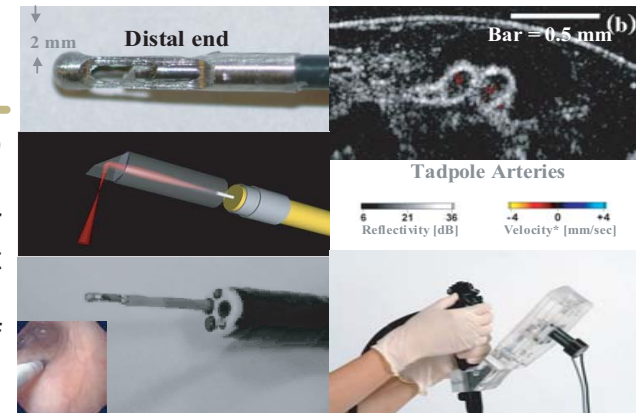


NEGMA LERADS: CLINICAL MONITORING

Negma Lerads, a French pharmaceutical laboratory, asked us to develop multiple-channel light delivery and intensity detectors for multi-centre clinical trials in photodynamic therapy. The clinical devices we built for them are now in use all over the world.

OPTICAL COHERENCE TOMOGRAPHY: CLINICAL DIAGNOSTICS

We developed this non-invasive diagnostic technology to produce high-resolution images of sub-surface tissue and blood flow. We have several generations of this device for endoscopic diagnostics, which incorporates state-of-the-art optics technology and micro-electronic machines. These instruments are currently being tested in a number of endoscopy centres in Toronto.



Ontario Centres of Excellence, Photonics Research Ontario (PRO)

With support from PRO, we offer scientific and technical assistance, at a reduced cost, to small- and medium-sized Ontario companies. Through this program, you have access to other science and engineering photonics experts across Ontario. For more information, please visit www.oce-ontario.org

