

# UBC REPORTS

Volume 39, Number 17

October 14, 1993



Gavin Wilson photo

## A Bird in the Stands

The T-Bird mascot tries to ruffle a few feathers at Thunderbird Stadium during a non-conference football game against San Francisco State University. The match was part of the annual Homecoming celebration, Sept. 30 to Oct. 3. An estimated 6,000 people took part in campus events during the four-day celebration, which included tours, sports events, music and theatrical performances, the Arts '20 Relay, reunions of alumni and professors emeriti and celebrations marking the 25th anniversary of the Student Union Building. San Francisco needed a last-second field goal to beat the T-birds 32-30.

## Players hooked on election market

by Abe Heffer

Staff writer

Gary Miles likes the fact that he can play it in his office and on the road.

Barbara Spencer will be disappointed when it's all over.

Miles and Spencer are two of the more than 200 players on the UBC Election Stock Market, a financial market in which the ultimate values of the contracts being traded are based on the outcome of the Oct. 25 federal election.

The market, housed in the Faculty of Commerce and Business Administration, is designed to help study the predictive power of markets, the behaviour of traders and the dynamics of the political campaign. Participants invest their own funds, buy and sell listed contracts representing the major federal political parties, and stand to make a profit.

They also risk losing money. To date, traders have invested more than \$26,000 in the market.

It's a real learning experience, said Spencer, a professor in the faculty of Commerce and Business Administration, and she's been encouraging her students to join in.

It's also fun to play. "I try to log on just once a day, but it certainly is habit forming. Once you're in the system, you immediately see the price changes occurring in the market at the time," said Spencer.

"I'll be disappointed when the election is over," she added.

Spencer has \$200 invested in the market and is close to breaking even. Although it's the hands-on interaction that makes the market so enjoyable, she admits she wouldn't mind coming out ahead on the financial side of things.

"I'd probably go out and have a nice dinner."

Spencer's husband, Commerce faculty member Jim Brander, has \$500 invested in the market.

"It'll be interesting to see who comes out ahead in our household," admits Spencer. "However, it's not a competition."

"Jim has been much more active in the market and often plays it both at home and in the office."

As executive vice-president, western division, of Rogers Broadcasting, Miles spends a lot of time on the road. He appreciates the flexibility available for those who want to tap into the market while away from home.

"I'm into investments in general and the concept behind the market is perfect for me," enthused Miles.

"The stock market has done an

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## Scientists claim two medals

by Gavin Wilson

Staff writer

A team of microbiologists and a leading brain researcher from UBC are among the 1993 winners of B.C. science and engineering gold medals.

Psychiatry Prof. Christian Fibiger is the recipient of the gold medal in Health Sciences. The gold medal in the natural sciences goes to a team of four scientists in UBC's Dept. of Microbiology: Neil Gilkes, Douglas Kilburn, Tony Warren and Robert Miller, UBC's vice-president, Research.

The awards are presented by the Science Council of British Columbia to recognize outstanding achievements by the province's scientists, engineers, innovators and entrepreneurs.

Winners will receive their awards at a dinner Oct. 19.

Fibiger is being recognized for his contributions to the understanding of the neurobiological substrates of clinical depression.

His research focuses on understanding the biochemical basis for anhedonia, a condition which makes depression sufferers unable to experience pleasure or rewards.

He has shown that a complex of mid-brain neurons containing the neurotransmitter dopamine is a critical component in the electrochemical process that produces feelings of pleasure or reward.

Knowledge of this process and the vital role that dopamine plays provides a basis for treatment with drugs that may balance dopamine levels in that region of the brain.

Fibiger, who is among the 200 most-frequently cited scientists in the world, was also the first to demonstrate that the rewarding effect of drugs such as cocaine and d-amphetamine are mediated by their actions on the mid-brain's dopamine neurons.

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Fibiger

## Faculty Club opens doors

by Connie Filletti

Staff writer

The Faculty Club is opening its doors to all full-time union and non-union UBC employees and is adopting a three-year financial plan in an effort to reverse its financial difficulties.

"We are hoping to retain current membership levels and attract new members in an effort to alleviate current financial problems which the club is experiencing," said Dr. Chris McIntosh, a professor of Physiology and the newly elected chair of the club's board of directors.

Established in 1947, the Faculty Club has approximately 3,000 members. Membership fees are based on salary level with the lowest annual fee set at \$80.

The club, which receives a small yearly grant from UBC's operating budget, has been running a deficit for the past two years.

Other sources of funding for the club are membership fees, food and beverage services, hotel accommodation and revenue-generating catered functions and events.

Total net losses for the fiscal year ending June 30 were \$250,000, primarily due

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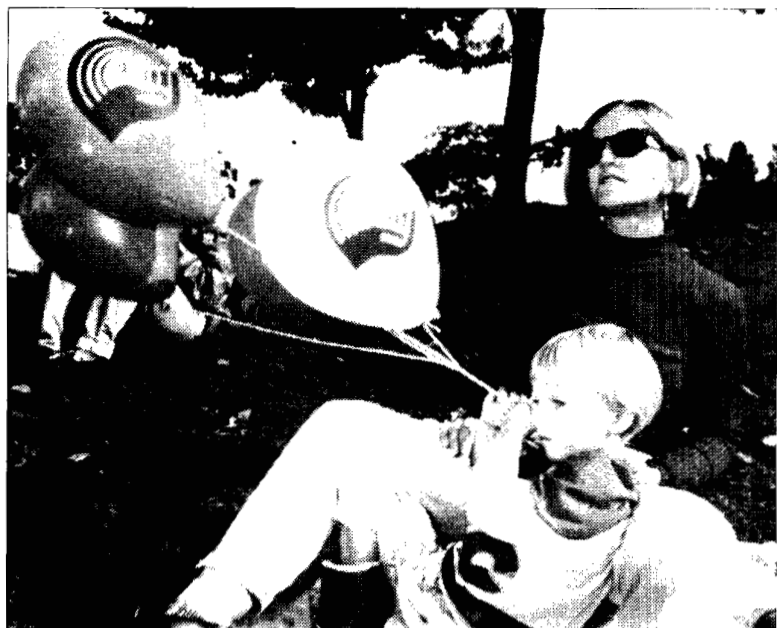
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John Chong photo

**Basking in the warm sun was the order of the day for many who attended the United Way kickoff Oct. 4 at the Student Union Building Plaza. UBC has set a target of \$300,000 for this year's campaign.**

## Staff member knows how United Way helps

by Abe Heffer

Staff writer

There are more than 500,000 reasons to consider a contribution to the United Way campaign.

Sharon Walker is one of them. In March of this year, Walker, the warehouse manager at the UBC Bookstore and a long-time campus campaign co-ordinator, was diagnosed with deep vein thrombosis of the left leg.

The condition left her immobilized for six weeks. When she was finally able to get up and around, she did so with the help of the Canadian Red Cross Society, a United Way partner. She obtained a walker and a wheelchair from the Red Cross, free of charge, through the Richmond Fire Department, and used them for a month.

"With the aid of the walker, I

was able to get around at home, while the wheelchair enabled me to venture outside.

"When you're flat on your back and people have to do everything for you, just being able to enjoy the sunshine and the fresh air is such a blessing."

Walker has since returned to her position at the Bookstore, where she has worked for 16 years. Although she has been slowed somewhat by the condition, it hasn't stopped her from remaining active in the United Way campaign.

Last year, more than 500,000 people in the Lower Mainland received services from United Way agencies. Of every dollar donated, 97 cents goes directly to agencies and services.

Organizers of the campus campaign, which concludes Oct. 18, have set a goal for \$300,000 for this year.

## Club

Continued from Page 1

to a lack of use of the club by members, McIntosh said.

"However, the facility is attractive and we believe the broader campus community may be interested in the social and networking opportunities provided by joining the club."

The effect of demographics and a sagging economy on faculty and senior administrative staff who comprise the bulk of the membership is mainly responsible for the club's financial problems, McIntosh said.

"Most of the newer members of faculty and staff do not live in the Point Grey area and have

limited budgets," he explained. "It appears that the current Faculty Club does not offer sufficient services to attract the majority of these individuals."

He added that the building which houses the club is in decline and requires extensive renovations and restructuring to attract both existing and potential members.

"There is clearly no definitive way in which the club's finances can be secured and the standards of the club upgraded and maintained, but a number of priorities have been established aimed towards this goal," McIntosh said.

## Market

Continued from Page 1

incredible job of building bridges between the university and the general public."

Miles joined the market about a month ago and has invested \$110. On average, he checks in on prices every other day.

"It's also nice to be able to follow trends with what have become regular market reports in the media," he added.

"I expect the dynamics of the market to show even more movement as election day nears."

The minimum investment in

the election stock market is \$5 and the maximum is \$1,000. Funds can be used to buy individual contracts from other traders or on the stock market exchange system, a fully-computerized market, which is open 24 hours a day.

"All the money that comes in will be paid out," said Commerce Prof. Tom Ross, one of the directors of the stock market.

If you would like to become a trader during the final days leading to the election, call 822-8614.

## Gold

Continued from Page 1

The UBC team of microbiologists are being recognized for their work which includes cloning genes which produce the enzymes known as cellulases. These enzymes are used to break down cellulose from wood and other vegetation.

The researchers found a way to divide the cellulase gene into two parts using recombinant DNA techniques. This enabled them to demonstrate that one part was responsible for binding the enzymes to cellulose and the other for breaking the bonds in the cellulose polymer.

They also devised a means to use the binding part to immobilize other enzymes so that an enzyme reactor could function for several weeks without the enzyme having to be replenished.

The technology arising from these discoveries could hasten the development of an economic process for converting waste cellulose to alcohol fuel.

As well, companies which produce and market medical diagnostics are interested in developing the enzyme immobilization technology for use in simple diagnostic assay kits.

## Correction

An article in the Sept. 30 edition of UBC Reports incorrectly named a new building planned for campus. The correct name is the C.K. Choi Building for the Institute of Asian Research.

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If you have mild to moderate asthma and have not been using inhaled steroids (such as Beclovent, Becloforte, Pulmicort), you might be interested in taking part in a research study evaluating a new type of medication taken by mouth for the treatment of asthma.

The study will be conducted at the Respiratory Division at VGH, and will require 6 visits over a period of 8 weeks. Subjects will receive \$25 compensation for each visit.

**If interested please call Nazlin for further information at 421-1429. Please leave a message if no answer.**

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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 Community Relations Office, 207-6328 Memorial Rd., Vancouver B.C., V6T 1Z2.

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UBC Reports welcomes the submission of letters and opinion pieces. Opinions and advertising published in UBC Reports do not necessarily reflect official university policy.

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# Richmond to test ecological footprint

by Charles Ker

Staff writer

Think globally. act locally.

This catchy phrase, affixed to many a bumper, is well known. Still, some say municipal efforts to save the environment aren't being given their due by the general public.

Enter UBC's Task Force on Planning Healthy and Sustainable Communities.

"It's a motherhood issue which nobody has taken much notice of," said Robert Woollard, co-chair of the seven-member task force. "It sounds great, but the question is how do we translate these nice words into something concrete?"

For two years, the task force has been working with city officials in Richmond to find a way to put this noble idea into action; specifically, how to help residents understand the social and ecological consequences of city policies regarding downtown development.

The current city plan calls for a potential 40,000 more residents moving to Richmond's downtown core during the next 15 years. To help citizens use the overwhelming amount of data on which the city's future will be based, task force members have devised two tools.

One, called the ecological footprint or Appropriated Carrying Capacity (ACC), allows people to gauge the amount of land needed to support a particular plan or development, including the waste it generates. The second, referred to as the Social Caring Capacity (SCC), relates a development to quality of life issues such as safety, education, household stress,

access to open space and citizen involvement in policy decision-making.

When used together, Woollard says the two tools provide a matrix into which people can plug their particular concerns or issues.

"These tools provide a simple means by which citizens can confront the ecological, social and economic trade-offs inherent in any urban plan," said Woollard, a family physician and acting head of UBC's Dept. of Family Practice.

Just as gross national product and interest rates affect economic decision-making, Woollard said health considerations must be included.

Using a \$140,000 provincial grant, UBC team members examined indicators such as infant mortality rates, longevity figures, incidence of disease and strains on environmental habitats. They also looked at the amount of time people spend commuting and fossil fuels consumed in the process.

"Clearly the deadliest weapon in B.C. today is the car but people seem to believe there is little we can do to lessen auto emissions," said Woollard. "We want to get a handle on how people assess various threats to the environment."

The task force is drawn from faculty members in the schools of Social Work, Nursing and Community and Regional Planning, the Centre for Human Settlements, the Dept. of Health Care and Epidemiology and the Institute for Health Promotion Research.

Once the tools are refined and tested, Woollard hopes they will be used by other communities to formulate their own process on sustainability.



Gavin Wilson photos

## Literary Luminaries

A pair of Canadian heroes visited the UBC Bookstore recently to read from their new books. Former Montreal Canadiens goalie Ken Dryden, left, who received an honorary degree from UBC in 1992, read from his most recent book, *The Moved and the Shaken*, a portrait of an ordinary Canadian. Maj-Gen. Lewis MacKenzie (retired) talked about his experiences with United Nations troops recounted in *Peacekeeper: The Road to Sarajevo*. See the Calendar listings in this issue of UBC Reports for upcoming readings at the Bookstore.

## News Digest

Citizen involvement in mental health services and health reform and regionalization in B.C. are among the topics being explored at the 11th annual Pacific Health Forum, presented by the UBC Health Care and Epidemiology Alumni Association.

During the two-day conference, which takes place Oct. 28 - 29 at the Villa Inn Burnaby, health care providers will share their experiences involving communities and consumers in planning, developing and providing health care services.

For more information, call 585-5530.

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Proposals for funding from the 1994-95 Teaching and Learning Enhancement Fund are now being accepted.

Each year a committee of faculty and students selects projects from proposals submitted by 12 faculties, the Library, student groups and the Faculty Development Program.

For 1991-92, the fund consisted of almost \$750,000 which went towards 31 projects in 11 faculties. Under the originally approved plan for tuition increases, it was expected to increase to \$1.5 million last year and \$2.25 million this year. Changes to tuition fee increases kept the fund constant for 1992-93 and 1993-94.

In a memo to deans, the university librarian, and students groups, Daniel Birch, vice-president, Academic, reminded applicants that the fund should not be used for research proposals. He also listed fund guidelines which include: a clear statement of objectives, rationale and methods; student involvement in preparing and implementing proposals; participation of more than one department or faculty; and support from additional sources.

Application forms should be submitted to Birch's office no later than Dec. 15.

•••••

The Greater Vancouver Regional District (GVRD) is making plans for another off-trail enforcement blitz this month in its continuing efforts to reduce ecological damage from off-trail use at Pacific Spirit Regional Park.

Walking and cycling off trails damages fragile soils, tree roots, stream beds and wildflowers.

The GVRD, which manages the park, held a blitz Sept. 26-27, with members of the Pacific Spirit Coalition and Pacific Spirit Cycling Club assisting by handing out maps and proper trail use information to the public.

GVRD park officers, who have the authority to ticket visitors who are not on designated trails, wrote two \$100 tickets and issued 15 warnings.

"The park officers and volunteers came in contact with about 1,000 people during the two days. It looks as though the vast majority of trail users are staying on designated trails," said Mitch Sokalski, the GVRD Parks West Area superintendent.

"We will continue to step up the enforcement component of the trail management plan adopted by the GVRD two years ago with similar blitzes in the fall and winter months."

Located next to UBC, the park contains 50 kilometres of trails. Thirty-five per cent are designated for pedestrian use, while the remaining are for multi-purpose use.

The park is heavily used, with approximately 250,000 visitors recorded annually in the upland forest region.

•••••

The RCMP University Detachment received a report that a female student was sexually assaulted Oct. 7 while walking home from the Pit Pub.

Police said it was reported that she was grabbed from behind by a male and the pair fell to the ground. She was able to eventually fight off her attacker and fled.

The suspect is described as a white male, 5' 6" tall, 180 lbs. with dark brown, shoulder length curly hair, slight facial hair and an unkempt appearance.

Police ask that anyone with information that might help in their investigation call them at 224-1322 quoting file 93-3679.

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## Offbeat

by staff writers

This year's Vancouver International Writers Festival features literary heavyweights such as Margaret Atwood, Carol Shields and Josef Skvorecky, but it also highlights the talents of an 18-year-old UBC student.

Karen Chu, who is enrolled in first-year Science, will read at an event called Towards a Pacific Age. She shares the stage with another young aspiring writer, Indo-Canadian high school student Shachi Kurl, and Japanese-American author Karen Tei Yamashita.

Remarkably, it's not the first time Chu has been invited to read at the festival.

Last year, while still a student at Vancouver's Eric Hamber Secondary, she read her poetry at a session featuring other young poets.

She says the experience was fun, but a bit intimidating.

"I just got on the stage, read, and got off the stage as soon as possible."

Chu's talents received wider exposure last summer when her high school valedictory address, written in the style of novelist Tom Robbins, was reprinted in the Vancouver Sun.

Given her natural abilities, it may surprise some that Chu bypassed English and creative writing to enrol in science.

"I've always done well at science, and I love chemistry and biology," she explained. "My writing gives me an outlet for things I can't express in science."

At this year's festival, Chu has been invited to read at a session which explores cross-cultural matters.

"It took me totally off guard," she says. Despite her Asian heritage, her writing hasn't, until now, dealt with such issues.

Recently, however, she has written some poems exploring the theme, and will be reading these at the festival.

You can see Chu at Richmond's Gateway Theatre on Wednesday, Oct. 20, at 1 p.m.

Meanwhile, the Writers Festival and UBC literary journal Prism international are co-sponsoring a reading by acclaimed author Timothy Findley at the Frederic Wood Theatre on Thursday, Oct. 21 at 12:30 p.m. Tickets are \$8.

There's at least one other UBC connection to the Writers Festival. The woman dubbed Canada's crime queen, Sechelt mystery writer L.R. (Bunny) Wright, spent a few months working for UBC Reports in the mid-'80s.



Chu

# Calendar

## October 17 through October 30

### Sunday, Oct. 17

**Botanical Garden Event**  
3rd Annual Apple Sale. Over 50 varieties from around B.C. Apples for buying, for tasting and for growing. Botanical Garden Pavilion from 11am-4:30pm. Free admission to garden/pavilion. Call 822-4529.

### Monday, Oct. 18

**Germanic Studies Lecture**  
Configurations Of Postmodernity: Nietzsche, Heidegger, Derrida. Prof. Ernst Behler, chair, Comparative Literature, U. of Washington. Buchanan D-121 from 12:30-1:30pm. Call 822-6403.

**Religious Studies Lecture**  
President's Advisory Committee On Lectures/Dean of Arts: The Moriscos: A Beleaguered Minority In 16th Century Spain. Dr. L. Patrick Harvey, U. of London. Buchanan B-321 at 12:30pm. Call 822-6523.

**Astronomy Seminar**  
On The Distribution Of Galaxies In The Universe: The Perseus Supercluster. Geophysics/Astronomy 260 at 4pm. Coffee at 3:30pm. Call 822-2696/2267.

**Faculty Association Seminar**  
Promotion, Tenure And You! Unravelling The Mysteries Of The New Agreement On Conditions Of Appointment. Presented by Bill Bruneau, president, R. Pincock, chair. Buchanan A-203 at 4:30pm. Refreshments. Call 822-3883.

**Creative Writing Lecture**  
Journalism In Business. Alan Bayless, Vancouver bureau chief, Financial Times of Canada. Buchanan A-102 from 4-6pm. Call 822-2712.

**Archaeological Institute Lecture**  
New Light On Greece In The Bronze Age. Dr. Cynthia Shelmerdine, Classics, U. of Texas at Austin. MOA Theatre Gallery at 8pm. Call 822-2889.

### Tuesday, Oct. 19

**Women's Studies Lecture**  
The Impact Of Development And NAFTA On Women In Mexico. June C. Nash, distinguished professor, City U. of New York. Co-sponsored by Anthropology/Sociology and Centre for Research on Women's Studies/Gender Relations. ANSO 207/209 from 12:30-1:30pm. Call 822-6359/9173.

**United Way Rummage/Bake/Book Sale**  
Oct. 19/Oct. 20, sponsored by Creative Writing Dept. Grand

Prize Draw Oct. 20 at 12:30pm. Two tickets anywhere via Canadian Airlines. Buchanan E-462 from 11:30am-1:30pm both days. Call 822-2712.

**Lectures In Modern Chemistry**  
Colours, Fragrances And Cholesterol. How Nature Makes Bonds In The Isoprene Pathway. Dr. Dale Poulter, U. of Utah. Chemistry 250 south wing at 1pm. Refreshments at 12:40pm. Call 822-3266.

**Astronomy Seminar**  
Radio-Optical Alignment Of The Brightest Abell Cluster Galaxies. Heinz Andernach, Instituto Astrofisica de Canarias. Geophysics/Astronomy 260 at 2:30pm. Coffee at 2pm. Call 822-2696/2267.

**Modern History Seminar**  
State And Society In Post-Revolutionary China: Literacy Patterns In Guangdong. Glen Peterson, History. Asian Centre 604 from 12:30-2pm. Call 822-2547.

**Pharmaceutical Sciences Seminar**  
Synthesis And Biological Evaluation Of Valproate Analogues. Jan Palaty, grad student, Pharmaceutical Sciences. IRC #3 from 12:30-1:30pm. Call 822-4645.

**Botany Seminar**  
Algal Viruses: Giant Viruses Attacking Tiny Plants. Eric C. Henry, Botany/Plant Pathology, Oregon State U. BioSciences 2000 from 12:30-1:30pm. Call 822-2133

**Oceanography Seminar**  
Enzymes As Indices Of Growth Rate And Nitrogen Metabolism In Marine Phytoplankton. John Berges, Oceanography. BioSciences 1465 at 3:30pm. Call 822-3626.

**Centre For Applied Ethics Colloquium**  
Cigarette Marketers Targeting The Youth Market. Anne Lavack, doctoral candidate, Commerce. Henry Angus 225 from 4-6pm. Call 822-5139.

**Statistics Seminar**  
Approximations To Multivariate Normal Rectangle Probabilities Based On Conditional Expectations. Prof. Harry Joe, Statistics. Henry Angus 413 from 4-5:30pm. Refreshments. Call 822-2234.

**Faculty Development Series Seminar**  
The Harvard Assessment Seminars: Looking At Teaching. David Measday, Science; Gail Riddell, Faculty Development/Instructional Services. Hebb Theatre from 3-5pm. Call 822-9149.

**Pharmaceutical Sciences Seminar**  
Spare The ACE Inhibitor. Spoil The Kidney? The Role Of ACE

Inhibitors In Preventing Diabetic Renal Disease. Brenda Johannesson, grad student. Family/Nutritional Sciences 30 from 4-5pm. Call 822-4645.

### Wednesday, Oct. 20

**Orthopaedics Grand Rounds**  
Fractures Of The Shaft Of The Humerus. Chair: Dr. Robert W. McGraw. Guest speaker, Dr. P.J. O'Brien. VGH Eye Care Centre Auditorium at 7am. Call 875-4272.

**Microbiology Seminar**  
Studies On The Role Of The Secretory Pathway In The Life Cycle Of Herpes Simplex Viruses. Bruce Banfield, Microbiology/Immunology. Wesbrook 201 from 12:30-1:30pm. Call 822-3308.

**Wednesday Noon Hour Series**  
Jane Coop, piano. Music Recital Hall at 12:30pm. Admission \$2. Call 822-5574.

**Continuing Studies Election Coverage**  
A Free Series. What Is Canada's Role In The World? Panel: Brian Job, Don Munton, Chris Thomas, Political Science; Ivan Head, South/North Institute; Kogila Adam-Moodley, Social/Educational Studies. York Room, Hotel Georgia from 12-1:30pm. Call 222-5272 to pre-register.

**Applied Mathematics Colloquium**  
A Nonlinear Approach To Large Amplitude Nuclear Motion: The Problem Of Inversion In The Ammonium Molecule. Dr. J.P. Leroy, Princeton U. Mathematics 203 at 3:30pm. Call 822-4584.

**Geography Colloquium Series**  
Political Science/Geography: An Export-Import Analysis. Jean Laponce, Political Science. Geography 201 from 3:30-5pm. Refreshments at 3:25pm. Call 822-5612.

### Thursday, Oct. 21

**Pharmaceutical Sciences Seminar**  
Integration Of Plasmalemmal And Sarcoplasmic Reticulum Calcium Transport In Vascular Smooth Muscle. Dr. C. Van Breeman, Medicine. IRC #4 from 11:30am-12:30pm. Call 822-4645.

**Creative Writing Reading**  
An Hour With Timothy Findley presented by The Vancouver Writer's Festival and Prism International. Frederic Wood Theatre at 12:30pm. Tickets \$8. Call 822-2514.

**Carr Lecture Series**  
New Reproductive Technologies: Science And The Incarnation. Are New Reproductive Technologies An Unnatural Attempt To Play God? Dr. Suzanne

R. Scorsone, director of Family Life, Archdiocese of Toronto. Henry Angus 110 at 12:30pm. Call 822-4492.

**Music Concert**  
Collegium Musicum. Steve Morgan, director. Music Recital Hall at 12:30pm. Call 822-3113.

**Faculty Development Seminar**  
Strategies For Teaching The Disabled Student. Jennifer Leigh Hill, U. of Victoria. Henry Angus 312 from 2:30-4:30pm. Call 822-9149.

**French Lecture (In English)**  
President's Advisory Committee On Lectures: Ladies Don't Wear Braies: The Sexual Politics Of Medieval Underwear. Prof. Jane Burns, Romance Languages, U. of North Carolina, Chapel Hill. Buchanan Penthouse at 2:30pm. Call 822-2879.

**Physics Colloquium**  
Idealization And Explanation In Statistical Mechanics. L. Sklar, U. of Michigan. Hennings 201 at 4pm. Call 822-3853.

**Biostatistics Seminar**  
A Review Of Latent Class Models For Medical Data Subject To Measurement Error. Dr. Stephen Walter, Clinical Epidemiology, McMaster U., Hamilton. Henry Angus 413 at 4pm. Call 822-2234.

**Marion Woodward Lecture**  
Sanctions And Sanctuary: Culture And Wife Beating. Dr. Jacquelyn C. Campbell, Johns Hopkins U. IRC #6 at 8pm. General public welcome. Free admission. Call 822-7417.

### Friday, Oct. 22

**Obstetrics/Gynaecology Grand Rounds**  
The Exclusive Use Of Prostaglandins In The Induction Of Labour. University Hospital Shaughnessy Site D-308 at 8am. Call 875-3266.

**Paediatrics Grand Rounds**  
Provincial Adolescent Health Survey. Dr. Roger Tonkin, Paediatrics. GF Strong Auditorium at 9am. Call 875-2118.

**Health Care/Epidemiology Grand Rounds**  
Issues Related To Rubella Immunization. Adverse Reac-

tions And Seroactivity. Dr. Aubrey Tingle, director of Research, Children's Hospital. James Mather 253 from 9-10am. Call 822-2772.

**Occupational Hygiene Program Seminar**  
Hand-Arm Vibration In Chainsaw Operators. Angela Berlin, occupational hygienist. Chem/Mechanical Building 1202 from 12:30-1:30pm. Call 822-9595.

**Law Seminar**  
What's Feminist About A Feminist Analysis of Tort Law? Prof. Denise Reaume, U. of Toronto. Curtis Conference Room from 12:30-2pm. Call 822-6506.

**Chemical/Engineering Weekly Seminar**  
Biosensors For Process Monitoring. Robin F.B. Turner. Chem/Engineering 206 at 3:30pm. Call 822-3238.

**Theoretical Chemistry Seminars**  
Electrical Double Layers Near Inert And Metallic Walls. Dr. G. Patey, Chemistry. Chemistry 402 central wing at 4pm. Call 822-3997.

### Saturday, Oct. 23

**Vancouver Institute Lecture**  
The Rise And Fall Of Antibiotics. Prof. Julian Davies, head, Microbiology. IRC #2 at 8:15pm. Call 822-3131.

### Sunday, Oct. 24

**Occupational Therapy Week**  
Runs to Oct. 29. Ergonomic Workplace Education For Campus Workers. Please call prior to Oct. 25 to arrange appt. at your workplace. 4th Yr. Occupational Therapy students. Call 822-7400.

### Monday, Oct. 25

**Applied Mathematics Colloquium**  
Tracking Curve Networks Moving With Curvature Motion. Brian R. Wetton, Mathematics. Math 203 at 3:30pm. Call 822-4584.

**Creative Writing Lecture**  
Journalism In Business Alan Bayless, Vancouver bureau chief, Financial Times of Canada. Buchanan A-102 from 4-6pm. Call 822-2712.

## UBC REPORTS

### CALENDAR DEADLINES

Calendar items must be submitted on forms available from the UBC Community Relations Office, 207-6328 Memorial Road, Vancouver, B.C. V6T 1Z2. Phone: 822-3131. Fax: 822-2684. Please limit to 35 words. Submissions for the Calendar's Notices section may be limited due to space. Deadline for the October 28 issue of UBC Reports — which covers the period October 31 to November 13 — is noon, October 19.

# Calendar

## October 17 through October 30

### Tuesday, Oct. 26

#### Pharmaceutical Sciences Seminar

Understanding Trichomonad Virulence: A Study Of Haemolysis Of Sheep Red Blood Cells By Trichomonas Vaginalis. Dr. Spiros Potamianos, Pharmaceutical Chemistry. IRC #4 at 11:30am. Call 822-4645.

#### Classics Lecture

President's Advisory Committee On Lectures: The Excavations At Tel Dor: An Ancient Seaport On The Coast Of Israel. Prof. Andrew Stewart, Art History, U. of California, Berkeley. Lasserre 102 at 12:30pm. Call 822-2889.

#### Lectures In Modern Chemistry

Light-Emitting Porous Silicon: Scientific Curiosity Or The Key To Silicon Optoelectronics? Dr. Tom Tiedje, Physics. Chemistry 250 South Wing at 1pm. Call 822-3266.

#### Faculty Development Seminar

The Multicultural Classroom: An Introduction. Katherine Beaumont/Mackie Chase/Keith Hoy. Social Work/Anthropology 223 from 3-5pm. Call 822-9149.

#### Oceanography Seminar

Last Interglacial Data From Denmark And Northern Germany. Dr. Marit-Solveig Seidenkrantz. U. of Quebec at Montreal. BioSciences 1465 at 3:30pm. Call 822-3626.

#### Statistics Seminar

Project Work In Mathematics At Aalborg University - An Alternative Approach. Prof. Soren Lundbye-Christensen, Aalborg U., Denmark. Henry Angus 413 from 4-5:30pm. Call 822-2234.

### Wednesday, Oct. 27

#### Orthopaedics Grand Rounds

Massive Rotator Cuff Tears - Surgical And Non-Surgical Treatments. Guest speaker, Dr. R. H. Hawkins. VGH Eye Care Centre Auditorium at 7am. Call 875-4646.

#### UBC Bookstore Famous Authors

Psychologist Judy Weiser will be speaking and autographing her new book, Phototherapy. Bookstore at 12:30pm. Call 822-2665/4749.

#### Microbiology Seminar

Genetic Analysis And Biochemical Characterization Of The Major Cellulases from Cellulomonas Fimi. Dr. Andreas Meinke, Microbiology/Immunology. Wesbrook 201 from 12:30-1:30pm. Call 822-3308.

#### Faculty Development Seminar

The Classroom As A Dramatic Arena. Linc. Fisch, educational advisor, Lexington, KY. Asian Research Auditorium from 9:30-11:30am. Call 822-9149.

To Lecture Or Not To Lecture: The Debate Continues. Linc. Fisch. Asian Research Auditorium from 2:30-4:30pm. Call 822-9149.

#### 18th Annual Dr. John F. McCreary Lecture

Health Care Reform In Canada And The USA. Senator W.J. Keon, MD, director general, Univ. of Ottawa Heart Inst. IRC #4 from 12:30-1:30pm. Faculty and students welcome. Call 822-3564/5898.

#### Centre For Japanese Research Seminar

Translating Imperialism: The Emperor System, Japanese Poetry And Its English Translation. Joshua Mostow, Asian Studies.

Asian Centre Bsmt. Music Room from 12:30-1:45pm. Call 822-5612.

#### Geography Colloquium Series

Is Co-operation The Answer? A Comparison Of U.S. And Canadian Enforcement Of Environmental Regulations. Kathy Harrison, Political Science. Geography 201 from 3:30-5pm. Refreshments. Call 822-5612.

#### French Lecture

President's Advisory Committee on Lectures. Philosophie Et Politique Dans Le Mariage De Figaro. Prof. Francois Moureau, Sorbonne, Paris. Buchanan Tower 826 at 4pm. Call 822-2879.

#### Inter-Disciplinary 19th Century Studies Colloquium Series

Eighty Ways Of Grasping Wagner's Ring. Speakers: Peter Loeffler, Theatre; Marketa Goetz-Stankiewicz, Germanic Studies; Vera Micznik, Music. Faculty Club Music Room from 7:30-9pm. Call 822-4225/5122.

### Thursday, Oct. 28

#### Faculty Development Seminar

Creative Options For University Teaching. Linc. Fisch, educational advisor, Lexington, KY. Family/Nutritional Sciences Room 60 from 9:30-11:30am. Call 822-9149.

#### Pharmaceutical Sciences Seminar

Insulin Activated Protein Kinase Cascade: A Paradigm For Mitogenic Signalling. Dr. Steven Pelech, Medicine. IRC #4 at 11:30am. Call 822-4645.

#### Fine Arts Gallery Series

Performance And Video. A Performance: Personal Size.

Judy Radul. Lasserre 102 at 12:30pm. Call 822-2759.

#### Faculty Forum

Studies In Fluid Mechanics, Spacecraft Dynamics And Control. Dr. Vinod Modi, Mechanical Engineering. CICS/CS 208 from 4-5:30pm. Call 822-6894.

#### Physics Colloquium

Universal Correlations In The Quantum Spectra Of Chaotic Systems. B. Altshuler, M.I.T. Hennings 201 at 4pm. Call 822-3853.

#### Faculty Forum

Studies In Fluid Mechanics, Spacecraft Dynamics And Control. Dr. Vinod Modi, Mechanical Engineering. CICS/CS 208 from 4-5:30pm. Call 822-6894.

### Friday, Oct. 29

#### Obstetrics/Gynaecology Grand Rounds

Ovarian-Hyperstimulation Syndrome And Fetal Hydrops. Case presentations and discussion. Dr. Brenda Wagner. University Hospital. Shaughnessy Site D308 at 8am. Call 875-3266.

#### Paediatrics Grand Rounds

Paediatric HIV/AIDS: Yesterday, Today And Tomorrow. Dr. Jack Forbes, Div. of Infectious/Immunological Diseases. GF Strong Auditorium at 9am. Call 875-2118.

#### Health Care/Epidemiology Grand Rounds

Cancelled this date, due to the Pacific Health Forum.

#### UBC Bookstore Famous Authors

Frank Ogden, author of The Last Book That You'll Ever Read, will be speaking on the future of the printed word. Bookstore at 12:30pm. Call

822-2665/4749.

#### Law Seminar

The O'Connor Case. Prof's. Christine Boyle/Marilyn MacCrimmon, Law. Curtis Conference Room from 12:30-2pm. Call 822-6506.

#### Occupational Hygiene Program Seminar

Recent Developments In The Sampling And Analysis Of Diisocyanates From Spray Painting. Lee Monteith, lecturer; Mark Matyjas, student, Environmental Health, U. of Washington. Civil/Mechanical Engineering 1202 from 12:30-1:30pm. Call 822-9595.

#### Chemical Engineering Weekly Seminar

Composting: Odour Emission And Odour Control Using Biofilters. Anthony Lau, Bio-Resource Engineering, Chem/Engineering 206 at 3:30pm. Call 822-3238.

#### Education Studies Lecture

White Is A Colour! - White Defensiveness, Post-Modernism And Anti-Racist Pedagogy. Leslie Roman, Social/Educational Studies. Diamond Club, Simon Fraser U. from 4:30-6:30pm. Call 822-9583.

#### Theoretical Chemistry Seminars

Metal And Atom Interaction In The Strong Polar Solvent. X Ye, Chemistry. Chemistry 402 central wing at 4pm. Call 822-3997.

### Saturday, Oct. 30

#### Vancouver Institute Lecture

Reducing The Risk: Understanding And Promoting Aids-Preventive Behaviour. Prof. William Fisher, Psychology, U. of Western Ontario. IRC #2 at 8:15pm. Call 822-3131.

## Notices

#### Continuing Studies English Language Institute

Academic/Communication courses in Conversation, Writing and Grammar, Listening, Advance Discussion, TOEFL Preparation, Advanced Composition, Thesis and Article Writing. To register call 222-5208.

#### English Language Institute

Professional Development for Language Teachers. Incorporating Grammar And Writing, Oct. 23; Using Video in Communication Classes, Nov. 1; Teaching Pronunciation, Nov. 17/24. To register call 222-5208.

#### Conversation Classes

Develop your conversational ability in French, Spanish, Japanese, Mandarin or Cantonese. 10-weekly sessions

Sept. 28 to Dec. 1/93. Call Language Programs & Services, Continuing Studies, 222-5227.

#### International Teaching Assistant Training Program

Sponsored by UBC Continuing Studies (MLO). Section 1: Tuesdays, Oct. 5 - Nov. 30. Section 2: Thursdays, Oct. 7 to Dec. 2 from 6-9pm in the Old Auditorium Annex 221. Call 822-9583.

#### Free Hearing Assessments

Now through December 17. Open to all UBC students/staff/faculty. Sponsored by the UBC Hearing Access Project. By appointment. Call 822-5798.

#### Male Experience Research Project

Are contemporary ideas about men's lives truths or stereotypes?

Counselling Psychology student is looking for volunteers to take part in this study. If you're straight, white, 25-35, and interested in sharing your story, call Lawrence at 822-5259.

#### Psychology Study

Looking for female heterosexual volunteers who are experiencing sexual difficulties to participate in confidential research on physiological sexual arousal. Honorarium. Mon-Thu 4-6pm. Call 822-2998.

#### Drug Inter-Action Study

Volunteers at least 18 years required for participation in Pharmacology/Therapeutics Study. Eligibility screening by appointment. Honorarium upon completion of study. Call 822-4270.



### UBC Multicultural Liaison Office

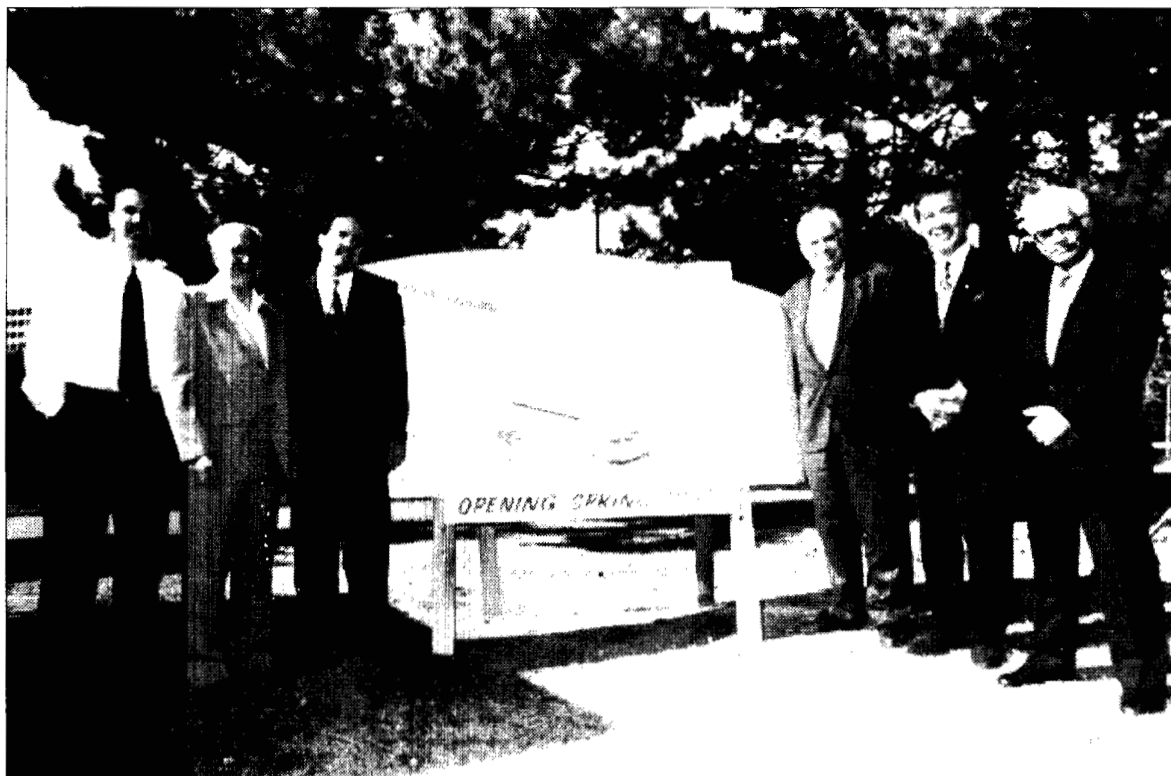
#### The Multicultural Classroom: An Introduction

October 26, 3 to 5pm  
Social Work 223  
Please register at 822-9164 or facdev@cce.ubc.ca  
Working with concerns of participants, instructors assist in developing sensitivities and communication skills for academics working in multicultural classrooms. Co-sponsored by the Centre for Faculty Development and Instructional Services.

#### White is a Colour!: White Defensiveness, Post Modernism and Anti-Racist Pedagogy

October 29, 4:30 to 6:30  
Diamond Club, Simon Fraser University  
Speaker: Dr. Leslie Roman, Social and Educational Studies

Session open to all interested. Co-sponsored by the SFU Faculty of Education Graduate Student Symposium Series and the Multicultural Liaison Office, UBC.



John Chong photo

## If You Build It . . . .

**MacInnes Field was the site of the Student Recreation Centre dedication ceremony Sept. 30. Those on hand included (left to right) Bill Dobie, president of the Alma Mater Society, Professor Emeritus Lewis Robinson, chair of the University Athletic Council, James Villeneuve of Labatt Breweries of British Columbia, President David Strangway, Chancellor Robert Lee, and K.D. Srivastava, vice-president, Student and Academic Services. The centre will cater to a wide range of social and recreational needs.**



THE UNIVERSITY OF BRITISH COLUMBIA

# UBC GAZETTE

The Board of Governors at its meeting of September 16, 1993 approved the following recommendations and received notice about the following items.

**Heath Chamberlain**, Assistant Dean, Faculty of Arts, September 1, 1993 to June 30, 1998.

**Ralph Rothstein**, Acting Associate Dean, Faculty of Medicine, September 1, 1993 to August 31, 1994.

**James Orr**, Associate Dean, Faculty of Pharmaceutical Sciences, July 1, 1993 to June 30, 1994.

**John Sinclair**, Assistant Dean, Faculty of Pharmaceutical Sciences, July 1, 1993 to June 30, 1994.

**Roland Lauener**, Associate Dean, Faculty of Medicine, July 1, 1993 to June 30, 1994.

**David Holm**, Associate Dean, Faculty of Science, July 1, 1993 to June 30, 1995.

**David Measday**, Associate Dean, Faculty of Science, July 1, 1993 to June 30, 1995.

**S.T. Chieng**, Acting Head, Department of Bio Resource Engineering, July 1, 1993 to December 31, 1993.

**Margaret Arcus**, Acting Director, School of Family & Nutritional Sciences, July 1, 1993 to June 30, 1994.

**J. Vanderstoep**, Acting Head, Department of Food Science, July 1, 1993 to June 30, 1994 or until a new Head is appointed.

**James Varah**, Director, Centre for Integrated Computer Systems Research, July 1, 1993 to June 30, 1996.

**Paul Marantz**, Chair, International Relations Programme, July 1, 1993 to June 30, 1994.

**Gillian Creese**, Chair, Women's Studies Programme, July 1, 1993 to June 30, 1996.

**Nicholas Jaeger**, Director, Centre for Advanced Technology in Microelectronics, July 1, 1993 to June 30, 1994.

**Uri Ascher**, Director, Institute of Applied Mathematics, July 1, 1993 to June 30, 1998.

**Philip Bragg**, Head, Department of Biochemistry and Molecular Biology, July 1, 1993 to June 30, 1994.

**John L. Benedet**, Acting Head, Department of Obstetrics & Gynaecology, July 1, 1993 to June 30, 1994.

**Catherine Backman**, Acting Director, School of Rehabilitation Sciences, August 1, 1993 to July 31, 1994.

**Maria Klawe**, Head, Department of Computer Science, July 1, 1993 to June 30, 1998.

**David Dixon**, Assistant Professor, Metals & Materials Engineering, October 1, 1993 to June 30, 1996.

**Charles Dollar**, Associate Professor, School of Library, Archival & Information Studies, July 1, 1993 without term.

**Kyung Ae Park**, Assistant Professor, Institute of Asian Research, July 1, 1993 to June 30, 1995 (joint with Political Science.)

**Michael Klein**, Professor, Department of Family Practice, July 1, 1993 without term.

**Doris Doudet**, Assistant Professor, Department of Medicine, July 1, 1993 to June 30, 1995.

**Vincent Duronio**, Assistant Professor, Department of Medicine, July 1, 1993 to June 30, 1995.

**Yuanhong Ma**, Assistant Professor, Department of Medicine, July 1, 1993 to June 30, 1995.

**Christopher Lyons**, Assistant Professor, Department of Ophthalmology, July 1, 1993 to June 30, 1995.

**Stephen Tredwell**, Associate Professor, Department of Orthopaedics, July 1, 1993 to June 30, 1996.

**John Kang-Min Wu**, Assistant Professor, Department of Paediatrics, July 1, 1993 to June 30, 1995.

**John Mayo**, Assistant Professor, Department of Radiology, July 1, 1993 to June 30, 1995.

**Susan Forwell**, Instructor I, School of Rehabilitation Sciences, July 1, 1993 to June 30, 1994.

**Anton Grunfeld**, Assistant Professor, Department of Surgery, September 1, 1993 to June 30, 1995.

**Brian Rodrigues**, Assistant Professor, Faculty of Pharmaceutical Sciences, July 1, 1993 to June 30, 1995.

### RESIGNATIONS

The Board accepted the following resignations.

**Lonny Carlile**, Assistant Professor, Department of Political Science, December 31, 1993.

**Anne S. McMillan**, Assistant Professor, Department of Clinical Dental Sciences, August 31, 1993.

**Jean Hills**, Professor, Department of Administrative, Adult and Higher Education, December 30, 1993.

**Johann Krisinger**, Assistant Professor, Department of Obstetrics & Gynaecology, August 31, 1993.

### CORRECTION - Resignation

**Peter Jones**, Associate Professor, School of Family & Nutritional Sciences, March 31, 1994.

### Services

**DO IT RIGHT!** Statistical and methodological consultation; data analysis; data base management; sampling techniques; questionnaire design, development, and administration. Over 15 years of research and consulting experience in the social sciences and related fields. 433-7807.

**STATISTICAL CONSULTING** PhD thesis? MSc? MA? Research project? I cannot do it for you but statistical data analysis, statistical consulting, and data management are my specialties. Several years experience in statistical analysis of research projects. Extensive experience with SPSS/SAS/Fortran on PCs and mainframes. Reasonable rates. Call Henry at 685-2500.

**EDITORIAL SERVICES** Substantive editing, copy editing, rewriting, grant proposals, dissertations, reports, books. I would be delighted to look at your manuscript, show you how I could improve it, and tell you what I would charge. Please call me for more information. Timothy King, 263-6058.

### Accommodation

**HORNBY ISLAND** writer's getaway. New, fully equipped one-bedroom house on 10 wooded acres. Rent by week (\$150) or by month (\$350). Phone 526-1956.

**UNIVERSITY APARTMENTS** A limited number of two-bedroom apartments for full-time faculty/

staff/students are available for Nov. 1 for \$860 or \$875/month. Rent includes all utilities and one parking space. The unfurnished self-contained apartments are located in Acadia Park on campus. For further information, please call the UBC Housing Office at 822-4411 from 8:30 am to 4:00 pm Monday to Friday.

**SANTA FE** house for sabbatical trade or rent. Three bedroom, 1.5 bath home on 1.5 acres, 25 minutes from city centre. Sabbatical leave is from June '94 to Sept. '95. We are looking for a quiet rural or semi-rural place to stay near Vancouver. Call 505-982-9937.

### Bed & Breakfast

**GARDENSEND** Bed and Breakfast in self-contained cottage. Breakfast ingredients supplied. Kerrisdale area. No pets or smokers. \$60 single, \$15 each additional person. (Maximum four people.) 263-7083.

### Miscellaneous

**SINGLES NETWORK** Science professionals and others interested in science or natural history are meeting through a North America-wide network. For info write: Science Connection, P.O. Box 389, Port Dover, Ontario N0A 1N0 or call 1-800-667-5179.

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## Classified

The classified advertising rate is \$15 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 Community Relations Office, 207-6328 Memorial Road, Vancouver, B.C., V6T 1Z2, accompanied by payment in cash, cheque (made out to UBC Reports) or internal requisition. Advertising enquiries: 822-3131.

The deadline for the Oct. 28, 1993 issue of UBC Reports is noon, Oct. 19.



*Congratulations  
Vancouver Foundation  
on your 50th Anniversary*

*With thanks from the  
faculty, students and staff of UBC*

# Family and Nutritional Sciences marks five decades of change

by **Abe Heffer**

Staff writer

The School of Family and Nutritional Sciences bears little resemblance to the stereotypical image of a centre for cooking and sewing.

Rather, the school, first instituted at UBC as the Dept. of Home Economics in 1943, has always focused on issues of living in families and how families manage their human and material resources.

Today, as the school prepares to celebrate its 50th anniversary,

these early beginnings have evolved into programs which address the themes of family development and interpersonal relationships, family resource management, the family context of individual development, nutritional requirements, and the absorption of nutrients and their role in maintaining health and preventing disease.

"The 1980s was a

decade of significant development for the school," said Acting Director Margaret Arcus, who has been associated with the school since 1968.



**Jefferson**

"Prior to that, only one degree, a Bachelor of Home Economics, was offered. The school now offers two degrees of its own, the BHE and a Bsc in Dietetics, plus two degrees in conjunction with the faculties of Arts and

Science: a BSc in Nutritional Sciences and a BA in Family Science."

The 1980s also saw a name change, from Home Economics to Family and Nutritional Sciences, in order to reflect more directly the major themes of the school.

In 1982, the school moved to its current site on East Mall. With it, came an expansion of its research component. Faculty members are currently involved in diverse research projects such as the influence of diet in the treatment of diabetes and obesity; social, cultural and economic influences on eating habits; and parental and spousal bereavement in later life.

Student enrolment is also on the rise. Undergraduate enrolment this year is almost at the 400 mark, a 25 per cent increase over last year's figures. In the last two years, the number of graduate students has doubled to 24.

"I believe the increased enrolments in our programs reflect not only increasing interest in family, nutritional and health issues, but also the growing significance of these issues at the individual, family and societal levels," said Arcus.

The school will celebrate its 50th anniversary with a dinner Oct. 23 at the Faculty Club. Those scheduled to attend include Dorothy Jefferson, the first head of the Dept. of Home Economics, as well as eight of the 15 members of the first graduating class of 1946.

## People

by staff writers

**Martha Salcudean**, head of the Mechanical Engineering Dept., has been appointed one of six new members of the B.C. Science Council.

Salcudean, who is noted for her computer simulations of fluid flow in industrial processes, has published extensively, has two patents to her credit and heads several large collaborative projects with major companies. On Nov. 1, she assumes a new position at UBC as associate vice-president, Research.



**Salcudean**

Another member of the Science Council from UBC is **Gail Bellward**, a professor in the Faculty of Pharmaceutical Sciences.

The Science Council promotes economic development and enhancement of the quality of life in B.C. through innovative applications of science and technology. The council also advises the provincial government on science and technology issues.

•••••

**N**DP deputy national leader **Nelson Riis** was honoured for his contribution to geography and national politics by the UBC Geography Alumni at a general meeting Oct. 1.

Riis received his master's degree in geography from UBC in 1970 and established the first Geography Dept. in the interior of British Columbia at Cariboo College in Kamloops.

There, he advocated geography in local planning and educational matters.

Riis was first elected to Parliament in 1980 as a New Democrat member for the Kamloops riding. In 1988 he became NDP house leader and then deputy national leader.

**Julian Davies**, head of the Dept. of Microbiology and Immunology, has received the Charles Thom Award from the Society for Industrial Microbiology.

The award is given in recognition of outstanding academic and research contributions to the advancement of the applied microbiological sciences.

Davies' research focuses on microbial metabolites, and specifically on investigations of antibiotics, their function and biosynthesis, and how microbes develop resistance to antibiotics. In recent years, he has been interested in molecular studies of pathogenesis in bacteria and fungi.



**Davies**

•••••

**T**he Faculty Club has named its board of directors for 1993. They are:

Prof. **Felix Aubke**, Chemistry; Assoc. Prof. **Cedric Carter**, Pathology; **Steve Crombie**, Community Relations; **Ron Dumouchelle**, Development; Assist. Prof. **Ann Dusing**, Classics (secretary); Assoc. Prof. **Elizabeth Edinger**, Law (vice-chair); **Michael Hartwick**, Internal Audit (treasurer); **Byron Hender**, Student and Academic Services; Assoc. Prof. **Kenny Kwok**, Physiology; and Prof. **Chris McIntosh**, Physiology (chair).

•••••

**P**rof. **Daniel Nsereko** has been appointed the Walter S. Owen Visiting Professor of Law at UBC, where he will teach international human rights law.

For the last eight years, Nsereko has served as dean of the law school at the University of Botswana as well as a consultant at six universities in East, Central and Southern Africa Region.

Nsereko was recently a candidate for judge of the international tribunal prosecuting persons responsible for violations of international humanitarian law in the former Yugoslavia.

•••••

**D**r. **David Bates**, a professor emeritus of medicine, is the recipient of two honours.

Bates, who served as dean of UBC's Faculty of Medicine from 1972 to 1977, was awarded the Edward Livingstone Trudeau Medal from the American Thoracic Society at the society's annual meeting in San Francisco last May.

He is the third Canadian in 60 years to receive the honour, named after the society's founder. The medal is presented for outstanding contributions to the field of thoracic medicine.

Last spring, Bates delivered the Jessie and John Danz Lectures at the University of Washington in Seattle, discussing public policy and the protection of public health.

He is the first Canadian and UBC faculty member to deliver the Danz lectures, the highest award conferred by the University of Washington.

### Hallowe'en's Back at the Faculty Club

"Fun for the Whole Family"

Members and Non-Members All Welcome

A magician will be on hand to entertain your little pumpkins

Treats and lots of fun!

Prime Rib Dinner \$14.95  
Children's Menu \$6.25

Friday, October 29th, 5:30 pm - 8:30 pm, Faculty Club Ballroom  
For reservations call 822-4693

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Dr. Gordon A. McBean - International Union of Geodesy and Geophysics

"...You performed beyond the call of duty and were able to foresee potential problems before they happened."

Dr. Daniel F. Gardiner - UBC Program for Executive Development

"...a mark of excellence to supply the needs of a conference and receive no complaints!"

Mary Lou Bishoff - Anglican Renewal Ministries Conference



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## Profile

# Breathless in B.C.

by Gavin Wilson

Staff writer

**H**ow do seals hold their breath for two hours while diving deep beneath the polar ice? And how can Andes Indians do strenuous work at altitudes where most people would gasp for air?

These are the biological mysteries that drive the research of Peter Hochachka, a professor in UBC's Zoology Dept.

Hochachka has studied a wide range of animals, including humans, to understand how they combat the state of hypoxia, or lack of oxygen. His research has taken him to locales that sound like destinations in an adventure travel brochure: Kenya, Peru, Antarctica, the Philippines, the Amazon, and the Galapagos Islands.

His work has earned him world-wide respect as a pioneer in the fields of comparative biochemistry and physiological adaptations, and have furthered our understanding of evolutionary processes.

The path that led Hochachka to the far corners of the world began in rural Alberta, where he spent his boyhood on a farm. Moving to Edmonton, he later entered the University of Alberta, but a life-long passion still eluded him.

"I wasn't one of those lucky kids who knew what they wanted to do when they started university," he said.

He decided to become a doctor, more by default than out of a strong desire, but in his second undergraduate year, some inspiring teachers turned his head around.

"I discovered a whole universe out there — in the life sciences — that I didn't know existed."

After completing his master's degree at Dalhousie, Hochachka arrived at North Carolina's Duke University to do his doctoral thesis. The first thing his new colleagues wanted to know was: trout or goldfish?

**C**anadian biologists are famous for their research with fish, and those two species are favourite subjects, so their query was only partly tongue-in-cheek. As it turned out, he had studied both.

After completing his PhD, Hochachka pondered offers from seven top universities. One was UBC. He arrived here one dark winter night and took a room in the Faculty Club.

"The next morning I looked out the window and just about had a heart attack," he said, remembering the sight of mountains, ocean and snow-covered cedar forest against a brilliant blue sky.

Vancouver's scenic wonders may have helped make the decision easier, he allows now, but more importantly, Zoology Head William Hoar was then putting together what Hochachka calls the best comparative physiology group in the world. That, and a desire to return to Canada, brought him to UBC in the fall of 1966.

A few years later, Hochachka was sitting with some of his colleagues at the Vancouver Aquarium, watching a killer whale circle and swim. If only there was an instrument that could collect blood samples from a marine mammal while it was diving, they thought.



John Chong photo

**Biologist Peter Hochachka has roamed the world trying to understand how some people and animals can survive with little or no oxygen. He's discovered the best place to look for answers is his UBC lab.**

"I didn't think we would see anything like that in our lifetimes," he said. But 10 years later, he accomplished this technological feat in the world's most forbidding place — Antarctica.

A visiting professor at Harvard Medical School, Hochachka was part of a team that journeyed to McMurdo Station, just 800 miles from the South

Pole. They came in search of the Weddell seal, a remarkable animal that can dive for up to two hours without taking a breath.

The researchers strapped backpacks containing micro-computers, the equivalents of Apple IIs, onto the seals. Thanks to the computers, they were able to collect a series of blood

samples and directly monitor the seal's physiology and biochemistry, and its response to hypoxia, as it dived to depths of 650 metres in water of -2 C.

It may have been home sweet home to the seals, but not to the researchers.

Out of all the remote and lonely places Hochachka had travelled, this was the only spot from which he felt he might not make it home.

He and fellow researchers were caught in a sudden blizzard. The wind chill fell to horrendous levels of -90 C. The storm raged on for 18 hours, their chance of survival growing dimmer with each passing hour.

"We were all quite scared. If the storm had lasted any longer, we would have been in serious trouble," he said.

In other research, Hochachka led an expedition aboard an American research vessel to the Galapagos Islands in 1970. There they studied fish that live under tremendous

pressure two miles beneath the ocean's surface in near freezing temperatures.

A few years later, he travelled to the Amazon, studying how fish have adapted to the river's low oxygen levels.

**"You can't take a late 20th century lab high into the Andes. It was more sensible to bring them here."**

- Hochachka

Hochachka found that one species, the pirarucu, had adjusted by revamping its organ systems. It had a huge kidney, a lung to breathe air and a heart five times as large as its water-breathing cousins.

In 1988 Hochachka leapt at the opportunity to look for hypoxia defense mechanisms in human beings living at extreme altitudes. The subjects were six men of the Quechua people, descendants of the Incas who live in the Peruvian Andes at elevations of 3,500 to 5,000 metres.

After conducting baseline tests in Peru, Hochachka took the Quechua to research labs at UBC and the University of Alberta. Here, he was able to perform not just routine physiological and biochemical tests, but ultra-sophisticated techniques such as magnetic resonance imaging and positron emission tomography.

By bringing the Quechua to Canada for study, Hochachka had broken a long tradition of biological research.

"When I first entered the field it was dominated by the idea of the world as a natural laboratory. The working paradigm was that you took the lab to the organism. But I feel this has held the field back. You can't take a late 20th century lab high into the Andes. It was more sensible to bring them here."

**T**he project bore spectacular results. The Quechua showed a remarkable metabolic efficiency, making oxygen go further or do more than lowlanders could ever hope to.

Hochachka looked for molecular adaptation responses in their skeletal muscle, heart and brain and found profound biochemical adaptations in all three. It implied that over the generations, the Quechua have made genetic adaptations to life at high altitudes.

Hochachka feels his major accomplishment has been to establish cross-species connections in responses to low or zero oxygen environments.

"We've been able to identify three or four recurring themes in hypoxia defence mechanisms, three or four fundamental mechanisms in a variety of biological settings which makes us think they are universally required for low oxygen survival," he said.

Hochachka's success has not gone unrecognized by his peers. He has won a clutch of awards, including the B.C. Science Council Gold Medal, the Canada Council/Killam Memorial Prize and fellowships such as the Killam, Guggenheim and Queen Elizabeth II.

Increasingly, Hochachka's work has also been of interest to doctors. They have invited him to speak at meetings on stroke, cardiac arrest and acute kidney failure, where the cause of tissue and organ death is a lack of oxygen.

Clinicians see the possibility of borrowing lessons from animals and healthy humans that have an inborn resistance to hypoxia. One day, Hochachka's research might suggest ways of limiting the damage done by lack of oxygen in strokes and heart attacks.

Although he once considered and abandoned a career as a doctor, Hochachka may yet help people in medical distress.