TRIUMF recently joined other Western Canadian institutions participating in the latest round of the Westlink Technology Commercialization Internship Program. Operated by Westlink Innovation Network Ltd. (Westlink), the internship program is aimed at developing future leaders in technology commercialization throughout Western Canada. Participation in the program consists of hosting and mentoring an intern for a period of eight months. During this time, the intern receives a firsthand look at how research translates into commercial technology or products. In return, the host receives hands-on assistance with technology commercialization efforts.

TRIUMF’s current intern is Brendan Payne, who arrives with research and commercial experience in the biotechnology arena. In part, Brendan is working with Ann Fong and Phil Gardner to advance the many life sciences projects ongoing at TRIUMF. Ann Fong, Brendan’s mentor, described the benefits to TRIUMF as follows: “this is our second intern from the Westlink program and we hope to host more interns as the program builds momentum. Westlink’s program represents an opportunity to simultaneously address two aspects of the Technology Transfer Office’s mission: the commercialization of practical research derivatives and the development and training of students.”

Incorporated in 1999, with TRIUMF as an original member, Westlink is a non-profit organization based in Calgary with the goal of stimulating economic diversification in the western provinces. The internship program was born from the consensus view that experienced technology managers represent a critical factor in establishing a successful technology sector in Western Canada. Derek Gratz, president of Westlink, acknowledged TRIUMF’s participation, stating “TRIUMF is a great example of the type of opportunity we seek when looking for Mentors for our interns. Phil and Ann bring a wealth of experience and insight, as well as providing an environment with world-class technology opportunities, industry collaboration, and a great track record. TRIUMF has been integral to WestLink from the start and the Technology Transfer Office delivers real value to industry.

Following his time at TRIUMF, Brendan will spend an additional two terms with each of a technology company and a venture capital firm. The diverse experience of the Westlink program is unique, and designed to provide a balanced appreciation for all aspects of the commercialization process. Brendan summarized his gratitude and anticipation by stating “I feel fortunate to be a part of Westlink’s program, and more so to be a part of TRIUMF’s commercialization efforts. I am looking forward to building on a strong record of turning ideas into economic benefits for Canada.”

MDS Nordion Royalties a Testament to Successful Tech Transfer

While the vast majority of operating funds for TRIUMF’s research activities still originate from the federal granting agencies, TRIUMF has also generated considerable revenue from a successful track record of industry partnership. The single largest example of such is the long-standing relationship between TRIUMF and MDS Nordion (Nordion).

Nordion, a wholly owned subsidiary of MDS Inc, operates one of three principal production bases at the TRIUMF site in Vancouver, where short-lived radiopharmaceutical & radiochemical products are produced for diagnostic and therapeutic applications.
Currently, Nordion’s efforts in Vancouver are centered primarily on production of $^{201}$Tl, $^{123}$I, $^{82}$Sr and $^{103}$Pd used for various imaging applications and treatment of cancer. More than 2.3 million patient doses are produced each year at Nordion’s Vancouver facility. A unique arrangement exists whereby Nordion contracts with TRIUMF staff to operate and maintain three dedicated production cyclotrons. In return for supplying skilled staff and technology, TRIUMF is reimbursed for its expenses and receives a small percentage of revenues from sales of products manufactured at the TRIUMF site. While royalty amounts are often unpredictable due to extrinsic variables and market forces, over the last few years this revenue has been in excess of C$1M/p.a.. Another payment is expected early in the new year and, with production having increased in the last year, it is expected that royalties due to TRIUMF will exceed those of previous years.

In the last year, MDS Nordion and TRIUMF have begun several new projects, including commercial production of $^{64}$Cu for emerging applications ranging from imaging to radiotherapy. Also, in partnership with Molecular Insight Pharmaceuticals, Nordion has expanded its operations in Vancouver to include $^{125}$I radiolabelling of a compound being tested for use in imaging cardiac trauma, such as heart attacks. Phil Gardner, the Division Head responsible for MDS Nordion’s relationship with TRIUMF, recognized the importance of this partnership when he stated, “TRIUMF’s relationship with Nordion continues to be recognized as an excellent model of synergistic collaboration between fundamental research and industry, to the benefit of all Canadians. We have clearly demonstrated how academia and industry can invest together and achieve returns benefiting everyone.”

D-Pace Powers Ahead

Another excellent example of TRIUMF innovation having capitalized upon commercial potential is D-PACE (Dehnel Particle Accelerator Components & Engineering Inc.), formerly Dehnel Consulting Ltd., based in Nelson, BC. Employing ion source injection technologies developed and licensed from TRIUMF, Morgan Dehnel and his company are beginning to reap rewards from persistent development and marketing efforts. With funding designed to assist businesses in locations affected by the US softwood lumber tariffs, D-PACE has made significant strides in building their business.

In the last year, D-PACE has achieved international product sales in excess of C$200,000, as well as additional contract revenue in excess of C$200,000 and entertained quotation requests from more than 15 institutions worldwide. Morgan and D-PACE are now forecasting revenues over the next 12 months between C$400,00 and C$600,000. If realized, this continued growth and success would yield obvious dividends to D-PACE, TRIUMF and the economies of Nelson, British Columbia and Canada.

D-PACE has hired two full time employees in the last year and is looking to add a third. Recognizing TRIUMF’s role in D-PACE’s early growth, Morgan recently stated: “TRIUMF has been an essential resource for D-PACE in many ways. For example, I received my training at TRIUMF and this enables me to work in various sectors of the particle accelerator industry. TRIUMF technology has been licensed by D-PACE, and the multi-faceted technical support that comes with this has been incredible. This is valuable for meeting our project requirements, but is also very important in terms of providing a means to upgrade the skill set of our staff. We are indebted to TRIUMF for its significant role in our development.”

Questions and comments regarding Technology Transfer or this newsletter can be addressed to techtrans@triumf.ca or to any of the following:

Philip L Gardner, Division Head, Technology Transfer 604.222.7436
Ann Fong, Technology Transfer Officer 604.222.7471
Brendan Payne, Technology Transfer Intern 604.222.7582

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For information on how to become part of TRIUMF’s supplier base, contact David Kelsey, 604.222.7435 | dkelsey@triumf.ca

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Westbrook Mall, Vancouver, BC, Canada, V6T 2A3