

BRITISH COLUMBIA

Accelerating business growth
through **advanced education and research**





Innovative research drives business success

In today's knowledge-based economy, businesses maintain their competitive advantage through **innovation** – by developing new ideas, discovering smarter and better ways of doing things and by inventing new products.

But in a highly competitive marketplace, few businesses have the time or resources to focus on innovation. That's why it's critically important to be physically located in a region that boasts a highly educated workforce and where there are opportunities to leverage the research capacity of leading universities.





*British Columbia boasts five diverse public universities – the **University of British Columbia** and **Simon Fraser University** in the Greater Vancouver area, the **University of Victoria**, the **University of Northern BC** in Prince George and **Royal Roads University** in Victoria.*



BC is home to an outstanding community of researchers and educators

The spirit of innovation and entrepreneurship is thriving in BC. Our five public universities produce exceptional graduates and they have attracted some of the world's leading researchers and thinkers renowned for their expertise, commitment to interdisciplinary collaboration and ability to forge mutually beneficial relationships with industry partners.

BC is where you'll find one-third of Canada's fastest-growing technology companies. It's where you'll find one of the most vibrant biotech communities in North America. And it's where technology- and knowledge-based businesses benefit from an exceptional pool of highly qualified talent, world-class infrastructure and an entrepreneurial approach to commercializing knowledge.



SIMON FRASER
UNIVERSITY





Dr. Marco Marra and a team of world-class researchers from Canada's Michael Smith Genome Sciences Centre were the first to break the genomic code of the SARS (Severe Acute Respiratory Syndrome) virus.

People make it

Business depends on intellectual capital. Our province is home to both a highly educated workforce – trained within an environment that promotes learning and innovation – and university-based researchers who are recognized leaders in their fields.

Forty-five percent of BC's population over the age of 25 has pursued post-secondary education. In order to meet increasingly competitive university entrance requirements, BC's students enter our institutions well-rounded and with a strong academic foundation. And when they graduate, they have the skills to help businesses compete, both at home and abroad.

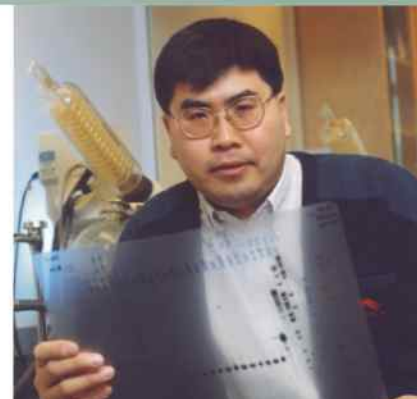
And we are building on this success. In February of 2004 the provincial government announced that it

will add 25,000 more spaces to the province's universities, colleges and institutes by 2010. The federal government's Canada Graduate Scholarship Program – which will fund 2,000 doctoral and 2,000 masters students across the country by 2006, will also help to further strengthen the province's graduate programs.

The strength of BC's universities stems from a motivated student population and our institutions' ability to attract and retain the best and brightest researchers. The Canada Research Chairs program is funding the groundbreaking research of many renowned scientists and scholars, while the BC Leadership Chairs initiative is attracting world-class innovators in the medical, social, environmental and technological spheres.



Phd Student **Tessa Campbell** is investigating the molecular biology of Gaucher disease, an inherited enzyme deficiency that causes a range of serious medical problems, including enlargement of the liver and spleen, anemia and osteoporosis.



Professor of Chemistry **Dr. Chow Lee** is trying to control aggressive forms of cancer by manipulating two genes that are known to play an important role in the growth of cancer cells.

happen

BC universities have a stellar reputation. In national rankings, Simon Fraser University and the University of Victoria have consistently been at, or near, the top of their categories. The University of Northern British Columbia has exceeded all expectations and has been described as an institution "punching above its weight." Royal Roads is gaining a national and international reputation for innovation in meeting the needs of mid-career learners. And the province's largest university, the University of British Columbia, recently ranked 35th in an assessment of the world's top 500 universities.

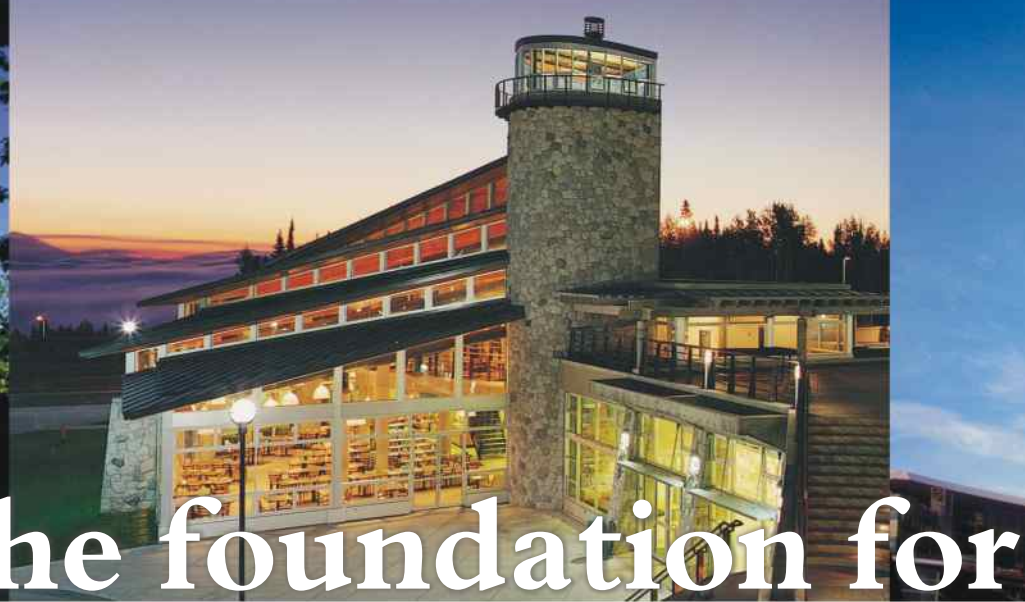
BC has the people to help your business excel.

Science and engineering researchers at UVic receive more medical and science grants (in both size and number) than researchers at any other comprehensive university in Canada.



Dr. Fiona Brinkman was named one of the world's top 100 young innovators in 2002 by MIT's Technology Review. This leading bioinformatics researcher uses computers to study the genomes of agents that cause infectious disease.

Dr. Brett Finlay (Professor of Biochemistry, Molecular Biology, Microbiology and Immunology) has developed a cattle vaccine that eliminates *E. coli* and may prevent outbreaks of hamburger disease and Walkerton-type tragedies. He's now leading a BC-based international initiative to develop a vaccine against SARS.



Infrastructure - the foundation for

State-of-the-art equipment, labs and technology are crucial tools for researchers, enabling them to question, explore and discover. Countless businesses in BC have benefited from their association with universities, gaining cost-effective access to the highly skilled people and leading-edge tools they need to succeed in a competitive market.

BC boasts excellent research facilities – from Canada's Michael Smith Genome Sciences Centre in Vancouver to the unique Scientific Computing Facility for Modelling, Simulation and Visualization in Prince George.

Many facilities were created to promote collaboration between university and industry. In 2003, Discovery Parks opened on the UVic campus to foster connections between

technology-based companies and the university's research community. A similar project is underway at UNBC: the planned 50,000 square foot Research and Development Park will provide dedicated space for high-tech research and university/industry synergies.

Slated for completion in 2004, the Life Sciences Centre at UBC is a unique partnership between UVic, UNBC and UBC. This state-of-the-art facility, and related facilities in Prince George and Victoria, will provide enhanced training for medical students and bring together researchers in the life sciences from across BC.

The Great Northern Way Campus will fuse the research initiatives of BC's post-secondary institutions. A consortium

The Island Medical Program Building, University of Victoria, scheduled for completion in 2004.





innovation

of UBC, SFU, Emily Carr Institute of Art & Design and the British Columbia Institute of Technology will share this integrated campus in Vancouver, which is envisioned to be a fertile collaborative environment for undergraduate and graduate students, professors and technology-focused companies.


As of January 2004, BC's universities, colleges and the BC Cancer Agency had received \$262 million from the Canada Foundation for Innovation to invest in infrastructure and technology that will enhance the province's vibrant research community. Additional support from the BC Knowledge Development Fund and industry sources has more than doubled this investment.



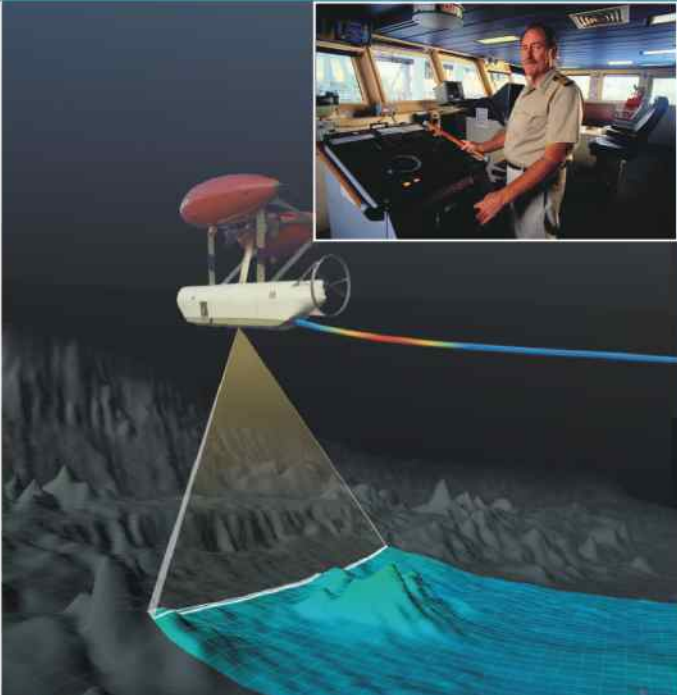
Success Stories



UNBC's **CT Imaging Centre**, a partnership with Forintek, is home to the most powerful and versatile CT scanner in North America. This scanner serves the needs of many industry sectors, including forestry, mining, aviation and more.



The **NEPTUNE project**, spearheaded by UVic, is bringing together research organizations from Canada and the US to transform our understanding of geological and marine science. When completed in 2007, it will be the world's largest cable-linked seafloor observatory through a 3,000-kilometre network of powered fibre optic cable on the seabed off the coasts of British Columbia, Washington and Oregon.





Capitalizing on opportunity

BC is a proven leader in technology transfer. We have the experience and skills to turn exciting ideas into innovative products, spin-off companies and new technology. In fact, we're leading the way among Canadian provinces.

Although BC universities received just over 8 percent of total research and development funding in Canada in 2001, they accounted for 14.5 percent of new inventions, 20 percent of patents applied for and issued, and 30 percent of new companies created. Over an 11-year period, researchers at BC's universities were awarded significantly more US patents than any other

region in Canada. And nearly 70 percent of BC's biotech companies are spin-offs from research universities and affiliated teaching hospitals.

In 2002-2003, UBC was first among all Canadian universities in terms of US patents filed, US patents issued, licenses executed and new spin-off companies created. Technology transfer at the university has resulted in over 110 spin-off companies that are credited with creating 2,400 new jobs and attracting over \$1.5 billion in investment.

Over the past several years, SFU has led Canada (and often North America) in terms of the number of spin-off

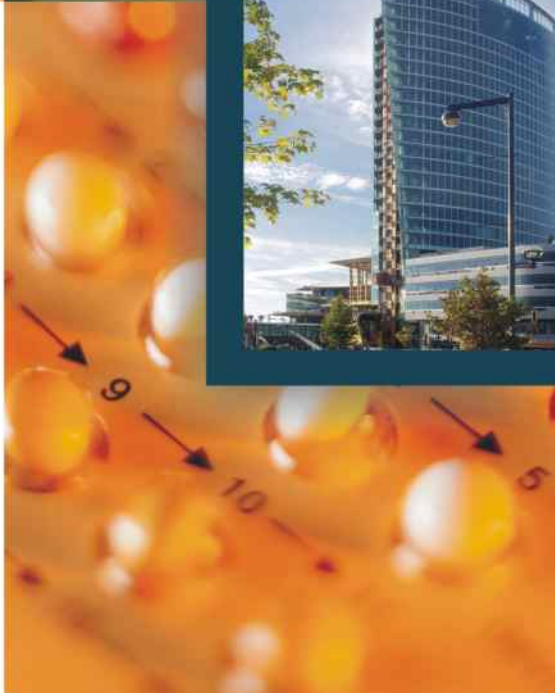


unities

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companies formed for every \$1 million in research expenditures. To date, more than 60 spin-off companies have been created to commercialize technologies developed by SFU researchers.

BC's universities are known for their shared focus on translating innovative research into successful commercial ventures. This entrepreneurial perspective is attracting significant public and private investment across many industries - including information and communication technology, wireless, new media, life sciences, alternative energy and environmental science.



Success Stories

Royal Roads University is recognized as a global leader in online learning. Software developed by Royal Roads in association with industry partners has been commercialized and sold to private sector clients seeking to improve e-learning and e-training experiences for their customers.

SFU's **NCompass Labs** made headlines in 2001 when Microsoft bought this web content management system company for \$36 million. **DBMiner Technology Inc**, created to commercialize innovations in data mining techniques developed at SFU's Intelligent Database Systems Research Laboratory, has also signed an agreement with Microsoft.

NeuroMed Technologies is a private UBC spin-off company developing drugs to treat chronic pain. In 2003, it successfully raised US\$32 million - a Canadian biotechnology financing record for that year.



The University Presidents' Council of British Columbia

The University Presidents' Council of British Columbia (TUPC) represents the interests of the province's five public universities. TUPC identifies issues facing the universities, provides system-wide leadership in developing relevant public policy and communicates on behalf of the university system.

Leading Edge BC

Leading Edge BC is a marketing and investment attraction organization dedicated to ensuring that British Columbia is globally recognized as a premier destination for technology enterprise by investors, entrepreneurs, site selectors and potential technology recruits. An industry-led partnership with the provincial government, Leading Edge British Columbia aims to raise the profile and awareness of BC technology-based opportunities with the goal of increasing the overall technology investment and contributing to BC's economy through employment and innovation.

Universities and industry: partners in success

BC-based businesses enjoy a distinct competitive advantage. With their ready access to a talented and educated workforce, businesses in BC are able to harness innovative ideas and entrepreneurial spirit of their employees, enabling them to lead the way in their markets. And partnerships with university researchers are opening up new opportunities, driving new discoveries and generating the innovative ideas that fuel our knowledge-based economy.

BRITISH COLUMBIA: Exceptional talent, world-class infrastructure and a vibrant research community.

For more information about the role BC's public universities can play in accelerating your business growth, please contact:

The University Presidents' Council
of British Columbia
Suite 400, 880 Douglas Street
Victoria BC V8W 2B7
T: 250-480-4839
W: www.tupc.bc.ca

Leading Edge BC
795, 999 Canada Place
Vancouver, BC V6C 3E1
T: 604-683-6150
E: info@leadingedgebc.ca
W: www.leadingedgebc.ca

