



Photo by Media Services

**Happy Holidays!**

It's time to deck the halls once again as UBC prepares for the holiday season. Liz Howard, a volunteer at the UBC Botanical Garden, displays some of the Christmas decorations now on sale at the Shop-in-the-Garden.

## University protests fee on student loans

By GAVIN WILSON

UBC's Board of Governors has added its voice to those asking that the federal government revoke a three per cent administrative fee on Canada Student Loans.

The new fee, approved in August to help the federal government recoup losses on defaulted student loans, has been widely criticized by student financial aid offices across the country.

The board decided to take the action at its November meeting, following a similar motion by UBC's senate earlier in the month.

About 7,000 UBC students depend on loans to help them cover the expenses of attending university.

The fee, which can be as much as \$107, is payable only on the federal portion of student loans.

# New skills urged for biotechnology grads

By GAVIN WILSON

Universities should give basic business training to graduate students in biotechnology, private sector representatives told a recent conference on biotechnology and industry held at UBC.

"What we need from universities, as well as innovative basic research, is a generation of extremely well-trained researchers," said John Vose, assistant vice-president of technology development at Connaught Laboratories Ltd., a French-owned manufacturer of vaccines that began as a University of Toronto spin-off company.

Vose was speaking at the first UBC Biotechnology Industry Day, sponsored by the offices of the Associate

Vice-President of Research for the Health Sciences and University-Industry Liaison.

The event was held to acquaint university researchers with the needs and expectations of biotechnology companies. Speakers addressed issues such as intellectual property and legal issues, clinical evaluation, commercialization and basic and developmental research.

Vose said the most significant contributions universities can make to the biotechnology industry are creative, innovative ideas, leading edge research and technological breakthroughs.

But he said it also important that graduate students receive training in basic management and business skills, as well as communications. In the

private sector, they need to be flexible in order to function well in teams, Vose said.

Werner Wolf, vice-president of research and development for the German company Boehringer Mannheim GmbH, agreed graduates need better communications skills to cope with the teamwork-oriented private sector.

Wolf said that academic programs and training do not promote the interpersonal skills needed in situations where "other people are depending on you and you are depending on other people."

Other speakers, including Julia Levy, who is acting president of Quadra Logic Technologies Ltd. and holds an industrial fellowship in UBC's Microbiology Department, said the

regulatory complexities and astronomical costs of developmental research make for a very different research environment, especially in the pharmaceutical industry.

"Those of us coming from the university environment and who think that it's easy or a simple process to commercialize something you've developed have a lot of learning to do. It's a very humbling experience," she said.



Photo by Media Services

Julia Levy speaks at biotechnology conference.

"The cost of doing the developmental aspects of the research are mind-boggling."

See **Entrepreneurial** on Page 2

## Inside

**VACCINE FORTHCOMING:** UBC researchers are hot on the trail of a vaccine for a major parasitic disease. *Page 2*

**THE WORLD OF THE STAGE:** A behind-the-scenes look at the recent production of *Romeo and Juliet*. *Around & About, page 3*

**VANISHING LANGUAGES:** Linguists mix science and humanities in studying Native languages. *Forum, page 8*

# National study calls for HIV housing

By CONNIE FILLETTI

The availability of adequate housing for persons with HIV reduces the risk of transmission of the disease in the community, a national study has concluded.

But a critical need for suitable accommodation still exists for Canadians infected with the HIV virus, the study said.

"Housing plays an integral role in both health protection and health promotion," said Sharon Manson Willms, principal investigator of the study, who also is a faculty associate with

UBC's Centre for Human Settlements and a professor in UBC's School of Social Work.

"For persons with HIV infection, both health protection and health promotion strategies are needed in order to prevent further transmission of the disease."

The creation of a federally funded disability pension, payable to persons with HIV infection, new housing funding, improvements to home care support services and reduction of waiting lists for entry into care facilities are among the survey's 25 recommendations.

A total of 152 interviews, in 22 com-

munities across Canada, were conducted between August, 1990 and March, 1991. The study is the first to examine the housing needs of persons with HIV.

The research team included Michael Hayes, a geography professor at Simon Fraser University and David Hulchanski, a professor of social work at the University of Toronto.

Homosexual men, hemophiliacs, women with HIV, injection drug users and sex trade workers were surveyed. Only hemophiliacs reported having few housing-related problems.

Young injection drug users are the

least served by existing services, the report said, followed by women with children, and persons who were impoverished before testing positive for HIV infection.

Fourteen specialized housing projects targeted exclusively at persons with HIV were identified by the survey. They ranged from rooming houses, with no support services, to hospice accommodation with full medical staffing. The majority are located in B.C., Ontario and Quebec.

The study was funded by Health and Welfare Canada.

# Scientists closer to vaccine for 'Gulf War' disease

By CONNIE FILLETTI

A team of UBC researchers is a step closer to developing a vaccine for leishmania, one of the world's major parasitic diseases.

"We have identified one of the main antigens involved in the immune response to leishmania," said Rob McMaster, an associate professor of Medical Genetics, and principal investigator of the study. "It may form part of a future vaccine."

Symptoms of leishmania range from simple, self-healing skin ulcers to severe, life-threatening fever, anemia and suppression of the immune system.

McMaster has been analysing the biology of the leishmania parasite, and the immune response to it since 1985, in an attempt to assess potential vaccines. He is working in collaboration with Dr. Neil Reiner, an associate professor of Medicine in UBC's Department of Infectious Diseases, and with laboratories in Nairobi, Brazil, London and Seattle.

The World Health Organization (WHO) reported an estimated 12 million cases of leishmania in 80 countries throughout Africa, the Middle East and Central and South America last year. The organization identified another 350 million people as being at risk.

WHO estimates the actual number of cases

to be three to five times higher as the disease is prominent in remote areas, and in poor countries where other health problems are of higher priority.

Although the disease is not endemic to North America, cases among U.S. military personnel returning from the Gulf War were discovered recently by the American Red Cross. No incidence of infection among Canadian troops has been reported.

Approximately 20 species of leishmania are known to infect humans. It is contracted through the bite of infected female sandflies which have fed from animals or humans carrying the disease. The parasite infiltrates the white blood cells, or immune cells, where it then reproduces. Apart from blood transfusions, leishmania is not infectious.

The most common form of the disease is found in Africa and Asia, and manifest as skin lesions, which frequently heal without treatment. Although permanent scarring occurs, it immunizes its victims to further infection with the same type of leishmania. It does not, however, immunize against different species of the parasite.

The most lethal form of the disease, known as visceral leishmania, is most commonly found in India and the Sudan. Antimony, a heavy



Rob McMaster heads a team of researchers working on a vaccine for leishmania.

metal drug which is hard on the internal organs and can be extremely poisonous, is currently the only treatment for this type of the disease, which affects the liver and spleen.

McMaster said a vaccine for leishmania is still several years from being developed. The research team is being funded by the Medical Research Council of Canada and WHO.

## Projects to manage Pacific resources

By ABE HEFTER

UBC has been called upon by the Canadian International Development Agency (CIDA) to play a significant role in the management of the vast ocean resources in the Pacific Rim.

A group of projects, collectively called Asia Pacific Ocean Cooperation (APOC), has been established to help resolve political, environmental, economic, legal and strategic issues in the Pacific Rim.

"APOC is an umbrella project that brings together three established bodies to ensure a more cohesive approach to the management of ocean resources in the Pacific," said Economics Professor Gordon Munro, chair of one of the networks, the Pacific Economic Cooperation Conference (PECC) Task Force in Fisheries Development.

The other two bodies are the South China Sea (SCS) informal working group, chaired by Law Professor Ian Townsend-Gault, director of UBC's Centre for Asian Legal Studies, and the South East Asia Program for Ocean Law and Policy (SEAPOL), which will be chaired by University of Victoria Professor Douglas Johnston of the Centre for Asia-Pacific Initiatives.

Munro said the Pacific Rim is characterized by a variety of countries of different size and different levels of

economic development.

"Bringing about effective, co-operative management of the region's ocean resources provides an immense challenge often made more difficult by conflicting jurisdictional claims," Munro said.

Townsend-Gault pointed out that the islands in the South China Sea, for example, represent a major threat of war and are in an area of inevitable conflict.

"The confidence shown in Canada's expertise in ocean development — and UBC in particular — has advanced this country's role in encouraging international co-operation," said Townsend-Gault.

"The South China Sea area urgently requires this sort of initiative, and the countries concerned are part of the project."

UBC will be responsible for the overall management and co-ordination of all project activities. The university will work directly on the PECC Task Force and the SCS. The University of Victoria will be responsible for SEAPOL, where it is already established.

The project is funded by CIDA with a budget of \$3.9 million. The project duration is three years for SCS and SEAPOL and five years for the PECC Task Force.

**United Way**

The 1991 UBC campus United Way campaign still needs your help to reach this year's goal of **\$280,000**. To date, **\$260,000** has been raised. Cash contributions and pledges through payroll deduction may be made until Dec. 31. Please support the United Way of the Lower Mainland, a leader in helping those in need. For more information, call Ellis Courtney at 822-6192.

## Srivastava starts second term as V.P.

By CONNIE FILLETTI

K. D. Srivastava has been appointed to a second four-year term as vice-president, student and academic services.

Srivastava joined UBC in 1983 as head of the Department of Electrical Engineering in the Faculty of Applied Science. He was first appointed to the office of vice-president, Student and Academic Services, in 1987.

Prior to joining UBC, Srivastava spent 17 years at the University of Waterloo in Ontario as a professor of electrical engineering. He also served in various academic and administrative positions with the university.

As vice-president, Student and Academic Services, Srivastava is responsible for 15 units, including the Library, Athletics and Sport Services, Women Students' Office, the Disability Resource Centre, UBC Press and the Registrar's Office.

"I think the campus now views these units, which provide the infrastructure for many valuable services, as a critical component to the university, and as having a high priority with the administration," he said.

Srivastava believes that continuing to improve the quality of service provided by these units must be kept at the forefront.

"The units are becoming more conscious that service and quality of service is of great importance to the campus," he said.

"To ensure high standards for themselves, they need to collaborate with one another and with other units on campus. Constant feedback from the campus community and periodic review of their efforts to authenticate the service they are providing are also necessary."

Other top priorities Srivastava has identified include strengthening the liaison function between his office and student groups on campus, such as the Alma Mater Society and the Graduate Students Society, and improving UBC's information, data, communications and computing infrastructure.

Srivastava said he was honored to accept a second term, which runs until December, 1995, and was looking forward to continuing in what he described as a "challenging" job.



APOC chairs Ian Townsend-Gault, left, and Gordon Munro.

## Entrepreneurial spirit needed for developmental research

Continued from Page 1

Levy said a pharmaceutical company can spend anywhere from \$100 to \$200 million to develop a product. They then expect a reasonable return within a couple years of introducing the product.

Charles Gray, scientific affairs manager of the Seattle-based company Zymogenetics, said it can take 12 years to bring a new drug from the first basic research to the marketplace, largely due to clinical trials and the regulatory approval process.

Because of the time and cost involved, developmental research

must be market-driven, several speakers said.

"The goal of developmental research is the product," said Wolf. "You have to be focused — don't go chasing after scientific rabbits."

University researchers were also warned to become more aware of patent protection.

"As an academic, the first thing you want to do is talk about your new discoveries, but when in doubt, you should try to protect yourself," said Levy.

Gray said his company likes to work with universities that

have an up-to-date intellectual property philosophy. Familiar with research being conducted at many universities, he said UBC "stacks up very favorably" with other institutions.

"But you're missing a little bit of the entrepreneurial spirit," he said.

Bernie Bressler, UBC's associate vice-president of research for the Health Sciences, said \$11 million in clinical trials were conducted at the university and its affiliated teaching hospitals this year, and plans are to double or triple that figure in the next few years.

# Campus hours change for the holiday season

'Tis the season — for revised hours of operation for UBC buildings and services during the holidays.

All UBC libraries will be closed Dec. 25, 26 and Jan. 1. Normal hours resume Jan. 6, Jan. 2 for Woodward and Hospital Libraries.

From Dec. 19-Jan. 5, the following libraries will be open from 9 a.m.-5 p.m. weekdays:

Asian, Crane, Curriculum Lab, Fine Arts, Government Publications, MacMillan, Main, Map, Music, Sedgewick, Social Work, Special Collections, and Wilson Recordings.

In addition, the Crane Library will be closed from Dec. 21-Jan 6; the Data Library will be open from 9 a.m.-4 p.m. weekdays; the Law Library will be open from 9 a.m. to 5 p.m. weekdays, except Dec. 19 when it will be open from 8 a.m.-11 p.m. and Dec. 20 when it will be open from 8 a.m. to 5 p.m.; the Math Library will be open weekdays from 2 p.m.-

5 p.m.; the Social Work Library will be open from 9 a.m.- 8 p.m. Dec. 19; and the Woodward Library will be open from 9 a.m.-5p.m. weekdays from Dec. 19-Jan.1, 8 a.m.-10 p.m. Jan. 2, 8 a.m.-6 p.m. Jan. 3, and noon-6 p.m. Jan. 4-5.

Hours at the Museum of Anthropology will stay the same during the holidays. The museum is open Tuesday's from 11 a.m. -9 p.m. and Wednesdays through Sunday from 11 a.m.-5 p.m. The museum is closed Mondays and will be closed Christmas Day and Boxing Day.

The Thunderbird Winter Sports Centre will close for Christmas Eve, Christmas Day, Boxing Day, New Year's Eve and New Year's Day.

Swimmers should note the Aquatic Centre will be closed Christmas Day and Boxing Day, as well as Jan. 1 and Jan. 5. There will be public swimming Jan. 2-4 from noon to 4 p.m. and 7-10 p.m.

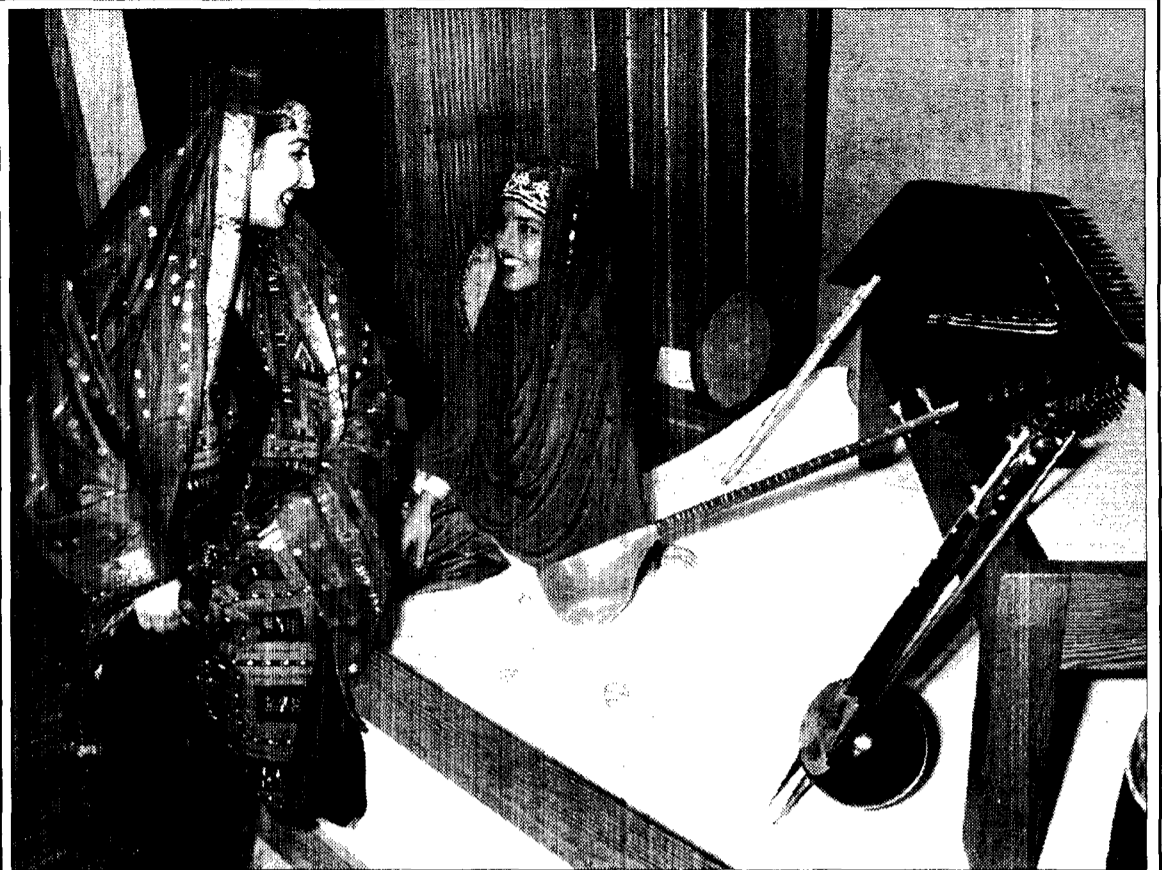


Photo by Media Services

## Persian Festival

Shiva Salimkhani, left, and Nazgol Deravian wore traditional dress to the recent Festival of Persian Culture. A display of musical instruments was one of the many attractions at the Asian Centre event.

# Around & About

## Backstage with Romeo and Juliet

By RON BURKE

UBC's Theatre Department had a definite hit on its hands with the recent sold-out run of *Romeo and Juliet*. But like a swan gliding across a lake, the polished and apparently effortless performance 6,500 people saw on stage was the result of some serious paddling going on just out of sight.

It's 7 o'clock on a November night at Frederic Wood Theatre. Onstage, actors are warming up, a process involving anything from reciting lines, to singing, to playful wrestling.

Backstage, staff technician Rob Moser checks the air pressure in a tank inside one of the set pieces. Compressed air is used to raise and lower the casters under one of the pieces, which will be moved many times during the show.

The technical resources of Freddy Wood theatre may not be state-of-the-art, but the set for this play has caused much excitement. Master's of Fine Arts candidate Cricket Price has designed the innovative set as her thesis, and crew and cast are impressed by the results. Instructors are pleased that the theatre program has produced student work of this calibre.

With rehearsals over and the play up and running, producing the show each night is an all-student affair, except for Moser's presence. Director Neil Freeman, a Theatre professor, and technical director Ian

Pratt, a Theatre instructor, only occasionally attend performances once the show has opened. Cast and crew are expected to draw on their training to deal with the inevitable crises that arise during any production.

Responsibility for making the show run each night falls to stage manager Pamela Jakobs, a third-year Bachelor of Fine Arts (BFA) student. If one of the leads comes down with laryngitis, or the revolving stage stops revolving, she must deal with the situation.

### Producing the show each night is an all-student affair.

In a booth above the audience, Jakobs prepares to call the show. During the next three-and-a-half hours, she will give almost 200 cues over the headset to direct the technical crew's sound and lighting changes and call the actors from their waiting room.

As the curtain rises, second-year BFA student Tanya Dargel stands in the wings, ready to go onstage in her first role at Frederic Wood Theatre. Like all BFA students, she spent her first year of the program watching, learning, practising, but not appearing in a mainstage production. Now she waits, slightly nervous, but mostly excited about putting to use the acting skills she has worked to develop.

Certain moments in the play stand out for the audience, or crew, or both.

Final-year BFA student Kelly Aisenstat steals one scene when he unflatteringly mimics various unseen characters' physical attributes. The audience roars with laughter and claps its approval.

The sword fight just before intermission draws many of the uninvolved actors to the wings to watch, even though they've probably seen it a dozen times before. The menacing rasp and clang of the swordplay, choreographed by professional fight director Tony Simotes, are precise and convincing.

Students are also involved in much of the costume and props preparation. Theatre staff members design these elements and supervise their production, but students are encouraged to pitch in on various shows to learn the different theatre skills.

During the final scene, third-year BFA student Tom Scholte, as Romeo, paces in the wings. He is preparing for the death scene by focusing himself and regulating his breathing, so that he will give full value to each line, and not peak too soon. Scholte refers to this as "completion of impulse." Just as each play in a football game must be complete unto itself, a theatre production's overall success depends on properly executing each individual segment.

A few minutes later, the cast takes its bows and heads offstage, buzzing with the rush of another successful performance.

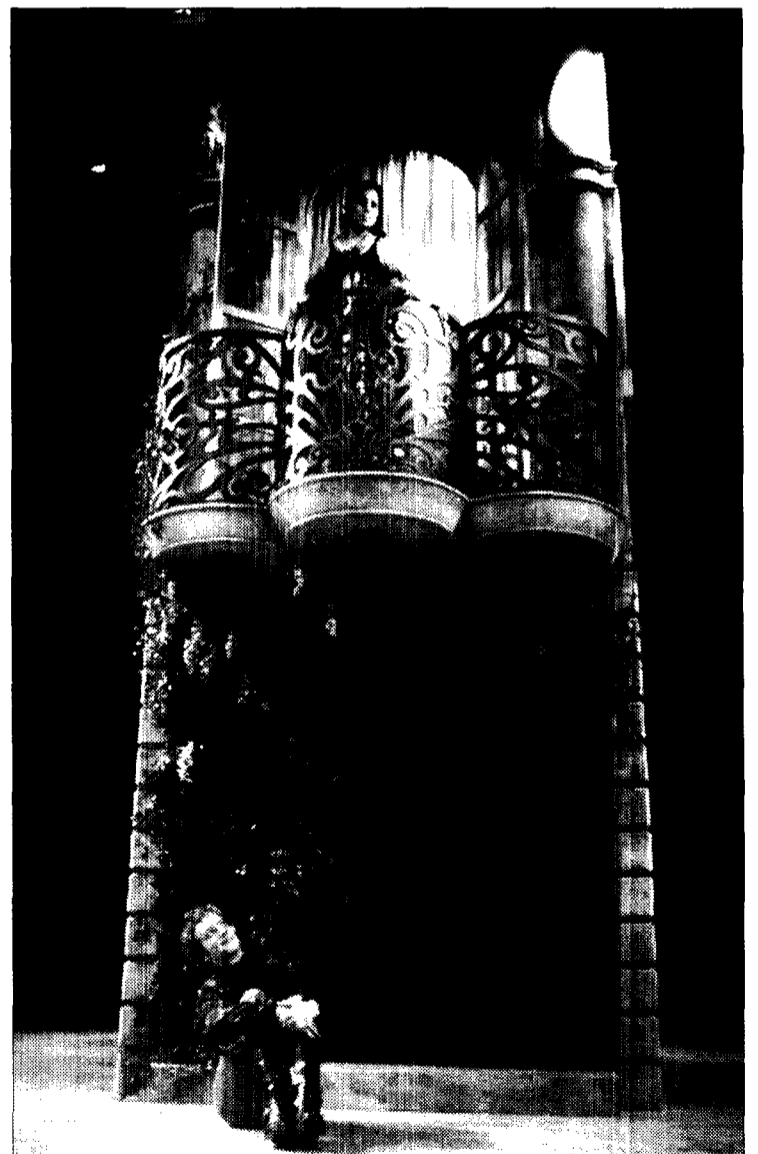


Photo by Chris Gallagher

Tom Scholte and Laara Sadiq perform the famous balcony scene.

November also marked the close of Norman Young's career in the Department of Theatre. Young joined the department in 1960 as technical director and became a well-known figure on campus. To quote from a tribute in the program guide to *Romeo and Juliet*, "His influence will remain

here at UBC but his presence will be missed."

Similar sentiments might be expressed about Young's chum Norman Watt, director of Extra-Sessional Studies and another long-time campus figure, who also retired in November.

December 15 –  
January 11**MONDAY, DEC. 16****Biostatistics Research Group Seminar**

Testing For Homogeneity Of Proportions In The Presence Of Clustering. Prof. Allan Donner, Epidemiology/Biostatistics, U. of Western Ontario. Angus 223 at 11am. Call 822-2829/2234.

**Chemistry Visiting Scientist Lecture**

Investigations Of The Biosynthesis/Metabolism Of Nucleosides. Dr. Ronald Parry, Chemistry, Rice U., Houston, TX. Chemistry 225, Centre Block at 11:30am. Call 822-4511.

**Biochemistry Discussion Group Seminar**

Protein—Protein And Protein—DNA Interaction Involved In Mu DNA Transposition. Dr. George Chaconas, Biochemistry, U. of Western Ontario. IRC #1 at 3:45pm. Call Dr. Ivan Sadowski at 822-5205.

**TUESDAY, DEC. 17****Medical Genetics Seminar**

Approach To Identifying Gene Products Expressed During Development In The Visual Cortex. Shiv Prasad, PhD, Ophthalmology. IRC #1 from 4:30-5:30pm. Refreshments at 4:15pm. Call 822-5312.

**WEDNESDAY, DEC. 18****Surgery Grand Rounds**

Alternative Therapies For Peripheral Atherosclerosis. Drs. Y. Hsiang, A.J. Salvian and J.D.S. Reid, all Surgery. G.F. Strong Rehab. Centre at 7am. Call 875-4136.

**Rehabilitation Medicine Lunch Hour Lecture**

A Mother's Work: A Feminist Perspective On Home Health Care For A Child With Chronic Disability. Gelya Frank, PhD, associate professor, Occupational Therapy, U. of Southern California. University Hospital, UBC Site's Koerner Pavilion, floor 3, lab 8 from 12:30-1:20pm. Call 822-7399.

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Please  
recycle**CALENDAR DEADLINES**

For events in the period January 12 to January 26, notices must be submitted by UBC faculty or staff on proper Calendar forms no later than noon on Monday, December 30, to the Community Relations Office, Room 207, 6328 Memorial Rd., Old Administration Building. For more information call 822-3131. The next edition of UBC Reports will be published January 9. Notices exceeding 35 words may be edited. The number of items for each faculty or department will be limited to four per issue.

**Physiology Seminar Series**

ANP And The Circulatory System. Dr. R. Woods, Baker Institute, Melbourne, Australia. IRC #4 at 3pm. Call Dr. A Buchan at 822-2083.

**THURSDAY, DEC. 19****Alumni Association Christmas Event**

Enjoy refreshments at Cecil Green Park and bring along a donation to the Food Bank. CGP from 2-5pm. Call 822-3313.

**FRIDAY, DEC. 20****Obstetrics/Gynaecology Grand Rounds**

Shaughnessy Hospital Morbidity And Mortality Review. Dr. John Booth; Dr. Dale Steele. University Hospital, Shaughnessy Site D308 at 8am. Call 875-2171.

**Pediatrics Resident Case Management**

TBA. Dr. Carolyn Davis, co-chief resident. G.F. Strong Rehab. Centre at 9am. Call A.C. Ferguson at 875-2118.

**Mechanical Engineering Oral Exam**

Qualitative Description Of The RMP Process. Christine Forget, MEngineering candidate. Pulp/Paper Centre 101 at 9:30am. Call 822-3238.

**FRIDAY, DEC. 27****Paediatrics Grand Rounds**

Cancelled. Call 875-2118.

**FRIDAY, JAN. 3****Paediatrics Grand Rounds**

Cancelled. Call 875-2118.

**TUESDAY, JAN. 7****International Resource Management Seminar**

Beijing-Imperial City Of Capitalist Capital-Planning For Sustainability In A Metropolitan Area. Prof. A. Laquian, director, Centre for Human Settlement. Library Processing Centre Seminar Room, 4th Floor from 12:30-2pm. Call 822-4401.

**Theological Evening Lecture**

Reading The Bible From The Underside. Dr. Rene Padilla, general secretary, Latin American Theological Fraternity, Buenos Aires, Argentina. Regent College Main Floor Auditorium from 8-9:30pm. Call 224-3245.

**WEDNESDAY, JAN. 8****Geography Colloquium**

Planning As The Framework Of Power. Margo Huxley, senior lecturer, Royal Melbourne Institute of Technology, Melbourne, Australia. Geography 201 at 3:30pm. Refreshments at 3:25pm. Call 822-2985/2663.

**Classics Illustrated Lecture**

Sevilla La Nueva: A Spanish Settlement On Jamaica (1509-1534). Robyn Woodward, Vancouver project director. The Vancouver Museum at 8pm. Call 822-5484.

**THURSDAY, JAN. 9****Physics Colloquium**

New Results From The Gamma Ray Observatory. Don Kniffen, NASA. Hennings 201 at 4pm. Call 822-3853.

**FRIDAY, JAN. 10****Biotechnology Seminar**

Introduction To Fuzzy Logic. Dr. Yu Qian, post doctoral fellow, Pulp/Paper Centre. ChemEngineering 206 at 3:30pm. Call 822-3238.

**NOTICES****Botanical Gardens Christmas Sale**

Green/dried wreaths, gifts for family and friends, books, tools, baskets and pots. Shop-In-The-Garden daily from 11am-5pm. Call 822-4529.

**UBC Speakers Bureau**

Would your group like to know more about topics ranging from Literature in British Columbia to Forest Regeneration? More than 300 topics to choose from. Call 822-6167 (24-hr. ans. machine).

**Graduate Student Centre**

Live entertainment every Friday in the Fireside Lounge from 8-11pm. Call 822-3203.

**Carpool Matching**

A service for faculty, staff and students. Call Karen Pope, Dean's Office, Applied Science at 822-3701 and find your area match.

**Call For Former UBC Athletes**

Athletics is updating its mailing list of former athletic team players: originators/contributors to programs in place today. If you qualify or are knowledgeable in the location of any other past player, call 822-8921 after 4:30pm.

**Portuguese Map Exhibit**

Under the auspices of the Portuguese consulate and presented by Hispanic/Italian Studies: Portuguese Cartography And The Construction Of The Image Of The World. Opens Dec. 19 at 2pm in the Asian Centre Gallery; introductory remarks by Dr. Alfred Siemems, Geography. Continues until Jan. 10. Call 822-2268.

**Piano Masterclass/Recital**

Leon Fleisher, piano. Music Recital Hall on Sat., Jan. 11 at 7pm and Sun., Jan. 12 at 2pm. Call 822-5574.

**Fine Arts Gallery**

Open Tues.-Fri. from 10am-5pm. Saturdays 12pm-5pm on. Free admission. Main Library. Call 822-2759.

**Health Sciences Bookshop Open Saturday**

The Bookshop is open Mon.-Sat. from 9:30am-5pm in the Medical Student/Alumni Centre at Heather and 12th Ave. Call 879-8547.

**Executive Programmes**

Two day business seminar, Dec. 18-19: Optimizing Warehouse Operations. \$895. E.D. MacPhee Executive Conference Centre. Call 822-8400.

**Statistical Consulting/Research Laboratory**

SCARL is operated by the Department of Statistics to provide statistical advice to faculty and graduate students working on research problems. Forms for appointments available in Ponderosa Annex C-210. Call 822-4037.

**Dentistry Treatment Program**

Participants with no natural teeth of their own needed for complete denture treatment. Patients accepted will be treated next Feb.-May. Call 822-5668, Mon.-Fri. from 10am-3pm, (excluding Dec. 23-Jan.6).

**Muscle Soreness Study**

Volunteers, ages 20-45 yrs. required for a study of muscle soreness after exercise. If you primarily walk as a form of exercise, or are not exercising at present, call Donna MacIntyre at Rehab Medicine, 822-7571.

**High Blood Pressure Clinic**

Volunteers (over 18 years) needed, treated or not, to participate in clinical drug trials. Call Dr. J. Wright or Mrs. Nancy Ruedy in Medicine at 822-7134.

**Seniors Hypertension Study**

Volunteers aged 60-80 years with mild to moderate hypertension, treated or not, needed to participate in a high blood pressure study. Call Dr. Wright or Nancy Ruedy in Medicine at 822-7134.

**Drug Research Study**

Male and female volunteers required for Genital Herpes Treatment Study. Sponsoring physician: Dr. Stephen Sacks, Medicine/Infectious Diseases. Call 822-7565.

**Heart/Lung Response Study**

At rest and during exercise. Volunteers age 45-75 years, all fitness levels, required. No maximal testing. Scheduled at your convenience. Call Fiona Manning, School of Rehab. Medicine, 822-7708.

**Lung Disease Study**

Subjects with emphysema or fibrosis needed to investigate means of improving lung function without drugs. Call Fiona Manning, School of Rehab. Medicine, 822-7708.

**Counselling Psychology Research Study**

Clerical workers needed to participate in a study on work and stress. Involves completion of one questionnaire a month for three months. Call Karen Flood at 822-9199.

**Memory/Aging Study**

Participants between the ages of 35-45 years or 65 and over needed for study examining qualitative changes in memory. Kenny 1220. Call Paul Schmidt in Psychology at 822-2140.

**Retirement Study**

Women concerned about retirement planning needed for an 8-week Retirement Preparation seminar. Call Sara Comish in Counselling Psychology at 931-5052.

**Personality Study**

Volunteers aged 30 or more needed to complete a personality questionnaire. Required, 2 visits, about 3 hours total. Participants receive a free personality assessment and a \$20 stipend. Call Janice in Dr. Livesley's office, Psychiatry, Detwiller 2N2, 822-7895.

**PMS Research Study**

Volunteers needed for a study of an investigational medication to treat PMS. Call Doug Keller, Psychiatry, University Hospital, Shaughnessy Site at 822-7318.

**Dermatology Acne Study**

Volunteers between 14-35 years with moderate facial acne needed for 4 visits during a three month period. Honorarium paid. Call Sherry at 874-8138.

**Sun-Damaged Skin Study**

Participants needed between ages of 35-70 for 9 visits over 36 weeks. Not to have used retinoids for the past year. Honorarium will be paid. Call Sherry in Dermatology at 874-8138.

**Eczema Study**

Volunteers 12 years of age or older needed for 4 visits over a three week period. Honorarium paid. Call Sherry in Dermatology at 874-8138.

**Stress/Blood Pressure Study**

Participate in UBC Psychology research and learn how your body responds to stress. Call Dr. Wolfgang Linden at 822-3800.

Calendar continued on page 7



# CAPITAL PLAN 1991/92 - 2000/01

## 100% PROVINCIAL GOVERNMENT FUNDING

### MAJOR CAPITAL PROJECTS

#### 1. CENTRE FOR INTEGRATED COMPUTER SYSTEMS (Research/Computer Science)

This facility will provide space for the primary academic computing units: the Departments of Computer Science and Electrical Engineering, and the Centre for Integrated Computer Systems Research. Increased external research funding will facilitate collaborative research among several university departments. The facility will enhance research efforts by providing space for projects involving the university and industrial partners.

Project Budget: \$18,000,000  
Furniture Equipment: \$1,750,000  
Design Date: 1990-04-01  
Tender Date: 1991-09-01  
Construction Date: 1991-10-01  
Original estimate of \$15.1 million (September 1988 dollars) inflated at 0.8% per month to September 1990. No further inflation shown. Project cost excludes furniture and equipment cost. Occupancy date 1993.

#### 2. TRI-UNIVERSITY WASTE DISPOSAL FACILITY (Incinerators)

This facility will provide controlled disposal service to SFU, UVic and UBC for handling of liquid and pathological wastes. Outdated existing incinerators will be replaced by two "state-of-the-art" units capable of safely and efficiently burning the noted wastes. Effective stack scrubbers are included in the project so that all contaminants will be removed from stack effluent.

Project Budget: \$5,500,000  
Design Date: 1990-04-01  
Tender Date: 1991-09-01  
Construction Date: 1991-11-01  
Original estimate of \$5.0 million (September 1989 dollars) reassessed by quantity survey to July 1991. Project cost inclusive of all major equipment. Occupancy date 1993.

#### 3. ADVANCED MATERIALS AND PROCESS ENGINEERING LABORATORIES

This important facility will provide critical space in which to carry design projects through the process development stages to the industrial prototype level. It will also meet the urgent needs of continuing faculty, technical support staff and graduate students for shared office and laboratory space. The required expensive pieces of capital equipment cannot be justified on the basis of individual research programs or single discipline efforts. In response to the need for interdisciplinary efforts and shared resources, this project would create an adequately equipped multi-disciplinary centre for materials science at UBC. It would include faculty and students from six departments in the Faculties of Science and Applied Science, as well as from TRIUMF.

Project Budget: \$20,380,000  
Furniture Equipment: \$1,821,000  
Design Date: 1991-07-01  
Tender Date: 1992-07-01  
Construction Date: 1992-09-01  
Original estimate of \$17.1 million (September 1988 dollars) inflated at 0.8% per month to September 1990. No fur-

ther inflation shown. Project cost excluding furniture and equipment cost. Occupancy date 1994.

#### 4. SCARFE BLDG. (Expansion/Renovation Phase I)

An addition to the Scarfe Building is urgently required to replace substandard temporary buildings presently occupied by the Faculty and to consolidate activities presently housed in nineteen locations. This new construction must take place ahead of, and concurrently with, renovations and deferred maintenance upgrading to the Scarfe Building in order to allow for functional and cost effective development. Deferred maintenance and renovation costs associated with this project are included in Phase II.

Project Budget: \$12,000,000  
Design Date: 1991-07-01  
Tender Date: 1992-09-01  
Construction Date: 1992-11-01  
Phase I only (September 1991 dollars). Furniture & equipment costs to be determined. Occupancy date 1995.

#### 5. PACIFIC RESEARCH CENTRE FOR FOREST SCIENCES (Research and Education)

Expanded facilities for Forestry and related Sciences at UBC will accommodate new areas of research and education such as timber engineering, harvesting robotics and remote sensing by satellite. Programs housed in this facility will develop interests in forestry research among faculties and with industry and government agencies. The Pacific Centre will place UBC in a world class position in Forestry and related sciences.

Project Budget: \$43,840,000  
Design Date: 1992-04-01  
Tender Date: 1993-09-01  
Construction Date: 1993-12-01  
Original allowance of \$40 million (September 1989 dollars) inflated at 0.8% per month to September 1990. No further inflation shown. Furniture and equipment costs to be determined. Occupancy date 1996.

#### 6. JACK BELL RESEARCH LABORATORIES (Interior Finishing) (Previously included under general heading of Health Sciences Facilities)

Unfinished space is being provided at Vancouver General Hospital for medical research by UBC departments and staff. The space is currently being constructed and funds to furnish and equip the space are urgently required. Current UBC policy suggests that funds to complete this space should flow through the university side of the partnerships and hence from the Ministry of Advanced Education. This will be the only space provided by UBC at the VGH site.

Project Budget: \$6,375,000  
Design Date: 1992-04-01  
Tender Date: 1992-06-01  
Construction Date: 1992-08-01  
Project cost inclusive of all major equipment. Estimates are in September 1991 dollars. Occupancy date 1994.

#### 7. SCARFE BLDG. EXPANSION/RENOVATION (Phase II)

This is a continuation of the project that began in 1991.

Project Budget: \$8,000,000  
Design Date: 1992-04-01

Tender Date: 1994-05-01  
Construction Date: 1994-07-01  
Allowance for phase II. During the Phase I studies, this allowance will be tested and adjusted according to conditions found. Occupancy date 1995.

#### 8. BIOTECHNOLOGY LABORATORY (Phase II)

This facility is required in order to accommodate activities presently located in substandard space and requiring expansion. Proposed area of project is 5800 m<sup>2</sup> of construction adjacent to and over an existing building.

Project Budget: \$18,500,000  
Design Date: 1993-04-01  
Tender Date: 1994-04-01  
Construction Date: 1994-06-01  
This allowance of \$18.5 million (September 1991 dollars) is based on knowledge gained from our recent NCE/Bookstore project. Estimates for furniture and equipment to be determined. Occupancy date 1995.

#### 9. CHEMICAL ENGINEERING

This facility is required to address space deficiencies and laboratory requirements of departmental research and teaching activity. Area of the project is estimated to be 3250 m<sup>2</sup> net (1.6 net to gross = 5200 m<sup>2</sup> gross.)

Project Budget: \$15,600,000  
Design Date: 1993-06  
Tender Date: 1994-06  
Construction Date: 1994-08  
Allowance only (September 1991 dollars.) Estimates for furniture and equipment to be determined. Occupancy date 1996.

#### 10. EARTH SCIENCES BUILDING

This facility will be required to replace an existing, seismically deficient building which houses Geophysics and Astronomy, and to accommodate Oceanography. Through providing physical links to the Geology Building, it is anticipated that requirements for teaching, research and support space will lead to the development of an integrated Earth Sciences Centre, including a fully functional observatory. At this time the final area requirements are not known.

Project Budget: \$25,000,000  
Design Date: 1994-04  
Tender Date: 1995-05  
Construction Date: 1995-07  
Allowance only (September 1991 dollars.) Occupancy date 1997.

#### 11. STUDENT SERVICES CENTRE II (Brock Hall)

The facility will be the second phase of the Student Services Centre Project (funded in 1990), and will result in consolidation of all administrative services for students in one location. Phase II is required in order to reconstruct the existing structure (Brock Hall) which cannot be functionally modified in a manner which is economically feasible.

Project Budget: \$9,250,000  
Design Date: 1995-04  
Tender Date: 1996-07  
Construction Date: 1996-09  
Original allowance of \$8.3 million (September 1989 dollars) reassessed to \$9.25 million in September 1991 dollars. Occupancy date 1998.

#### 12. HEALTH SCIENCES FACILITIES

This project will consist of several portions of new construction including space for laboratories, allied Health Sciences and health promotion in several locations, at an assumed cost of \$43 million, including finishing of the Jack Bell Research laboratories. Following development of the new space, there will be significant renovations required through existing Health Sciences space totalling 7500 m<sup>2</sup> (approx. 11250 m<sup>2</sup> gross.) At this time, estimates are not available for this work.

Project Budget: \$36,625,000  
Design Date: 1996-04  
Tender Date: 1997-11  
Construction Date: 1998-01  
Allowance only (September 1991 dollars.) Occupancy date 2000.

#### 13. FACULTY OF LAW EXPANSION

An addition to the Faculty of Law will be required in order to house faculty offices and research and support space, as well as to provide additional teaching facilities. Project based on:

1. Replacement of existing and provision of some new facilities, 4600 m<sup>2</sup>.
2. Renovation of existing facilities, 7000 m<sup>2</sup>, at approximately 25% cost of new facilities.

Project Budget: \$12,700,000  
Design Date: 1997-04  
Tender Date: 1998-06  
Construction Date: 1998-08  
This allowance of \$12.7 million (September 1991 dollars) based on unit costs of new construction global budget of \$2000/m<sup>2</sup>. Occupancy date 2000.

#### 14. INSTRUCTIONAL SPACE

This project will consist of one or more facilities required in order to address the requirement for adequate instructional space appropriately distributed on the campus.

Project Budget: \$5,500,000  
Design Date: 1997-05  
Tender Date: 1998-07  
Construction Date: 1998-09  
Allowance only (September 1991 dollars.) Occupancy date 2000.

#### 15. RESEARCH SPACE

This project will consist of one or more facilities, as yet undefined, which will be required in order to provide additional research space required on the campus.

Project Budget: \$44,000,000  
Design Date: 1998-04  
Tender Date: 1999-07  
Construction Date: 1999-09  
Original allowance of \$40.0 million (September 1989 dollars) reassessed at \$44.0 million in September 1991 dollars.

#### 16. LIBRARY CENTRE (Phase II)

In preparing for Phase I Library Centre development, additional needs were discovered largely due to inadequacies of the Main UBC Library building (itself a collection of four separate structures.) It is now urgent that the UBC Library, a provincial and national resource, be rehoused in more environmentally friendly and functionally effective space. At this time, the problem is known to be large but quantification has only just begun.

# UNIVERSITY OF BRITISH COLUMBIA

## CAPITAL PLAN 1991/92 - 2000/01



Project Budget: \$40,000,000  
Design Date: 1999-04  
Tender Date: 2000-06  
Construction Date: 2000-08  
September 1991 dollars. Occupancy date after 2001.

### 17. BUCHANAN BUILDINGS RENOVATION/UPGRADE (Phase I)

Renovation/upgrading of the five wings and tower of the Buchanan complex is, in part, overdue at this time, and will be an urgent problem by the turn of the century. It is likely that a phased program over eight to ten years will be required to service these facilities for the future. A major first phase should begin as soon as possible.

Project Budget: \$25,000,000  
Design Date: 2000-04  
Tender Date: 2000-07  
Construction Date: 2001-09  
September 1991 dollars. Occupancy date after 2001.

### 18. OLD CHEMISTRY BUILDING RENOVATIONS

Restoration and upgrading of the historic Chemistry Building, located at the heart of the university, is long overdue. Occupancy date of this project will enable the preservation of a principle campus facility, the functional reorganization of its space and the modernization of its services.

Project Budget: \$25,000,000  
Design Date: 2000-04  
Tender Date: 2000-07  
Construction Date: 2001-09  
September 1991 dollars. Occupancy date after 2001.

**Total Project Budget Major Capital Projects: \$371,270,000**

**Total Furniture Equipment Major Capital Projects: \$3,571,000**

## CAMPAIGN PROJECTS

### 1. DAVID LAM MANAGEMENT RESEARCH LIBRARY

This facility will provide space for a specialty library serving the Faculty of Commerce and a research centre. This complex will play a key role in Canadian research, teaching and international trade initiatives.

Project Budget: \$8,224,000  
Design Date: 1989-04-01  
Tender Date: 1990-09-01  
Construction Date: 1991-11-01  
UBC Campaign contribution is \$4.112 million. Provincial government contribution is \$4.112 million. Original estimate of \$6.9 million (September 1988 dollars) inflated at 0.8% per month to September 1990. Project completion expected by March 1992.

### 2. FIRST NATIONS HOUSE OF LEARNING

This facility is intended to consolidate services and programs addressing the needs of Native students on the campus.

Project Budget: \$4,400,000  
Design Date: 1990-09  
Tender Date: 1991-09  
Construction Date: 1991-11  
Original allowance of \$4.0 million (September 1988 dollars) upgraded to \$4.4 million in late 1990. UBC Campaign contribution is \$2.2 million. Provincial government contribution is \$2.2 million. Occupancy date 1992.

### 3. GREEN COLLEGE

This facility will provide residential and resource space for approximately 100 graduate and post doctoral fellows. This complex will play a key role in the development of the university in advanced research and academic initiatives.

Project Budget: \$14,000,000  
Design Date: 1990-09-01  
Tender Date: 1992-04-01  
Construction Date: 1992-06-01

Project allowance of \$14.0 million is expressed in March 1990 dollars. UBC Campaign contribution is \$7.0 million. Provincial government contribution is \$7.0 million. Occupancy date 1993.

### 4. MORRIS AND HELEN BELKIN ART GALLERY

The present UBC Fine Arts Gallery is located in the basement of the Main Library. It consists of approximately 3,000 sq. ft. of low-ceiling display space, with inadequate office, preparation and storage areas. Despite these conditions the gallery has, over the years, provided a valued program of exhibitions for scholars, tourists and the public. With new facilities, the gallery will establish a more visible presence and enlarge its contribution to the cultural life of the university and Vancouver by providing professionally mounted exhibitions. The proposal for new space meets international standards for display, security, care, handling, conservation and storage of materials and artwork.

Project Budget: \$3,000,000  
Design Date: 1991-02-01  
Tender Date: 1992-05-01  
Construction Date: 1992-07-01

Original allowance of \$3.0 million is expressed in 1989 dollars. UBC Campaign contribution is \$1.5 million. Provincial government contribution is \$1.5 million. Occupancy date 1994.

### 5. CREATIVE ARTS CENTRE

Already noted for its creative achievements in writing, theatre, music and fine arts, UBC needs to expand its ability to contribute to the community in both its established fields and in the areas of increasing economic importance to the province, such as film production. Studio space for the Fine Arts, Music and Theatre departments is inadequate. These departments do not have access to appropriate space to meet their specialized needs. A new Creative Arts Centre will provide efficient, centralized space for practice, performance, workshops and instruction.

Project Budget: \$15,700,000  
Design Date: 1991-02-01  
Tender Date: 1992-07-01  
Construction Date: 1992-09-01

Original allowance of \$10.4 million has been revised through program adjustment to \$15.7 million expressed in September 1989 dollars. UBC Campaign contribution is \$7.85 million. Provincial government contribution is \$7.85 million. Occupancy date 1994.

### 6. CHAN SHUN CONCERT AND ASSEMBLY HALL

Currently, the largest facility for performances at UBC is the Old Auditorium, constructed as a temporary building in the 1920s. The new Concert and Assembly Halls will meet the university's needs for ceremonial functions, music and theatre programs. With a capacity of 1,400 seats in the larger house and 700 seats in the smaller house, these facilities will also meet specific needs in Greater Vancouver for

mid-size performance halls, with potential operating cost recovery for the university.

Project Budget: \$13,000,000  
Design Date: 1991-08-01  
Tender Date: 1992-11-01  
Construction Date: 1993-01-01  
Original allowance of \$15.0 million has been revised through program adjustment to \$13.0 million expressed in September 1989 dollars. UBC Campaign contribution is \$6.5 million. Provincial government contribution is \$6.5 million. Occupancy date 1994.

### 7. LIBRARY CENTRE (Phase I)

The UBC Library is a provincial and national resource. As B.C.'s primary research library, it is used extensively by professionals from Simon Fraser University, University of Victoria, teaching hospitals, colleges and schools across the province. The information explosion and the development of collections and new technologies has created an urgent need for additional service and storage space.

Project Budget: \$24,000,000  
Design Date: 1991-10-01  
Tender Date: 1993-01-01  
Construction Date: 1993-03-01

Original allowance of \$24.0 million is expressed in September 1989 dollars. UBC Campaign contribution is \$12 million. Provincial government contribution is \$12 million. Occupancy date 1995.

### 8. INTRAMURAL SPORTS & RECREATION FACILITY

This facility is urgently required to accommodate the extensive intramural activities of the UBC Student Community. It is not intended that this replace existing facilities for high performance athletics.

Project Budget: \$8,000,000  
Design Date: 1992-06  
Tender Date: 1993-06  
Construction Date: 1993-08

Project allowance is \$8.0 million expressed in September 1990 dollars. UBC Alma Mater Society contribution is \$4.0 million and provincial government contribution is \$4.0 million. Occupancy date 1995.

### 9. CENTRE FOR ASIAN PACIFIC STUDIES

This project will include resource and research space required to support programs involving Asian Studies, as well as an expansion of the Asian Library.

Project Budget: \$6,500,000  
Design Date: 1992-10  
Tender Date: 1994-02  
Construction Date: 1994-04

Project estimate is \$6.5 million expressed in June 1990 dollars. UBC Campaign contribution is \$3.25 million. Provincial government contribution is \$3.25 million. Occupancy date 1995.

**Total Project Budget Campaign Projects: \$96,824,000**

## MINOR CAPITAL PROJECTS

### 1. BOTANICAL FACILITIES

There is chronic need for new and upgraded Greenhouses and Environmental Growth Chambers in several areas of the campus. A program of providing a distributed system of new facilities can be implemented over time at a rate of \$1 million per year.

Project Budget: \$1,000,000  
Design Date: 1992-04

Project allowance per year ongoing for ten plus years (September 1991 dollars.) Tender dates and construction starts progressive. Total expected to be approximately \$10,000,000. Completion after 2001.

### 2. ANIMAL SERVICES FACILITIES

There is a chronic need for new and upgraded Animal Care Facilities in several areas of the campus. A program of providing a distributed system of new facilities can be implemented over time at a rate of \$1 million per year.

Project Budget: \$1,000,000  
Design Date: 1992-04

Project allowance per year ongoing for ten plus years (September 1991 dollars.) Tender dates and construction starts progressive. Total expected to be approximately \$10,000,000. Completion after 2001.

**Total Project Budget Minor Capital Projects: \$2,000,000**

## ADDITIONAL PROJECTS

### 1. NATIONAL CENTRES OF EXCELLENCE (Phase I)

Project Budget: \$6,875,000.  
Completed. Occupancy 1992.

### 2. WEST PARKADE

Project Budget: \$10,000,000  
Tender Date: 1991-09  
Construction Start: 1991-11  
Completed. Occupancy 1993.

### 3. RITSUMEIKAN/UBC HOUSE

Project Budget: \$7,100,000  
Completed. Occupancy 1992.

### 4. UNIVERSITY APARTMENTS

Design Date: 1991-10  
Tender Date: 1992-06  
Construction Start: 1992-08  
Completed. Occupancy 1992.

**Total Project Budget Additional Projects: \$31,175,000**

### 5. UNIVERSITY HOUSING

To be determined. Occupancy 1994.

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People

# Schechter wins award for AIDS research

Dr. **Martin Schechter**, associate professor of Health Care and Epidemiology, has been honored with the National Health Scientist Award for AIDS.



Schechter

The award, presented for only the second time, is the highest recognition bestowed by the federal government's National Health Research Development Program for AIDS research.

Schechter's main areas of study are the epidemiology of HIV infection and AIDS, the natural history of HIV infection, and AIDS clinical trials.

The \$120,000 award will provide salary support for junior researchers to work with Schechter over the next two years.



The B.C. branch of the Canadian Society of Hospital Pharmacists (CSHP) recently honored Professor Emeritus **John Hlynka** with a special award for his outstanding contributions to hospital pharmacy and pharmacy education in the province.

Hlynka was instrumental in pioneering sev-

eral major programs in the field, including the hospital pharmacy residency programs in UBC's affiliated teaching hospitals, drug usage review programs and the B.C. Drug and Poison Information Centre.

He was first appointed to UBC as an associate professor in the Faculty of Pharmaceutical Sciences in 1970, became a full professor in 1975 and retired earlier this year.

While serving as the first chair of the Division of Clinical Pharmacy at UBC's Faculty of Pharmaceutical Sciences, Hlynka developed several undergraduate courses for the division, now required of all senior students.

The CSHP provides leadership in all aspects of pharmacy practice in hospitals and related health care settings.

The society promotes the provision of patient-focused pharmacy services, sets standards of pharmacy practice for hospitals, provides continuing training, education and competence assurance programs, and encourages and supports pharmacy-related research in B.C. hospitals.



Animal Science Professor **Robert Blair** has been named co-editor-in-chief of *Animal Feed Science and Technology*, an international scientific journal produced by the publishing house

Elsevier of the Netherlands.

Blair, who recently stepped down as head of the department after seven years, has published more than 200 papers and articles on animal and poultry nutrition during his academic career.

He is a member of several professional societies and served on two U.S. National Research Council committees dealing with animal nutrition. He is a past-president of the western branch of the Canadian Society of Animal Science and is currently president of the World Association for Animal Production.



Field hockey coach **Gail Wilson** has been awarded a 3M Coaching Canada Award for outstanding coaching achievement.

Wilson has guided the women's field hockey team since 1977. The team has won five gold medals, two silver and two bronze at the national championships under her guidance.

Wilson, who is also involved in player development and organization at the local, provincial and national levels, graduated from the



Wilson

University of Toronto in 1968. She came to UBC in 1977 to pursue a Master's degree in physical education.



Commerce and Business Administration Professor **Tae Oum** has been appointed to two international advisory groups.

Oum, chair of the faculty's Transportation Division, will serve as a member of the International Advisory Panel for Korea Telecommunications Authority. The panel was formed in order to prepare for the increasing competition resulting from the opening up of the Korean telecommunications market.

In addition, Oum will serve as a transportation planning advisor for the Netherlands Ministry of Transport and Public Works. He will advise the ministry on evaluating research project proposals on transportation planning.



Oum

## Construction begins on First Nations Longhouse building

By GAVIN WILSON

UBC has awarded the contract for construction of the \$3.3 million First Nations Longhouse to Heatherbrae Construction of Richmond.

Work began Nov. 18 at the site, located between West and Lower Malls and adjacent to Ponderosa Annexes.

The longhouse will be built using elements of traditional Coast Salish design and will be constructed almost entirely of western red cedar. The design is by Larry McFarland, Architects, of Vancouver.

To prepare the site, members of the First Nations community and invited guests attended a sacred ceremony where food and a blanket were burned in a Coast Salish ritual of thanks to the spirits of ancestors who inhabit the area.

The longhouse has been described as a home-away-from-home where First Nations students will be able to maintain their sense of community in an appropriate environment.

It will contain student services, offices and assembly halls for UBC's growing First Nations community. Completion is expected in late 1992.

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## Calendar cont'd

### Surplus Equipment Recycling Facility

All surplus items. Every Wednesday, 12-3pm. Task Force Bldg., 2352 Health Sciences Mall. Call 822-2813.

### Student Volunteers

Find an interesting and challenging volunteer job with Volunteer Connections, UBC Placement Services, Brock 307. Call 822-9268.

### Narcotics Anonymous Meetings

Every Tuesday (including holidays) from 12:30-2pm, University Hospital, UBC Site, Room M311 (through Lab Medicine from Main Entrance). Call 873-1018 (24-hour Help Line).

### Fitness Appraisal

Administered by Physical Education/Recreation through the John M. Buchanan Fitness/Research Centre. Students \$25, others \$30. Call 822-4356.

### Faculty/Staff Badminton Club

Fridays from 6:30-9:30pm in Gym A of the Robert Osborne Centre. Cost is \$15 plus library card. Call Bernard at 822-6809 or 731-9966.

### Botanical Garden

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## Forum

# Science and Humanity: Linguistic Research on First Nations Languages

Patricia Shaw, an associate professor in UBC's Department of Linguistics, has been studying the languages of First Nations peoples in Canada since the mid-1970s. The following is an excerpt from a paper Shaw delivered at the recent President's Workshop on Native Studies.

By PATRICIA SHAW

Linguistics has been said to be the most scientific of the humanities, and the most humanistic of the sciences.

Both the scientific and humanistic facets of the discipline are defined in particularly compelling and fundamentally challenging terms by linguistic research on the First Nations languages of Canada.

On the scientific side, the unparalleled diversity and strikingly unique features of the complex linguistic systems of the dozens of different indigenous languages in British Columbia alone constitute an extraordinary resource. BC native languages are classified into eight distinct, genetically unrelated language families, making this province one of the most diverse linguistic areas in the entire world. Questions of the historical origins of this plurality constitute only one fertile domain for scientific inquiry.

Another is the potential which these languages hold for deepening our insights into language as a uniquely human and universally human cognitive system.

Most of our current understanding of what human languages are like (how they are structured, how they function, what universal properties they share) is built on data from the world's so-called "major" languages and from the "classical"

languages of eastern and western literary traditions. Consequently, study of the First Nations languages can contribute significantly to defining a more broad-based model of our human language capacity.

For example, Tahltan — an Athapaskan language spoken by fewer than 40 people in the Stikine and Spatzizi area of northern BC — has one of the most elaborate, and therefore most theoretically revealing, consonant harmony systems in the world: an understanding of the tightly constrained interactions within this system has contributed in several ways to our knowledge of the appropriate representation of speech sounds and characteristic constraints on how they can interact with one another.

Other BC First Nations languages

**At the rate things are going, close to 90 per cent of the world's 5,000 languages may disappear in the coming century.**

such as Nisgha (a Tsimshianic language, spoken in the Nass Valley) and Bella Coola (a Salish language, spoken up the coast) are renowned for having extraordinarily long sequences of consonants in their words, to the extent that Bella Coola has some words with no vowels in them at all.

Research (with generous support of SSHRCC) into the various properties of these languages has led to several significant discoveries regarding the form and role of syllables in organizing sequences of sounds.

These are but a few examples of the scientific role of linguistic research on First Nations languages.

Turning to the humanistic side of this research enterprise, the indigenous languages of this geographic area embody the cognitive and cultural

heritage of nations sustained for centuries by the richness of their oral traditions.

Throughout the world, minority languages are disappearing at an alarming rate: the global perspective on imminent linguistic extinction is one of sheer crisis. Some experts say that at the rate things are going, close to 90 per cent of the world's 5,000 languages may disappear in the coming century.

The overwhelming question — which must be faced not only by linguistics as a discipline, but also by humanity — is: What can we do?

Documentation and archiving are minimal, but by no means trivial, goals. First, these activities entail sophisticated training, ideally of Native language speakers themselves, in elicitation, recording, transcription, interpretation, and analysis.

Secondly, the utility of the database depends on reliable and appropriate equipment and facilities for audio/video recording, acoustic analysis, long-term archiving, and access to communities where the languages are spoken.

Thirdly, the compilation of dictionaries, grammars, texts, classifications of domains of knowledge and thought (ethnobotany, traditional medicine, myths, oral histories, etc.) provide invaluable research tools and cultural resources for communities.

But ultimately, no such database — no matter how elaborate — can possibly represent, let alone replace, the complex body of linguistic knowledge internalized by Native speakers.

Preservation of the world's linguistic diversity must be the higher order goal.

# Club ranks swell to record number

Set to celebrate its 10th anniversary, UBC's Pacific Rim Club is on a roll.

While membership in the past has hovered around 100, numbers this year have soared to an all-time high of close to 280, making it the biggest club of its kind in Canada.

"Don't ask me why," says club President Christine Judd, a fourth-year international relations student.

"I guess people are finally getting the message that the East is going to play a big part in the future of this province and the whole country."

For a modest \$10 fee, the mixed group of professors and students receive a club newsletter and access to a myriad of social events such as dances, cooking classes and forays to Whistler and beyond.

But the mainstay of club activity remains a weekly lecture series held every Thursday from 12:30 p.m. to 1:30 p.m. in the Asian Centre auditorium.

Lunchtime talks this term have covered Canadian trade with Korea, journalism in Asia and art in Papua New Guinea. Moreover, the impressive list of speakers has included the head of a major marketing firm in Hong Kong, products manager of B.C. Packers Ltd., and executive directors of the Vancouver Board of Trade and the Asian Pacific Division of the Ministry of International Trade.

"We aim high," said Judd, who added

the club is trying to get Lt.-Gov. David Lam to address its upcoming corporate wine and cheese party downtown.

The opportunity to "schmooze" with influential business people linked to the Pacific Rim region makes the club particularly popular with commerce students looking for job opportunities.

While it boasts representation from almost every faculty on campus, Judd said most members are from the Faculty of Arts, with the majority of these being associated in some way with Asian Studies.

Michael Duke, head of the Department of Asian Studies, isn't surprised by the

club's surge in popularity.

Duke said interest in Asian language and non-language courses remains keen even though enrolments have had to be trimmed. For example, 240 applicants competed this year for 60 openings in a first-year Chinese language class. Similarly, close to 150 potential students were turned away from a first-year Japanese course.

The department currently has 21 full-time faculty teaching and researching on Japan, China, South Asia, Southeast Asia and Korea.

With both the federal and provincial governments proclaiming the need for closer ties with the region, Judd believes club ranks will continue to swell.

Those interested in joining can call 822-6401 for more information.



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