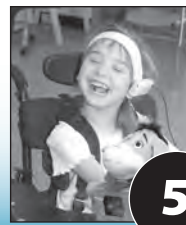




**For teaching award winner** David Clenman dressing up in costume brings the history of music to life.

2



**It's smiles all around** thanks to a new device from the UVic Assistive Technology Team.

5

JULY/AUGUST 2005

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SERVING THE UNIVERSITY OF VICTORIA COMMUNITY

## Inuit law grads celebrate at Arctic convocation

by Patty Pitts

There were tears, cheers and smiles as bright as the 24-hour northern sunshine when the first graduates of the Akitsiraq law program accepted their University of Victoria law degrees at a special convocation in Iqaluit, Nunavut, on June 21.

In a ceremony that combined Inuit and academic traditions, the 11 students were praised and congratulated by Canada's Governor General Adrienne Clarkson and Nunavut Premier Paul Okalik, who were both in attendance.

Proud friends and family members of the graduates, who completed their studies based in Iqaluit, filled the Inuksuk High School gymnasium. Inuit drummers led the academic procession and the ceremony closed with the singing of *O Canada* in English and Inuktitut by Susan Iglukark, a sister of one of the graduates.

"Happy National Aboriginal Day," said Clarkson to the cheers and applause of the crowd. "This is a wonderful day for Canada. Today's convocation of the Akitsiraq law school completes a dramatic process—and perhaps an unprecedented one—in which the larger culture has moved to accommodate the needs and ways of a much smaller one. Southern people and institutions have made the adjustment to the northern reality."

Speaking mainly in Inuktitut, Okalik—currently the only Inuk lawyer in the territory—also referred to June 21 as "one special day" and spoke of his pride in seeing the Inuit students complete a program that seemed like an impossible dream just a decade ago.

Akitsiraq's elder-in-residence, Lucien Ukaliannuk, was presented with an honorary doctor of laws degree at the ceremony in recognition of his sustained efforts to preserve Inuit

traditional knowledge, culture and language. He provided students with Inuktitut language education and counselled, mentored and advised them during the program.

Madam Justice Beverley Browne, senior judge of the Nunavut Court of Justice, also received an honorary law degree. As one of the grassroots organizers of the Akitsiraq law school program, she worked for 10 years to help make the Arctic law school a reality.

"We are gathered today to celebrate one of those extraordinary successes that, I think, could only happen in Canada," said UVic President Dr. David Turpin at the ceremony. "The triumph that we mark today—the graduation of 11 new leaders for Nunavut—shows that together we have managed to overcome geographic distance, cultural difference, and long economic odds."

The government of Nunavut, the

**SEE LAW GRADS P.3**



New Akitsiraq law graduate Sandra Omik.

## Students benefit from \$3.6 million surprise gift

A daughter's love and devotion to her father has resulted in the single largest donation for student awards ever given to the University of Victoria.

The faculty of engineering has received an unexpected \$3.6 million donation from the estate of the late Phyllis Summerhayes, who died in Victoria in October, 2004 at the age of 96.

"This donation came as a total surprise," says Dr. Michael Miller, dean of the faculty of engineering. "It's also a bit of a mystery."

Summerhayes, who had no previous connection to the university, made the gift through her will to establish the Maurice William Summerhayes Memorial Fund. The endowment will provide bursaries and scholarships in perpetuity to engineering students in memory of her father, the late Maurice Summerhayes, one of Canada's leading mining engineers during the first half of the 20<sup>th</sup> century.

The donation will provide financial aid and awards to about 50 engineering students every year.

Norma Cameron, manager of planned giving in the development office, tracked down the scant details of the donor's life. "Miss Summerhayes was clearly a woman of vision and tremendous generosity, but sadly, we hardly know anything about her."

Cameron worked with the development office research team and



Phyllis Summerhayes and father Maurice, circa 1922.

members of the Summerhayes family to piece together a picture of the donor, who spent the later part of her life in Victoria.

"She was an extremely bright person," says Cameron. "She was a meticulous bookkeeper and a very savvy investor. She lived a very quiet life, but amassed a substantial fortune over the years. We know that she was deeply devoted to her father."

Phyllis Summerhayes was born in 1908 and spent her youth in California. Following her mother's death in 1940, she moved to Canada and worked in the banking business in Toronto for a short time. She later

moved to Duncan to be with her father. When he died in 1953 she moved to Victoria. She liked playing bridge and reading, travelled extensively and dressed impeccably.

Maurice Summerhayes was a mining engineer who came to Canada in 1911 to work in the Porcupine Crown Mine, and later, for Write-Hargreaves Mines Ltd. at Kirkland Lake as managing director. He retired in 1949, but continued in a consulting capacity until his death at the age of 81. He was a member of the Canadian Institute of Mining and Metallurgy and of the American Institute of Mining and Metallurgical Engineers, and was former president of the Ontario Mining Association.

"This endowment will enrich our student financial awards immeasurably," says Miller. "While there's still an unmet need, we can create significantly more bursaries than we do now. We hope to create one very prestigious \$20,000 scholarship that will attract some of the most talented students to the engineering faculty."

News of the gift was announced at a special ceremony in the engineering lab wing on June 30. Members of the Summerhayes family came from England, South Africa and the U.S. to attend.

## Contract signed for VENUS project installation

by Valerie Shore

The University of Victoria has signed a contract with Global Marine Systems Ltd. in conjunction with its Canadian subcontractor, OceanWorks International Corp., to install the first leg of a subsea cabled observatory in Saanich Inlet.

The \$10-million Victoria Experimental Network Under the Sea (VENUS) project, led by UVic, will be a 50-km network of underwater fibre-optic cable and instruments. It will provide scientists and the general public with around-the-clock biological, oceanographic and geological information and images from the depths of Saanich Inlet and the Strait of Georgia.

Working with the VENUS project team, Global Marine and OceanWorks will design, manufacture and deploy the Saanich Inlet array. Installation in Saanich Inlet, with landfall at the Institute of Ocean Sciences in Patricia Bay, is scheduled for this October.

"Global Marine and OceanWorks have demonstrated a thorough understanding of the issues around this installation and what we need them to do," says Dr. Martin Taylor, UVic's vice president research. "We look forward to work-

ing with them on this project."

Global Marine, based in England, is an international marine technology and engineering company that specializes in the maintenance of submarine telecom cables. OceanWorks, located in North Vancouver, is a leading international supplier of specialized subsea work systems.

The partners were selected after a rigorous evaluation process. Winning factors included: experience with underwater cabled infrastructure; an interest in commercializing technology developed through the project; and the ability to maximize the science goals of the project. Another key factor was a commitment by the partners to draw on local and B.C. businesses for much of the material, supplies support and skilled personnel.

"Even beyond construction of the underwater array, the VENUS project will provide a focal point for B.C. and Canadian marine technology industries to develop new products, services and expertise that can be exported around the world," says Taylor.

The Global Marine-OceanWorks contract features many improvements over the initial VENUS design concept, including

**SEE VENUS P.7**





Smith with (clockwise, from left) students Hannah Sanford, Erica Grainger, Nick Church and teaching assistant Karen Suza.

## Psychology, music teachers cited for alumni awards

by Mike McNeney

A professor and an instructor who both go the extra mile to enlighten and engage their first-year students have been selected the 2005 winners of the Alumni Awards for Excellence in Teaching.

Dr. Martin Smith is the recipient of the Harry Hickman Award (for regular faculty, librarians or artists-in-residence) based on his innovative and inclusive approaches to teaching large groups in his Psychology 100 lectures.

School of music instructor David Clenman is the first winner of the Gillian Sherwin Award (for sessional and lab instructors, and limited-term faculty). Clenman brings the history of music to life—by coming to class in costume, for example, or by leading students in medieval chants—in his Listening to Music 115 class for non-music majors.

Smith and Clenman will each receive a \$2,000 cash prize. As well, their photos will be permanently displayed in the main stairwell of the McPherson Library along with the 33 past winners of the Excellence in Teaching award, which was first presented in 1989.

Smith says the art of teaching to large groups—300 students in each of two sections per term—brings the obvious challenges associated with the sheer size of the classes, the diversity of the students (from engineering students to psychology

majors) and the technological expectations of the modern student. “They want a quick, well-produced presentation, not just a talking head. Some lecturers can do that well, but I can’t.”

In a typically fast-paced lecture, Smith combines computer presentations with video clips and class discussions that see him move up and down the aisles.

He also does his best to put names to the crowd by asking students to provide digital photos which he tries to memorize. “It’s a simple thing but studies have proven that when students are called by name it encourages learning and they feel like part of the process,” says Smith, a member of the psychology department since

1991. “It’s like the theme from *Cheers*—you want to go where everybody knows your name.”

Clenman, in the name of classical music appreciation, frequently comes to class in costumes related to the day’s topic. A discussion about music of the Renaissance will begin with him entering class in full, 15th-century armour. A lecture on Stravinsky’s ballet music brings him to class, bravely, in a tutu.

“Learning should be fun and I try to make it as experiential as possible,” says Clenman. “I don’t want students to be spectators. So, I’ll bring in costumes, or get them to dance or sing or play instruments.”

Clenman, who also teaches music theory, has been noted in peer reviews for his “intellectual and musical wizardry.”

The Harry Hickman Award is named for the well-regarded Victoria College and UVic instructor and administrator. The award for instructors is named in memory of Gillian Sherwin, an inspiring senior lab instructor who worked in the geography department for 21 years.

The awards will be formally presented Nov. 22 during the Legacy Awards night at the Victoria Conference Centre. The event will also spotlight distinguished alumni, Sports Hall of Fame inductees and Blue and Gold award-winning students (see story, p.4).



Clenman

## Ringers

When the Vancouver Island Advanced Technology Centre (VIATeC) handed out its annual awards on June 28, many of the winners had strong ties to UVic. The award for Community Involvement went to Dr. **Nigel Livingston** of UVic’s Assistive Technology Team (UVATT), which is dedicated to developing technology and devices for people with disabilities. VIATeC Member of the Year Award-winner **Power Measurement** has been a consistent employer of UVic co-op students for many years. **PureEdge Solutions**, winner of the Colin Lennox Award for Technology Champion, was co-founded in the early ’90s by then UVic students David Manning and Eric Jordan, now the company’s chief strategy officer. **Genologics Life Sciences Software**, a UVic spin-off company, won the Award for Emerging Technology Company of the Year. It produces software to assist research and pharmaceutical laboratories to manage, integrate and analyse volumes of data.

Dr. **Antoinette Oberg**, an associate professor in the department of curriculum and instruction, has been honoured with the Ted T. Aoki Award for Distinguished Service from the Canadian Association for Curriculum Studies (CACS). Oberg developed UVic’s curriculum studies graduate program in the faculty of education, and has been its coordinator and graduate advisor since it began in 1978. She has supervised to completion seven doctoral students and 118 master’s students.

Dr. **Andreas Antoniou**, a professor emeritus in electrical and computer engineering, has won the 2005 Technical Achievement Award from the Institute of Electrical & Electronic Engineers Circuits and Systems Society (CAS). The award honours outstanding technical contributions over a period of years as documented by publications, books, patents, etc. Antoniou received the award for his contributions in the area of circuit design and digital signal processing.

Dr. **Deborah Begoray**, chair of the department of curriculum and instruction, has received an award for outstanding article of 2004-05 from the Organization of Teacher Education. The award was presented at the annual meeting of the International Reading Association for Begoray’s article on literacy and numeracy in middle schools. The article was co-written with Betty Johns of the University of Manitoba.

## Inmemoriam

Determination, creativity, resourcefulness, and a deep belief in the potential of all children were the qualities that **Barbara McIntyre**—who died on June 8—brought to a teaching career that began in a one-room schoolhouse in rural Saskatchewan. After creating model programs in theatre and drama education at the universities of Pittsburgh and Northwestern, McIntyre was invited to chair the theatre department at UVic, a position she held from 1971-81. Her vision and sense of purpose made possible the superb teaching and performance facility that we now enjoy. Of the three theatres in the Phoenix Building, the Barbara McIntyre studio is best loved and used. The work there is, like Barbara, resourceful, creative and full of passionate potential. McIntyre’s influence on the arts and education continues through her past students who are teachers, professors, chairs and deans of university and college theatre departments across North America.

Contributed by faculty colleague Juliana Saxton.

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The printed version of the new calendar will be available on campus the first week of August.



**the ring**

Vol. 31 No. 6

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## Law grads celebrate at Arctic convocation continued from p.1

federal Department of Justice, Inuit organizations and the RCMP provided core funding for the program. Additional funding from the Walter and Duncan Gordon Foundation and other donors provided financial support to students and curriculum enrichment through travel grants and other assistance, especially the elder-in-residence aspect of the program.

"The program was a completely different approach to teaching law but it made perfect sense for UVic because of the law faculty's commitment to indigenous education and its willingness to be innovative," says Jamie Cassels, UVic's vice president academic. "It's terrific to see the program come to such a successful conclusion."



Left to right, Nunavut Premier Paul Okalik, UVic President David Turpin, and honorary degree recipients Beverley Browne and Lucien Ukaliannuk.

## Faculties honour their teaching and research stars

Each year, several faculties acknowledge excellence in research or teaching with special awards. The following are this year's recipients in the faculties of humanities, science, social sciences, and education.

Dr. Eike-Henner Kluge (philosophy) is the winner of the faculty of humanities Award for Research Excellence. Kluge is a leading expert in biomedical ethics and health informatics.

Dr. Joseph Kess (linguistics) receives the faculty's Excellence in Teaching Award. Kess is the Chair in Japan and Asia-Pacific Relations in the Centre for Asia-Pacific Initiatives.

Dr. Ed Ishiguro (biochemistry &

microbiology) and Dr. David Berg (chemistry) are co-winners of the faculty of science Award for Excellence in Teaching. Ishiguro teaches biochemistry and human health and introductory microbiology. Berg teaches primarily second-year inorganic chemistry.

Dr. Robin Hicks (chemistry) is the winner of the faculty's Award for Excellence in Research. Hicks manipulates molecules to make new organic compounds with novel electronic, magnetic or optical properties.

Dr. Martin Smith (psychology) receives the Teaching Excellence Award in the faculty of social sciences.

He teaches evolutionary psychology and co-ordinates the introductory psychology class.

Dr. Cecilia Benoit (sociology) is the faculty's Research Excellence Award winner. She's working on a series of studies that looks at marginalized populations and their working conditions, health status, and access to health services.

The faculty of education's Award for Teaching Excellence goes to Dr. Tim Hopper (physical education). He uses school-integrated teacher education in which his students observe him teaching in elementary and secondary schools.

## Board of governors elects new chair

The University of Victoria's board of governors has a new chair. Trudi Brown, QC, has been elected to the position for one year, effective July 1.

A graduate of the University of British Columbia, Brown has practised law in the Victoria area since 1973 and is currently a partner in the firm of Brown Henderson. She's a director of the B.C. Law Institute and Pacific Sports Victoria, a trustee of the Nana Foundation, and co-chair of the National Family Law Program. She joined the board in 2002.

Public relations consultant Gail Flitton is vice-chair of the board, also effective July 1. She's been a board member since 2002.

The 15-member board of gover-

nors is one of the two primary governing bodies of the university. It includes elected faculty, staff and students, and eight members appointed by the provincial government.

New to the board as of July 1 are faculty representatives Peter Driessen (electrical and computer engineering/music) and Peter Liddell (Germanic and Russian studies), staff representative Sarah Webb (facilities management), and student Erik Haensel.

This is Driessen's 19<sup>th</sup> year at UVic. He has served on the senate and on the executive of the faculty association. Liddell has been academic director of the humanities computing and media centre since 1986. He has served on the senate (2000-04) and as chair of the senate committee on the univer-

sity budget (2001-04).

Webb has been the university's sustainability co-ordinator since 2003. She works with academic and support units to implement educational programs and operational changes on the UVic campus. She has served two terms on the senate and her off-campus involvements include the Bike to Work Society, the Veins of Life Watershed Society and her local community association. Webb takes the place of Katherine Williams who, subsequent to her election to the board this spring, left her job at UVic.

Haensel is a fourth-year humanities student who currently serves on the campus planning committee, the university budget committee and the planning and priorities committee.

## CFI grants fund two computing researchers

Two University of Victoria faculty members—Dr. Yvonne Coady (computer science) and Dr. Mihai Sima (electrical and computer engineering)—are recipients of New Opportunities Fund grants from the Canada Foundation for Innovation (CFI).

Coady will use \$78,500 to set up a UVic ubiquitous computing lab (UVicUbiq). Ubiquitous computing is the concept of building computers into everyday working and living environments to such an extent that data, rich media (ad-

vanced technology used in Internet advertising) and network access become constantly and transparently available.

The lab will support research into the development of stable system software and into some of the structural flaws plaguing integration of today's complex system infrastructure software.

Sima's \$125,242 grant will be used to set up a reconfigurable computing lab (RCLab). Reconfigurable computing gives end users the freedom

to adapt a processor's architecture to the characteristics of the program they want to run. For example, the computer can act as a media processor for watching DVDs and the next minute be a text editor, without compromising quality, efficiency or speed.

The CFI is an independent corporation established by the federal government to strengthen the ability of universities, colleges, research hospitals and non-profit research institutions to carry out world-class research that will benefit Canadians.

## The future leaders of Nunavut

The idea for the Akitsiraq law program came from a group of judges, court workers, legal interpreters, Inuit bureaucrats, lawyers and college instructors in the territory. Two of the program organizing committee members were UVic law students who had spent time in Nunavut, one on a co-op work placement with the Nunavut Court of Justice.

In 1999, a proposal by the Akitsiraq Law School Society for an Arctic law school for Inuit students was presented to law schools in Canada. UVic, quick to see the potential of this innovative approach to legal education, agreed to be a partner in the project, along with the law school society and Nunavut Arctic College.

The curriculum included the mandatory first-year law curriculum, 29 units of upper-year course work, integrated co-op style work/training opportunities, and courses in traditional Inuit law, the Nunavut Land Claims Agreement and Inuktitut language training.

The students were taught by Inuit elders and faculty members from UVic's law faculty, as well as professors from five other Canadian law schools in Iqaluit at the Nunatta campus of Nunavut Arctic College.

Prior to being called to the bar, the Akitsiraq graduates are articling with law firms in the North and in Ottawa, the Canadian and Nunavut departments of justice, the Nunavut Court of Justice, the Legal Services Board and Nunavut Tunngavik Inc., the private corporation established in 1993 to ensure that promises made in the Nunavut Land Claims Agreement are carried out. One student, Madeleine Redfern, will be clerking in September in the Supreme Court of Canada with Madam Justice Louise Charron.

"These graduates are likely to become the future leaders and builders of Nunavut," says UVic dean of law Andrew Petter. "One of the major challenges facing indigenous students is the great distances they are often required to travel to obtain a university education. Through the Akitsiraq program, these exceptional students were able to earn their degrees while remaining close to their families and culture in the territory that will now benefit from their legal knowledge."

The Akitsiraq law program graduates, dubbed "the Famous Eleven" at their graduation by Governor General Adrienne Clarkson, are: Lillian Aglukark, Madeleine Alexander-Redfern, Siobhan Arnatsiaq-Murphy, Henry Coman, Susan Enuaraq, Sandra Inutiq, Connie Merkosak, Sandra Omik, Aaju Peter, Qajaq Robinsonk and Naomi Wilman.



Akitsiraq law grads (left to right) Aaju Peter, Sandra Inutiq, UVic President David Turpin, Lillian Aglukark and Henry Coman in Iqaluit.

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Wiebe, left, and Weaver check out the weather station at Campus View Elementary, one of 20 across the city.

## UVic partners with schools to create educational weather network

A joint project between two University of Victoria scientists and School District 61 has created a unique network of weather stations at 20 public schools in Greater Victoria.

The goal of the Victoria Micro Meteorological Weather Network is to foster an interest among schoolchildren and the public in the two sciences that are fundamental to understanding weather—physics and mathematics.

“Physics and mathematics are often perceived as difficult and irrelevant,” says UVic climatologist Dr. Andrew Weaver, who created the network with Ed Wiebe, a research associate in the university’s climate modeling lab. “What better way to demonstrate relevance to kids than weather, something we see and feel every day?”

The project is funded with \$36,000 from Science and Engineering Research Canada’s (NSERC) PromoScience program, which sup-

ports organizations that work with youth to inspire an interest in science and engineering. In-kind support came from Davis Instruments Corp. and principals, teachers and staff in School District 61.

“This project continues the strong partnership between UVic and public schools in Greater Victoria,” says Michael McEvoy, chair of School District 61. “It will inspire our students by bringing science to life in classrooms throughout the district.”

The network consists of a series of small, solar-powered instrument packages mounted on school roofs. The instruments provide real-time measurements of temperature, humidity, wind speed and direction, precipitation, solar and UV radiation, and atmospheric pressure.

Wireless technology sends the data from each station to classrooms across the school district and to a central computer in Weaver’s lab

at UVic. There, the information is compiled and displayed to the public in two-dimensional pictures via the Internet at [www.victoriaweather.ca](http://www.victoriaweather.ca).

Over the next few months, the website will be updated and enhanced to include continuous movie loops of Victoria weather, satellite and radar imagery, and a host of curriculum resources for teachers and students. And more school stations will be added. “Our goal is to have a weather station in every public school in Greater Victoria by the end of 2006,” says Weaver.

It’s also hoped the website will become an invaluable community resource. “One of the peculiarities of Victoria weather is that it can vary greatly in different parts of the city,” says Weaver. “So, if you’re going for a walk or biking to work and you want to know what to expect along the way, go to [www.victoriaweather.ca](http://www.victoriaweather.ca) and you’ll know for sure.”

## EIGHT STUDENTS WIN BLUE AND GOLD AWARDS

by Jessica Gillies

Eight University of Victoria students have been honoured with 2005 Blue and Gold Awards for their on- and off-campus volunteer work and classroom achievements.

Fourth-year business student **Stephen Albinati** co-founded Carbon-Free Campus, a student-run group that promotes alternative energy systems. He’s been involved with Habitat for Humanity in Mexico, and has made and advertised African AIDS Angels to raise money for AIDS- and HIV-affected communities in Africa.

**Chris Darimont**, who is conducting a pioneer study of the wolves of B.C.’s central coast for his PhD in biology, is considered one of North America’s emerging conservation ecologists. An outspoken advocate for science-based wildlife conservation, he volunteers for the Raincoast Conservation Society and earlier this year won the Animal Action Award for Compassion in Science from the International Fund for Animal Welfare.

Darimont is also featured in a new National Geographic documentary film called *Last Stand of the Great Bear*. He has volunteered with the Koeys Youth Camp and the Heiltsuk Science and Culture Camp, and has previously won the President’s Scholarship, the David S. Strong Research Award, and the Edward Basset Family Scholarship.

**Sarah Marsden**, a master’s student in law, has worked at home and abroad for human rights agencies. In Victoria she worked for *Victoria Street Newz* as a volunteer researcher and in community liaison, and for the Vancouver Island Human Rights Coalition as a volunteer legal advocate.

In India, Marsden volunteered for the Indian Missionaries of Charity as a childcare and hospital assistant. In Cambodia, she worked with the UN Inter-Agency Project as a volunteer

legal and policy researcher on human trafficking issues, and in Thailand, she served with the Asia Pacific Forum on Women and Legal Development as a volunteer legal researcher and editor.

**Shaun Doherty** is a fourth-year political science and sociology student. He has volunteered with the B.C. Special Olympics, the Rock Solid program, the Victoria Youth Custody Centre, and Operation Track Shoes. He’s been a member of the Vikes basketball team since 2001, and captain since 2003.

**Sue Duffy**, a master of education student, has volunteered for the Single Parent Resource Centre of Victoria for over 10 years. She’s also volunteered with the William Head Institution and the Victoria Hospice Society.

**Leanne Gutierrez** is a fourth-year biochemistry student. She has coached Gordon Head girls’ soccer teams and plays competitive soccer. She has conducted scientific research in the B.C. Cancer Agency’s Terry Fox laboratory, and worked in a hospital in Vanuatu.

**Chelsey Llewellyn**, a fourth-year biochemistry student, is a member of the Vikes rugby team. She volunteers at Sandringham Care Centre and participates in the UVic student-senior work program. Llewellyn has also volunteered for the Rock Solid program.

**Prasanna Ranganathan**, a third-year law student, is president of the Law Students’ Society. He is the founder and a co-ordinator of the UVic law peer counselling program, and a co-organizer of the UVic law volunteer book project, which is creating a resource book for students interested in volunteering in Victoria. In 2004, Ranganathan won the Canadian Bar Association (CBA) Edward K. Rowan-Legg Award, which is awarded to one law student nationally for service to the CBA.

The Blue and Gold awards receive financial support from CIBC.

## Committee begins search for VP external relations

A committee has been struck to begin the search for a vice president external relations to succeed Faye Wightman, who recently assumed the leadership of the Vancouver Foundation.

The 11-person committee, chaired by President David Turpin, will begin meeting in late July. One of its first tasks is to review and update the position description developed in 2001. UVic has evolved over the last four years, as have its roles in the community and its relationships

with external constituencies. There have also been significant changes in the division of external relations, including the recent creation of the position of associate vice president, development and alumni.

The search committee invites input from members of the university community, including alumni, partners and friends, on the challenges and opportunities the university faces in its external relations, the requirements of the position, and

the qualities and experience it should seek in potential candidates.

The search committee membership and the 2001 job description are available online at [web.uvic.ca/univsec](http://web.uvic.ca/univsec).

Anyone wishing to provide input is invited to write by Aug. 15 to the search committee c/o the university secretary, Business and Economics Building, PO Box 1700 STN CSC, Victoria, B.C. V8W 2Y2; e-mail at [usec@uvic.ca](mailto:usec@uvic.ca), or fax (250) 721-6223.

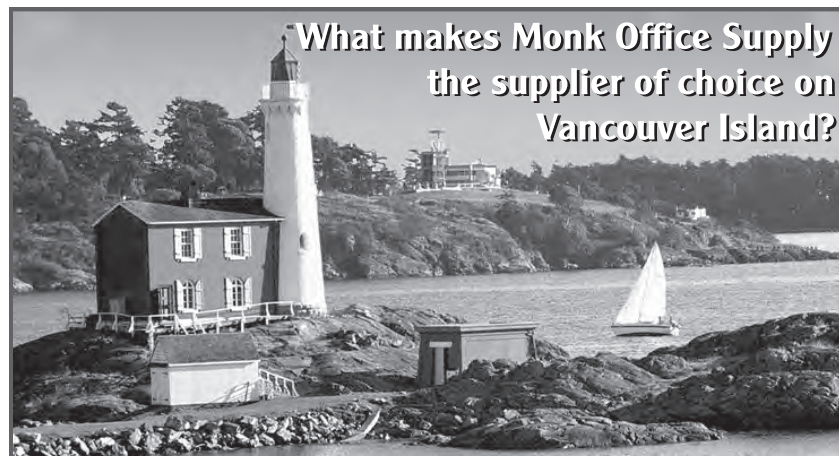
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# TAKING AIM AT CANCER

A UVic physicist seeks to improve the accuracy of radiation therapy

by Shannon McCallum

Anyone who has had radiation therapy for cancer, or has seen relatives or friends go through it, knows how unpleasant the side effects can be.

UVic's Dr. Andrew Jirasek wants to change that. As a medical physicist he studies how radiation interacts with biological materials, and his goal is to make radiation therapy a more accurate, effective and less debilitating tool for treating cancer patients.

Radiation therapy is used in about half of all cancer cases. It works by destroying the genetic material of tumour cells, preventing them from replicating and causing the tumour to shrink or disappear. Side effects—such as fatigue, nausea, hair loss and skin irritation—occur when the radiation damages surrounding healthy cells and tissue.

The goal of improved radiation therapies is to maximize damage to cancer cells while minimizing damage to the surrounding healthy cells and, consequently, limiting the side effects.

"This is easier said than done," says Jirasek. "We know that different organs and tissues tolerate dif-

ferent amounts of radiation. Add to this that tumours tend to be oddly shaped, and the task of targeting cancerous tissue with the proper dose while avoiding healthy tissue can be a challenge."

Modern radiation techniques are now sophisticated enough to deliver radiation that conforms to the complex, three-dimensional shape of tumours. This helps reduce the dose to healthy tissue and minimize side effects.

"What we can't do as well is confirm, by measurement, how well the radiation doses have hit their intended mark," says Jirasek. "This creates some uncertainty about exactly where the radiation has been deposited."

To reduce this uncertainty, Jirasek is collaborating with researchers at the BC Cancer Agency's Vancouver Island Centre, where he recently set up one of his two new research labs. Their project uses jelly-like substances that absorb radiation in the same way as human tissue.

These "gel dosimeters" also include special materials that form distinctive molecules when hit by radiation. By counting the number of molecules formed after a dose of radiation, Jirasek and his colleagues can meas-

ure the exact amount of radiation absorbed.

"The therapeutic benefit is that treatment plans and doses can be verified more quantitatively," says Jirasek. "It will allow us to say with more confidence that the dose we think we're giving is actually what the patient is receiving."

Jirasek's lab is also working on research to personalize radiation doses. "Two people of the same age and gender with the same type of cancer and similar-sized tumours can respond very differently to the same dose of radiation," he explains.

Since DNA is what makes individuals unique, it could help explain these variations. To find out, Jirasek has developed a method that monitors changes in the molecular structure of DNA as it's bombarded with varying doses of radiation.

"We've taken radiation therapy to a point where it is very effective, but the doses we use are conservative ones based on population statistics," says Jirasek. "Now we want to personalize treatments for individual patients, organs and tissues. That's where the next wave of radiation therapy research is headed."



DIANA NETHERCOTT

Jirasek, with a linear accelerator used for radiation therapy.



NIGEL LIVINGSTON

## Smiles all around

Five-year-old Melissa Sephton gets a giggle out of her new, customized Eeyore which—thanks to the University of Victoria Assistive Technology Team (UVATT)—flaps his ears and sings a song when activated by an infrared remote.

The Victoria youngster has cerebral palsy with very limited control of her movements. UVATT was asked to design a device that would enable Melissa to learn how particular actions will elicit a response. Since she can't point or use a hand switch, the team—in consultation with Special Education Technology BC—opted for a device she can operate with her head.

Two people were assigned to the project—Eric Auer, a UVic engineering grad and now full-time UVATT employee, and Lana Olague, a third-year mechanical engineering student who is doing a co-op work term with UVATT.

After several trips to the toy store, Olague selected this Eeyore, which is normally activated when a switch on one of his paws is squeezed. Auer and Olague modified the toy to include the infrared detector (the box between the paws). Melissa wears a headband with the infrared remote, along with a laser pointer to help her find her "target."

Within minutes, Melissa gleefully learned how to activate Eeyore. Olague is now making another toy—Elvis the frog—for her to

activate in the same way, and plans a range of other devices such as remote-activated lamps and fans. For another little girl in Vancouver she's designing a laser pointer-activated system that will change the volume and track on an iPod. The laser pointers are carefully selected to make sure they won't damage eyes.

UVATT is a group of UVic faculty, staff and students who design, build and test customized devices for those with special needs. To date, the team has developed more than 25 new technologies, ranging from tricycles for visually impaired children to complex brainwave and eye-tracking communication systems.

"Just seeing Melissa's smile is heartwarming, but this project also sums up what makes UVATT so special," says Dr. Nigel Livingston, the group's director. "Not only are we producing devices that make a positive difference to people's lives, but we're also providing students with a unique and incredibly rewarding work experience."

The team's work is inspiring others off-campus, as well. The cloth wrapping over the detector box and Melissa's headband were made by Norma Haskett, a volunteer sewer in the community who has contributed her time and skills to a number of UVATT projects.

For more information on UVATT visit [web.uvic.ca/uvatt](http://web.uvic.ca/uvatt).



# Aroundthering

## Alumni office moves off-campus

The six members of the UVic alumni services office are moving this month to new digs at 3930 Shelbourne Street, near McKenzie Avenue. "Since our small unit can function independently it made sense for us to move temporarily and allow all of the development staff to be housed under one roof," explains Don Jones, director of alumni services. Specifically, this move frees up space for the Capital Campaign team, who are raising funds for our new buildings on campus, including the science building, the social science and mathematics building, and the First Peoples House. The move is just a temporary one, and the office will move back to campus once these new buildings are ready for occupancy. In the meantime, the Alumni Association will still call the Alumni House home and alumni will be able to obtain their alumni benefits cards at the Alumni House front desk. Alumni services contact information remains unchanged.

## UVic helps develop hydrogen safety guidelines

Drs. Ned Djilali and Peter Oshkai (both from IESVic/ mechanical engineering) are collaborating with the universities of Québec (Trois Rivières), Concordia, Toronto and Calgary on a hydrogen safety and infrastructure study for zero emission, hydrogen-powered vehicles. The UVic component of the work, to be conducted at IESVic, will focus on computational modelling and experimental measurements of compressible hydrogen jets. "Basically, we're studying how hydrogen behaves in the atmosphere if it leaks from a pipeline or a storage tank," explains Oshkai. "This will help to establish safety guidelines for fueling stations, pipelines, vehicles, etc." The study is part of a national research initiative—entitled Auto 21 Network Centres of Excellence—formed to focus Canadian research expertise on improving the global competitiveness of the Canadian automotive industry. It's supported by the federal government and more than 120 industry, government and institutional partners. For more information visit [www.auto21.ca](http://www.auto21.ca).

## Plant Sale profits bloom

The UVic Plant Sale, held on Mother's Day in the McKinnon Gym, generated a \$20,000 profit for the Finnerty Gardens, exceeding last year's total by several hundred dollars. Buyers began to line up outside the gym doors about two hours

before the sale started. Organizers were pleased since the sale was a week later than usual and competes with several other garden sales that have sprung up around the same date. Proceeds from the annual event support ongoing improvements to Finnerty Gardens—the free campus showcase of rhododendrons and dozens of other varieties of plants, trees and shrubs.

## Criminals on tape

People opposed to the use of closed circuit TV surveillance (CCTV) in public places should look to themselves and not "big brother," says a UVic graduate student in sociology. For his master's thesis, Kevin Walby researched the rise of open-street CCTV surveillance in Canada. He found that there are now 12 operational CCTV systems in Canada, primarily in Ontario, and 18 other municipalities are planning to have CCTV or have in the past. "Thirty might not seem like a lot, but Canada doesn't have many big cities," he says. CCTV presents an ethical dilemma, he argues, because "by resisting CCTV, we're resisting ourselves, in a sense. It's often other community members who want to use this crime control tool; it's not always the state." He also feels that CCTV doesn't deal with the social forces that lead to criminal behaviour. "The technology is about locating crime and sweeping it off the streets and into jail," he says. Walby's research involved analysing more than 150 Canadian media articles about CCTV, examining privacy legislation in government documents, and sending open-ended questionnaires to municipal police services using or planning to use CCTV.

## Sailing venture wins innovation competition

This year's Peter Thomas Innovation Project, where UVic business entrepreneurship students have just \$5 and 10 days to design a profitable business, saw two eco-friendly sun and surf ventures take first and second place in the "most sustainable" category and two other teams win the "most profit" award. "The innovation project is a bit like *The Apprentice*," says business professor Brock Smith, "except we've been doing this for eight years and no one gets fired. Students just get fired-up on their new found entrepreneurial skills." With just \$5 in capital, the Sail With Us team created a green business that delivered value across a triple bottom line: students sold environmentally friendly sailing trips; they offered students a significant discount rate; and they subsidized tours to the Big Brothers and Sisters organization.



## Harvest time

Songhees lands manager Cheryl Bryce holds up a bowl of camas bulbs freshly harvested from a campus meadow near Gordon Head Road. The Songhees (Lekwungen) Nation, supported by UVic's school of environmental studies, hosted a traditional harvest and pit-cook in the meadow on June 22. Various First Nations came to witness and take part in the event. The day included drumming, singing and a discussion on food security and access to traditional foods. UVic is in the heart of Lekwungen traditional territory where camas was an important and plentiful source of carbohydrates and an essential resource for trade.

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# NEW HUMAN RIGHTS POLICY APPROVED

The University of Victoria now has an overarching human rights policy to link and guide the university's existing human rights policies.

The policy was approved by the board of governors after more than a year of development and consultation by the university's director of human rights, director of equity, and assistant university secretary.

The policy stems from recommendations in the 2003 equity and fairness review and also has links to UVic's strategic plan, says Cindy Player, the university's director of

human rights. "For UVic to be a university of choice for outstanding students, faculty and staff," she says, quoting from the preamble to *A Vision for the Future*, "requires a rigorous commitment to human rights and fairness."

The policy articulates the university's commitment to human rights, equity, fairness and enhanced diversity. It reflects the university's responsibility and desire to comply fully with human rights legislation and to prevent discrimination, resolve complaints, and educate the

university community.

The policy was reviewed by the educational equity and employee equity working groups and the wider community provided feedback through the web. In response to this feedback, some language was clarified and a process to issue an annual "report card" evaluating the effectiveness of the policy was developed. The policy will also undergo a comprehensive review after three years.

The new human rights policy will be posted on the university secretary website at [web.uvic.ca/univsec](http://web.uvic.ca/univsec).

# University leads in energy conservation

When it comes to saving energy, the University of Victoria is a leader among leaders.

Last month, the university received a 2005 Power Smart Excellence Award from BC Hydro for being in an elite group of provincial businesses and organizations that have significantly reduced energy consumption. UVic has been a Power Smart Partner since the mid-1990s.

"Power Smart Partners are those businesses or institutions that are

committed to adopting energy efficiency as a management practice," says UVic sustainability co-ordinator Sarah Webb. "The excellence awards are given out to those partners who have achieved substantial reductions in energy consumption."

UVic was the first institution in B.C. to initiate a campus-wide voltage optimization project, says Webb. Voltage optimization involves adjusting the voltages on transformers to reduce energy consumption.

"Voltage optimization was a big

part of our success this year. Our facilities management department and our consultants, Elite Engineering, piloted the project last fall and subsequently it was created into a Power Smart program for other schools and hospitals."

Lighting and mechanical retrofits across campus have also contributed to reduced energy consumption.

During the 2004-05 academic year, UVic saved 5.4 million kilowatt hours, or enough to power 540 Vancouver Island homes for a year, says Webb.

## Venus continued from p.1

faster communication rates, higher instrument capacity, and lower maintenance costs.

The second leg of the VENUS network, in the Strait of Georgia, is scheduled for installation in fall, 2006. To meet the project budget, a cable array planned for Juan de Fuca Strait

will not be deployed at this time.

VENUS is the shallow-water testbed for the larger North-East Pacific Time-series Undersea Networked Experiments (NEPTUNE) project, which will lay a 3,000-km network of powered fibre-optic cable on the seabed over the Juan de Fuca

tectonic plate off the coasts of B.C., Washington and Oregon. UVic is the Canadian leader of NEPTUNE.

The VENUS project is funded by the Canada Foundation for Innovation and the B.C. Knowledge Development Fund. For more information on the VENUS project visit [www.venus.uvic.ca](http://www.venus.uvic.ca).

# Calendar highlights

Events free unless otherwise indicated.  
For a complete list of events, see [www.uvic.ca/events](http://www.uvic.ca/events)

## At the Galleries

[www.maltwood.uvic.ca](http://www.maltwood.uvic.ca)  
721-6562

**Three River/Wild Waters, Sacred Spaces** July 6-Dec. 23. Exhibit of eight nationally acclaimed artists who journeyed down the Peel, Snake and Bonnet Plume Rivers in 2003. Maltwood Art Museum and Gallery

**A Retrospective of Works by Eva Campbell** July 6-26. A retrospective focussing on the female figure and experiments with perspective. McPherson Library Gallery

**First Annual British Columbia Creative Achievement Awards** July 29-Aug. 26. Exhibit of jewelry, furniture design, industrial design, fashion and glass by talented local artists. McPherson Library Gallery

## Saturday, July 9

**Music** 7 p.m. UVic Society for Indian Classical Art presents *Kathak Recital*, a classical style of dance from North India. Tickets \$10 at Munro's Books or at the door. MacLaurin A144. 479-7539

## Saturday, July 16

**Book Launch Extravaganza** 1:30-3 p.m. *Harry Potter & the Half Blood Prince*. Features readings, contests, Harry Potter lore, science "magic" with Science Venture. and three chances to win the new book. Mini lectures by UVic law professor Rebecca Johnson and a UVic history in art graduate student. Co-sponsored by the UVic Graduate Students' Society and the Greater Victoria Public Library. Cinecenta. 721-5163

## Fall 2005 Ring Schedule

Calendar items should be sent by 4 p.m. on the copy deadline date shown below to UVic Communications (Sedgewick C149, fax 721-8955, e-mail [ucom@uvic.ca](mailto:ucom@uvic.ca)) or entered into the online calendar ([www.uvic.ca/events](http://www.uvic.ca/events)).  
For more information call 721-7636.

| Publication Date       | Copy Deadline       |
|------------------------|---------------------|
| Thursday, Sept. 8..... | Tuesday, Aug. 30    |
| Thursday, Oct. 6.....  | Wednesday, Sept. 28 |
| Thursday, Nov. 3.....  | Wednesday, Oct. 26  |
| Thursday, Dec. 1.....  | Wednesday, Nov. 23  |

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| Total Payout to Age 100 |     | \$206,389 | \$184,776 | \$165,891 | \$152,505 | \$138,324 | \$127,517 |

|                     |                            |         |                            |           |
|---------------------|----------------------------|---------|----------------------------|-----------|
| Accelerated Payout: | Income over 5 years        | \$1,827 | Total 5 year payout .....  | \$109,647 |
|                     | Income over 10 years ..... | \$997   | Total 10 year payout ..... | \$119,712 |
|                     | Income over 15 years ..... | \$724   | Total 15 year payout ..... | \$130,335 |

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|--|-----|-------|-------|-------|-------|-------|---------|
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| ...payments cease at death             |     | \$537 | \$592 | \$681 | \$772 | \$947 | \$1,157 |
| ...10 years guaranteed                 |     | \$530 | \$573 | \$641 | \$698 | \$799 | \$920   |
| <b>Female</b>                          |     |       |       |       |       |       |         |
| ...payments cease at death             |     | \$488 | \$536 | \$605 | \$677 | \$824 | \$1,037 |
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## Gifts that make the grade <sup>A<sup>+</sup></sup>

Access to education in the visual arts in schools is an important factor in the academic and social development of children. That's why artist, author and teacher **Ted Harrison**, one of Canada's best known painters, has donated funds to establish the **Ted Harrison Wingate Bursary** in art education in the **faculty of education**. "There's not enough stress on creativity in young people" says Harrison. "Through art, children gain the creative problem solving skills that, as they move on in life, will benefit them in their work, whether in business, design, technology or industry. It also creates two essential attributes for any progressive person—emotion and empathy—two things that make constructive citizens."

Mention the name "Finnerty" around UVic and you're likely to think of the Finnerty Gardens, Finnerty Road, or the popular coffee bar under the UVic Bookstore. Annie Finnerty (1874-1937) was a gracious woman of tough pioneer stock who favoured full white dresses despite the harsh realities of farm life in 19<sup>th</sup>-century Victoria. Her parents were early settlers and farmers in the Mount Tolmie area in the late 1890s. Now, Annie Finnerty's memory is being honoured, through a bursary donated in her name. The **Annie Finnerty Bursary** will assist students in financial need who are enrolled in **faculty of education**. Her grandson, **David Pollock** (BEd '79), established the bursary to honour the wishes of his father Earl Pollock, who was a student at Victoria College in 1930. "Teachers deserve our support," says Pollock, a former school teacher himself. "The education they gave us doesn't weigh anything, but you pack it around with you forever, and it always comes in handy."

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## New certificate program trains future school leaders

UVic's faculty of education begins offering the first and only graduate-level certificate program for the next leaders of B.C.'s schools this summer.

Funded by the provincial government and provided through UVic's department of educational psychology and leadership studies, the program begins with a 10-day intensive institute in August.

"UVic is very pleased to be part of this partnership to help prepare educators to be our future leaders,"

says dean of education Dr. Budd Hall. "The university has played a very active role in offering teachers the opportunity to continue their learning and assume leadership positions in the province's schools. This new program will build on that expertise to give participants the skills they need for their demanding yet rewarding profession."

The professional specialization certificate in school management and leadership (CSML) continues

throughout the 2005-06 school year and concludes in the summer of 2006. It combines face-to-face interaction with online learning.

With 40 to 60 per cent of the province's principals, vice-principals and district staff eligible to retire in the next five years, the program is addressing the need to educate the individuals who will take their places. For more information on the program visit [www.educ.uvic.ca/csml/index.html](http://www.educ.uvic.ca/csml/index.html).

## New transition centre helps point students in the right direction

Students stymied about their futures can get a helping hand and a nudge in the right direction at a new facility in the Student Union Building.

The Student Transition Centre, which officially launched June 7, will build on existing programs such as New Student Orientation and Grad Year Connections, which help students make the most of their first and last years, respectively.

The new centre will offer advice

and information to all students throughout the fall and winter sessions, says student affairs co-ordinator Sue Corner.

"Life is filled with transitions," she says. "Once you're here, you still have to decide on degree options, plan for graduation, and more. This new centre is intended to support students in their transitions through university by providing information that will help them find their way around the institution. If you're a

student and you're not sure where to go, come to us."

The drop-in centre will be open September to April, Monday to Friday from 10 a.m. to 3 p.m. Workshops will be offered from 3:30 p.m. to 4:30 p.m. on weekdays, and will cover topics ranging from academic issues to student wellness to social activities. The centre is also working with the peer helping program to assist students on a one-to-one basis.

## CLIMATE CONTROL

When it comes to regulating Earth's climate, big things really do come in small packages

by Shannon McCallum

For most of us, the words "climate change" conjure up images of rising temperatures and melting glaciers. But for Dr. Diana Varela, a biological oceanographer at the University of Victoria, what comes to mind are microscopic floating algae called phytoplankton.

Found throughout the world's oceans, phytoplankton form the basis of the marine food chain. They're eaten by small fish, which are in turn eaten by larger fish. Humans catch and eat many of these larger fish.

But the influence of phytoplankton goes far beyond our dinner plates. "Phytoplankton are tiny in size but big in impact," says Varela. "They exert a global

influence on climate by removing carbon—one of the main culprits in global warming—from the atmosphere."

Like land plants, phytoplankton grow through photosynthesis by taking up dissolved nutrients and carbon dioxide, and releasing oxygen. When phytoplankton die they sink and can become buried in seafloor sediments. This process—called the "biological pump"—traps carbon in the deep ocean and can keep it isolated from the atmosphere for thousands to millions of years.

"Understanding the cycling of nutrient elements in the ocean is a key piece in the climate puzzle," says Varela, who studies phytoplankton physiology and ecology. She's especially interested in how phytoplankton use nitrogen, silicon

and carbon—all crucial nutrients for their growth.

The nitrogen cycle gives us insight into the carbon cycle because phytoplankton tend to use carbon and nitrogen in known ratios—for every 106 atoms of carbon taken up, 16 atoms of nitrogen are needed.

Two of the most important forms of nitrogen used by phytoplankton are nitrate and ammonium. In ecosystems with high nitrate uptake, such as coastal regions, there are large

exports of organic matter to the ocean floor. In ammonium-based ecosystems there is very little sink of carbon to the ocean floor.

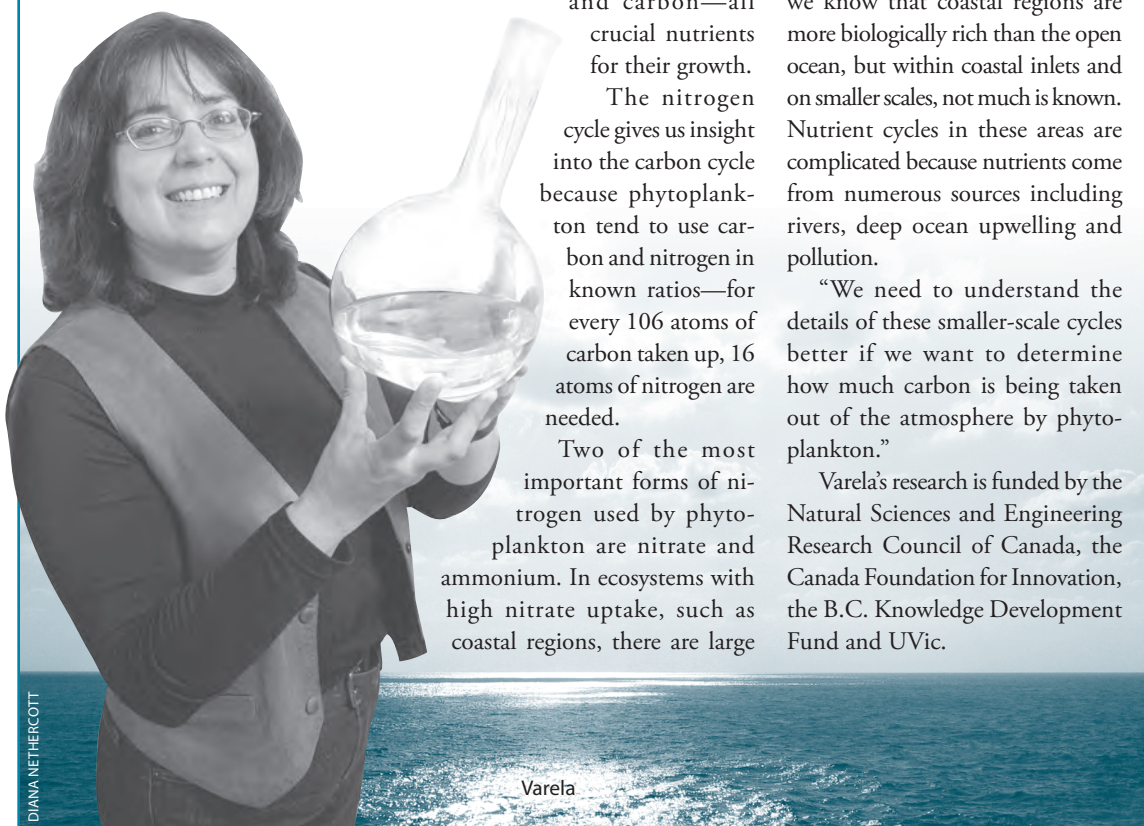
"If we can find out what form of nitrogen the phytoplankton are using," says Varela, "I can get a better measure of how much carbon is being removed from the atmosphere into deeper waters."

Varela uses growth chambers and other specialized instruments in her lab to determine how a variety of phytoplankton species acquire nitrogen and other nutrients under different environmental conditions. She also participates in oceanographic research cruises to study phytoplankton in areas such as Queen Charlotte Sound, Saanich Inlet and the Gulf of Alaska.

"The ocean is hugely under-sampled," says Varela. "In general, we know that coastal regions are more biologically rich than the open ocean, but within coastal inlets and on smaller scales, not much is known. Nutrient cycles in these areas are complicated because nutrients come from numerous sources including rivers, deep ocean upwelling and pollution."

"We need to understand the details of these smaller-scale cycles better if we want to determine how much carbon is being taken out of the atmosphere by phytoplankton."

Varela's research is funded by the Natural Sciences and Engineering Research Council of Canada, the Canada Foundation for Innovation, the B.C. Knowledge Development Fund and UVic.



DIANA NETHERCOTT

Varela