

Innovation Place Newsletter
October 2002 Edition

Message from the President of SOCO

SOCO has launched a comprehensive review of the Research Parks it operates in Regina and Saskatoon.

The review will help the interim Board of Directors and management make strategic decisions about the most effective governance structure for the corporation's assets and operations, including the ongoing administration of the Research Parks. The consulting company KPMG has been engaged to provide an external review, which is expected to take approximately 10 weeks. With KPMG's support, we hope to be in a position to make our recommendations about the future management and operations of the parks later this fall.

Saskatchewan's Research Parks have made a major contribution to the province and it is important to ensure that their presence will be sustainable. The review will provide an opportunity to make an impartial assessment of their impacts to date and the challenges they are likely to face in the future. KPMG will also provide recommendations for changes and enhancements to the park's operations and administration and proposals for the implementation of these recommendations.

The review process is intended to be inclusive of staff and the Research Park community. We want to be sure that our decisions are broadly supported. A Steering Committee, which includes six other SOCO employees, an external person, as well as me, has been formed to facilitate participation and assess the progress of the review. KPMG will engage in face-to-face consultations with a representative sample of management, staff and other stakeholders, including Park tenants.

The Steering Committee is looking forward to the consultant's report and recommendations for the future direction of the Research Parks. We will keep everyone informed on a regular basis as we go through this process. Ultimately, our goal is to see the research and development agenda in Saskatchewan on a strong and sustainable footing.

- Nigel Howard,
President,
Saskatchewan Opportunities Corporation

Innovation Place helps put the "bio" into Bio Bus

Since their launch in September, you've probably seen the City of Saskatoon Transit Department's two "bio buses" traveling the city streets. For the next two years, as part of a research project involving the Saskatoon Research Centre of Agriculture and Agri-Food Canada, Milligan Bio Tech Inc., the University of Saskatchewan and Ag-West Biotech, the transit buses will be operated on a fuel blend of 95 per cent diesel mixed with five per cent methyl ester, an additive derived from canola oil. The project marks the first time that a Canadian bus fleet has utilized a canola fuel alternative.

Putting the "bio" into bio bus is the Innovation Place Bio Processing Centre. The Saskatoon research park's state-of-the-art bio processing facility has been contracted to convert canola oil into the biodiesel fuel additive. Gregg Willie, manager of the Innovation Place Bio Processing Centre, says the technology behind the project was developed by Dr. Martin Reaney, a research scientist with Agriculture and Agri-Food Canada in Saskatoon.

"The primary raw material is canola oil. We turn it into biodiesel using a chemical conversion process. The oil is a triglyceride, with three fatty acids attached to a glycerine base. We

extract those fatty acids, which are called fatty acid methyl esters. After purification, the resulting product is biodiesel."

It is relatively easy to convert canola oil to methyl ester; the challenge is to achieve a purity level conducive for engine use. "This is where Dr. Reaney's cutting edge technology has made all the difference," says Willie.

"Our plant is capable of producing up to 60 tonnes per week of biodiesel. We've done one production run so far, which has been enough to satisfy the City of Saskatoon's current needs. We're looking forward to future processing activity, based on the success of the pilot project," says Willie.

"During the pilot project phase, the City of Saskatoon Transit Department is doing its own blending, mixing the additive into the diesel fuel as part of its fleet fuel system. As the additive is completely soluble, it's an easy process, and can be done during the transfer of diesel into tanks."

The switch to canola biodiesel is expected to net many benefits for the transit fleet, including less pollution, lower operating costs through improved fuel economy, reduction of engine wear and noise.

"The additive increases the lubricity of the diesel, which reduces engine wear and decreases fuel consumption. The results vary depending on the size of the engine," says Willie.

As sulphur levels in regular diesel have decreased in recent years in an effort to reduce engine emissions, a real need has arisen for an additive that increases the lubricity of the fuel.

"The U.S. government has announced that sulphur levels will be significantly reduced again over the next few years. It means a cleaner-burning fuel, but decreased lubricity. That means more friction, more friction means increased fuel consumption and increased wear on the engine," says Willie.

"A clean-burning lubricity additive is going to be vital to the Americans' overall sulphur reduction plan."

Willie is looking forward to expansion of biodiesel production and the Innovation Place Bio Processing Centre's continued involvement in the project. "It's a project that could have a very positive effect upon Canada and our ability to comply with the Kyoto Protocol. It's a viable way to reduce vehicle emissions by decreasing fuel consumption in targeted fleets."

New Millennium Series features Innovation Place, Synchrotron

A new hardcover publication captures the beauty and energy of Canada as our country progresses into the New Millennium - and as an exciting bonus, turns the spotlight on Saskatoon's science park, Innovation Place!

"Canada: The New Millennium Series" portrays the special magic that exists in being Canadian. The book showcases our country's peoples and regions, examines our economy and industrial growth, and pays tribute to our cultural diversity. Essays portray the vitality of each province and territory.

Ottawa writer Elizabeth McIninch served as editor of "Canada: The New Millennium Series."

Renowned Canadian photographer Malak Karsh was photo editor for the project. The volume is dedicated to his memory; Karsh passed away in 2001.

The Millennium Series project originated in Iceland, says McIninch. "The Icelanders love books; they read more books per capita than any other country in the world. They revere the printed word. As a result, there are a lot of publishers in Iceland."

Icelandic publishers created the series as a way to celebrate the New Millennium, and to provide a link that would foster peaceful relations among the member nations of the United Nations.

"The concept behind the series is to show where different countries of the world stand at the departure point of the new millennium," says McIninch.

The hope is to publish a book about each of the U.N.-member nations, says McIninch. Fifteen different countries have already been featured; the Canadian volume is the eleventh book to be published in the series. Many more countries are now expressing an interest in being featured as part of the New Millennium Series. McIninch says the publishers are looking at completing the 180-volume collection through a series of franchise agreements.

McIninch was approached by the Icelandic publishers to edit the Canadian version of the New Millennium Series. She was introduced to the project by Senator Al Graham, who represents Canada on the project's World Edition Honorary Council. The Honorary Council consists of well-known and respected members of the international community who have been recognized for their dedication and unique achievements.

"I had worked in Ottawa for some time as a speech writer. I had edited previous books and was fairly well-known in Ottawa for my writing background. I had worked with Senator Graham periodically over the years," says McIninch.

McIninch says she was privileged to have the opportunity to work with renowned Canadian photographer Malak Karsh on the project. "We spent about a year working together on the book."

During the process of collecting the essays for the book, McIninch says she made many new friends across the country. "I learned so much about my own country in the process. It was an enormous educational experience for me, but not so much for Malak, because he had travelled just everywhere. He had over a million photographs in his studio. I learned a lot from him. It was just wonderful."

Although based in Ottawa, McIninch's early roots are in Alberta. "I have always been very sensitive to the different regions of the country. I've never been very happy with that mindset that Toronto is the centre of the universe. In working on the book, I wanted to ensure that we showcased different regions and places across Canada that are really making a difference in the country - like the Western and Atlantic regions."

McIninch says she wanted to portray the 'dynamism' that exists in Western Canada, particularly in Saskatchewan. "The research opened my eyes to the recent developments taking place in Saskatchewan - Saskatoon being part of the science centre of Canada. Innovation Place is an important part of that story.

"I called up Austin Beggs, marketing manager of the research park, to find out more about Innovation Place. The other aspect of Saskatchewan I wanted to be sure to include was the Canadian Light Source Synchrotron.

"The development that is taking place in Saskatchewan is just tremendous."

Innovation Place and the Canadian Light Source Synchrotron are both prominently featured in the chapter focusing on Industry in Canada. The chapter examines Canada's strengths in the knowledge-based economy, particularly the development of technology clusters across the country.

The latter half of the volume includes essays on each province and territory in Canada. Saskatchewan Lieutenant-Governor Lynda Haverstock contributed an essay on Saskatchewan. "We had wonderful co-operation from your Lieutenant-Governor's office," says McIninch.

The Canada volume of the New Millennium Series is just beginning to be marketed, says McIninch. "It's a great publication for any organization interested in showcasing Canada. For example, we're marketing a lot of the books to our overseas Trade Commissioners." Copies of "Canada: The New Millennium Series" can be obtained by contacting Elizabeth McIninch at (613) 791-8087 or emailing: eliz@total.net.

Inside the University of Regina's Industry Liaison Office

If Gordon Owen can duplicate the success he's had in Nova Scotia in Regina, the University of Regina should be very pleased. As the new Director of the University Industry Liaison Office (UILO), Owen is charged with facilitating the transfer of intellectual property to business. He served in a similar position with NU-TECH, a not-for-profit organization dedicated to technology transfer and commercialization for Nova Scotian universities. The organization also increased efficiencies and decreased the costs of institutions establishing their own offices. During his six-year stint, the office grew from a staff of two to seven and operations capitalization reached \$3 million. The office filed over 130 patents worldwide, created six spin-off companies, sourced over \$3 million in new sponsored research funding, and earned and distributed more than a half-million dollars in license proceeds to the universities and their inventive researchers.

At the UILO, Owen has been charged with transferring research results that have commercial application for public use and benefit. The office will elicit and evaluate invention disclosures from university researchers on new intellectual property developed in their research programs, protect these by filing patent applications, market that intellectual property to industry, and negotiate and administer license agreements.

A major thrust of the office is to identify and evaluate companies, which have the capacity, interest and resources to develop new technologies into useful products. After a match is made, a license or other agreement will be negotiated to ensure the company will be diligent in its commercialization, marketing and sales efforts and pay a share of the economic benefit back to the university, normally through license royalties.

Owen started his new position a few weeks ago and is busy establishing his office inside the Petroleum Technology Research Centre at Regina Research Park. City officials recommended the site because it was felt that the research park is the new centre of economic development for the university and the city.

Owen says, "To be truly effective, you must 'walk the halls' to establish close working partnerships with researchers. It's important to be in and be seen where that research happens." The PRTC provides a solid infrastructure, expertise in the oil and gas sector and several successful companies - all ingredients for synergy.

As Owen settles into his new position, he'll be assisted by a part-time secretary and a technology transfer intern from the WestLink Innovation Network, a not-for-profit organization created to support and enhance the technology commercialization capabilities of 18 Western Canadian universities and others.

Initially, the UILO will target three key sectors at the university: physical sciences, engineering and information technology. It will also work with companies within the research park and city of Regina.

"We are looking at being a leader in the development of an efficient, effective technology transfer program to identify and commercialize technologies sourced from the university and its partners. Licensing is the traditional form of brokering new inventions to industry, which often cannot proceed without patents or other intellectual property rights. In general, there is no charge for our services; our fees come from the successful commercialization of these technologies by companies we license," explains Owen.

Technology transfer for the university is a two-way street: commercially useful knowledge will go out the door, but will return plenty of benefits. In addition to royalty-bearing agreements, the university expects to attract more research sponsors, develop new skills and foster new research activity, thereby expanding its capacity in commercially relevant areas with additional faculty and students.

"I feel it's very important to understand and then be able to bridge the different cultures of both university and business, in order to build effective partnerships," says Owen. Success stories won't happen overnight. Commercializing university intellectual property is a process that takes time and many returns may not be realized for years. During its start-up phase, the UILO will develop office and program infrastructure, educate and sensitize researchers to commercialization issues, facilitate the development of a policy infrastructure, become involved in program development of major university-industry initiatives such as the Sustainable Communities Institute and develop several information technologies for licensing. Fortunately, Owen is not starting at ground zero. The PTRC and SCI are excellent examples of the progress that has been made to date. The university has also had recent success in its external research sponsorship, which has jumped from \$5.5 million to \$19.4 million in the last four years.

"I think the university has a credible record of working with private enterprise, but more can be done," he says. "New and expanded relations with industry can be established and more can be done with small and medium-sized businesses, including better access to university specialization, facilities and expertise, to promote economic development in Saskatchewan."

UPDATES

Who's new to Saskatchewan's research parks?

New to Innovation Place:

- ***Pyxis Genomics Inc.***, 105F - 111 Research Drive, (Atrium Business Centre) Contact Tyler Bradley at (306) 955-7070.

Philom Bios appointment

Philom Bios is pleased to announce the appointment of Trevor Thiessen to the position of Director of Marketing.

In this position, Thiessen is responsible for the marketing of all Philom Bios products in existing markets through the Marketing Group. Thiessen's relevant experience and skill set, as well as his commitment and drive, make him a great addition to the Philom Bios' team.

Campus Daycare opportunities

Located in the University of Saskatchewan Education Building, Campus Daycare has created a special environment to meet the childcare needs of U of S students, faculty and staff. Individuals who are employed at Innovation Place also qualify to bring their children to Campus Daycare, says director Leanne May.

"We're a licensed centre for 44 children, for children ages 2 1/2 to six. One of the requirements is that children be potty-trained."

Children enjoy a wide range of activities, says May, including swim and music programs. All staff of Campus Daycare have completed Early Childhood Education courses. "Most of our staff have been here eight years or longer and are very experienced," says May. "We have a child there now. It's a tremendous place," says Mike Ferguson, who works with AMEC Inc. at Innovation Place.

"In our view, it's the best in the city. They have all of the facilities of the university at their disposal. The kids go swimming, they walk to the gym, tour the Canadian Light Source -

they're all over campus. The convenience for employees at Innovation Place just doesn't get any better," adds Ferguson.

The facility is open Monday through Friday, from 7:45 a.m. to 5:30 p.m. Children are provided with two snacks daily; parents are to provide a packed lunch for their child.

Campus Daycare charges \$525 per month per child; subsidies are available for eligible individuals.

For more information, call Leanne May at 966-7807 or email: campusdaycare@sasktel.net .