

# UBC REPORTS

Volume 45, Number 12

July 8, 1999

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Community Sports photo

**Honesty, perseverance and teamwork are among the principles instructors at UBC Community Sports aim to inspire in the many children who sign up for hockey school every summer. Co-ordinator Brent Berry says the program uses sport as the vehicle for making each participant feel significant, capable and respected. For information, call (604) 822-3688.**

## Hockey school builds heroes on, off the ice

by Don Wells

Staff writer

The UBC hockey school instructors are standing on elevated platforms, each armed with tennis ball shooters, the kind used by tennis instructors to simulate serves.

As about 25 kids attempt to avoid obstacles while completing team challenges in a maze constructed on the cement floor of the Winter Sports Centre, the instructors fire tennis balls at them. The arena is dimly lit with whirling coloured lights, resembling the atmosphere of the popular laser tag facilities.

The tennis balls don't hurt. The kids are all wearing their protective hockey equipment, but if a participant is hit, he or she has to return to the start of the obstacle course. The kids are obviously having a great time, but could this be hockey school?

It is, and although the kids are given top-notch instruction on skating, puck-handling and shooting, the summer sport camps offered by Athletics' Community Sports Program focus to a greater degree on developing skills which are far more essential.

"It's simply about helping them to become better human beings," says program co-ordinator Brent Berry. "We use sport as the vehicle for positive growth experiences, starting with the principle that each participant is a significant, capable and respectful person."

The maze is one of five off-ice activities the kids take part in during their week on campus. It is designed to provide partici-

pants with a sense of real-life adventure in which each person can make a positive difference in a particular situation, says Berry.

"It provides opportunities for each participant to be a hero by helping and cooperating with others."

A closer examination of the activity reveals the rest of the principles which guide the dedicated team of instructors.

It encourages honesty, because it is up to the participants to voluntarily leave when they are hit, as well as perseverance, because the game requires repeated and sustained efforts to overcome the obstacles.

It also promotes teamwork, as the activity is set up so that no one person can win it alone, but requires the whole group working together, communicating effectively and co-ordinating their efforts towards a common goal.

In his 17 years as program co-ordinator, Berry has received hundreds of written commendations from parents, most crediting the hockey school for making a profound impact on their children's lives that carries well beyond their experience at UBC.

They talk about how their kids have developed better technical skills, but more importantly, they explain how their attitudes are more positive, that they have learned to better control their behaviour, to treat officials more respectfully, and to be a team player and a good sport.

One letter in particular was perhaps the greatest tribute to the program's direction and the quality of its instructors.

See **CAMP** Page 2

## Brain research gets \$3.4 million funding

The Brain Research Centre has received \$3.4 million in capital funding from the Canada Foundation for Innovation (CFI).

The CFI contribution will be matched by provincial and UBC contributions to produce a \$10.5-million fund for renovations and installation of major brain research facilities at the UBC Hospital site.

"The university plays a key role in new scientific advances and partnerships like these further our efforts towards breakthroughs in medicine," says UBC vice-president, Research, Bernie Bressler. "With support like this, our scientists can move forward towards new frontiers."

A joint initiative of UBC and the Vancouver Hospital and Health Sciences Centre, the Brain Research Centre aims to increase understanding and improve treatment of brain disorders.

The centre will target six main areas of investigation, says centre director and Ophthalmology Prof. Max Cynader. It will conduct research into diseases such as Alzheimer's, Parkinson's and multiple sclerosis, as well as schizophrenia, stroke, neurotrauma/spinal cord injury and vision.

"Neuroscience is poised for breakthroughs," says Dr. David McLean, vice-president. Research at Vancouver Hospital. "Our hope is that this centre will play a unique role in treating and ultimately curing these disorders which carry such a high cost to individuals and society."

A second project that will be used by scientists at the Brain Research Centre and other researchers also received funding from CFI.

Capital funding of \$3.4 million, also to be matched, will go toward the establishment of a Medical and Biological Functional Imaging Centre to be located at the UBC Hospital site. This project is a partnership among the university, Vancouver Hospital and B.C.'s Children's and Women's Health Centre.

"CFI funding is the first and most important step toward putting Vancouver at the forefront of functional imaging," says Imaging Centre project leader Alex MacKay.

A professor of Radiology and Physics, MacKay says new equipment including a high field Magnetic Resonance Imaging

See **BRAIN** Page 2

## Physicist wins one of three national Killams

by Bruce Mason

Staff writer

Physics Prof. Walter Hardy is one of three 1999 recipients of a \$50,000 Killam Prize, one of Canada's most distinguished annual awards. It is given to Canadians in the natural sciences, health sciences and engineering by the Canada Council for the Arts.

"Walter Hardy has an impressive ability to probe the frontiers of scientific knowledge in his field," says Bernie Bressler, UBC's vice-president, Research. "The Killam Prize is a most suitable recognition of his pioneering contributions to research in condensed matter physics."

Among Hardy's breakthroughs is the

nature of superconductivity in copper oxides. These materials have wide-rang-

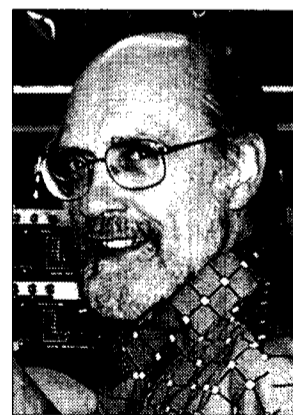
ing applications in telephone and satellite communications, high-speed computer elements, ultra-sensitive magnetic sensors and Magnetic Resonance Imaging.

High temperature superconductors are exotic materials that conduct electricity with no energy losses, at temperatures that can be attained using inexpensive liquid nitrogen.

Hardy and colleagues at UBC, Physics Assoc. Prof. Douglas Bonn, who

was awarded a \$180,000 NSERC Steacie Fellowship earlier this year, and Ruixing Liang, a material scientist in UBC's Physics and Astronomy Dept., used their

See **KILLAM** Page 2



Hardy

### Inside

#### Lifelong Learning

3

Third Age participants keep coming back for more

#### Underground Observatory

5

Scientists see blasts of light in an observatory built in an Ontario mineshaft

#### Drug Deliverer

8

Gels, creams, bubbles...Prof. Helen Burt specializes in making drugs arrive

## Camp

Continued from Page 1

A terminally ill father called in the spring to alert the Community Sports staff that by the time his son showed up for hockey school in a few weeks time, he would be dealing with his recent death. After the boy returned home, his mother wrote to thank the instructor for being extra sensitive to her son's emotional state, unaware that the instructor was never informed.

"We discussed that situation and decided that no special treatment was warranted," says Berry. "All of our instructors are caring people, and so her son's experience was no different than any of the other kids. In the end, I think it was the right call."

Throughout July and August, approximately 5,000 kids will

spend a week each on campus, enrolled in any one of 24 programs in 18 different sports and six non-sport activities including cycling, fencing, sailing, adventure and soccer. Activities are offered for children and young adults aged four to 16.

They receive instruction from a carefully selected and trained staff of approximately 120 instructors, most of whom are UBC students, including a handful of varsity athletes and coaches.

As the world of professional sports becomes increasingly fraught with instances of inappropriate behaviour and criminal charges, Berry believes that there is an ever-increasing societal need for positive, responsible and well-rounded role models.

"After all," he says, "the world isn't crying out for people who can skate faster or kick a soccer ball harder."

For more information about the summer camps call (604) 822-3688 or e-mail fairplay@interchange.ubc.ca

## Brain

Continued from Page 1

scanner will allow scientists to watch the brain work. The new scanner will be many times more sensitive than the one now being used at UBC Hospital.

The CFI was established by the federal government in 1997 to address an urgent need for new research infrastructure in Canada's research community.

It has a capital budget of \$1 billion and its investments are made in partnership with all levels of government, as well as with the private and voluntary sectors.

## Correction

Political Science Assoc. Prof. Kathryn Harrison earned degrees in both Engineering and Political Science. She was incompletely identified in the story "Arts, Engineering dual degree breaks barriers" in the June 10, 1999 issue of *UBC Reports*.

## Killam

Continued from Page 1

superb samples to make the first accurate measurements of the depth to which microwaves penetrate a superconducting crystal. This discovery is essential to future applications, and also helps to show how electrons interact to become superconductors.

Hardy is also the first recipient of the Brockhouse Medal from the Canadian Association of Physicists for outstanding contributions to condensed matter physics. The

medal honours Canadian scientist and UBC alumnus Bertram Brockhouse, who was awarded the 1994 Nobel Prize in Physics. Hardy earned the medal for his recent microwave studies of high temperature superconductors.

Born in Vancouver, Hardy earned BSc and PhD degrees at UBC in 1961 and 1965. He has received numerous major awards and in 1980 was elected to the Royal Society of Canada.

**Click.**

### Daily Media Summaries on the Web

National, regional and local media coverage of interest to the UBC campus community. Find it at [www.publicaffairs.ubc.ca](http://www.publicaffairs.ubc.ca)

THE UNIVERSITY OF BRITISH COLUMBIA  
Public Affairs Office

## Vice-President, Research The University of British Columbia



Think About It UBC

The University of British Columbia (UBC) invites applications and nominations for the position of Vice-President, Research. UBC is committed to enhancing its research capacity, strengthening its research performance, promoting the transfer of its research findings for the benefit of the wider community, and becoming the leading research university in Canada and one of the leading research universities in the world. This position is central to the implementation of Trek 2000, UBC's vision for the twenty-first century.

Established in 1908, The University of British Columbia is a publicly supported, comprehensive university comprising twelve faculties, nine schools, 38 centres and institutes, TRIUMF, and four affiliated teaching hospitals. The current student population at UBC includes both Canadian and international students of the highest calibre - more than 26,000 undergraduates and 6,400 graduate students. With approximately 2,000 faculty and 5,500 non-academic staff, UBC's annual budget is approximately \$800 million. The academic staff of the University attract more than \$140 million in external research and special funds on an annual basis.

The University of British Columbia engages in the search for new knowledge in activities ranging from clinical medicine and laboratory science to artistic performance and literary criticism to technology transfer and social policy development. UBC has built and maintained one of the highest standings among Canadian universities. Recognizing these strengths, research is at the heart of what UBC does - from teaching undergraduates to extending the frontiers of knowledge and contributing to the welfare and cultural and economic development of British Columbia and Canada.

The Vice-President, Research, who reports to the President, will provide leadership in the development and administration of research at UBC, and in the promotion of interdisciplinary research programs. He or she will be an articulate advocate for the University's focus on research in all fields. The Vice-President, Research will speak knowledgeably to the wider community about the full range of research at UBC, and will establish and maintain effective liaison with external funding agencies, business, industry, and government.

The successful candidate will have an outstanding record of scholarship and demonstrated academic leadership, with superior administrative, communications, and interpersonal skills. He or she will have extensive experience in promoting research and an understanding of the financial, legal, ethical, and social implications of research for the wider community. The Vice-President, Research is a member of the University's senior management team which works together to increase UBC's national and international reputation.

The appointment will ideally commence on January 1, 2000. Applications or nominations for this position, indicating the qualifications on the basis of which the individual merits consideration, will be received until a selection is made and should be sent to the address below. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents of Canada.

UBC hires on the basis of merit and is committed to employment equity. The University encourages all qualified persons to apply.

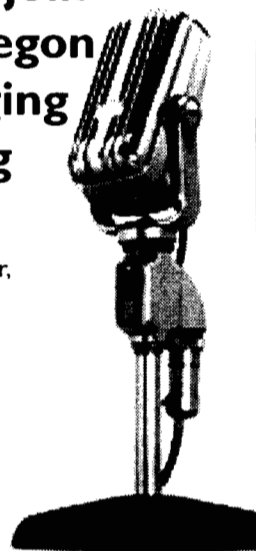
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— Sociology Prof. Patricia Marchak, author, *Falldown: Forestry Policy in British Columbia.*



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## UBC REPORTS

*UBC Reports* is published twice monthly (monthly in December, June, July and August) for the entire university community by the UBC Public Affairs Office, 310 - 6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1. It is distributed on campus to most campus buildings.

*UBC Reports* can be found on the World Wide Web at <http://www.publicaffairs.ubc.ca>

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Bruce Mason photo

### Easy Rider for hire

**A new enterprise on campus — Easy Rider — is designed to put you in the passenger's seat. Ken Butler (front left), an employee at UBC Hospital, has purchased three pedi-cabs which he leases to students who want extra cash and exercise. They will take you to your destination for a donation. Taking a break are fourth-year Commerce students Lydia (left) and Linda Teh. At the handlebars (front right) is third-year Arts student Chris Padgett. To try UBC's latest transportation alternative call Easy Rider at (604) 506-8525.**

## First class finds alternative route to working in computing industry

by Andrew Poon

Staff writer

The first students in an innovative Computer Science work-study program at UBC are now busy gaining invaluable work experience with companies in the information technology industry.

The Alternative Routes to Computing (ARC) program — developed with Simon Fraser University and industry partners

— is a 24-month program which teaches computer science to top university graduates with little or no computer experience through alternating sessions of academic courses and paid work terms.

The program accepted its first class of 29 students — 15 at UBC and 14 at SFU — last September. After an intensive eight months of classroom learning, the students are now applying what they have learned to the workplace.

"I was probably the least technical person you could have imagined," says student Linda Wong, previously a partner at a Vancouver law firm.

Before enrolling in the ARC program, Wong says she didn't know what a Web site address was and remembers being embarrassed when a friend had to prompt her to press the Enter key to input data into a computer.

During her work term, she is doing project management and technical writing for ISM-BC, a Vancouver-based firm that provides information technology outsourcing and support to companies such as BCTEL.

"The ARC program is great for the work experience," says Wong. "Especially for older people who otherwise may not have been given the chance to gain that experience on their own."

Classmate Ron Rabin agrees. Rabin, an ex-college professor in music history, decided to make the career change to information technology and researched a number of schools before he applied to UBC.

"It was the only program I could find which allowed me to get the training and a work term within such a short time in an academic as opposed to a trade school environment," he says.

Rabin is working as a technology analyst with IBM Pacific Development Centre in Burnaby during his work term.

Science Dean Maria Klawe says the ARC program has attracted an eclectic group of students and appeals especially to women interested in careers in the information technology industry.

"There are very interesting people in the program," says Klawe. "It's not your standard group of undergraduate Science students."

Besides a lawyer and a former college professor, there is an ESL teacher, students with doctorate degrees and even an opera singer in the current ARC class.

Applications are now being accepted for next year's class which starts in January 2000. The deadline is Aug. 1. For information on the program and how to apply, contact Sharan Kaur Sarang at (604) 291-5889 or visit the Web site at <http://taz.cs.ubc.ca/swift/internship>.

## Third agers keep on learning

by Dorianne Sager

Student intern,

Sing Tao School of Journalism

With summer vacation in full swing, and the evidence of various graduation parties swept into collective memory banks, few graduates could imagine that they might still be taking classes well into their eighties. But, as students of the Third Age Spring Lecture series might tell you, learning doesn't stop once the diploma has been framed.

"I'll be coming 'til I drop," says participant Joyce Scholefield, who has stored more than seven decades of education and has no intention of stopping now.

Brian Marshall, a retired civil servant, shares Scholefield's enthusiasm. He has been coming to Third Age lectures for the past seven years, his favorite topic being literature.

"These lectures are things you didn't graduate," says Marshall. "That's the beauty of this stuff — it's catching up."

The Third Age lectures are part of UBC Continuing Studies' Third Age Society, an umbrella organization that provides university-level learning experiences for those 55 years of age and older.

The program started in 1974 when program director Norman Watt came up with the idea for a series of lectures that would make the most of the campus facilities during the summer and give seniors an opportunity to refresh themselves with novel ideas. This year the program celebrates its 25th anniversary.

Courses are scheduled in the mornings and cover a range of topics in art, history, politics, literature, science and religion. In the afternoon participants often visit the Museum of Anthropology, tour the Botanical Garden or swim at the Aquatic Centre.

More than 500 registrants are attracted to the lecture series each year, many of whom are regulars.

Jim Saull, who will turn 86 in August, loves the ambience of university life. Saull is enjoying his first course at UBC, Islamic Art and Architecture, and finds it fascinating.

"To be able to enjoy life at my age is something special," he says.

While the spring lecture series has recently finished, the Third Age Society offers two other programs throughout the year. For more information, call Continuing Studies at (604) 822-1444.



## Millennium agreement extends B.C. grants for students

by Bruce Mason

Staff writer

A government plan to help cut debt among post-secondary students is good news on campus.

The partnership between Victoria and the Canada Millennium Scholarship Foundation (CMS) will extend grants to B.C. students in their third and fourth years of study.

Provincial and federal officials estimate that the student loan debt of about 13,000 post-secondary students in the province will be cut by an average of \$7,200 under the new agreement.

"It is an outstanding initiative to put millions of dollars back in to the system and help students," says Ryan Marshall, president of UBC's Alma Mater Society.

"The decision that 95 per cent of the awards will be based on need is significant and welcome," says Carol Gibson, UBC's director of Awards and Financial Aid. "It reflects the fact that there has been a great deal of discussion between government and stakeholders, including financial aid administrators and students across the country."

The 10-year CMS program will provide \$367 million for general awards in B.C. based on financial need. This allows foundation funding to be harmonized with B.C.'s student grant system.

Typically about 30 per cent of UBC students receive student loans of one form or another, Gibson says. Not all are B.C. student loans and the different individual arrangements provinces make with CMS will affect those students.

B.C. currently spends about \$55.9 million a year in grants for eligible students in the first and second year.

Under the new deal, the province will provide an additional \$11.1 million and combine it with \$36 million from the Millennium Scholarship Fund for a total grant package of \$103.7 million in 1999-2000.

B.C. students currently graduate from a four-year post-secondary program with an average debt load of \$17,300. Provincial and federal officials say the new grant program will cut that figure to about \$10,000. The grants average \$3,600 for students who qualify for assistance.

The maximum award for students without dependents in B.C. is \$8,840 for an eight-month study period. Sixty per cent of the award is made up of Canada student loans, with the remainder being either a B.C. grant or a CMS general award, or a combination of the two.

UBC has an extensive bursary program to further help students on financial aid and an enhanced student aid fund was created in 1991.

"Students themselves should receive credit for one of UBC's programs," says Gibson. "In a 1997/98 AMS referendum, it was agreed that a portion of tuition fees would be paid into a student aid fund."

Marshall points out that although the agreement brightens the future for many students, it will do nothing for those who began to sink into debt during education cuts in the mid-'90s.

"Too many are lost in limbo, facing excessive debt at prime plus five per cent," he says. "We will continue to lobby government to do something to help them."

# Calendar

## July 11 through August 14

### Sunday, July 11

**Chan Centre Concert**  
A Hymn Festival. The U.S. and Canada Hymn Society. Chan Centre at 7:30pm. Call 822-2697.

### Monday, July 12

**Biochemistry And Molecular Biology Discussion Group**  
Oncogene-Mediated Signal Transduction In Transgenic Mouse Models Of Human Breast Cancer. William Muller, The Institute for Molecular Biology and Biotechnology, McMaster U. Westbrook 100 at 3:45pm. Refreshments at 3:30pm. Call 822-2792.

**Under The Green Roof Public Lecture**  
Crucifixion As The Motherliness Of Christ In The Theology Of Julian Of Norwich. Prof. Kerry Dearborn, Theology, Seattle Pacific U. Regent College Chapel from 8-9:30pm. Call 224-3245.

### Tuesday, July 13

**VST Summer Lecture**  
Why Christianity Must Change Or Die. Rt. Rev. John S. Spong, Bishop of Newark. VST Epiphany Chapel at 7:30pm. Bring cushion for comfort. By donation. E-mail: gshaw@vst.edu or call Ginger Shaw 822-9816.

### Wednesday, July 14

**Under The Green Roof Public Lecture**  
Whatever Happened to God The Father. Prof. Gary Badcock, Dogmatic Theology, U of Edinburgh. Regent College Chapel from 8-9:30pm. Call 224-3245.

### Thursday, July 15

**Board of Governors Meeting**  
Open Session Begins At 8am. Fifteen tickets are available on a first-come, first-served basis on application to the Board Secretary at least 24 hrs before each meeting. OAB Board and Senate room. Call 822-2127.

**VST Summer Lecture**  
Building Community As A Response To Globalization. Christopher Lind, St. Andrew's College. VST Epiphany Chapel at 7:30pm. Bring cushion for comfort. By donation. E-mail: gshaw@vst.edu or call Ginger Shaw 822-9816.

**Education Noted Scholars Lecture**  
New Formations Of Colonization And New Educational Resistances...Lessons From Down Under. Graham Hingangaroa Smith. Scarfe 310 from 1:30-2:30pm. Call 822-9136.

### Saturday, July 17

**Bike Mechanic Workshop**  
Comprehensive One-Day Bike Mechanic Course. AMS Bike Cop mechanics. Bike Hub Portable (MacMillan southwest corner) from 10am-3pm. \$20. Bring your own bike and lunch. Call 822-4566.

### Monday, July 19

**Under The Green Roof Public Lecture**  
How Can Christians Find Hope In The Face Of Cultural Crisis? Marva J. Dawn, theologian, author, lecturer. Regent College Chapel from 8-9:30pm. Call 224-3245.

### Tuesday, July 20

**Education Noted Scholars Lecture**  
The Cabal Of Globalization And The Public Remains Of Education. David Smith, International Centre for Education and Society, U of Alberta. Cecil Green Park House Yorke Room from 1-2pm. Call 822-1878; 822-9136.

**VST Summer Lecture**  
The Rise Of World Christianity. Lamin Sanneh, Yale U. VST Epiphany Chapel at 7:30pm. Bring cushion for comfort. By donation. E-mail: gshaw@vst.edu or call Ginger Shaw 822-9816.

**Green College Special Lecture**  
Limits On Insurance Underwriting: Private Justice Or Public Good? Aditi Gowri, Lyndon Baines Johnson School of Public Affairs, U of Texas. Green College small dining room at 5pm. Informal discussion to follow. Call 822-1878.

### Wednesday, July 21

**Under The Green Roof Public Lecture**  
Surprised By Joy: C.S. Lewis And The Christian Discovery Of Hope. Earl Palmer. Tenth Avenue Alliance Church, 11 W. 10th Ave. from 8-9:30pm. Call 224-3245.

### Thursday, July 22

**Education Noted Scholars Lecture**  
Is Critical Thinking A Moral Obligation? Donald Hatcher. Scarfe 310 from 12noon-1pm. Call 822-9136.

**VST Summer Lecture**  
Consumer Culture and Commodity Fetishism: A Biblical Critique Of Idolatry. Ched Myers, Urban Theology. VST Epiphany Chapel at 7:30pm. Bring cushion for comfort. By donation. E-mail: gshaw@vst.edu or call Ginger Shaw 822-9816.

### Monday, July 26

**Under The Green Roof Public Lecture**  
Rebuilding The Ruins: Reformation And Renaissance In Christian Education. Prof. Gene E. Veith, English, Concordia U. Regent College Chapel from 8-9:30pm. Call 224-3245.

### Wednesday, July 28

**Under The Green Roof Public Lecture**  
Religious And Political Polarization And The Theology Of Reconciliation. Alan Torrance, Theology and Religious Studies, King's College, U of London. Regent College Chapel from 8-9:30pm. Call 224-3245.

### Thursday, July 29

**Education Noted Scholars Lecture**  
Beyond The Reading Wars. Steven Stahl. Scarfe 310 from 12noon-1pm. Call 822-9136.

### Thursday, Aug. 5

**Obstetrics And Gynecology Special Seminar**  
Blastocyst Invasion And The Maternal Endometrial Response. Dr. Asgi Fazleabas, Physiology, U of Illinois. B.C.'s Women's Hosp. 2N35 at 2pm. Call 875-3108.

### Monday, Aug. 9

**Intercultural Studies Continuing Education**  
St. John's College from 9:30am-5pm. Registration at 8:15am. Continues to Aug. 13. \$645/course; \$1,195 two courses. E-mail: intercultural.studies@cstudies.ubc.ca or call 822-1437.

## Notices

**Museum Of Anthropology Summer Camp**  
Stories, Printmaking, Scavenger Hunt, And Tour. MOA from 10am-3pm. \$8/child (limited subsidies available). Continues to Aug. 6. Call Manuela Niemetschek 822-4604.

**Art Exhibits**  
Rodney Graham: Vexation Island; Golden Boys: Naturalism And Artifice In Homoerotic Photography, 1870-1970; N.E. Thing Co.: Sixteen Hundred Miles North Of Denver. Morris and Helen Belkin Art Gallery from 12noon-5pm. Continues to Aug. 15. Closed Mondays; Tues-Fri 10am-5pm; Sat./Sun. 12noon-5pm. www.belkin-gallery.ubc.ca or call 822-2759.

**Parents With Toddlers**  
Did you know your child is a word-learning expert? We are looking for children (one-five years old) and their parent(s) to participate in language studies in the Psychology Dept. at UBC. During your visit, you will remain with your child at all times. You and your child, and a trained researcher will play a word guessing game using puppets and toys, or pictures. As you might imagine, children find these word games a lot of fun!! If you (or someone you know) might be interested in bringing your child for a 30-minute visit to our research playroom, please contact Kelley at Dr. Geoffrey Hall's Language Development Centre 822-9294.

**Participants Needed**  
For a study on public input in decision-making for environmental policies, conducted by Eco-Risk Research Unit, at UBC during July and August. Participants are asked to attend a 1.5-hour working group discussion and will be paid \$25 in cash at the end of the session. If interested, please call 822-0551.

**Bike Care Clinic**  
Learn a different skill each week on our purple and yellow bikes. Free weekly bike repair training every Wednesday evening at the Bike Kitchen with Jason Addy, master bike mechanic. SUB loading dock, room 41 from 6-7pm. Call 822-4566.

**Pediatric Eczema Study**  
Requires children three months to 15 years of age. Must have a current flare of eczema. Must be able to attend visits over 52 weeks. Honorarium to be paid at completion of study. Call Sherry, Dermatology 875-5296.

**Adult Eczema Study**  
Requires persons 18 and over with a present flare of eczema on both arms. Must be able to attend six visits over a one month period. Lab tests required. Call Sherry, Dermatology 875-5296.

**Cystic Acne Study**  
Requires persons 16 years and older. Must have three acne cysts larger than 5mm in size on their face. No accutane within six months, no antibiotics within ten

**Centre For Teaching And Academic Growth Workshop**  
Instructional Skills Workshop For Graduate Students. TAG Seminar Room from 8:30am-5pm. To register call 822-6827.

**Next deadline:**  
noon, Aug. 3

days. Lab tests required. Call Sherry, Dermatology 875-5296.

**UBC Campus Tours**  
Free and fun tours leaving from the SUB concourse daily at 10am and 2pm, or call to book your own tour. Kristina Osborne and Kevin Neilson are your tour guides. Call 822-TOUR (8687).

**Studies in Hearing and Communication**  
Senior (65 years or older) and Junior (18-35) volunteers needed. If your first language is English and your hearing is relatively good, we need your participation in studies examining hearing and communication abilities. All studies take place at UBC. Hearing screened. Honorarium paid. Please call The Hearing Lab, 822-9474.

**Research Study**  
Requires volunteers (18-40 years) with a recent fracture of the tibia. We are assessing inflammation in the weakened muscles and muscle fatigue before beginning physiotherapy or full weight-bearing, and again after beginning treatment. An honorarium is offered. For more information please call 822-0799.

**AMS Rentsline**  
Helping students find housing since 1993, the AMS Rentsline is UBC's off-campus housing registry. This service gives students access to hundreds of rental listings, and landlords access to thousands of students looking for housing. You can call the Rentsline from any touchtone phone 24 hours a day, 365 days a year. Call 714-4848.

**Museum Of Anthropology Exhibition**  
Objects Of Intrigue. Continues to Dec. 31. Nunavutmiutaniq Elisasiq: A Tribute To The Peoples Of Nunavut; A Break In The Ice: Inuit Prints From The Linda J. Lemmens Collection. Continues to Sept. 6. Attributed to Edenshaw: Identifying The Hand Of The Artist. Continues to Feb. 13. Free to UBC students, staff, faculty. Web site: <http://www.moa.ubc.ca> or call 822-5087 or 822-5950.

## UBC REPORTS

### CALENDAR POLICY AND DEADLINES

The UBC Reports Calendar lists university-related or university-sponsored events on campus and off campus within the Lower Mainland.

Calendar items must be submitted on forms available from the UBC Public Affairs Office, 310-6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1. Phone: UBC-INFO (822-4636). Fax: 822-2684. An electronic form is available at <http://www.publicaffairs.ubc.ca>. Please limit to 35 words. Submissions for the Calendar's Notices section may be limited due to space.

Deadline for the Aug. 12 issue of UBC Reports — which covers the period Aug. 15 to Sept. 4 — is noon, Aug. 3.

### Wednesday, Aug. 11

**Engineering/Architecture Continuing Education**  
Advanced System Identification And Process Control. Erza Kwok. ChemEng 18 from 8:30am-3pm. Continues to Aug. 13. \$1,300; \$450 student. Includes lunch. Call 822-1884.

### Gardens Open

The Nitobe Memorial Garden, UBC Botanical Garden and Shop in the Garden will be open until October 11 (inclusive) from 10am-6pm daily (including weekends). For the gardens call 822-9666 and the Shop 822-4529.

### Vancouver (European) Handball Team

Is looking for players at all levels. We meet Fridays from 8-10pm at the Osborne Gym. For more information, visit our Web site: <http://handball-bc.hypermart.net> or call 822-4576.

### Female Volunteers

Daughters who have returned home to live with their parents are needed for a PhD psychology study. An interview at your convenience is required. Please call Michele 269-9986.

### Twin Research

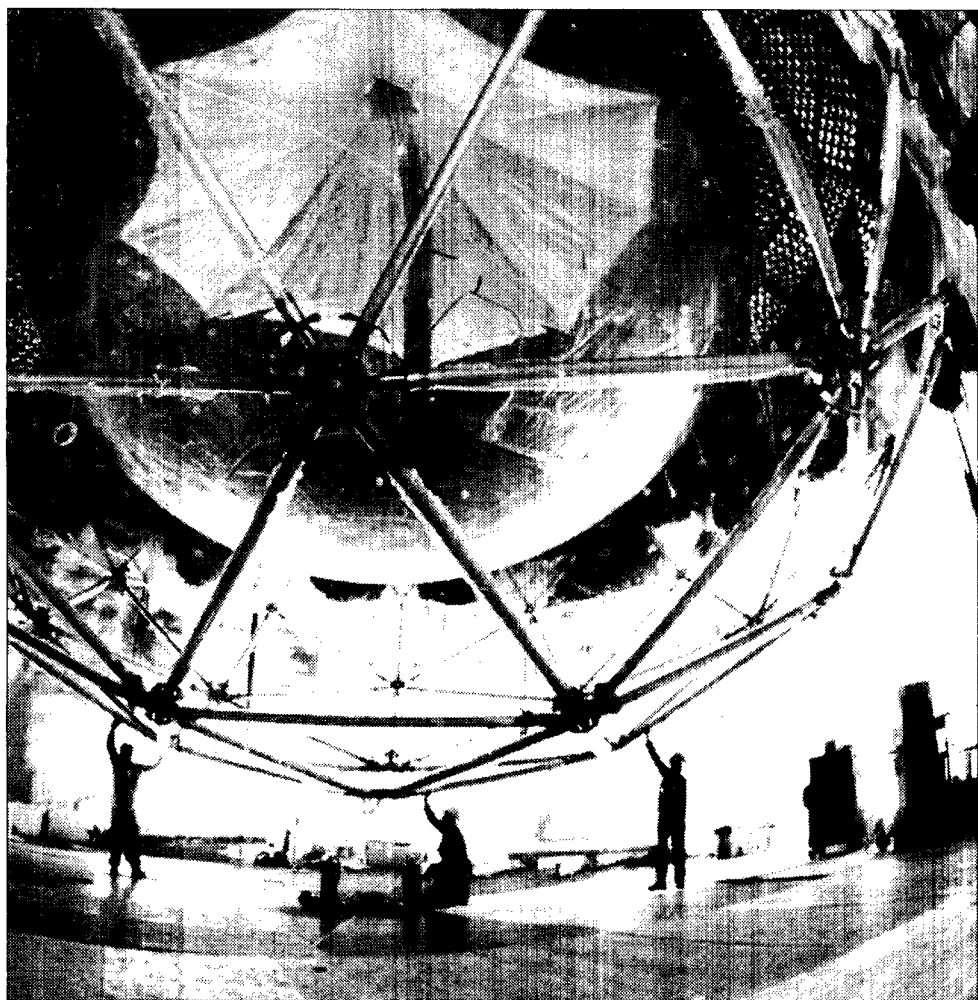
Are you, or do you know a female adult twin? We are studying the relationship types of fraternal and identical female twins. If you can help by completing some questionnaires and being interviewed about relationships, please e-mail: [tmacbeth@cortex.psych.ubc.ca](mailto:tmacbeth@cortex.psych.ubc.ca) or call Tannis MacBeth, Psychology 822 4826.

### BC SMILE

The British Columbia Seniors Medication Information Line (BC SMILE), answered by licensed pharmacists, is a free telephone hotline established to assist seniors, their families and caregivers with any medication-related questions including side effects, drug interactions, and the misuses of prescription and non-prescription drugs when it is not possible to direct such questions to their regular pharmacist or physician. Monday to Friday 10am-4pm. Call 822-1330 or e-mail [smileubc@unix.ubc.ca](mailto:smileubc@unix.ubc.ca).

### Research Study

I am a grad student looking for families with an autistic child(ren) to answer a questionnaire regarding the effects of raising autistic children. The child must be seven years old or younger. Please call Keri Smalley 738-8025.



Bob Chambers photo

Located 2,000 metres below the surface of the Earth, the Sudbury Neutrino Observatory consists of an acrylic plastic vessel 12 metres in diameter filled with heavy water. The vessel is surrounded by a geodesic sphere that holds panels of nearly 10,000 light sensors and reflectors. Neutrinos interacting in the heavy water give a tiny light signal which is detected by the sensors. UBC scientists were part of the international team that helped design and build the observatory and among the first to see the light created when neutrinos interact.

## Scientists spot elusive neutrinos in Sudbury

by Bruce Mason

Staff writer

UBC scientists are among the first to see the light created when neutrinos, the elusive but most common particles in the universe, interact in 1,000 tonnes of heavy water.

The breakthrough made at the Sudbury Neutrino Observatory (SNO) is the result of an international collaboration of nearly 100 scientists from 11 universities and laboratories including the University of British Columbia/TRIUMF group.

The results will help answer questions about the nature of matter on the smallest scale, as well as provide insights into the structure of the stars and the universe as a whole.

"Neutrinos are at least as common as the particles of light, but some of their basic properties, like their mass, aren't known for certain," says group member Chris Waltham, an associate professor of Physics. "This is because neutrinos are not at all easy to study as they interact rarely with other matter and so are very difficult to see."

UBC and TRIUMF personnel have been working on SNO since 1988, says TRIUMF research scientist Rich Helmer.

"To see neutrinos at last is a vindication of all these years of computer simulation and design, followed by detector construction and commissioning," he says.

Located 2,000 metres underground in a nickel mine in Sudbury, Ont., SNO is shielded from cosmic rays and other sources of unwanted "background."

It is designed to detect neutrinos from sources beyond the Earth, in particular from the sun, which bathes each square centimetre of the Earth's surface with billions of neutrinos a second.

SNO has been built to help resolve some of the mysteries that continue to surround neutrinos, in particular the puzzle of why previous experiments do not detect as many neutrinos from the sun as expected.

Among its first images are stunning examples of the pools of light formed by the interactions of neutrinos that began life in the sun or in the atmosphere on the opposite side of the Earth.

"This is tremendously exciting," says SNO director Prof. Art McDonald of Ontario's Queen's University. "It is 15 years since the start of the SNO project, and to see such clear examples of neutrino interactions within days of finally turning on the full detector was a real triumph for the entire SNO team."

To learn more about SNO, visit its official Web site at [www.sno.phy.queensu.ca](http://www.sno.phy.queensu.ca). Assoc. Prof. Chris Waltham's site is at [www.physics.ubc.ca/~waltham](http://www.physics.ubc.ca/~waltham).

## Team to evaluate deaf, hard-of-hearing service

by Hilary Thomson

Staff writer

Imagine your child has been hit by a car. The doctor finally enters the emergency waiting room with news of her condition. Now imagine you can't hear what the doctor is saying.

For deaf and hard of hearing persons in B.C. this may have been a typical scenario until last October when the Supreme Court of Canada guaranteed access to free confidential medical interpreting services.

UBC's Institute for Hearing Accessibility Research (IHEAR) and a research team comprising students and faculty have been selected to evaluate B.C.'s program, called the Medical Interpreting Service (MIS).

"This is an exciting project for us because it is community-based and deals with a landmark innovation," says Assoc. Prof. Kathleen Pichora-Fuller, IHEAR's director and head of the research team.

"We expect a number of research questions will flow from the evaluation. We also hope to contribute to the design of curricula for students in the health and human services programs at UBC who might work with deaf and hard of hearing people."

Launched by the Ministry of Health as a one-year pilot, the MIS is the first provincially funded program of its kind in Canada. Twenty-four part-time interpreters responded to almost 300 requests for service across B.C. in the first three months of the program.

Before the launch of the MIS program, most deaf and some hard of hearing persons relied on family members or hastily written notes to convey medical details.

"The court's decision demonstrates that communication is considered to be a right, not a frill," says Pichora-Fuller.

The Western Institute for the Deaf and Hard of Hearing (WIDHH), which administers the program, estimates one out of 10 people in B.C. — 490,000 — are hard of hearing or deaf. About 5,000 individuals would benefit from sign language interpreters.

Researchers will look at MIS from the perspective of a variety of stakeholders: deaf and hard of hearing persons, health-care providers, interpreters and staff at MIS and hospital diversity offices.

"IHEAR is able to provide a multidisciplinary approach to this project," says Marilyn Dahl, executive director of

WIDHH. "The interaction between academics and consumers is key to a comprehensive assessment."

The team aims to find out if MIS users gain a better understanding of the immediate health problem. They will also look at the long-term effect of being able to communicate on health issues and whether it encourages deaf and hard of hearing persons to use health services.

Research team member Janet Jamieson will consult the consumers of MIS, including deaf and hard of hearing persons and, where applicable, their caregivers.

Jamieson, an associate professor in Educational and Counselling Psychology and Special Education, is fluent in a number of forms of visual language communication.

The evaluation will use questionnaires, focus groups, personal interviews and a telephone hotline which is both voice and TTY-activated to gather information from patients and caregivers. TTY is a telephone device for the deaf that enables communication in print format.

"We worked closely with members of the deaf community to develop evaluation tools that are fully accessible to all deaf, deaf-blind and hard of hearing persons,"

says Jamieson. Ruth Warick, a doctoral student in the Faculty of Education, will evaluate MIS from the perspective of about 50 interpreters.

Warick, who is hard of hearing, will address issues such as interpreting in confidential medical situations and the

technical demands of translating medical terminology into sign language.

Training issues will also be explored. A new program to train medical interpreters has been set up at Douglas College.

Asst. Prof. Bill McKellin, a medical anthropologist, will look at the social and cultural connections between deaf and hard of hearing patients and the medical culture of hearing staff in health-care settings.

Glynnis Tidball, a recent graduate of the School of Audiology and Speech Sciences will co-ordinate the evaluation project. Anne Marie Roberts, an Arts undergraduate student, Special Education doctoral student Brenda Poon and Anthropology master's student Tracy-Anne Northey are the team's research assistants.

IHEAR was established in 1994 as an interdisciplinary centre for research, training, and service in the area of hearing accessibility.

**"The court's decision demonstrates that communication is considered to be a right, not a frill."**

— Assoc. Prof. Kathleen Pichora-Fuller

## Graduates leave gifts behind

UBC graduating students raised more than \$30,000 from their peers and handpicked 16 legacy gifts for the benefit of future students in the eighth annual Class Act campaign.

This year saw 100 per cent participation in five Class Act campaigns, including the School of Family and Nutritional Sciences, Landscape Architecture program, the Commerce and Business Administration's MBA program, the Faculty of Medicine and the School of Rehabilitation Sciences.

Gifts include an endowment to bring speakers to the Faculty of Arts, computer equipment for students in the Fac-

ulty of Applied Science, and financial support for students participating in the Faculty of Medicine's rural summer placement program.

Since 1992, graduating students have organized a fund-raising campaign to purchase useful items for their faculties, schools and departments. The campaign is part of UBC's Annual Fund.

The money raised by the graduates is matched by their deans. The funds are matched again by the Vice-President, Academic, if there is 100 per cent participation among graduates in their faculties, schools or programs.

### Did you know?

- The sun, and all other stars, produce neutrinos copiously due to nuclear fusion and decay processes within the core.
- The sun produces over two hundred trillion trillion neutrinos every second, and a supernova blast can unleash 1,000 times more neutrinos

than our sun will produce in its 10-billion year lifetime.

- Billions of neutrinos stream through your body every second.
- The neutrino was proposed by Wolfgang Pauli in 1930, but it would be 26 years before the neutrino was actually detected.

## News Digest

Last month's Clean Air Day saw a striking 44 per cent reduction in single occupancy vehicle rates. Forty-two different areas and departments across campus joined in, with double the participation rate of last year.

The Faculty of Dentistry won prizes for the greatest decrease in single occupant car travel, while the AMS Bicycle Co-op and Faculty of Commerce and Business Administration won for the greatest increase in bike travel to the campus. Other participating departments received gift certificates, hats and bus coupons for their efforts at setting a green example.

Clean Air Day is sponsored by the UBC TREK Program Centre. Headed by Gordon Lovegrove, a UBC alumnus with more than 15 years of experience in transportation planning and engineering, the mandate of the TREK centre is to reduce single occupant vehicle trips and increase transit ridership to the campus by 20 per cent.

•••••

UBC's Alumni Association has been awarded the 1999 Prix D'Excellence silver award from the Canadian Council for the Advancement of Education (CCAIE). The award was given in the category *Best New Idea: Creativity on a Shoestring* for the 1998 volunteer recognition event. Volunteers are Blooming.

A commemorative garden was established at Cecil Green Park to recognize the more than 100,000 hours that volunteers give to UBC every year. A budget of less than \$500 provided the garden, a recognition tea for volunteers and a small plant for each volunteer.

The project was so successful it has become an annual event for the Alumni Association, a non-profit society governed by volunteers.

CASE is an international organization providing education professionals in alumni relations, communications and fund raising with essential tools to advance their institution.

•••••

UBC's Public Affairs Office has received a silver award from the Canadian Council for the Advancement of Education (CCAIE) for *UBC Annual Report 97/98*. The award recognizes outstanding achievement in communicating UBC's accountability to its community and constituencies.

The publication was UBC's first-ever annual report, highlighting both the achievements of UBC students, faculty, staff and alumni and goals for the future.

The report also received a Blue Wave Award of Merit from the International Association of Business Communicators of British Columbia and a bronze medal from the Council for Advancement and Support of Education (CASE).

•••••

Summer stock theatre returns to UBC this summer with shows starting July 17 and running through to Aug. 14 at the Frederic Wood Theatre. UBC Theatre, Film and Creative Writing students produce, write and star in the productions. The series is a springboard for the popular Vancouver Fringe Festival with many of the shows appearing at the festival in September. Tickets range from \$5 to \$10 and are available at the door. For play times, please call (604) 822-0762.

•••••

The Conway Summer Travel Scholarship was recently established. Made possible by History Prof. Emeritus John Conway, the scholarship allows a student in History and International Relations to spend time in Germany.

Recipients are encouraged to visit historical sites, talk to German historians, learn the language and familiarize themselves with the culture while they are overseas.

Master's student Charlotte Schallie is the first to receive the scholarship.

### Alan Donald, Ph.D. Biostatistical Consultant

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## Classified

The classified advertising rate is \$16.50 for 35 words or less. Each additional word is 50 cents. Rate includes GST. Ads must be submitted in writing 10 days before publication date to the UBC Public Affairs Office, 310 - 6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1, accompanied by payment in cash, cheque (made out to UBC Reports) or journal voucher. Advertising enquiries: UBC-INFO (822-4636).

The deadline for the Aug. 12 issue of *UBC Reports* is noon, Aug. 3.

### Accommodation

**POINT GREY GUEST HOUSE** A perfect spot to reserve accommodation for guest lecturers or other university members who visit throughout the year. Close to UBC and other Vancouver attractions, a tasteful representation of our city and of UBC. 4103 W. 10th Ave., Vancouver, BC, V6R 2H2. Call or fax 222-4104.

**TINA'S GUEST HOUSE** Elegant accommodation in Point Grey area. Min. to UBC. On main bus routes. Close to shops and restaurants. Includes TV, tea and coffee making, private phone/fridge. Weekly rates available. Call 222-3461. Fax: 222-9279.

**GREEN COLLEGE GUEST HOUSE** Five suites available for academic visitors to UBC only. Guests dine with residents and enjoy college life. Daily rate \$54 plus \$14/day for meals Sun-Thurs. Call 822-8660 for more information and availability.

**BAMBURY LANE** Bed and breakfast. View of beautiful B.C. mountains, Burrard Inlet and city. Clean, comfortable. Use of living room, dining room, and kitchen. Min. to UBC, shops and city. Daily, weekly and winter rates. Call or fax 224-6914.

**GAGE COURT SUITES** Spacious one BR guest suites with equipped kitchen, TV and telephone. Centrally located near SUB, aquatic centre and transit. Ideal for visiting lecturers, colleagues and families. 1999 rates \$85-\$121 per night. Call 822-1010.

**PENNY FARTHING INN** 2855 West 6th. Heritage house, antiques, wood floors, original stained glass. 10 min. to UBC and downtown. Two blocks from restaurants, buses. Scrumptious full breakfasts. Entertaining cats. Views. Phones in rooms. E-mail: farthing@universe.com or call 739-9002.

**B & B BY LOCARNO BEACH** Walk to UBC along the ocean. Quiet exclusive neighborhood. Near buses and restaurants. Comfortable rooms with TV and private bath. Full breakfast. Reasonable rates. Non-smokers only please. Call 341-4975.

**CAMILLA HOUSE** Bed and Breakfast. Best accommodation on main bus routes. Includes television, private phone and bathroom. Weekly reduced rates. Call 737-2687. Fax 737-2586.

**ST. JOHN'S COLLEGE GUEST ROOMS** Private rooms, located on campus, available for visitors attending UBC on academic business. Private bathroom, double beds, telephone, television, fridge, and meals five days per week. Competitive rates. Call for information and availability 822-8788.

**ALMA BEACH B & B** Beautiful, immaculate, bright rooms with ensuite in elegant, spacious home. Two blocks to Jericho Beach/Vancouver Yacht Club. Gourmet breakfast. Central location to downtown/UBC. N/S. Call 221-1950.

### Accommodation

**THOMAS GUEST HOUSE** 2395 W. 18th Ave. Visitors and students of UBC are most welcome. 15 min. to UBC or downtown by bus. Close to restaurants and shops. Daily rates from \$50 to \$100. Please call and check it out at 737-2687.

**FOR RENT** Newly decorated. 1 BR central Paris. One BR close to Paris. Beautiful house in Provence. All fully furnished. Weekly/monthly/yearly rate. Call 738-1876.

**BEAUTIFUL FURNISHED** view house. Avail. July 31 '99-Jan. 2 '00. East Vancouver. 10 min. downtown and 30 min. UBC. BR, guest room and study. Gardener, cleaning lady inc. N/P. N/S. \$1250 plus util. E-mail: sdavis@sfu.ca or call home 255-7033; office 291-4855.

**3 BR FURNISHED** executive home with 2.5 bath, study, 2 D/R, 3 balconies on Capital Hill. City view. \$1500/mo. 1 year term. N/S, prefer N/P. Avail. Sept. 1. Call 299-6656.

**SECHLT** New waterfront 1 BR home, avail. Sept. for min. five months. Owner going overseas, seeks responsible N/S to enjoy and maintain. Contact aspenne@sunshine.net or call/fax (604) 740-0471.

**CASA MORA** furnished, fully-equipped short-stay suites in West Point Grey, near UBC gates, Pacific Spirit Park, beaches, W. 10th shopping and recreation. Two blocks to cross-town express/downtown buses. One BR garden or open-space upper loft suite with three balconies. Mexican hammocks, hot tub, beautiful garden. http://www3.bc.sympatico.ca/cyberwest/suite/CasaMoraPenthouse, E-mail: mariette@bc.sympatico.ca or call 228-8079.

**LARGE 1 BR** basement suite in Quilchena, close to 33rd and Arbutus, buses and shopping. Avail. immed. \$600/mo. Call 732-0950.

**GALIANO ISLAND RETREAT** Secluded, fully furnished cottage on 2 acres with S.W. exposure. Sleeps 6. Excellent ocean view. Good beach access. \$99/night or \$650/wk. Min. of 2 days. Call 599-6852 or 599-6978.

**WHISTLER TWIN LAKES** Deluxe waterfront condo. 4 BR, 2 bath. Fully furnished/equipped. Private beach, boats, tennis, pool. Summer \$750/wk. Ski season and long-term also avail. N/S, N/P. Call 263-5916.

**RESPONSIBLE** and considerate couple sought for rental of large furnished house in Kits, for the fall semester 1999. Excellent location, garden. N/S, N/P please. Rent negotiable. E-mail: pavol@cs.sfu.ca or call 731-5926.

**BRIGHT, CLEAN,** 2 BR furnished ground level suite near buses, shops, restaurants, and beaches. N/S, N/P please. \$925/mo, avail. Sept. 1. E-mail: pavol@cs.sfu.ca or call 731-5926.

### Accommodation

**WEST END SUBLET.** Luxury condo. Nelson St. near Stanley Park and English Bay. One BR/den, six appliances, southwest exposure. Designer furnishings, hot tub, sauna, workout room one floor below. Avail. Aug. 6-Sept. 6. Call Becki (250) 685-3840.

**SPANISH BANKS HOLIDAY RENTAL.** Two block from beach, beautiful views, close to UBC. Three BR furnished home with guest suite. Avail. Aug. 21-Sept. 1. \$1,400. Call 222-4435.

### Accommodation Wanted

**ARE YOU A FAMILY** or older couple with space to share? Woman in her 50's with a mild disability looking for long-term accommodation in Point Grey or South Vancouver. Seeks bed-sitting room with private bath. Situation with family or older couple ideal. Enjoys kids, pets. Very flexible tenant. Needs some help with meal preparation and housekeeping, but adjusts easily to family's routines. Will pay up to \$600/mo. rent and \$130/mo. food. If interested, call Andrea 222-2279.

### Recreation

**KAYAK RETREAT** Paddle the protected waters of the Gulf Islands and stay in cozy beds. Oceanfront cabin, Mexican hammocks for skywatching, all meals included \$175/person/day. Four persons (max.) private parties. Access by ferry or floatplane. http://www3.bc.sympatico.ca/cyberwest/paddlepender or call 228-8079.

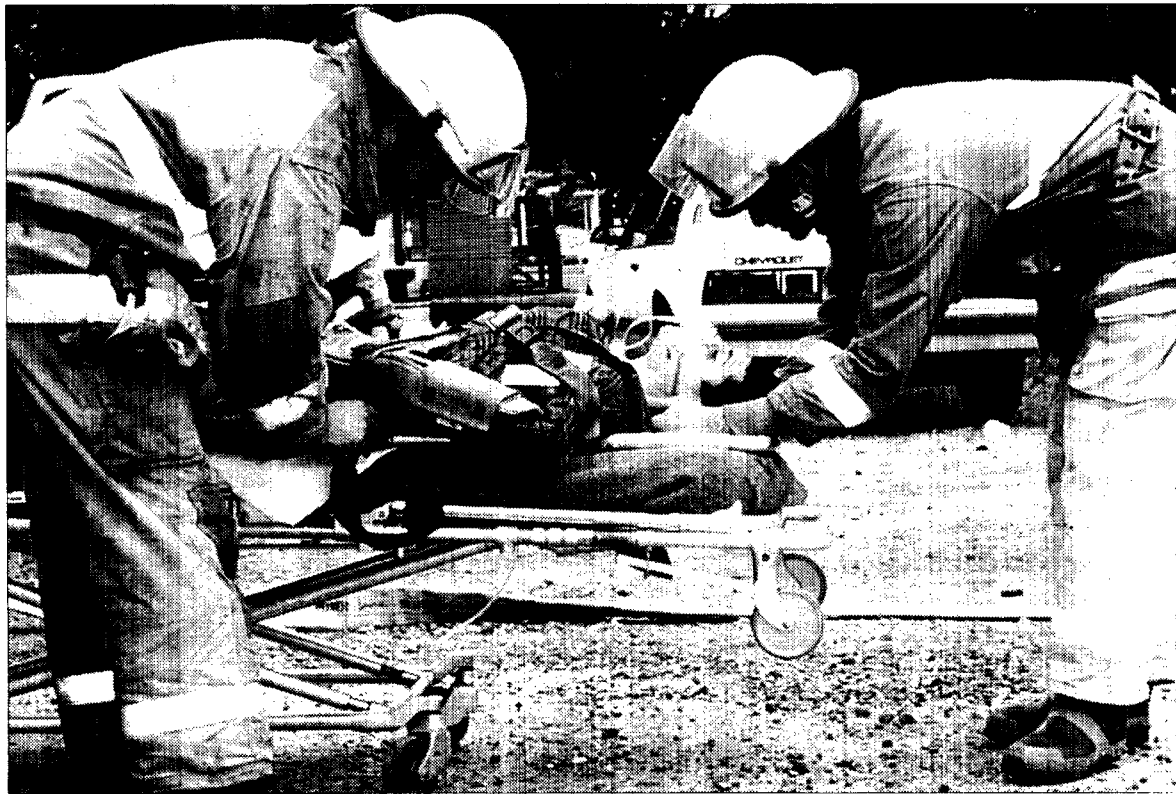
### Services

**TRAVEL-TEACH ENGLISH** 5 day/40 hr TESOL teacher certification course (or by correspondence Sept. 22-26, Nov. 24-28). 1,000s of jobs available NOW. FREE information package, toll free (888) 270-2941 or (403) 438-5704.

**HYPOTHESIS:** People interested in science or nature tend to be compatible for friendship/romance. Join the experiment! Contact Science Connection, info@sciconnect.com, www.sciconnect.com/ or call (800) 667-5179.

**RETIRING** in the next three years? As a specialist who has assisted many UBC faculty and staff members through the retirement process I can help sort out the options and provide you with free retirement projections. Call for a complimentary meeting at my office or yours! Don Proteau, B.Comm. CFP, RFP. E-mail: dproteau@hip.fpc.ca or call 687-7526.

**Next deadline:**  
noon, Aug. 3



Bruce Mason photo

Vancouver Fire and Rescue Services' personnel reassure one of the many "casualties" in UBC's emergency scenario, "Operation T-Bird," which took place recently. More than 100 volunteers from both on and off campus — including 25 students from University Hill Secondary School — took part in the annual event, which is designed to test and revise the university's emergency response procedures.

## Students trapped in SERF for emergency practice

For 25 students from University Hill Secondary School the June morning was filled with cries for help from inside collapsed debris, search and rescue dog teams, and TV cameras. It ended on stretchers in ambulances, on the way to hospital.

At 7:30 a.m. the young acting students had been tearing their clothes and smearing on fake blood at UBC's Surplus Equipment Recycling Facility (SERF). By noon they were being congratulated, along with about 75 other players.

"Six months of intensive planning resulted in a great success," says Paul Wong, UBC's personal security co-ordinator and chair of the emergency scenario committee.

Developed and facilitated by UBC's Dept. of Health, Safety and Environment, UBC's annual emergency scenario brings together first responders, external agencies and on-campus departments to test and revise the university's emergency response procedures. The 1999 edition, "Operation T-Bird," was a staged partial collapse of SERF.

Wong says it achieved the objec-

tives of assessing and improving interagency communication and incident command at UBC and integrating the university's services with those of first responders.

"We also wanted to meet players from other organizations, learn, and have fun," he adds.

This year's scenario included more than 100 volunteers and emergency responders, includ-

ing individuals from Campus Security, SERF, the President's Office and Public Affairs.

Other outside agencies included B.C. Ambulance Service, the Salvation Army Mobile Feeding Unit, the university detachment of the RCMP, Urban Search and Rescue, Vancouver Fire and Rescue Services, and Vancouver Hospital (UBC Site).

## Eco-criticism drives group's local study

A dozen graduate students from English, Geography and the Faculty of Education recently completed UBC's first-ever course in the newly emerging field of eco-criticism. The course focused on an interdisciplinary study of the relationship between literature and the physical environment.

Organized by English Prof. Laurie Ricou in response to students' requests, the course em-

phasized the discussion and analysis of a collection of essays in *The Eco-Criticism Reader*. The course also included an examination of some aspect of the immediate environment.

The students created a Web site on the environmental history of Graham's Gully, the path leading to Tower Beach east of Green College, commonly known as Trail 3.

"The students felt a Web site was the way to connect what they were doing in an academic setting with the community itself," Ricou says.

The students combined history and scientific information with personal reaction and expressed their discoveries through poetry, prose and photography.

"I think some of the discussions were the most animated I've ever seen," says Kina Cavicchioli, one of the students who took the course.

Ricou says the Trail 3 Web site will be expanded as the public contributes to it, and as future eco-criticism courses evolve.

"The students have created something special here that provides an intersection between environmental studies and the traditional concerns of the humanities," says Ricou.

The Web site can be found at [www.english.ubc.ca/projects/trail3](http://www.english.ubc.ca/projects/trail3).

## Alumni Association names new board

UBC's Alumni Association has announced the members of its board of directors for the coming year. The board is elected by alumni.

Joining ex-officio board officers UBC President Martha Piper and UBC Chancellor William Sauder are three executive members: Alumni Association President Linda Thorstad, vice-president of Corporate Relations at Viceroy Resources Corp. and a member of UBC's Board of Governors; Senior Vice-president Gregory Clark, of the law firm Boughton, Peterson, Yang and Anderson; and treasurer Thomas Hasker of Merrill Lynch Canada.

Members-at-large for 1998/

2000 are Jean Forrest and Thomas Holey. Members-at-large for 1999/2001 are Peter Ladner, Don Wells and new member Edward John.

Other new members are Alma Mater Society President Ryan Marshall; Senate representative Ed Greathed; Rodney Cottrell; and UBC librarian Heather Keate.

Members who have been appointed to the board are Laurie Baggio, Byron Hender, executive co-ordinator in the Office of the Vice-President, Students, and Louanne Twaites.

Alumni Association Executive Director Agnes Papke also sits on the board of directors as an ex-officio officer.

## People

by staff writers

Prof. Alan Tully has been appointed dean of Arts program, effective Aug. 1. The former head of History, Tully was previously associate dean of Arts, External Affairs.

"It is an exciting time for the faculty which is moving in new directions," says Tully.

In the coming year the faculty will be developing existing initiatives such as extending co-operative education, preparing for the introduction of the new social sciences/humanities based Foundations Program, and implementing the recently adopted Arts academic plan.

Arts is UBC's largest faculty with an enrolment of more than 9,000 undergraduate and 1,000 graduate students.

The search for a permanent dean of Arts is underway. Former dean of Arts Shirley Neuman resigned earlier this year to accept a position as dean of the College of Literature, Science and the Arts at the University of Michigan.

.....

Language Education Assoc. Prof. Patricia Duff has been chosen a National Academy of Education/Spencer Post-Doctoral Fellow.

Duff was among 33 fellows chosen from more than 200 outstanding scholars in education. Her research will examine language use in high school social studies classes with large numbers of ESL students.

The National Academy of Education is an honorary education society. The fellowships are intended to enhance the future of research in education by developing new talent in the many branches of education in the U.S., Canada and internationally.



Duff

.....

Zoology Prof. Dolph Schluter was recently elected a fellow of the Royal Society of London. Schluter's research has revealed the environmental conditions promoting both the origin of new species and their ecological divergence.

Currently a scholar in residence at the Peter Wall Institute of Advanced Studies, his numerous academic distinctions include an E.W.R. Steacie Memorial Fellowship in 1993 and the Faculty of Science's Charles A. McDowell Award for Excellence in Research in 1995.

Founded in 1660, the Royal Society is the independent scientific academy of the United Kingdom and is dedicated to promoting excellence in science. A maximum of 40 new fellows may be elected annually.

.....

Freda Pagani has received a Minister's Environmental Award from the provincial Ministry of Environment, Lands and Parks in the category of environmental education.

As the director, Sustainability, for Land and Building Services at UBC, Pagani co-ordinates academic and operational initiatives to fulfil the university's sustainable development policy. The policy includes reducing material and energy consumption and increasing ecological literacy among faculty, staff and students.

Among Pagani's significant accomplishments was spearheading the design and construction of the C.K. Choi Building, which has won numerous awards for environmental innovation.

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Joseph Jones, Humanities and Social Sciences reference librarian at Koerner Library, has been awarded a National Endowment for the Humanities grant for the third time.

Jones will join literature and religious studies professors at Yale University for a summer seminar on literary critical approaches to biblical narratives entitled "The Twentieth Century Bible: Death and Return of the Author."



Jones

## Profile

# On target

Prof. Helen Burt's innovations deliver drugs where the body needs them

by Hilary Thomson

Staff writer

**H**elen Burt's first love was always chemistry but a school tour of a hospital dispensary produced a change of heart and a lifelong passion for pharmacy.

"I thought I'd died and gone to heaven," says Burt, a professor in the Faculty of Pharmaceutical Sciences.

The trip proved to be a turning point. It inspired a 20-year academic career and an impressive record of research accomplishments.

After completing a Pharmacy undergraduate degree in England, Burt emigrated from Manchester to Canada to do her doctorate at UBC.

A faculty member since 1980, Burt's research specialty is drug delivery systems. Her expertise was recently recognized with the first Angiotech Professorship for Drug Delivery.

"Research into drug delivery looks for the most efficient way to get therapeutic agents to their target sites in the body," says Burt.

Gels, creams, tablets, patches and implants are examples of drug delivery systems.

Her interest in drug delivery started with her PhD thesis in pharmaceuticals — the study of the physical properties of drugs and delivery systems and their introduction into the body. She also studied biopharmaceuticals, looking at how drugs are absorbed into the body and how fast they are excreted.

Creating drug delivery systems for paclitaxel, the active ingredient in the widely used anti-cancer drug, Taxol® has been a focus for Burt since 1993 when she started collaborating with Angiotech Pharmaceuticals Inc. In 1996, she worked part-time with Angiotech as director of Research.

"There is enormous potential to be realized in biomaterials such as paclitaxel — they form the matrix in which drugs are incorporated into the body. My dream is to build a biomaterials and drug delivery group in the faculty or between disciplines at UBC," says Burt. "The professorship will help us build those programs."

Paclitaxel is a compound derived from the Pacific Yew tree. Angiotech researchers discovered that it is a potent inhibitor of several important aspects of chronic inflammation, including cell reproduction and corresponding growth of blood vessels.

"Helen is a wonderfully innovative scientist," says Angiotech's Chair and CEO Dr. William Hunter. "We just told her what we wanted and somehow she and her research team made that a reality."

Hunter, who obtained a medical degree from UBC, saw potential applications for paclitaxel in diseases where the body mounts an immune response against itself that involves new blood vessel growth. These include rheuma-



Hilary Thomson photo

**Pharmaceutical Sciences Prof. Helen Burt has helped develop ways for compounds derived from the yew tree to be used to treat arthritis, multiple sclerosis and psoriasis. Her research helps reduce side effects and improve drug effectiveness.**

toid arthritis, multiple sclerosis (MS) and psoriasis.

The obstacle was finding a way to get the drug, which is not soluble in water, absorbed and distributed in the body.

**I**n cancer treatment paclitaxel is formulated in an oily type of vehicle that causes allergic reactions in many patients. That made it inappropriate for treatment of patients with immune diseases.

That's where Burt's expertise in drug delivery was needed.

"I could see the potential for paclitaxel right away," says Burt. "There were some technical obstacles in creating the formulations though — we had nothing to guide us."

She devised a molecular bubble made of polymer, or biodegradable plastic, to contain the drug. The bubbles, known as micelles, have an oil-like interior which absorbs the drug and acts as a carrier but does not cause allergic reactions.

Paclitaxel's water solubility was increased 5,000 times as a result of this technology, opening the door to numerous applications.

Burt and Hunter applied for their first grant to develop the new drug delivery system in early 1993. By the end of 1994, the research had been so successful Burt's lab had expanded from one technician to 10 researchers, with Angiotech supplying \$250,000 to \$300,000 per year to support the work.

Last year Angiotech began clinical trials using the drug delivery system to treat MS and rheumatoid arthritis.

**A**debilitating, chronic inflammatory disease, rheumatoid arthritis affects one to two per cent of the world's population. The condition causes pain, swelling and destruction of multiple joints in the body and can result in damage to lungs and kidneys. Paclitaxel may reduce symptoms of joint inflammation, bone erosion and swelling.

The same bubble technology is being tested in the treatment of MS. Also a chronic inflammatory disease, MS debilitates the neurological system and results in loss of balance, strength and vision. It affects 50,000 Canadians.

"It still amazes me that we have moved from the prototype phase to

testing the applications on patients in only four years," says Burt.

She has also developed another drug delivery technology in collaboration with Angiotech, a coated stent that aids in the treatment of vascular disease. The cylindrical coated wire device is the company's best-known product.

Surgeons often use angioplasty to correct blockage of blood vessels. The procedure dilates the vessel using a balloon-tipped catheter. The deposits causing the blockage are pushed back against the walls of the vessel and a stent is sometimes inserted into the blood vessel to support the walls and hold it open.

Angioplasty and stents damage vessels, however, and can trigger a wound healing response that results in an overgrowth of tissue that narrows the vessel again. The process is known as restenosis.

Burt developed a method of coating stents with paclitaxel to inhibit the regrowth of blood vessels and tissue.

Clinical trials for the coated stents are expected to begin this year and the first coated stents could be on the market by 2001, according to Hunter.

"In 1981, I could teach the new field of drug delivery systems based on biomaterials in about three lectures," says Burt. "Now a whole year wouldn't cover it — pharmaceuticals has taken off like a rocket."

**P**otent new drugs that need to be delivered directly to the disease site to reduce side effects and consumer demand for controlled release products are factors that have contributed to the expansion of pharmaceuticals says Burt.

Despite the exciting growth in her field, Burt says most undergraduate students find the subject difficult and dry.

One of 10 UBC faculty members who hold a certificate of teaching in higher education, Burt is determined to help her students learn pharmaceuticals.

"I turn myself inside out to bring in clinical problems from real life to keep the lectures interesting," says Burt. "I also create 'buzz groups' and ask the students to work with the people sitting around them to solve a problem."

Burt is also challenged and rewarded by the responsibility of supervising graduate students.

"It's deeply satisfying to see someone grow from being highly dependent on your knowledge to become an independent scientist. Seeing them surpass your own knowledge — that's a mark of success."

Angiotech Pharmaceuticals Inc., started in 1992, is a Canadian pharmacy company that develops and commercializes new treatment for chronic inflammatory diseases.

The drug delivery technology is licensed to Angiotech through UBC's Industry Liaison Office.