

UBC REPORTS

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WELCOME UBC OKANAGAN!

Dr. Martha Piper's speech on March 17 in Kelowna marking the merger of Okanagan University College with UBC

It is an honour and a privilege for UBC to have been asked by the government to work with the people in this region to develop a distinctive research-intensive university right here in the Okanagan – a university that will build on the achievements of Okanagan University College and the history of the University of British Columbia.

There is no issue facing the B.C. post-secondary community that is more critical than access. Many dedicated individuals in this community have been working to address this concern, and today's announcement signals that their voices have been heard. The establishment of UBC Okanagan will open up 7,500 new UBC seats by 2009, right here in the fastest growing region of the province – with

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Students at the Okanagan campus.

Dalai Lama Brings Message of Peace to UBC

His visit supports the launch of contemporary Tibetan study program. BY ERICA SMISHEK

How different would the world look today if compassion and a consideration for all cultures had informed the immediate response to 9/11?

That kind of question is at the heart of events planned for the visit to Vancouver of His Holiness the 14th Dalai Lama later this month, including the launch of the new Contemporary Tibetan Studies (CTS) program at UBC.

"We need new paradigms for policy analysis to deal with the pressing challenges of our time," says Pitman Potter, director of the Institute of Asian Research (IAR), which houses the new CTS program, and a key organizer of the Dalai Lama's Vancouver visit.

"We hope that drawing on the principles of compassion and cross-cultural understanding associated with His Holiness the Dalai Lama can facilitate building new policy approaches to some of the problems that plague our troubled world."

Potter says the Dalai Lama's message of the universal need for kindness at every level, from person-to-person relations to global action, transcends cultural and religious boundaries and provides a unique perspective on world peace, preservation of culture, and protection for our increasingly imperiled planet. His suggestions on how to apply his teachings to daily life and to more pressing global issues are capturing the imagination of people around the world and present a relevant and significant subject for study and dialogue.

"During my audience with His Holiness the Dalai Lama in June 2002, he indicated his willingness to come to Vancouver to support the launch of the CTS program. This was a wonderful expression of support," says Potter, also a professor and director of Chinese Legal Studies at UBC's Faculty of Law, who has worked tirelessly with IAR research associate Victor Chan to develop the program and guide a diverse organizing committee established to plan the visit.

"The CTS program and the visit of His

Holiness reflect a commitment by the university and the institute to build programs that are meaningful for everyone," Potter explains.

"The themes of ideas, community, spirituality and music that inform the visit of His Holiness are values held dear throughout the community. The activities of the CTS program are aimed to build upon and strengthen these themes, for the benefit of everyone."

The CTS program will be unique in North America for its focus on contemporary Tibet and its application of Buddhist principles to contemporary policy issues.

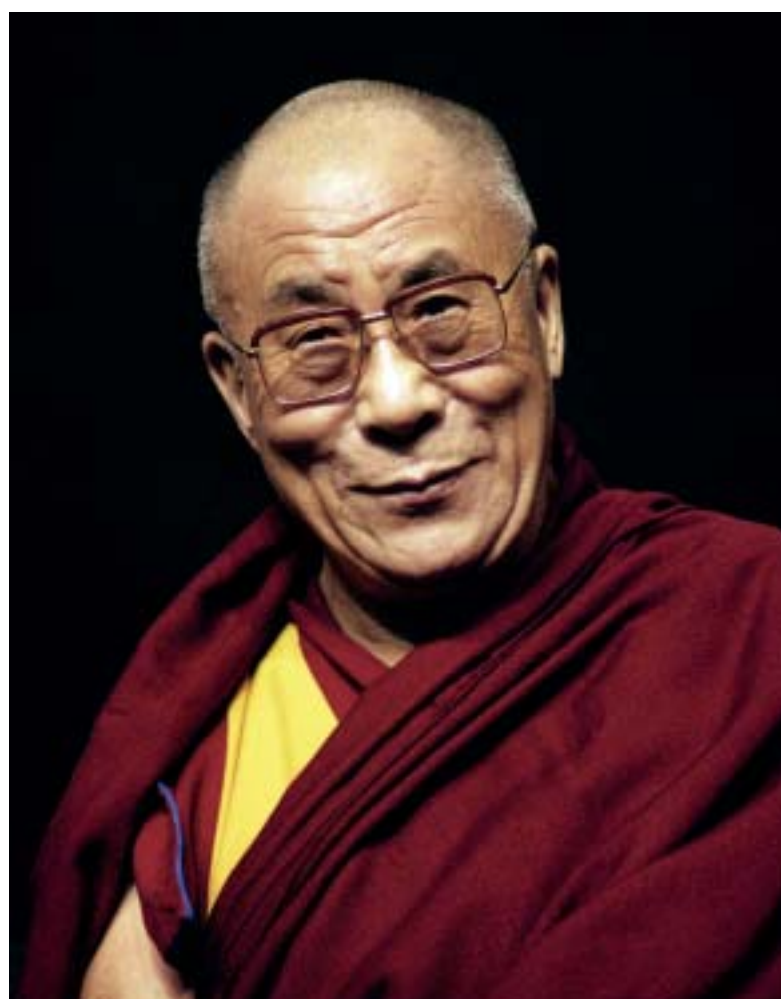
"I was impressed by the importance of studying contemporary Tibet, not as an ancient culture but as a contemporary society," says Potter.

"After considerable thought and discussion with experts in the field, we began working on a program design that would include research and teaching on socio-economic, political, cultural and religious aspects of Tibetan societies today, and also on the ways that principles of compassion and cross-cultural understanding associated with His Holiness the Dalai Lama can be applied to contemporary policy issues such as sustainable development, community building, and peace and security."

Much of the academic work on Tibet in Canada and elsewhere has focused on classical dimensions of religion, language and culture. But current policies on economic development, internal migration and religious practices are dramatically altering the way of life for Tibetan people in China and abroad.

While many details of the CTS program will depend on resources and financial support (IAR through the Faculty of Graduate Studies is currently seeking \$5 million to help fund the program), Potter anticipates a graduate-level research program structured around a chair in contemporary Tibetan studies. Teaching will likely be offered in collaboration with the Master of Asia Pacific Policy Studies (MAPPS) program and participation in the individual interdisciplinary doctoral program in the Faculty of Graduate Studies.

"Research activities will follow along the lines of the Institute's research programs on globalization,



His Holiness the 14th Dalai Lama will receive an honorary Doctor of Laws degree from UBC on April 19.



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IN THE NEWS

Highlights of UBC Media Coverage in March 2004. COMPILED BY BRIAN LIN

A Whirring Adult Brain

Millions of people have mild versions of autism, depression and attention deficit disorder. Without a diagnosis, these "shadow syndromes" can ruin lives.

Attention deficit disorder, for example, is too often ignored in impulsive, distracted adults.

"This isn't a problem that goes away after puberty," Margaret Weiss, director of research for the division of child psychiatry at UBC, told the *National Post*.

"And one of the great problems we face is that once children with ADD turn 18, they are no longer eligible for [provincial] funding for treatment and counselling. This is a time when they are going to university; when they have tremendous stresses to deal with, like scheduling, organizing themselves to study and so on. This is a vulnerable time."

Experts say the solution lies in focusing on people's strengths and developing their coping strategies.

Business Fills the Gaps in University Funding

Business leaders and corporations are coming forward with record donations to meet the funding demands of Canada's post-secondary institutions.

Ike Barber and Bill Sauder, who both made fortunes in forest products, each gave \$20 million to UBC, where private donors have always represented more than half of all gifts.

The size and number of private gifts is rising, Clark Warren, associate vice-president of development, told the *National Post*.

Last year UBC raised \$82.6 million, a significant gain from the \$67.8 million raised the year before.

"Fundraising is now a continuing business and not a series of campaigns spaced a few years apart," he says. "It also relies heavily on establishing relationships with potential major donors. Major gifts are rarely first-time things."

Some Flowers are the Bee's Knees

UBC Zoology doctorate candidate Risa Sargent is the first to have come up with solid numbers to demonstrate that flowers with their petals arranged in one way appear in more botanically different species than flowers with petals in different arrangements.

At the heart of her pioneering findings lie two basic evolutionary concepts: speciation and reproductive isolation.

"Many different insects can pollinate flowers like buttercups or roses because they're radially symmetrical," Sargent says, meaning the



PHOTO: SHARMINI THIAGARAJAH

Some petal patterns allow a better chance of pollination than others.

petals are evenly spaced around the flower centre. So, a honeybee, moth or bumblebee can fly in from any direction to pick up or drop off pollen."

Such specialist pollination increases the prospects of survival because these flowers are less likely to receive pollen from an incompatible plant or to have their own pollen transferred to incompatible stigma, Sargent told the *Toronto Star*.

Wristwatch Sensors to Detect Pollutants

Groundbreaking research being conducted at UBC on "microsensors" means that in a few years you may be able to buy a watch that can detect everything from a bad smog day to an anthrax attack.

Winnie Chu, laboratory manager at UBC's new Centre for Health and Environment Research, has developed a chip that does the same thing, reports *The Vancouver Sun*. It's about only two centimetres long and one centimetre wide.

While Chu stressed that her research has not focused on terrorism, it could be used to identify biological agents, like anthrax, that some fear could be used in

a terrorist attack.

Other sensors, modified somewhat, could test water samples for deadly bacteria like E. coli.

Long-Awaited Bill On Assisted Human Reproduction Clears Senate Hurdle

A Senate committee recently unanimously approved legislation banning human cloning, rent-a-womb contracts and the sale of human sperm and eggs.

The Assisted Human Reproduction Act would also set standards for embryonic stem cell research, and create a federal agency to oversee fertility clinics.

"At long last, eh?" UBC geneticist Patricia Baird told CP Wire. "I'm just delighted. I think it's really in the best interests of Canadians that this has gone forward."

Key elements of the legislation were recommended in 1993 by the Royal Commission on New Reproductive Technologies, of which Baird was the chair.

"[The legislation] is going to help protect the health and safety of literally thousands of Canadians who use infertility treatments every year," said Baird. □

UBC REPORTS

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UBC Okanagan

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900 new university seats being made available as soon as September 2005. And, the first UBC degrees will be granted in May 2006, with all students graduating from that day forward receiving University of British Columbia degrees – full stop – one university, one degree. Clearly, this new campus will be the source of talent and people power for years to come – providing opportunities for both graduate and undergraduate students.

To assist in this endeavour, we are also pleased to announce today the creation of 1,000 new student residence spaces to meet the housing and social needs of students studying here. In addition, our UBC student financial assistance policy, backed by our \$650 million endowment, will ensure that no qualified domestic student will be denied access to UBC Okanagan on the basis of financial need. And, we will work collaboratively with the new college and its regional campuses to offer university credit courses and an integrated college transfer program.

But there is more to today's announcement than new opportunities for students. UBC Okanagan will be a research intensive university – one that will bring the research strengths of UBC to the Okanagan. Whether it be our international ranking, our annual research funding of over \$377 million per year, or our ability to spin off companies into the economy, UBC Okanagan will be an economic driver – helping to diversify the economy and enhance the quality of life for all British Columbians. What took UBC nearly 100 years to achieve in research excellence will be immediately available for the region.

Today's announcement also brings our commitment to work with the community and OUC students, faculty and staff to build a distinctive campus with programs and research that meet the Okanagan's needs. To that end, we are grateful that Brad Bennett has agreed to

chair the UBC Okanagan Advisory Council and to serve as a member of UBC's Board of Governors. We know his leadership, insight, and support will be critical in building this great campus and aligning its goals to the aspirations of the region.

On October 28, 1922, almost 1,200 students participated in UBC's historic Great Trek, the march and demonstration that persuaded the provincial government of the day to go forward with its plans to build the first great campus of UBC in the Lower Mainland. Today, almost 82 years later, we are responding to the call of the people to this government to build the second great



UBC President Martha Piper and Brian Sullivan, Vice President, Students meet with OUC students March 17.

campus of UBC, right here in the Okanagan. It is in the spirit of the Great Trek that we celebrate today's announcement, and pledge to honour the efforts of those who have gone before us.

The Great Trek of the 21st century: One great university, Two great campuses. I know you will all join me in doing everything we can to make this vision a reality.

Thank you.
Martha C. Piper

Message of Peace to UBC

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cross-cultural dispute resolution, and religion and public policy," Potter says. "We look forward to cooperation with other departments at UBC."

He predicts the program will prove to be a valuable resource for policy makers as well as non-government organizations, researchers, educators, students and the media throughout the world.

As the leading research authority for the study of Asia in Canada, the IAR builds knowledge for the benefit of Canada and the world through intensive programs of research and graduate-level teaching that combine policy relevance with local knowledge. Potter says the CTS program will complement existing activities at UBC focused on Asia and will draw new communities of interest to the university. The new program will be

officially launched during Tibet in the Contemporary World, a two-day academic conference that unites distinguished international scholars from North America, Europe and Asia with junior scholars and graduate students April 19 and 20 at UBC.

The Dalai Lama will open the conference with a keynote address April 19 following the conferral of honorary Doctors of Law degrees by UBC on His Holiness, Archbishop Desmond Tutu, former president of the Czech Republic Vaclav Havel and 2003 Nobel Peace Prize winner Shirin Ebadi. The four will also join Rabbi Schacter-Shalomi, Dr. Jo-ann Archibald and moderator Bishop Michael Ingham for *Balancing the Mind with Educating the Heart*, a roundtable dialogue focused on the Dalai Lama's teaching and its application in today's world, at the Chan Centre of the Performing Arts at UBC on April 20.

Potter says the impact of this profound exchange between world leaders at UBC in April will be felt

for years to come. The IAR is planning policy dialogue sessions to further examine the topics of peace and security, community building, and sustainable development raised at the roundtable dialogue and to build on the community linkages that have been established.

Potter also foresees the capacity to develop new programs based on the awareness that UBC and the community have worked successfully to put together an historic event for the public good.

For more information on the Contemporary Tibetan Studies program, visit www.iar.ubc.ca/Tibet/ or contact Carla Banford in the Faculty of Graduate Studies at 604.822.0631.

For more information on the Visit to Vancouver by His Holiness the 14th Dalai Lama, visit www.dalailamavancouver.org. □

Editors Note: At press time, organizers were advised that Vaclav Havel is unable to come to Canada because of health concerns.

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The Mystery of the Disappearing Sockeye Salmon

Something fishy is going on in the Fraser River and UBC scientists are on the case

BY MICHELLE COOK

Fraser River sockeye salmon have been acting strangely of late. Their odd behavior has experts puzzled – and worried – because millions of the fish are dying before they reach their spawning grounds. It's a mystery that could spell the end of the river's salmon fishery, but UBC and SFU scientists studying the phenomenon think they are close to solving the case of the disappearing fish.

In a project funded by the Natural Sciences and Engineering Research Council of Canada with support from the Pacific Salmon Commission and Fisheries and Oceans Canada, researchers have been examining why some late-run sockeye are migrating up the Fraser more than a month ahead of schedule. Normally, the salmon migrate down the coast of British Columbia and mill about in the Strait of Georgia for several weeks before heading up river in late September.

"In 1995, we started noticing a large group had started to change their behaviour in terms of when they returned," says Scott Hinch, the forestry sciences professor leading the investigation. "This wouldn't have been a big problem except that they



UBC researchers have pieced together the clues to explain why millions of late-run sockeye are dying.

than a year ago, have been pushed to the point of collapse.

At first, the researchers were at a loss to explain either the early migration or the high mortality. They formulated several hypotheses before identifying a prime suspect in the high mortality rates: *Parvicapsula*, a natu-

ered a key piece of evidence. While surgically inserting small radio transmitters into a test group of late-run sockeye, researchers noticed that the early arrivals bled profusely during the short operation.

"We'd not seen anything like it before when we've inserted transmit-

the river ahead of schedule.

The UBC team had several theories but it was colleagues from the Institute of Ocean Sciences on Vancouver Island who revealed the clues which may crack the case. Researchers from the Institute told them that recent CTD (conductivity

longer they are in higher temperature water, the more damage the parasite does until, eventually, the sockeye's kidneys malfunction.

"Any one of these factors alone probably doesn't kill them outright," says Hinch. "It's the combination of all these things that we think causes

Since 1996, close to four million late-run sockeye in total have died during their upstream migration.

seemed to be dying in really high numbers. We didn't realize how high until the phenomenon continued for the next few years."

"What we saw was fish entering the river four to six weeks earlier than usual and those early migrants died before spawning – up to 95 per cent of the total run in some years. The mortality rate for sockeye arriving on schedule is about 10 per cent."

This has had catastrophic effects on the fishery and fish conservation, Hinch adds. Since 1996, close to four million late-run sockeye in total have died during their upstream migration. In 2002, the fishery lost more than \$70 million. Some small stocks, like the Cultus Lake sockeye which were emergency listed endangered more

ral kidney parasite that latches onto fish at the mouth of the Fraser.

Since *Parvicapsula* hitches a ride on all salmon heading up river – early or otherwise – the researchers weren't sure why it only seemed to be having an adverse affect on the fish migrating ahead of schedule. What they did know was that the water temperature in the river is several degrees higher in mid-August than in late September when late-run sockeye normally come in from the ocean. Hinch's team suspected that the higher river temperatures were affecting the speed of the parasite's infection and the early migrants' kidney functions, which play a vital role in helping fish to adjust from salt to fresh water.

Then, by accident, the team discov-

ers, nor had we anticipated it," says Hinch. "Blood samples from these fish also showed that the early migrants had poor clotting ability and abnormally high levels of ions. There was clear physiological evidence that the kidneys were malfunctioning and this may be the cause of the high mortality. What it also means is that fish could be bleeding to death during their migration if they get any small nick or cut, which can be common."

This still didn't explain why sockeye were starting their long journey up the Fraser so early. Although *Parvicapsula* was doing a lot of damage to the early migrants in the river, it didn't appear to be responsible for driving them into

temperature depth) surveys of the Strait along with some historical data they dug up, shows low salinity pockets in some coastal areas that weren't there before.

Piecing the evidence together, the UBC team determined that some late-run sockeye might be hitting these low salinity pockets of water in the Strait. Thinking that they are in fresh water, the salmon prematurely activate their kidneys and osmoregulatory systems – the function they use to adjust to fresh water – and head straight into the Fraser River instead of milling.

Once in the river, they pick up the parasite earlier than normal. The higher water temperatures limit their ability to fight off the infection. The

them to die. Early migrants probably get two thirds of the way to their spawning grounds, but many just don't make it. The early fish that do reach the spawning grounds seem to die before spawning."

Hinch says the team is still a long way from closing the investigation. They still have several hypotheses to examine over the next few summers but the theory, if proven correct, leaves Hinch cautiously hopeful for the future of the Fraser River sockeye.

"Over the last couple of years, there seems to be a segment of the late-run sockeye that are acting normal and now that we understand a bit more of the problem, I'm somewhat relieved and optimistic for these fish," Hinch says. □

Coyotes Prey on Children

Public unaware of the risk. BY HILARY THOMSON

Cat-killer, cartoon character or funny-looking dog – perceptions of the coyote may vary but one thing is certain – a hungry coyote sees a small child as just another menu item.

Fourth-year medical student Dennis Boparai was part of a team of undergraduate researchers that recently explored coyote attacks on kids in the Lower Mainland.

"Most Vancouverites like the area's mix of nature and urban living but there is a trade-off," he says. "Coyotes have learned to co-habit with us in the city as their natural territory is reduced and their presence represents a risk to children."

About 2,000 coyotes live in the Lower Mainland. In addition to plentiful sources of food, city environments provide coyotes safety from natural predators such as bears, cougars or wolves.

Most coyote attacks involve children up to seven years old. Some cases are shocking – bold, daylight grabs such as an incident where a coyote bit and tried to drag off a baby while the mother was gardening only a few feet

away. Another incident involved an 18-month-old boy who was playing near a soccer field when a coyote bit him above the eye, requiring seven stitches. A coyote stalked and charged a three-year-old boy near an elementary school. Adults were nearby in both attacks.

Boparai and the research team found that public awareness was low concerning coyote behaviour and risks of attack. In particular, warnings are necessary to ensure people don't feed coyotes or attract them by leaving pet food or garbage in the open.

Boparai presented the team's findings to an international wilderness medicine conference in Whistler, B.C. and to an international urban health conference in New York City. In addition, the study is due to be published in the *Journal of Wilderness Medicine*.

Boparai is interested in coyote bites not only because he hopes to specialize in plastic surgery but also because he feels doctors need to examine public health issues surrounding trauma and alert people to risks.

"There's always a social backdrop to



Urban coyotes live up to their bad reputation.

medical issues – that's an area that interests me and where I would like to make some impact," says the 25-year-old.

The project was supervised by Nicholas Carr, head, UBC division of plastic surgery and Wendy Cannon, research co-ordinator. □

Undergraduate Students Conduct Research Too

BY MICHELLE COOK

If you thought graduate students were the only ones on campus doing all the hard-hitting research, think again. This year's Multidisciplinary Undergraduate Research Conference showcased 90 projects conducted by undergraduates.

Topics ranged from a study of anorexia nervosa in Victorian England to a look at pediatric injuries in modern-day Pakistan. Awards were given for the best research presentations, and a full list of winners can be found at <http://www.research.ubc.ca/students/conf-upcoming.htm>.

Here's a quick peek at some of the other subjects undergraduates tackled this year.

>> Magic Mushrooms

If you go out in the woods today, you may be in for a big surprise. Integrated Sciences student Jana Sebelova drew on her interest in ethnobotany and a love of mushroom hunting cultivated while growing up in the Czech Republic for her exploration of the antibiotic potential of some of B.C.'s estimated 10,000 mushroom and fungi species. Sebelova collected samples of almost 200 Pacific Northwest mushrooms to get a better understanding of the prevalence of antibiotic compounds in local fungi, and their distribution across fungal genera. The results astounded her. Almost 20 per cent of the 195 species sampled showed some antimicrobial activities.

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CALL FOR COMMENTS

A proposal is being considered to revise Policy #83 “Travel and Related Expenses” and its accompanying Procedures. The draft revisions were presented to the Board of Governors for information and review on March 18, 2004. They were prepared by the Ad Hoc Standing Committee on Travel Policy Review of 18 members, drawing from a broad cross-section of the University community, and are now being presented to the campus community for public comments. The members of the committee that formulated the proposed policy and procedures were:

Stan Hamilton, Commerce & Business Administration
 Jon Shapiro, Education
 Sian Echard, English
 Bernard Ter Stege, Financial Services
 Natasha Malloff, Human Resources
 Suzanne Dunn, Internal Audit
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Policy #83 and its accompanying procedures were last revised in November 2000. The proposed revisions remove operational details from the Policy document to simplify and reduce potential contradiction, and include changes to keep the Procedures document current with the electronic expense and reimbursement processes now available for travel.

Feedback may be submitted by email to the Office of the University Counsel at university.counsel@ubc.ca.
All feedback should be submitted by 3:00 pm on Friday, April 16, 2004.

Subject to feedback from this public consultation process, it is expected that these proposed documents will be submitted to the Board of Governors with a request for final approval at its regularly scheduled meeting in May of 2004.

DRAFT POLICY

POLICY #83 | Travel and Related Expenses

Approved: November 2000
 Revised: May 2004 (Anticipated)

Responsible:
 Vice-President, Administration and Finance
 Vice-President, Academic and Provost

PURPOSE

Travel is a necessary component in the gathering and dissemination of information and knowledge. The purpose of this policy is to facilitate travel in support of the University’s mission while maintaining controls for accountability.

As employees of a public institution which aims to use its resources as effectively as possible, members of faculty and staff must exercise care in incurring travel expenses. It is the responsibility of the traveller to make the most economical travel arrangements possible, consistent with the purposes of the trip.

POLICY

This policy applies to travel expenses paid from all University administered funds, including those from grants and contracts.

Travellers must ensure that they have adequate insurance for the travel contemplated.

The University will reimburse the cost of authorized travel expenses incurred by members of faculty and staff and, in special cases, students or other persons, provided that:

Travellers may retain for personal use any loyalty program points (for example – frequent flyer points) accumulated from University travel.

- the traveller was travelling on University business, or in support of the University’s mission; and
- the traveller had advance authority to incur travel expenses (for example, through recognition of travel in a grant budget); and
- the expenses are reasonable, appropriately documented, and comply with University policies and procedures, or the policies and procedures of a granting agency or funding contract; and
- the expenses are approved for reimbursement by at least one administrative level higher than the person claiming reimbursement.

The restrictions in this policy and its procedures have university-wide application; however, individual faculties and departments may implement procedures which are more restrictive.

A standing Travel Policy Review Committee sponsored by the Vice-President Administrative and Finance will review and recommend changes to the Procedures as necessary.

PROCEDURES

Approved: November 2000
 Revised: May 2004 (Anticipated)

Travel supported by research grants or contracts must comply with University policies and procedures unless specifically indicated otherwise by the funding organization in which case the policies and procedures of the funding organization must be followed.

Pursuant to Policy #1, “Procedures may be amended by the President, provided the new procedures conform to the approved policy. Such amendments are reported at the next meeting of the Board of Governors and are incorporated in the next publication of the UBC Policy and Procedure Handbook.”

APPROVAL & SIGNING AUTHORITY

Claim Approval

Written approval from one administrative level higher than the traveller is required for any payments under this policy including:

- reimbursements to travellers;
- travel advances;
- travel settlement claims; and
- payments to a third party.

The traveller and the individual who approves payment must ensure that claims for expenses are in accordance with this policy and these procedures.

Expense Claim Forms

Claims for reimbursement of travel expenses must be submitted on a Financial Services Travel Requisition Form. Claims must have:

- a clear statement of the purpose and the duration of the trip;
- clearly detailed expenses supported by the dated receipts required by this policy;
- the original signature of the traveller certifying that all information is correct;
- written approval from one administrative level higher than the traveller.

Travel Claims should be submitted within thirty (30) working days of the traveller's return.

Receipts

Original Itemized Dated Receipts are required to support a claim. Travel agency invoices, cancelled cheques, credit card statements or "paid" notices, photocopies and carbon copies are not acceptable. The following are the only exceptions to this requirement:

- **Meals & Incidentals**
Credit card vouchers for gasoline and meals may also be submitted except when the claim is charged to a research fund.
- **Airline Tickets**
Paper airline tickets must be accompanied by the travel agency invoice. In the case of electronic tickets, submission of a copy of the itinerary/receipt is acceptable. (Invoice or itinerary/receipt must show ticket number, breakdown of cost and form of payment).
- **Conference Registrations**
Submission of a copy of a receipt showing the cost and payment or a copy of the registration showing the cost accompanied by a credit card statement showing payment is acceptable.
- **Minor Unreceiptable Items**
Minor expenses that are impossible or difficult to receipt may be approved at the discretion of the individual approving the traveller's claim. Examples of such items would include subway fares or gratuities.
- **Missing Receipts**
When a travel expense receipt is missing and a duplicate cannot be obtained, the traveller must submit the following memorandum on their department's letterhead to the Department of Financial Services. The memorandum must be accompanied with the appropriate Travel Requisition Form and must be signed by the traveller and one administrative level higher.

To: Financial Services, Travel Claims
Re: Lost/Missing Receipt

I, *[full name of traveller]* certify that the following receipts in the amount of *[indicate amount and currency]* *[describe the missing ticket, hotel bill, etc. in detail]* are missing and cannot be replaced. These authorized travel expenses were incurred by me on *[date]* and are reimbursable through the university's account number *[quote appropriate SpeedChart and account code]*. The associated TR # is — I certify that I have not and will not claim reimbursement for these expenses from any other source.

Signature of Traveller:
Signature of Supervisor:

Site – Stamping of Receipts

In circumstances where travel expenses are made well in advance of the trip and payment is required before the trip is completed, or when expenses are partially covered by another organization and the traveller requires the original receipt for submission to that organization, the receipt, upon request, will be "site-stamped" indicating the amount to be reimbursed by the University. The receipt will be returned to the traveller so a claim for the balance may be made.

Site-stamps are applied to original receipts which travellers need to retain. A photocopy of the site-stamped receipt is submitted with the expense claim to obtain reimbursement. Site-stamping can be done by the Department of Financial Services. In addition, faculties, departments and schools may obtain site-stamps from the Requisition Processing Section of Financial Services.

BOOKING TRAVEL ARRANGEMENTS

The University contracts with two travel agencies that provide full service to university travellers. These agencies are familiar with all of the University's specially negotiated rates (air, hotel and car) which result in savings to the traveller and the University.

Faculties and departments may require travellers to use these agencies when booking travel arrangements on university business.

Third parties who are authorized to travel at the university's expense for such purposes as employment interviews, external reviews, and distinguished lectures, are encouraged to book arrangements for transportation and accommodation through one of the university's contracted travel agencies, in order to obtain maximum benefit for the traveller at minimum cost to the University.

The contact information for these agencies is noted below:

BTI Canada
#310, 1090 West Georgia Street
Vancouver, BC V6E 3V7
Tel: 604-331-1576 or 1-800-575-1576
Fax: 604-681-1590
Web site: www.bticanada.ca
E-mail: utswest@bticanada.ca

North South Travel & Tours
3702 W. 10th Ave.
Vancouver, BC V6R 2G4
Tel: 604-736-7662 or 1-800-665-1882
Fax: 604-736-6513
Web site: www.nstravel.bc.ca
E-mail: ubc@nstravel.bc.ca

TRANSPORTATION

Air travel at a fare class higher than economy

Travellers claiming for the cost of air travel in a class of travel higher than economy must obtain the approval of their respective Dean or Vice President. This must be provided on a one-time basis on the expense claim form itself or on a continuing basis for a particular individual by memo to Financial Services.

Where a grant or contract explicitly provides for a class of travel higher than economy, written approval from Research and Trust Accounting or a copy of the contract showing approval must be submitted with the expense claim form.

Tickets purchased using loyalty program points

Travellers are not expected to use points from loyalty programs for University travel. Should they choose to do so, they shall not claim reimbursement for the 'equivalent' cost of the airline ticket. The University will reimburse the cost of taxes and surcharges actually paid by the traveller. Receipts are required.

Private Automobile

Travel by private vehicle may be necessary to save time and/or costs. Reimbursement for costs are made to the driver only and are calculated by applying the mileage (kilometer) rate to the actual driving distance while on university business, by the most direct route (the amount claimed not to exceed full economy airfare). The applicable mileage rate is set by the Vice President Finance and Administration based on the recommendation of the University's Treasury Department and is currently \$0.36 per kilometer.

Car Rental

Travellers may wish to rent an automobile to save time or reduce costs. Reimbursable expenses include the rental fee for non-luxury model cars, the km/mileage charge by the car rental agency, gasoline charges and insurance coverage when applicable. The University has Canada-wide and international discounts with certain car rental companies as follows:

Within B.C.

Travellers on university business have access to the Government of BC provincial rates. This rate should be requested when booking the vehicle.

Outside B.C. (Canada & the U.S.)

University rates have been negotiated with the following companies. Quote the ID# to obtain the rate:

Budget Auto Canada

800-268-8900
ID# A136100

Enterprise Rent A Car

800-593-0505
ID# 5CA1000

The university's contracted travel agencies can provide more information on the car rental companies, their rates and any special packages that are available. Please refer to the Travel Web site at www.travel.ubc.ca for details.

Travellers who rent vehicles are responsible to ensure that they have obtained adequate insurance. Please refer to the Insurance section of these procedures for more information.

Other Transportation

Reasonable expenditures for taxis and public transportation to and from airports, railway stations, between appointments, hotel locations and meeting places are reimbursable, including reasonable gratuities for service.

ACCOMMODATION /MEALS/PER DIEMS

Meals/Per Diems

Travellers may be reimbursed for the cost of meals either by submitting receipts for actual meal costs or by claiming meal per diems. In the event a per diem is claimed, no receipts are required. Travellers may claim a meal per diem for an entire day or partial day. Where a per diem is claimed no additional amount may be claimed for the same meals. Per diems may only be claimed where meals have actually been consumed. Per Diems cannot be claimed where meals are already included in conference fees.

Per Diems are set by the Vice President, Administration and Finance based on the recommendation from UBC Supply Management.

Travel within Canada

per day

Breakfast \$10.70
Lunch \$10.45
Dinner \$29.35
Total = \$50.50 / day (Cdn.)
[amounts include GST & gratuities]

Travel within United States and other countries

per day

Breakfast \$10.70 (US)
Lunch \$10.45 (US)
Dinner \$29.35 (US)
Total = \$50.50 / day (US)

Where a research funding agency has a per diem limit that is lower than the university's, the traveller may claim the higher amount from the University but will only charge the research PG account with the lower rate.

Gestures of Appreciation

Travellers may be reimbursed for modest gestures of appreciation for individuals who have provided accommodations or other reimbursable items to the traveller. Original receipts must be submitted to claim this expense. Reimbursement of this item may not be approved if the person approving the traveller's claim determines the gesture of appreciation was inappropriate.

OTHER REIMBURSABLE & NON-REIMBURSABLE TRAVEL EXPENSES

Other Reimbursable Travel Expenses

Examples of reimbursable expenses include:

- Voice and data communications charges to stay in touch with university responsibilities and to allow the traveller to stay in reasonable contact with their immediate family;
- Expenses for baggage handling and storage;
- The cost of necessary clerical services;
- Necessary business laundry and valet expenses;
- Reasonable gratuities;
- Overnight dependent care expenses when unpaid alternatives are not available (supported by receipts and social insurance numbers);
- Expenses for obtaining visas and travel papers;
- Accommodation for extra night(s) and meals if by staying over a Saturday night there is a net savings in total expenses;
- Exchange rate expenses, claimed by submission of a photocopy of the charge card statement listing rates charged by reimbursable item or of a receipt for foreign currency purchased in a bank or equivalent institution.

Expenses That Are Not Reimbursable

- Interest charges on outstanding charge card balances;
- Loss or damage to personal possessions;
- Parking and traffic fines;
- Personal expenses including kennel fees, travel, accident and life insurance costs, movies, mini-bar charges;
- Expenses of family members unless pre-authorized as University business;
- Expenses for failure to cancel transportation or hotel reservations;
- Passport expenses;
- Excess personal baggage.

Combining University Travel With Personal Travel

Travellers may combine university travel and personal travel with the approval of their administrative head of unit. Prior to travellers scheduling indirect routes (interrupting business portions of a trip for personal travel or visa versa), the administrative head and the traveller must agree on a fair allocation of expenses for the trip. In no event will the university's portion of expenses exceed what would have been charged had the personal travel interruption not occurred.

METHODS OF PAYMENT

Corporate Travel Card

Faculty or staff may apply, upon approval of their administrative head of unit, to the Department of Supply Management for a UBC/American Express corporate travel card. These "individual" corporate travel cards are for the cardholder's own business related expenses and are accepted as a method of payment by most airlines, car rental companies and hotel chains. They reduce the need to use personal funds pending reimbursement. Cardholders claim reimbursement

from the university and are responsible for payment to the travel card company. Financial responsibility for charges, including delinquency charges, interest charges, is that of the individual cardholder.

Departmental Travel Card

Administrative heads of units may apply for a "Departmental" corporate travel card, designed for travel expenses of travellers in the unit not eligible for their own "Individual" corporate charge card and/or for institutional expenses on behalf of the department as a whole. The Departmental card is usually established in the name of the administrative head of unit. Expenses incurred on the "Departmental" card can be paid directly by Financial Services to the travel card company, through a Requisition for Payment, supported by original documentation and approvals required by the policy. For example if the expenses are incurred in the name of the cardholder, approval must be one administrative level higher.

Personal Credit Cards

A traveller's personal credit card may be used to pay for travel expenses. However the University does not reimburse personal credit card service charges, delinquency assessments, interest, annual fees, or any other charges associated with personal credit cards. These are the sole responsibility of the cardholder.

Travel Advance

While travellers are encouraged to use personal or corporate charge cards whenever possible, a travel advance for persons holding signing authority on an account may be obtained by submitting a Travel Advance form, signed by the traveller and approved by one administrative level higher, to the Department of Financial Services. Under normal circumstances travel advances will not be made more than ten (10) business days prior to the start of the trip. When the trip is finished, the traveller must complete a Travel Settlement Claim form. The Travel Settlement Claim form requires written approval from one administrative level higher. **It must be completed within thirty (30) days of the end of the trip, and forwarded to the Department of Financial Services.** In the event a Travel Settlement is not received by the Department of Financial Services within 60 days at the end of a trip the Department of Financial Services may charge the outstanding travel advance to the Department which approved it. Subsequent travel advances will not be made to a traveller if a previous advance has not been settled.

A travel advance approved by a department head or equivalent may be provided to a university student for a field trip or conference. Under these circumstances, the department head is responsible for settling the advance.

INSURANCE

Summary of Relevant Considerations

Travellers should ensure that they have adequate insurance before leaving on a trip. Without adequate insurance a traveller or their family could be exposed to significant personal liability or loss.

The information in this section is meant to serve as a general guideline only as there are exceptions which may apply to an individual traveller. Descriptions of insurance policies are for information only and are subject to the terms of the policies themselves. Any specific questions regarding insurance should be directed to the Risk and Insurance Section of the University's Treasury Department. Questions regarding medical or accident benefits should be directed to the Benefits Administration section of the University's Department of Human Resources.

The following is a list of the types of insurance and issues a traveller should consider prior to a trip:

Medical Insurance

The Province of British Columbia has a Medical Services Plan and the University offers additional extended medical insurance to eligible faculty and staff. **Membership in these plans is not automatic** and it is the responsibility of the traveller to ensure they have adequate medical coverage for themselves and their families. This is particularly important when traveling outside of Canada.

Accident Insurance

A traveller's loss of income or disability resulting from injuries sustained while traveling on University business is generally eligible for Workers' Compensation Board benefits. The University also offers life, disability and accidental death or dismemberment insurance plans. Membership in these plans (other than Workers' Compensation) may not be automatic and may be subject to a waiting period for new employees.

Vehicle Insurance

Private Vehicles: The University does not insure private vehicles. If using a private vehicle for business purposes (for example driving to a meeting off campus) the traveller should confirm that he or she has the appropriate class of business insurance from their insurance company.

Rental Vehicles: The University does not maintain automotive vehicle rental insurance. Travellers must ensure that adequate insurance is in place for all drivers either by purchasing a policy from the University's Treasury Department, by renting the vehicle using a credit card with an insurance option, or by purchasing a policy from the rental agency.

Property Insurance

The University insures the University's property, including property located off campus. The University does not insure the personal property of the traveller.

Liability Insurance

The University will generally insure travellers against third party liability (other than that resulting from automobile accidents) while the travellers are

conducting University business. An example of this coverage would be to provide insurance covering allegations that a traveller negligently injured another person or their property.

Personal Activities

Members should be aware that insurance coverage provided by the University (for example – Liability Insurance) only applies when the traveller is conducting University business. Vacation periods before, during and after University business are not covered. In addition, family members and traveling companions are not covered under University insurance policies unless expressly stated otherwise.

Vehicle Insurance

Private Vehicle Insurance Coverage

Maintaining the appropriate insurance coverage on private vehicles used for University business is the responsibility of the traveller. An insurance agent should be consulted if there are any questions. Some travellers may be eligible for partial premium reimbursement regarding the difference between the “to and from work” rating and the “business” rating. Administrative heads of unit designate who is eligible to receive this reimbursement.

Travellers must ensure that they have the appropriate license to drive a vehicle while on university business.

Deductibles

The University will reimburse a traveller for their deductible portion of loss (up to \$300.00) if:

- a) the loss resulted from the use of a vehicle on university business, and
- b) the loss results from a claim on their comprehensive coverage. Comprehensive coverage generally covers claims for all perils other than those insured by collision coverage (discussed below) examples of losses insured under comprehensive coverage include fire, theft, hail or vandalism.

Any costs incurred by a traveller as the result of a claim on their collision coverage are not reimbursable by the University and are the responsibility of the traveller. Note that a collision deductible will only be assessed by an insurer if a traveller is deemed to be at fault for an accident. Collision coverage insures against loss caused by collisions with other vehicles, objects or terrain (i.e. car accidents). Costs not reimbursed by the University include the policy deductible, and costs resulting from the loss of a safe-driver's discount.

Loss of personal effects from a vehicle is not insured by the University.

Decisions on appropriate third party liability and collision/comprehensive deductibles for personal vehicles rests with the traveller. The University does not assume the employee's liability for non-insured damages (for example - excess damages over the traveller's policy limits), to vehicles or other property, or loss-of-use costs while the owner's automobile is undergoing repairs.

Rental Vehicle Insurance

Travellers must ensure they have adequate insurance for rental vehicles. If the rental vehicle is to be operated by individuals other than the primary driver, all secondary drivers must be listed with the rental company at the time of the rental.

Third Party Liability

Rental companies provide third-party liability insurance (this insures for claims against the driver by another person) as part of the basic rental rate for the vehicle. Additional excess third party liability coverage is carried by the University for rental vehicles to protect both the driver (while on university business) and the University.

Collision Damage Waiver

Although car rental companies do not provide full collision and comprehensive insurance as part of the basic rental rate, they do offer the renter the option of purchasing the Collision Damage Waiver (CDW) for an additional fee. This insures against physical damage to the rented vehicle. Purchasing from the car rental agency is the most expensive manner of obtaining this insurance, and travellers are encouraged to investigate the alternate options discussed below.

CDW Coverage Options

University travellers have two (2) alternate options for rental vehicle collision and comprehensive insurance coverage:

Option #1: UBC American Express Corporate Card

Drivers using the UBC American Express corporate card for payment receive CDW coverage on most vehicles for periods not exceeding 31 days. The cardholder must be present at the time of rental and must remain the principal driver of the vehicle throughout the coverage period. Coverage is available for secondary drivers provided they are listed on the rental agreement. Vehicles not covered by American Express include expensive or exotic automobiles, trucks, off-road vehicles, recreational vehicles, campers, trailer and certain vans.

The responsibility for knowing if credit card insurance is adequate is the traveller's. In the event of accident, American Express must be contacted within 48 hours. Please refer to American Express directly for further CDW insurance information and/or exclusions by calling cardholder assistance at 1-800-243-0198.

Option #2: Rental Vehicle Policy

The second option for vehicle rentals is the university's self-insured blanket Rental Vehicle Policy which is offered for a fee by the University Treasury Department. It applies to rentals anywhere in North America. This policy covers any motor vehicles used for business purposes, but excludes vehicles rented for delivery purposes or for carrying passengers in a bus with a seating capacity of sixteen or more.

The cost of the Rental Vehicle Policy is on a per vehicle per day basis and there are collision and comprehensive deductibles. Coverage must be arranged in advance of the trip through the Risk and Insurance Management section of the Treasury Department.

Coverage cost is \$5/vehicle/day, and the deductibles are \$300 (collision) and \$100 (comprehensive). The minimum premium transaction is \$20.

Insurance on UBC and Personal Property-Insurance on University and Personal Property

The University maintains insurance on any property owned by the university, whether it is in transit or on campus.

The University does not insure the personal property of travellers.

Accident/Health/Life Insurance-Accident/Health/Life Insurance

It is the responsibility of the traveller to ensure they have adequate insurance for themselves and family members. Medical and accident plans at the University are not mandatory and the traveller should not assume that they are enrolled. Part time employees, contractors, students and recently hired employees are not normally eligible for these plans and should ensure that they have obtained adequate coverage elsewhere.

Accident Insurance - Workers' Compensation Board

University members of faculty and staff who are injured while performing university business away from their normal place of work may be eligible for WCB benefits. Please contact the University Department of Health Safety & Environment at (604) 822-2029 regarding any potential claim.

Accident / Illness Insurance (MSP & EHB)

Provided a traveller is enrolled in the Medical Services Plan (MSP) of British Columbia (which is not automatic), the plan will reimburse medically required services at the amount it would cost had the services been performed in British Columbia.

The university's Extended Health Benefits (EHB) plan will cover 100% of eligible emergency medical expenses to a maximum of one million dollars (\$1,000,000.00) for member registration on the plan.

Life Insurance (and Accidental Death or Dismemberment Coverage)

The University offers basic group life insurance to eligible full-time university faculty and staff members as part of their basic employee benefit plan (contact your Service Representative in the Department of Financial Services for details).

An additional \$100,000 of Life and Accidental Death and Dismemberment insurance is available to members who are traveling on university business. This insurance is applicable from the time a member leaves his/her place of residence to commence University business away from the normal place of work. Coverage continues until the cessation of travel performed on behalf of the University.

Accidental death or dismemberment insurance for the public transportation section of the trip (for example – while traveling on an airline) is available to university travellers in the amount of \$500,000.00 when travelling on tickets purchased with the UBC /American Express Corporate Card.

Building a Better Mars Rover

UBC Computer scientist works on giving robots the brains to fend for themselves. BY MICHELLE COOK

When NASA bounced a pair of robots onto Mars earlier this year to explore the red planet and look for evidence of water, Nando de Freitas took more than a passing interest in how the two rovers, dubbed Spirit and Opportunity, would manage their missions.

The UBC computer scientist is part of a team of researchers work-

right – if our heart is beating too fast, for example,” de Freitas explains.

“A robot by itself should know, without having to communicate with Earth, ‘okay, my wheel isn’t working; I should replace it.’ We’re not at that point yet but that’s where we want to be – to really get robots aware for their internal state.”

Judging from the work de Freitas

A robot by itself should know, without having to communicate with Earth, ‘okay, my wheel isn’t working; I should replace it.’

ing with NASA to design the “brains” of the next generation of rovers that will follow Spirit and Opportunity into space. The team’s goal is to develop a more autonomous robot able to fend for itself 170 million kilometres from its creators on Earth.

The two rovers currently exploring Mars have some autonomy but, for the most part, their activities are controlled via basic instructions sent daily from mission control.

“We want rovers to handle the more mundane tasks of monitoring their own “health” and navigating the rough Mars terrain so that scientists back on Earth can focus on the smaller amount of information [the robot is sending back] related to scientific questions about the planet,” says de Freitas.

“We’re really only interested in a certain amount of information from the rovers such as ‘did you see an alien?’” he adds with a laugh.

To do this, de Freitas has been exploring how to give a rover the ability to learn to do things such as recognize when something is wrong with it and then fix itself.

“As humans, we know our bodies. We know how we feel. We also know when something doesn’t feel

has been conducting in UBC’s Lab for Computational Intelligence, it may not be too long before the kind of touchy-feely rover he envisions is brought to life. His research team has already created a robot that can differentiate between various surfaces – carpet, grass, tile – that it travels over and diagnose whether its wheel is stuck. The results of the team’s research will be published this month by the Institute of Electrical and Electronic Engineers (IEEE).

While it may all sound a bit Frankenstein-ish, the process doesn’t require knowledge of anatomy so much as a mastery of algorithms – Monte Carlo algorithms to be exact.

Developed by an employee of the Guinness beer company in the 1700s and, more infamously, used to build the atom bomb, de Freitas says Monte Carlo algorithms are particularly suited to the task of programming an autonomous robot to learn. Algorithms are a set of mathematical rules. De Freitas compares them to cookbook recipes. They give a robot a formula with parameters that is also flexible enough to allow for variations and substitutions in information and a margin of error.

With this, de Freitas and other



Nando de Freitas says next generation of rovers will be more robust and independent.

scientists are developing a robot that can recognize and then fix any number of potential problems on a space mission. By loading the robot with data and then simulating as many scenarios as they can beforehand, they “teach” it to become familiar with when it’s functioning properly and when it’s not.

“We have to explain to it, this is what it feels like to have a broken wheel so that it learns all the possible internal states and when you let it go, if anything happens, it knows what’s happening and what to do,” he says.

De Freitas is also trying to improve a rover’s ability to see. Better vision would enable it to better self-navigate and carry out other small tasks on its own. The Spirit and Opportunity rovers are equipped with sensors and a set of nine cameras each. These capture

the spectacular panoramic pictures they’ve been sending back to Earth, but the rovers can’t yet process the images they’re seeing and decide where to go by themselves.

The main challenge to overcome is understanding how human vision works, de Freitas says, and to be able to model mathematically everything that goes into visual recognition – colour, texture, shape – so a robot can understand what they’re seeing.

“Think of all the things that are the colour blue,” he explains. “How do you distinguish between the blue of the sky and of the ocean? Humans bring context to what they see; robots don’t. There’s a lot of uncertainty and you have to bring in context for them.”

Again, the Monte Carlo algorithms are particularly suited for teaching a robot how to sift through massive amounts of data in order to build a probabilistic model to represent the

world around them. This enables them to learn how to recognize objects, find patterns in what they’re seeing, match images to words, and label things.

De Freitas says the algorithms allow robots to simulate possible scenarios before they make a decision on what action to take. This mental decision process is constructed so that the number of mistakes is reduced or completely eliminated.

So how smart will the next crew of rovers be?

“They will be more robust robots able to fix themselves and able to operate for much longer times,” de Freitas says. “That’s important when you consider the cost of these missions. They’re extremely expensive and it would be nice if you could just drop rovers off and you knew they would be able to move and do all sorts of things without having to contact us all the time.” □

Plant-based Hormone Offers New Hope for Hot Flashes

UBC study tests safer replacement for estrogen. BY HILARY THOMSON

Imagine that your heart starts pounding, your skin temperature suddenly spikes and you break out in a sweat that wakes you up at night and forces you to fling off clothing during the day.

Now imagine these embarrassing and sometimes debilitating personal heat waves persisting for years.

This is the world of night sweats and hot flashes – the characteristic mid-life change experienced by about 75 per cent of women in perimenopause and the early years after menopause. In the first study of its kind, UBC researchers are testing a manufactured hormone that might provide safe and effective relief for

tens of thousands of women troubled by these symptoms.

Christine Hitchcock, a researcher at the Centre for Menstrual Cycle and Ovulation Research (CeMCOR), is testing the effectiveness of Prometrium®, the commercial name for a plant-based manufactured hormone that is chemically identical to the progesterone produced by the body. Approximately 60 women will use a placebo or Prometrium® for four months to determine if the drug can control hot flashes as well as improve blood vessel function and help prevent heart attack.

Betty-anne Dempsey is a participant in the trial. The 51-year-old had

been on hormone replacement therapy (HRT) for hot flashes that were leaving her sleep-deprived. She stopped using HRT because of a family history of heart disease and had tried herbal remedies without success.

“I got involved with the study because I want some relief but I also want to make sure I’m well,” she says. “Participating in the study gives me more insight into my own health.”

Until recently, hot flashes were treated with estrogen. Many women stopped estrogen therapy, however, after the results of the Women’s Health Initiative Study announced in July 2002 that estrogen with low dose

progesterin (a synthetic form of progesterone) increased risk of pulmonary embolism, heart attack, stroke and breast cancer.

“The importance of safe and effective therapy becomes even more clear as the dust settles from the trials of menopausal hormone therapy. Early studies suggested that progestins were effective in hot flash control but this is the first study to test natural oral progesterone for these symptoms,” says principal investigator Jerilyn C. Prior, a professor of endocrinology who is scientific director of CeMCOR, a part of UBC’s Dept. of Medicine and the Vancouver Coastal Health Research Institute (VCHRI).

In addition to learning about the drug’s effect on hot flashes, Hitchcock and Prior will examine its effects on cholesterol, blood pressure, blood sugar and weight gain. They are particularly interested in blood vessel function and will use a forearm blood flow test that can predict risk of cardiovascular disease. Participants will also keep a daily menopause diary to record the incidence and severity of flushes and sweats as well as other experiences such as insomnia, depression and fluid retention.

“We want to be able to give women a choice and a more targeted therapy for hot flashes. Also, this study will provide important information about the effects of progesterone alone on cardiovascular health,” says Hitchcock.

Scientists do not know the exact mechanism of hot flashes. They believe that flushes originate in the hypothalamus – the area of the brain that integrates stressors. Somehow, the body registers that its core temperature is too hot. It produces the flushes to get hot blood away from the core and move it to the skin’s surface to cool down.





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TIMEPIECE 1951



In 1951, UBC frosh week was chock full of fun times. The highlight of frosh week was the Frosh Ball held in the armouries. Here President Norman MacKenize crowns one lucky co-ed, Alex Gorden, frosh queen. Other freshmen, who missed out on the crown, were able to line up to shake hands with the president and receive his wishes for a successful stay at UBC. □

Undergraduate Students Conduct Research Too

continued from page 4

“It blows my mind to even think of all the amazing fungi out there that just might produce the next great antibiotic,” Sebelova says.

>> Hippy Hippy Shake

Metal and materials engineering students Trevor Pearce, Leon Chow, Frankie Wong and Shawn Wu constructed an analytical model of a prosthetic hip joint to try and to predict the life span of an implant based on the materials used to make it and the patient’s level of activity, weight and other factors. The team’s foray into the field of biomedical engineering found that an implant’s life span is affected by these factors and they’re recommending that an interdisciplinary database of material and patient data be constructed for use in future studies on retrieved implants.

>> The Case of Kimberly Rogers

Kat Kinch was just learning about the Canadian Charter of Rights and Freedoms when Kimberly Rogers died in Sudbury in 2001. Rogers was eight months pregnant and under the terms of her sentence for welfare fraud, confined to her apartment in a heat wave. Her death sparked nationwide media coverage. Kinch, now a

third-year Law student, documented Rogers case from her sentence to her inquest and analyzed it for specific human rights violations.

She found that, despite strong evidence that banning people convicted of welfare fraud from receiving future benefits regardless of the need was a harmful policy, the policy remained in effect in Ontario until there was a change of government. In B.C., similar regulations were put in place even after Kimberly Rogers died, with no consideration of Charter rights to life, security of the person and equality.

>> I say, could you please pass the salt?

It’s well known that the Victorian era was a period of extravagant entertaining for the upper-middle and high classes of England but few have analysed the social role that elaborate Victorian food rituals played. Through an examination of the work of Isabella Beeton, the era’s brightest culinary star, history student Ginie Mathers explored the complex social purpose of the Victorian dinner party.

She found that the highly refined food rituals of the late 1800s created a civilized and sophisticated identity for upper class Victorians designed to counterbalance the primal and physical characteristics of food consumption. The complicated system of dining manners, rules and menus masked basic human instincts and passions, and differentiated them from the savage act of “eating” carried out by the lower classes. □

New Hope for Hot Flushes

continued from page 9

The average age of onset for hot flushes is 48. They can be triggered by warm environments, hot or spicy food, alcohol, caffeine or stress. An individual flush usually lasts from a few seconds to 30 minutes or an hour and may happen a few times a day or once a week. The phenomenon can continue for four to nine years surrounding the time of the last menstrual cycle.

Men who have been castrated because of testicular cancer or those receiving hormone therapy for prostate cancer may also experience flushes and sweats.

For more information on hot flushes, visit the CeMCOR website at www.cemcor.ubc.ca. To learn more about the trial, click on ‘get involved’. The study has been initiated by researchers and is not sponsored by a drug company.

CeMCOR distributes information directly to women about changes through the life cycle, from adolescence to menopause.

VCHRI is a joint venture between UBC and Vancouver Coastal Health that promotes development of new researchers and research activity. □

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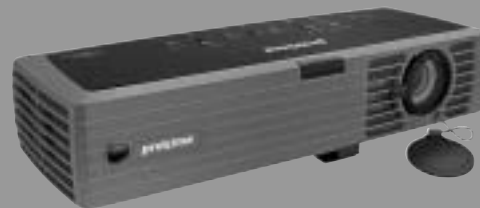
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Ethiopian Student Finds Refuge at UBC

One of the lucky few with a new lease on life. BY CRISTINA CALBOREANU

Masresha Arefaine is a 23-year-old arts student from Ethiopia planning to study International Relations with a focus on African studies. There would be nothing unusual about his story if it weren't for the fact that only months ago he was living in a refugee camp in northwestern Kenya.

One of the oldest and largest refugee camps in the world, Kakuma is currently home to about 90,000 refugees, and 800 more arrive every month. Approximately 70 per cent of them are southern Sudanese, and the balance come from Somalia, Ethiopia, Eritrea, Rwanda, Burundi, Liberia, Democratic Republic of Congo and Uganda.

Kakuma lies in desert land that can barely support the local population, much less a high concentration of refugees. Violence and malnutrition are endemic, remembers Arefaine. Food, water and firewood are in short supply and conflicts over scarce resources erupt periodically between the refugees and the local Turkana population. Moreover, Kenyan law restricts refugees from employment in the formal sector, which makes them fully dependent on the assistance provided by the international community.

"I was a second-year university student in Ethiopia, but I couldn't study while I was in the refugee camp in Kenya," explains Arefaine. "I couldn't afford an education. There are some income generation and vocational training programs in Kakuma, but they are very limited. Hundreds of refugees attempt to register for courses that can accommodate only 50 people. Few will find jobs after completing the course."

Arefaine was one of the lucky ones. The former University of Addis Ababa student came to Canada last September thanks to a sponsorship from the Student Refugee Program of the World University Service of Canada (WUSC). He is one of eight student refugees currently enrolled at UBC.

"Being involved with WUSC changed my life," says Arefaine. "I got a chance to continue my education and live a new life."

WUSC is a network of individuals and post-secondary institutions working on more than 50 campuses across Canada to foster human development and global understanding through education and training. Their Student Refugee Program provides a chance for student refugees

whose education has been interrupted by civil war or persecution to continue their post-secondary studies in Canada.

Created in 1978, the program operates under a special agreement with the Government of Canada and allows approximately 40 student refugees to enter Canada every year to study under permanent resident status, which makes WUSC Canada's largest non-faith based private spon-



Arts student Masresha Arefaine and WUSC volunteer Pascaline Nsekera.

sor. The student refugees have to meet the permanent residency requirements of the Government of Canada and the admission criteria set by Canadian universities. Priority is given to refugees who are discriminated against or whose physical security is at risk. There are more than 500 applicants every year, but fewer than 50 make it to Canada.

Founded in 1947, the UBC local committee is one of the longest established and most active branches of WUSC and the recipient of the 2003 Local Committee Award for its involvement in development activities, both at home and overseas.

The student refugee sponsorship program was established at UBC in 1981. It is funded through an Alma Mater Society annual levy of \$1 per student and an annual contribution from the UBC Faculty Association. The UBC administration provides tuition waivers covering the entire amount of the sponsored students' tuition fees for the duration of their studies at UBC. The local committee, made up of student volunteers assisted by a faculty advisor, works to

arrange admission, housing and course registration for the student refugees before their arrival, and provides personal support throughout the year.

"You need time to adjust, you need mentors, and WUSC-UBC provides that," says Arefaine. "The local committee is like a family."

"One person cannot help a student by themselves," explains Pascaline Nsekera, who arrived in Canada in 1997 as a WUSC-sponsored student refugee from Burundi. She is continuing her involvement with WUSC as a volunteer. "Even before the student comes, we have a co-ordinator and we have a support system around the person. From our experience, we have a good understanding of what a student refugee needs, and we assign these various tasks to different volunteers, so the students know who to talk to if they have certain kinds of problems."

Having this support network helps the student refugees cope with linguistic and cultural obstacles that can make integration into Canadian society extremely challenging.

"Everything is different," explains Mohammad Elyas, a WUSC-sponsored UBC mathematics student who came to Canada from Afghanistan in 1998. "Language, the whole culture, the outlook, the perspective people have on life. You need time to adjust."

This adjustment process can be long and painful, and most students need some time to find their place in Canadian society.

Nsekera had been enrolled in an undergraduate environmental chemistry program in her home country and continued her studies in earth and ocean sciences at UBC. Having found herself increasingly concerned with social issues, she now works in the UBC School of Social Work & Family Studies.

"When you have to leave your country because there's been a war, and you manage to escape and come to Canada, it's very difficult and confusing," she says. "Eventually you find your priorities changing, and it may take a while to find your way."

For Arefaine, that process is still ongoing. "It is really difficult at the beginning, adjusting to the culture and the living conditions in Canada," he says. "It's like a computer - you must erase everything and download a new program." □

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Refugee Program Creates Global Citizens

BY CRISTINA CALBOREANU

From its inception, the WUSC Student Refugee Program has changed the lives of more than 700 student refugees by providing opportunities for them to resume their studies and live a secure and prosperous life, but its influence goes even further.

"We talk about the sponsored students and how their lives have changed, but our lives change as well," says Syma Khan, chair of WUSC-UBC. "You learn about these issues in class or you see them on the news, but to actually meet someone who has lived through political instability and who has lived in the refugee camps and to be able to interact with them on a personal level and to become friends is really amazing and really enlightening."

"The partnership with university campuses is what makes the student refugee program unique. Students and university leadership across Canada are leveraging more than \$1 million every year to make the program possible," says Barbara Levine, director of Canadian Programs and Partnerships at the WUSC office in Ottawa. "This program helps activate the human and intellectual resources of the university, especially the capacity and commitment of Canadian students, and it also goes towards helping Canada meet its international obligations in terms of refugee resettlement."

A recent impact study of participants in the

program between 1978 and 2000 found that both sponsored students and volunteers with the local committees have significantly higher rates of civic participation and leadership, including volunteering, membership in civic organizations, and political participation, than the average Canadian citizen. For Levine, that means that the program is achieving its goals.

"We do not see the student refugee program as an end in itself," she explains. "It has always been about creating opportunities for people to understand their responsibilities as global citizens. It's about creating active citizens who understand that their obligations go beyond their immediate family and local community."

With UBC placing a high emphasis on promoting global awareness and citizenship, Levine sees inspiring opportunities for WUSC to work with the UBC administration.

"We're very excited about the initiatives that UBC has taken around global citizenship, and we look forward to working together," says Levine. "There are real challenges for universities in terms of what internationalization means, because it's about transforming our institutions and transforming ourselves to be better, more engaged citizens of the world." □

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The first co-development project on the UBC campus, Hawthorn Green, is now underway. 10 townhouses are being 'co-developed' by 10 enterprising faculty and staff members. The group has appointed UBC Properties as Project Manager.

Following this success, a second co-development group is now evolving. Plans are being formulated for a larger townhouse development to be situated adjacent to a new park and close to the Hawthorn Place Community Centre.

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New Treatment for Hand Burns

Vacuum replaces cream. BY HILARY THOMSON

A third-year medical student has conducted the first Vancouver study of the effectiveness of vacuum therapy for acute hand burns.

The therapy, called vacuum assisted closure method (V.A.C.®), replaces traditional anti-infective creams by using a device that applies negative pressure – or suction – to the wound to remove pus, other fluids and dead cells while promoting healing.

Student researcher Brain Kai compared the method with the traditional treatment as part of a multicentre North American trial.

“The results seen in our first patient were very promising,” says the 25-year-old.

“The patient had less redness, numbness and scarring than his other hand that was treated with medicinal cream.”

Kai says the hardest part of the project was explaining the trial concept and procedures to the patient and reassuring him that the treatment was safe even though it had never been attempted on hand burns.

Kai presented his research to residents in UBC's division of plastic surgery and hopes to enroll more patients in the study.

The project was supervised by Dr. Peter Lennox and research co-ordinator Wendy Cannon. □



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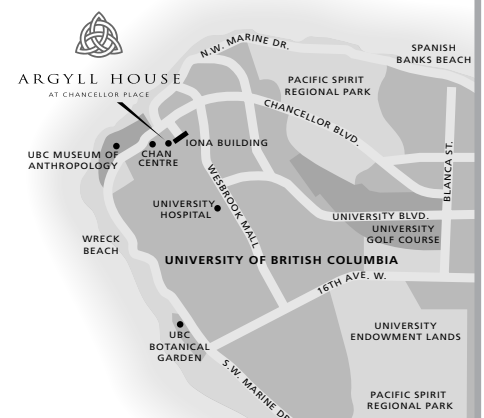
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