Research News

SFU Library Updates

Following the recommendation of the Dean of Libraries Search Committee, Gwen Bird has been appointed as the new Dean of Libraries/University Librarian for a five-year term beginning October 1, 2014. Ms. Bird previously served SFU in several management positions since 1999, including Associate University Librarian from 2005 to 2011. She will return to SFU from the Council of Prairie and Pacific University Libraries, where she is currently Executive Director.

Open Spaces! Bright Ideas! The W.A.C. Bennett Library on the Burnaby campus celebrated its revitalized main floor space with a grand opening event on May 7th. New features include better climate control, an automatic book return system and an integrated service hub for the entrance, as well as an improved exhibition space for Special Collections. The Student Learning Commons was expanded with a classroom, lounge, and additional study space. “The connection between people, facilities and resources—with an emphasis on people—orchestrated by the library inspires researchers at all levels,” said Mario Pinto, SFU’s VP Research.

Vancouver marked the 100th anniversary of the Komagata Maru incident on May 23rd with a commemorative event hosted by eight Metro Vancouver institutions and held at SFU’s Vancouver campus. Participants in the official program included BC Minister of Advanced Education Amrik Virk, Minister of State (Multiculturalism) Tim Uppal, and Elder Margaret George of the Tsleil-Waututh Nation. The SFU Library has partnered with local cultural institutions to hold events and activities throughout this anniversary year to increase awareness and dialogue about the event and its impacts on Canada. The interactive website www.komagatamarujourney.ca launched by the SFU Library in 2012 to chronicle the incident has attracted more than 16,000 visits from 81 countries. On May 27th, professor emeritus Hugh Johnston launched his new book The Voyage of the Komagata Maru: The Sikh Challenge to Canada’s Colour Bar.

India Strategy

Further to the signing earlier this year of a Memorandum of Understanding for collaboration in clean energy research between SFU and Indian Oil Corporation Ltd., a PhD Mobility Agreement has been formally established. It will enable the post-graduate training of ten Indian students over the next five years, by providing a fellowship for these students to spend one year at SFU and three years at Indian Oil’s R&D Centre. Under the MOU, SFU students and faculty will also have the opportunity to obtain international research experience in India, including potential co-op placements with Indian Oil.
Research Grant Successes

- SFU has received a total of $156,000 in graduate fellowships from the Pacific Institute for Climate Solutions (PICS) to support four projects that focus on practical solutions to climate change impacts. These projects will explore the unique challenges facing BC’s First Nations peoples (led by David Zandvliet, Education), provide a more accurate calculation of the social cost of carbon for Canadians (Mark Jaccard, REM), support research aiming to make energy-efficient cooling systems a commercial reality (Majid Bahrami, MSE), and develop an urban heat vulnerability index for the GVRD (Anders Knudby, Geography).

- Canada Research Chair in Computational Genomics Cenk Sahinalp will lend his expertise to the $7.3 million Cancer Genome Collaboratory, funded under NSERC’s Discovery Frontiers program and led by the Ontario Institute for Cancer Research. He heads one of five research modules, on computation methods for sequencing processing, bringing close to a million in new research funding to SFU in addition to some shared computational infrastructure. The project aims to develop computing tools for a new cloud computing facility that will process genetic profiles collected by the International Cancer Genome Consortium, of which Sahinalp is a member.

- UBC engineer David Wilkinson and SFU chemist Steven Holdcroft have developed a technology for carbon dioxide sequestration and desalination of industrial wastewater while creating high-value chemicals for the oil and gas industry. They have received a $500,000 grant from the Climate Change and Emissions Management Corporation to collaborate on scaling up and commercializing the system.

- With a $50,000 grant from the Canadian Internet Registration Authority (CIRA), SFU’s International Cybercrime Research Centre is expanding its web crawler tool to track online child exploitation networks by location of content and domain owners.

Research Awards & Honours

- High school BioGENEius, Nicole Ticea, put her HIV test "to the test" in the lab of Mark Brockman. Working with Dr. Brockman and his graduate student Gursev Anmole, Ticea developed a fast early-stage HIV infection test that could be used in remote regions without easily accessible lab facilities. She beat 16 other students from B.C. to win first place in the 2014 BC Regional Sanofi BioGENEius Challenge, and moves on to the national competition on May 22nd at the National Research Council.

- Zuo-Guang Ye of Chemistry has received the top award in his field from the Institute of Electrical and Electronics Engineers (IEEE) – the 2014 Ferroelectrics Recognition Award."

Innovation Updates

- The SFU Innovation Office submitted its annual licensing survey to the Association of University Technology Managers covering the reporting period April 1, 2012 to March 31, 2013. In this fiscal year, SFU received 24 invention disclosures and filed 27 new U.S. patent applications with ten issued. Preliminary results from Canadian reporting institutions indicates that SFU ranks among the top five in U.S. patents issued
SFU also far surpassed the other reporting Canadian universities in its average licensing income of $329,000, based on a gross licensing income of $987,511 from three licenses/options yielding revenue. The Innovation Office also assisted a new spinout company, ReadyLABS, a partner of SNF New Media Lab, a new media initiative of the Stavros Niarchos Foundation Centre for Hellenic Studies at SFU. ReadyLABS was incorporated to commercialize new mobile and web based applications for e-learning, cultural and language learning applications.

- Former SFU Venture Connection client go2gether, now a social enterprise of RADIUS, has entered into an eight-month pilot contract with Vancity for its carpooling service, helping the credit union to further its commitment to social business.

- SFU spinout Bionic Power Inc. demonstrated its energy harvesting technologies to the US Marine Corps at May’s Tactical Energy Harvesting showcase, aimed to take new capabilities “from concept to combat.” Their PowerWalk device is featured in a couple of YouTube videos released by the Marines.

- SFU spinout company Lungpacer Medical completed an oversubscribed $5.5 million private financing round, hired additional graduates and staff from industry, leased new premises at Commerce Court in Burnaby and is proceeding with its preclinical R&D program including collaborations with Jack Bell/Vancouver General Hospital and Fraser Health Authority. The Technology License Agreement between SFU and Lungpacer is the first at SFU to incorporate the Global Access to Medicine Principles endorsed by leading research universities.

- PHEMI Health Systems, a VentureLabs program participant, completed a $2.25 million equity financing round, hired additional personnel and interns and has leased premises in the former QLT building on Great Northern Way, Vancouver.

- Two pilot projects are in development between VentureLabs companies Fusion Genomics and PHEMI Health Systems, with SFU Research Computing and Compute Canada, that will demonstrate university-industry collaboration in application development for big data analysis in healthcare, natural resources and genomics applications and research.

- A synopsis of the VentureLabs accelerator company performance in 2013 is attached to this report. With the completion of the two financings described above and other smaller ones, total capital raised by VentureLabs companies exceeds $17.5 million with >100 new jobs created and 17 companies participating.

- Innovation Office Director Michael Volker was interviewed by the Georgia Straight for his views on what equity crowdfunding should look like in British Columbia. His opinion? “The best form of crowdfunding is what the B.C. Securities Commission has been using for over a decade, and that’s called the offering memorandum…I believe that what’s being proposed with crowdfunding is a lot more restrictive than that.”
VPR Report, SFU Board of Governors  
June 2014

VentureLabs – Q3 FY2013/14

- Program Launch: October 2012
- Region: Lower Mainland & Fraser Valley
- Accelerator Type: Physical
- # of Active EiRs: 2 (at end of Q3)
- Client Capacity Filled: 43% (13 of 30 seats) at end of Q3
- BCIC Budgeted Funding FY 2013/14: $300,000
- Total BCIC Funding Since Launch: $650,000
- Total # of Entrepreneurs Trained: 26

Company Performance

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<tr>
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<th>FYTD / % of BCAN Total</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q3/Q2 Change</th>
<th>Since Launch</th>
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<tbody>
<tr>
<td>Companies Participating</td>
<td>13 (7%)</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>8%</td>
<td>13</td>
</tr>
<tr>
<td>New Jobs (FTEs) Created</td>
<td>42.8 (22%)</td>
<td>19.5</td>
<td>11</td>
<td>12.3</td>
<td>12%</td>
<td>88.8</td>
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<tr>
<td>New Company Revenue Generated</td>
<td>$798K (12%)</td>
<td>$133K</td>
<td>$71.6K</td>
<td>$593K</td>
<td>728%</td>
<td>$928K</td>
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<td>New Private Investment Attracted</td>
<td>$1.9M (17%)</td>
<td>$110K</td>
<td>$1.4M</td>
<td>$390K</td>
<td>-72%</td>
<td>$7.4M</td>
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<tr>
<td>Other New Investments</td>
<td>$2.6M (41%)</td>
<td>$860K</td>
<td>$240K</td>
<td>$1.5M</td>
<td>525%</td>
<td>$8.8M</td>
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- Companies enter and exit the program at various times. Companies participating Q1, Q2, Q3 columns refer to the total number of companies participating in each quarter while FYTD refers to the total number of unique companies that have participated at some point in the current FY.
- Private investment is Venture Capital, Angel, Strategic and Friends & Family. Other investment is Founder Investment and Government Grants.
- % of BCAN Total represents partner share of province-wide Q1 - Q3 results.

100% of Companies Created Jobs and/or Revenue and/or Investment FYTD, of the 13 Participating Companies:

- 77% created 42.8 New Jobs
- 62% generated $798K in New Revenue
- 38% attracted $1.9M in New Private Investment
- 69% attracted $2.6M in Other New Investment

Highlighted Success Stories

- Semios was a finalist in Verizon Powerful Answers competition and awarded a $285K USD prize.
- PHEMI signed key partnerships with SAP and 2 BC hospital-based medical clinics and BC Centre for Excellence in HIV/AIDS clinic and launched beta products.
- Lungpacer secured $3.5M USD in financing for product development and clinical trial preparations.
- Lungpacer Medical receives ethics approval for First-in-Human clinical trials and completes $1.0M Convertible Note financing and first US$1.2 million tranche of $3.0 equity round.
- Terry Beech, CEO of HiretheWorld receives top 40 under 40 award.