Students to register at UBC by phone

by Lorie Chortyk

Students enroling in the 1988 spring and summer sessions will make UBC history as they become the first students to register at the university by telephone.

TELEREG, UBC's new telephone registration system, opens March 15 for spring and summer session enrolment.

The new system has enormous benefits for both students and faculty, according to Acting Registrar Alan McMillan.

"Students can register up to three months before the start of the winter session using a touch-tone telephone anywhere in the world. They can also make adjustments to their programs throughout the registration period by making a phone call.

The average registration call is expected to take between three and five minutes.

For departments, McMillan said the system offers accurate, up-to-date information on the number of students registered in their courses before classes start, as well as the ability to control enrolment in each course and section.

McMillan said the system should also relieve some of the workload placed on Registrar's Office staff in early September.

Other universities using telephone registration have reported reductions of up to 50 per cent in the number of course changes made after registration.

McMillan said the Registrar's Office usually handles about 50,000 course changes in the first three weeks of classes each fall.

The Registrar's Office plans to keep TELEREG lines open seven days a week during the registration period to make the system as convenient and accessible as possible. With 32 lines, it can handle about 480

Because TELEREG responds to the different tones generated by a touch-tone phone, rotary dial and pulse push button phones will not work with the system.

The Registrar's Office has just completed a series of test runs of the system conducted by a sample group of students. Hands-on training sessions for faculty members, department advisors and administrative staff have also

Information on how to use the system will be sent to new students following their notification of acceptance and to returning students at the end of each session. Registration for winter session classes begins June 15

Scientists go for the gold

The Science Council of B.C. is accepting nominations for its 1988 Gold Medal.

There are four categories in which nominations can be made: Natural Sciences, Health Sciences, Applied Science and Industrial Innovation. On rare occasions, the Medals Committee will accept applications in other

Nominators should send a letter explaining why the person or team deserves to be singled out. Each nomination must be supported in writing by a minimum of two people - at least one must be from an organization where the nominee works.

Nominations must be sent to: The Science Council of British Columbia, Suite 100-3700 Gilmore Way, Burnaby, B.C., V5G 4M1, no later than March 31.

Last year, UBC professors Peter Hochachka and Roy Nodwell were awarded the medals, established by the Science Council to increase public awareness of the achievements made by scientists and engineers in the

Breaking barriers

Natives face unique challenge

Renate Auger has her hands full as a thirdyear law student and a single mother of six children. Being a native Indian hasn't made tackling a law degree any easier

"I've probably seen the underbelly of the beast more than most law students," she

Auger is one of about 150 native Indians enroled at UBC, mostly in programs designed to attract native students. A tightly knit and mutually supportive group, they still face struggles unknown to most other students.

"I've had some advantages, I guess," says the 43-year-old mother of six daughters, aged seven to 23. "But maybe I'm just unusually pig-headed. I see it as a very special gift to be able to raise so many future mothers. Maybe it's given me the courage to persevere."

Beverly Scow, a third-year Arts student and president of the Native Indian Student Union, says most native students on campus come from reserves, where poverty, remoteness, alcohol problems and poor education conspire to drive many young people away from the opportunities of the classroom.

"The whole sociological background is not good for education, for being an achiever," she says. "The people who are here have broken

Scow's own family has its pioneers. Her uncle, UBC law graduate Judge Alfred Scow was the first native Indian in Canada called to the bar and the first to sit on the bench. Grandfather William Scow was president of the Native Brotherhood in the 1950s when it was a powerful voice for native rights.

UBC has programs in two faculties, education and law, which encourage native students with courses aimed at native interests and, in the case of law, flexible entry requirements.

The law school has graduated twice as many natives as any other in the country, including Atlin MLA Larry Guno.

But there can be a price to be paid. Law

student Mike McDonald, a Metis from Manitoba, says it's not easy for a native Indian faculty such as law.



UBC native Indian students Beverly Scow, president of the Native Indian Student Union, and Ron Peigan, president of the Native Law Students Association of Canada

"You have to adapt to a different way of thinking, but you still have to remember who you are. That's the difficult part," he says.

Sam Stevens, a law instructor who heads the native Indian law program, says it's all uphill for native students at university.

"It's like comparing a three or four mile run

to a marathon. They have to try harder."

Although law is a popular choice among native students at UBC — 17 are currently enroled - more than 100 are in education. Others are enroled in nursing, computer science and anthropology. There are 20 graduate students and about a dozen faculty members who are native Indian

The Native Indian Teacher Education Program began in 1974 and has since graduated 100 teachers.

Despite its success, native educator Verna

Kirkness says enrollment should be put into perspective. If native Indians attended university in proportion to their numbers in the general population, there would be 1,200 here.

Kirkness is director of the First Nations House of Learning, a campus body set up to look at ways of increasing native enrollment and broadening program and course offerings in other faculties. Medicine, forestry and commerce are among those which have expressed interest.

But plans to give more access to postsecondary education for native Indians come at time when the federal government has capped funding available for native education

The Native Indian Student Union is holding a Native Awareness Week on campus, beginning March 14.

Commitment made to equity plan

by Jo Moss

UBC has joined a new federal employment equity program which will ensure women, native and handicapped peoples, and visible minorities are fairly represented in the university's work

UBC signed a certificate of commitment Jan. 11 and has formed a 12-member President's ad hoc committee to define the

The Federal Contractors Program for employment equity applies to all organizations with 100 or more employees which bid on government contracts of over \$200,000.

Albert McClean, associate vice-president academic and committee member, said the university will be appointing an employment equity officer to advise on program implementa-

"We first have to establish a campus profile to determine what groups are already on campus," McClean explained.

Current statistical information provides the number of women, but identifying people who are handicapped, aboriginal or who belong to a visible minority presents a problem. Compiling that kind of information violates B.C.'s Human Rights Act. McClean said the university has been granted an exemption by the B.C. Human Rights Commission to carry out this review.

The federal government recommends selfidentification to establish the workforce profile,2-McClean said. "We want to make it clear to the campus community why those questions are being asked. We want the initial stage of selfidentification to be done carefully so that the equity program gets off to a good start.

The committee's next step will be to determine B.C.'s demographics and establish reasonable goals for the number of women, native people, handicapped people and visible minorities that could be working on campus.

Unlike the American affirmative action program which has federally set quotas, each Canadian business or institution is required to research and set their own hiring goals.

The committee will also examine current university hiring practices to ensure they don't inhibit employment of the four groups. It will then recommend steps the university should take to implement and monitor hiring equality.

"Other universities haven't found any intentional barriers in hiring policy, but there may be practices which are inhibiting," McClean

Federal program guidelines provide for the

government to inspect the university's books.

They check to make sure the university has set bona fide goals and is taking reasonable and sensible steps towards implementing those goals," McClean explained. Failure to satisfy the federal review can result in a withdrawal of bidding privileges

McClean could not say when UBC's equity program would be fully implemented.

'It's a lengthy process and most other universities are at the stage we are. It's difficult

Mill workers' histories studied for cancer clues

by Debora Sweeney

A UBC epidemiologist is painstakingly tracing the job histories of 40,000 B.C. sawmill workers to determine how many of those who came in contact with chlorophenols died of, or developed, cancer.
The \$500,000 study, largely funded by

Health and Welfare Canada, is the most comprehensive research ever undertaken into the effects on humans of chlorophenols and their biproducts, dioxins, said Dr. Clyde Hertzman.

The sawmill workers in B.C. who have worked with chlorophenols over the last several decades are the largest identifiable group in the world," said Hertzman.

Chlorophenols are contained in fungicides which control the growth of sap stain fungi on lumber. When most softwood lumber is not sap stain controlled, the fungi grows and discolors the wood so that when it reaches its export destination, it has turned black

Since questions were first raised about the

cancer-causing effects of chlorophenois nearly a decade ago, policymakers have decided to limit or eliminate them, explained Hertzman.

But, there is little hard evidence to back suspicions that chlorophenols cause cancer in humans. "All we really know is that there are a couple of different kinds of dioxins which cause cancer in animals and there is some evidence that chlorophenols are toxic to fetuses

Collaborating with researchers from the Cancer Control Agency and with industrial hygienist Kay Teschke, Hertzman is delving into the job histories of workers at eight B.C. coastal sawmills, including three in the Vancouver area and five on Vancouver Island.

The jobs that involve the handling of chlorophenated wood include loading and flipping wood that has been sprayed, maintenance jobs where people come in contact with contaminated equipment, and working in or around a mill where contaminated sawdust floats in the air.

Mill continued on Page 2

Funds sought to double size of investors class

Commerce professor Robert Heinkel wants to double participation in the widely acclaimed Commerce Faculty's Portfolio Management Society program but to do so he needs twice as much capital

The student-run investment management program allows 12 students to manage real money in a real-life financial market. Two years old, and enormously successful, the program is unique in Canada.

The fund currently stands at about \$500,000-large enough, Heinkel says, to allow students to handle all major types of market transactions. With two funds of that amount, more students can participate, he said.

"Because there are so many outstanding

Quail used to find cause of disease in humans

by Lorie Chortyk

The Quail Genetic Stock Centre on campus is breeding a specialized line of quail that could help UBC researchers unravel the mysteries of atherosclerosis, one of the leading causes of death in North America.

Dr. David Godin, a professor of pharmacology in UBC's Faculty of Medicine, is using two strains of quail — one bred for high susceptibility to atherosclerosis and the other for high resistance to the disease — to gather information on the chemical and biochemical changes that take place in cells as the disease progresses. He's hopeful the new information will lead to more efficient treatment of the disease

Atheroscierosis, the build-up of cholesterol and other fat-like substances in blood vessels, can lead to strokes, hardening of the arteries and other serious heart complications. Godin said current methods of treating the disease are inadequate.

'Atherosclerosis is currently treated by modifying a patient's diet, such as lowering cholesterol intake and by reducing smoking and other risk behaviors," said Godin. "But we know these measures are only partially successful in coping with the disease.

One of the key factors Godin will study is the role of oxidation in atherosclerosis

"Previous studies suggest that some sort of oxygen-dependent reaction takes place in the blood that causes the disease to progress," he said. "We may be able to slow down, or even prevent the disease if we can block these

Godin hopes to do this by using chemicals called anti-oxidants, which stop oxygen reactions from occurring in the blood.

He will also study calcium build-up in the arteries, another major contributor to athero-

"If we can deal with these three factors — preventing cholesterol and calcium build-up and blocking oxygen-dependent reactions in the blood I think we could be on our way to controlling the disease

UBC animal scientist Kimberly Cheng obtained exclusive Canadian rights to breed the specialized quait from North Carolina State University. Cheng plans to make the birds available to other universities and research laboratories across Canada.

He said quail are the most useful animal available for atherosclerosis research because unlike other animals, the disease reacts in a similar way in quail and humans

Large pharmaceutical companies in the U.S. are breeding their own lines of quail in the race to develop drugs to treat atherosclerosis, according to Cheng.

Godin and UBC graduate student Darren Dahlman have just completed a pilot study for the project. They hope their research will lead not only to better treatment of atherosclerosis, but also to early identification of patients who might develop the disease.

Mill from Page One

"We've done urine sampling at a couple of mills and we've found there are very few jobs involving no exposure whatsoever," said

The bulk of the research will be a "massive exercise in stenography." Going back as far as the mid-1940s, researchers will enter data from job records into a computer, defining when the workers were first exposed to the contaminates, then following them forward in time. That information will be linked with the B.C. death registry and with the province's cancer incidence database. It will be compared with general population rates and with "control mills" where no chlorophenols are used. The study is expected to take three years.

students among the more than 130 who applied to the program this year, we'd like to have twice as many students in the program. However, 12 students are too large a group to reach a consensus on investment decisions,

According to Heinkel, one important measure of the success of the program is the demand for graduates by the Canadian investment community. As well as hiring outstanding students, employers, reap direct benefits by saving the thousands of dollars it costs to train new investment managers.

The first six graduates from the program were snapped up by companies such as the Royal Bank, Pemberton-Houston-Willoughby and Chrysler Canada.

"The investment community is small and intertwined. Those companies see it as being beneficial to both the university and their interests," Heinkel said. "However, there are several other donors who are donating for altruistic purposes.'

When 35 investment companies across Canada volunteered to help start up the new PMS program, Heinkel said he was completely overwhelmed by their enthusiasm.

"I never thought the investment community would be that interested. But they have spent so much time and energy with the students,' he said.

Volunteers from investment businesses act as advisors and mentors, sit on a client committee, conduct seminars, provide summer jobs, and evaluate the program's performance. They also donated more than \$300,000 to set up the initial capital.

Six third-year students pair up with six fourth-year students to manage the PMS fund, however the fourth-year students have final responsibility for investment decisions. Each student spends two academic years learning how to apply classroom experience to a real investment situation, and two summers working in an investment business

In 1987, the student-run fund outperformed 60 per cent of Canadian portfolios. Despite October's Black Monday stock market crash, the fund averaged a 5.2 per cent overall return for the year as compared to the average Canadian portfolio return of 4.4 per cent.

"The students have demonstrated a growth and maturity in this program that's incredible, Heinkel said. "We're seeing outstanding students working with the top people in the community and learning what it takes to be

Once the fund is large enough to generate substantial income, the money is earmarked for research support in the faculty. Heinkel said that income now barely covers PMS expenses such as the cost of sending students to summer jobs in Toronto.

UBC geneticist participates in major discovery

by Debora Sweeney

A UBC clinical geneticist is part of an international team of scientists whose research has led to a major discovery single gene may determine whether a human embryo will grow into a male or a female.

Dr. Barbara McGillivray's involvement stems from her work at UBC's medical genetics clinic at Grace Hospital, where she sees infants, children and adults who have what is called, "ambiguous genitalia," or sex reversal. Doctors are not sure whether they are chromosomally male or female.

The deciding difference in genetic endowment between male and female has long been known to lie on the Y chromosome the male sex chromosome. But, McGillivray said she began to see male patients whose chromosomes did not match their sex.

That is when she collaborated with the team led by Dr. David Page, a research fellow at the Whitehead Institute for Biomedical Research at the Massachusetts Institute of

Technology in Cambridge.
"We sent DNA from seven males to Dr. Page to ask if he could find any evidence of Y material," said McGillivray.

What Page found on the X chromosomes was a gene containing the Y material, which he named TDF for testes determining factor. It is believed the gene acts as a biological switch which triggers a complex series of events leading to the sexual development of an

Whenever TDF is present in the chromosomes of the fertilized egg, Page's team believes, the fetus will develop testes and grow to be a male. When it is absent the fetus will develop ovaries and become a female.

According to McGillivray, the discovery of TDF might lead to the identification of other genes for sex determination that are scattered throughout the chromosomes.



And how are the wife and kids? UBC dental students use SIMLAB -- a mock-up of a set of teeth. UBC is the first in Canada to use this mock-up, now accepted by the World Health Organization.

Law panel discusses balance of rights

by Gavin Wilson

It will be "disastrous" for the status of Canadian women if the legal system attempts to balance their rights against those of fetuses says a UBC associate law professor.
"You can't treat women as if they were fetal

containers," said C. Lynn Smith in an address to the third annual conference on law and contemporary social issues held on campus Feb. 12 and 13.

Smith made her remarks during a panel discussion on issues arising from the "Baby R" case, in which the Ministry of Social Services seized a child before birth. The panel agreed to avoid direct reference to the abortion issue.

Voicing a different view was Eike-Henner Kluge, a professor of ethics at the University of Victoria and a member of the ethics advisory panel for the B.C. Health Ministry.

He said that a fetus develops a sufficiently complex central nervous system by the age of 20-24 weeks to gain status as a person, with accompanying rights that must be balanced against the mother's.

"The right to life takes precedence over the right to quality of life," he said. "Now you have two persons, and that gives a clear permission for certain interference by the state

Smith said that in the United States, emphasis on the rights of the fetus has led to the arrest of pregnant women who are reported drinking too much alcohol. In at least one U.S. case, a woman was forced to undergo a

Caesarian section in the interests of the fetus.
"We ought to see the fetus connected to the mother, not as an individual," Smith said. "The

form alliance

most positive approach to take to this problem is a holistic one, to discover what we can do to assist women to give birth to healthy babies.

About 550 people attended the conference, organized by law students with the support of

Four panels of experts discussed topics ranging from maternal/fetal rights and immigration policy to aboriginal fishing rights and legislation proposed to control the spread of

The four conference sessions will be broadcast on Rogers Cable 4 television between Feb. 25 and March 22.

Another award for mini-docs

UBC's national weekly radio series, UBC Perspectives, has received a Grand Medal for Electronic Use of Media Programs from the Council for the Advancement and Support of Education (CASE). The award is given for the best radio, film or video series of the year.

The news came close on the heels of a previous announcement that CASE had awarded the series a Gold Medal for radio programming.
CASE, a 2800-member international

organization based in Washington, D.C., annually recognizes outstanding university and college communications programs.

LETTERS TO Womens groups THE EDITOR

by Jo Moss

Twelve women's groups on campus have formed an ad hoc alliance to deal with university issues of common concern.

History professor Jean Elder, Chair of the Faculty Association's standing committee on the Status of Women and coordinator of the new alliance, said it's the first time in UBC's history such an association has been formed.

Comprised of student, union, administrative and faculty representatives, the alliance is open to any other campus groups who wish to join.

"We've probably missed some groups, in Nursing or Rehabilitation Medicine, for example." Elder said.

Two issues the alliance is currently involved with are the university's proposed sexual harassment procedures and the funding of women's athletics. A member of UBC's Ad hoc Committee for Sexual Harassment Procedures, Elder said the alliance is discussing the implications of the sexual harassment procedures and has an interest in the nominations to the proposed sexual harassment committee, hearing panel, and officer positions.
The alliance has also expressed its concern

to the President's Office about the unequal funding of women's athletics, calling for a more The Editor,

Why did UBC Reports (14 January, 1988) awards for research in the sciences in one. separately by-lined report ("Top Research Awards") while relegating parallel awards presented by the Alumni Association for research in the Social Sciences and the Humanities to a brief paragraph under <u>People</u>?

Coming from a recipient of one of the latter

awards, this question may appear merely selfinterested, but in fact the issue goes far beyond any individual ego. It concerns the value that this university places on the social sciences and humanities and the evaluation of these vital areas that we project to our larger community.

On our president's advice, the Alumni Association generously established its research prizes precisely to discourage the impression that research in the social sciences and humanities is a second-class citizen at this university. However, your implied exclusion of the Alumni prizes from the category of "top research awards" unfortunately works against that laudable intention.

Dennis Danielson Associate Professor Department of English

Forecasts for forests now more accurate

by Jo Moss

By the year 2020, the world's population will likely have increased by 67 per cent and there may not be enough wood and wood products to go around, according to a UBC Forestry

Hamish Kimmins is concerned that current predictions of forest yield in Canada, and elsewhere, are unrealistic because they are based on growth patterns of the past. They fail to take into account changing conditions that will affect forest growth in the future.

Kimmins said more accurate, long-term estimations of forest growth are needed, combining the traditional empirical approach with a consideration of other factors: changing climate, changing environment, and changing

social conditions—such as population growth.

Over the past ten years he has developed a sophisticated computer simulation system that does just that. Called FORCYTE, (FORest nutrient Cycling and Yield Trend Evaluator) it can integrate hundreds of pieces of information



HAMISH KIMMINS

to project forest yield under a variety of possible growth conditions and management

"Population growth is the single most important factor affecting every aspect of forestry, from the demand for lumber to the land base available for growing trees," Kimmins explained. "Statistics show that the world demand for industrial wood is expected to exceed the projected world supply early in the next century.

Demand for wood products will grow. but there will be less land to draw it from. More forests will have to be cleared for agriculture, more valleys may be flooded as reservoirs, and more parks set aside for recreation.

in the past, Kimmins said.

"The past record of growth on a forest site becomes a questionable basis on which to

Ecology/Resource Ecology Seminar
Variations in Marine Climate and Barkley Sound Sockeye
Recruitment Success. Dr. Kim Hyatt, Salmon Enhancement,

Pacific Biological Station, Dept. of Fisheries and Oceans. For information call 228-4329. Room 2449, Biological Sciences

Sponsored by the Graduate Student Society. With Linton Garner, pianist. Free. For information call 228-3203.

Sponsored by the Graduate Student Society. Beginners

Welcome. For information call 228-3203. Fireside Lounge,

Sponsored by the School of Music. James Fankhauser, director. Free. For information call 228-3113. Recital Hall,

Integrating Research with Design in Architecture. Dr. Gary

Moore, Director of Graduate Programs, University of Wisconsin, College of Architecture and Urban Planning. For information call 228-3039. Room 102, Lasserre Building.

School of Community & Regional Planning

Housing Options for the Elderly: Who Likes What? Dr. Gloria Gutman, Director, Gerontology Research Centre, SFU. For information call 228-5326. Room 107, Lasserre Building.

Fit Abodes for Weary Bones: Housing the Very Old. Dr. Gary Moore, Director of Graduate Programs, University of Wisconsin, College of Architecture and Urban Planning. For information call 228-3039. Room 118, West Mall Annex.

Pharmacology & Therapeutics Seminar

Is Forearm Vascular Tone Increased in Hypertensives? Are

Plasma Catecholamines a Valid Index of Autonomic Nervous System Activity? Dr. Peter Fernandez, M.D. F.R.C.P., Medicine, Memorial University, St. John's, Newfoundland.

For information call 228-2575. Room 317, Basic Medical

Playing the Fool to Sorrow: Life-Lies and Life-Truths in King Lear and The Wild Duck. Professor Errol Durbach. For information call 228-5743. Penthouse, Buchanan Building.

Use of Figurative Language in Psychotherapy. Dr. Linda McMullin, Psychology. For information call 228-2755. Room 2510, Kenny Building. 4:00 p.m.

Structural Properties and Tissue Distribution of an Enhancer Binding Protein. Dr. Peter Johnson, Embryology, Carnegie Institution of Washington. For information call 228-4838. Lecture Hall 3, IRC. 4:00 p.m.

Theory of High Tc Superconductors. Dr. Ted Hsu, Princeton

Regulation of Neuropeptide Gene Expression. Dr. Jeffrey F. McKelvy, Abbott Laboratories. For information call 228-7038. Lecture Hall 1, IRC. 4:30 p.m.

Sponsored by the School of Music. Louis-Philippe Pelletier.

piano. \$8, \$4 students & seniors. For information call 228-3113. Recital Hall, Music Building. 8:00 p.m.

Sponsored by the School of Music. John Loban, Gerald Stanick, directors. Free. For information call 228-3113. Recital Hall, Music Building. 12:30 p.m.

University, For Information call 228-3853, Room 201,

Neuroscience Discussion Group

Fireside Lounge, Graduate Centre. 5:30-8:00 p.m.

THURSDAY, MAR. 10

Building, 4:30 p.m.

Graduate Centre. 6:00 p.m.

University Singers

Music Building. 12:30 p.m.

Architecture Public Lecture

Architecture Graduate Seminar

Sciences Building, Block C. 3:00 p.m.

English Colloquium

Psychology Colloquium

Biotechnology Seminar

Physics Colloquium

Hennings Building. 4:00 p.m.

Guest Artist Series

FRIDAY, MAR. 11

UBC Chamber Strings

Bridge

Diabetics' insulin need may be eliminated

UBC and University of Alberta scientists are hoping to eliminate the need for insulin injections for Canada's 250,000 insulindependent diabetics.

They are developing a transplant technique to replace malfunctioning islet cells in the pancreas that control the body's blood sugar.

UBC Physical Education professor Angelo Belcastro and University of Alberta colleague Ray Rajotte are working to isolate and purify islet cells from organ donors and transplant them to the diabetic—a process which can be accomplished by simply injecting the cells with a large needle into an artery or vein.

According to Belcastro, preliminary laboratory tests on islet cell trans lant have proved so successful that the first clinical tests will begin in Alberta shortly.

Islet cells produce the hormone insulin that regulates blood sugar levels in the body.

"During diabetes, the body's immune system rejects the islet cells," Belcastro explained. The body's natural insulin production declines causing blood sugar to increase.

"There's a number of other metabolic problems that happen as well," he said.

People with severe diabetes need a daily shot of insulin to remedy this metabolic upset. But insulin injections don't regulate the blood sugar levels well. Over a long period of time, secondary complications, including heart

"Although insulin administration is effective for the most part, it is not really a good, long-term control for the diabetic," Belcastro said.

The cell transplant technique is an attempt to resolve the situation and produce a treatment without secondary complications. Scientists are also investigating transplanting all or part of the pancreas. However organ rejection is a major stumbling block.

Other scientists, like Belcastro and Rajotte, believe islet cell transplant is the answer. But they are still a long way from a satisfactory treatment. The transplant procedure must be refined further before it can be made available

Researchers are examining the procedure more closely to determine, for example, where the injection should be given, how many times it needs to be administered, and whether the treatment will be equally effective in young and

Better methods are needed to preserve human islet cells over the long period between acquisition—from organ donation—and transplant into a patient.

Other scientists, including Belcastro, are examining how well islet cells function once

they have been transplanted.
"So far the islet cells have proved to function very well after transplant," Belcastro said.
"Studies show they control the body's blood sugar better than insulin injections.

UBC Calendar from Page 4

Sponsored by the Graduate Student Society. Chorus Line & Fiddler on the Roof. Free. For information call 228-3203. Fireside Lounge, Graduate Centre. 6:00 & 8:00 p.m.

Classic SubFilms

Sponsored by the UBC Film Society. Taxi Driver, starring Robert DeNiro. \$2. For information call 228-3697. SUB Theatre, SUB. 7:00 & 9:30 p.m.

TUESDAY, MAR. 8

Early Childhood Education Research Colloquium

Learning Environments for Special Needs Preschoolers. Eliana Tobias, Early Childhood Education. For information call 228-5232. Room 203, Ponderosa F Building. 12:00-1:30

Botany Seminar

From Amber to Chemical Ecology in the Tropics. Jean Langenheim, University of California, Santa Cruz. For information call 228-2133. Room 2000, Biological Sciences Building. 12:30 p.m.

Chemistry Seminar

The Three-Dimensional Structures of Yeast Iso-Cytochrome c and Functionally Deficient Electron-Transfer Mutants.

Professor Gary Brayer, Biochemistry. Coffee at 12:30 p.m.

For information call 228-3266. Room 250, Chemistry Building. 1:00 p.m.

Electrical Engineering Seminar
An Overview of a Practical Mobile Communications System.
Mr. Peter McConnell, Mobile Data International Inc. For information call 228-2866. Room 410, Electrical Engineering

Oceanography Seminar

Primary Production at Station P: Estimates Derived from the Concentration and d180 of Dissolved Oxygen. Dr. Paul Quay, Oceanography, University of Washington. For information call 228-5210. Room 1465, Biological Sciences Building. 3:30 p.m.

Geological Sciences Seminar

Compositional Characteristics of Mississippian-Paleocene Coals in Northern Yukon. Dr. A. Cameron, Geological Survey of Canada (I.S.P.G.). For information call 228-6179. Room 330A, Geological Sciences Centre. 3:30-4:30 p.m.

Biotechnology Seminar

Molecular Genetic Analysis of cAMP-Dependent Protein Kinase. Dr. Christopher Clegg, Pharmacology, University of Washington. For information call 228-4838. Room 2000, Biological Sciences Building. 4:00 p.m.

Financial Planning Seminar

Sponsored by the Faculty Association and Centre for Continuing Education. An Overview of the UBC Pension Plan & Optional Group Life Insurance. Maureen Simons, Manager, UBC Employment & Benefits Services. For information call 222-5270. Room 1100, Mathematics Annex Building. 4:30-

WEDNESDAY, MAR. 9

Wednesday Noon-Hour Series

Sponsored by the School of Music. Guy Fallot, cello; Rita Possa, plano. Admission by Donation. For information ca 228-3113. Recital Hall, Music Building. 12:30 p.m.

Lecture/Discussion

Resume Writing. Helene Mitchell, Canada Employment Centre, UBC. Free. Pre-registration is required at the Office for Women Students, Brock 203. For information call 228-2415. Penthouse, Buchanan Building. 12:30-2:20 p.m.

Plant Science Seminar

Visual Simulation: The High End of Computer Graphics and Its Impact On Decision Making. Professor John W. Danahy, Centre for Landscape Research, University of Toronto. For information call 228-3786. Lecture Hall 3, IRC. 12:30-2:30

Geography Colloquium

The Concept of Housing Affordability. Dr. David Hulchanski, School of Community and Regional Planning. For information call 228-2663. Room 201, Geography Building. 3:30 p.m.

scenarios -- more than 200 years in the future.

And the remaining tracts of forests will have to be managed more intensively than they have

predict future growth if the climatic, soil and biological conditions on that site have been significantly altered," Kimmins explained.

Medical Genetics Seminar

Application of Twin Studies to Research in Genetic Disorders Dr. Walter Nance, Genetics, Medical College of Virginia. For information call 228-5311. Parentcraft Room, Main Floor, Grace Hospital, 4490 Oak Street, Vancouver. 1:00 p.m.

Chemical Engineering Seminar

Kinetic Analysis of Hydrocarbon Selective Oxidation Catalysts. Mr. J. Yu, Chemical Engineering. For information call 228-3238. Room 206, Chemical Engineering Building.

Germanic Studies Reading
Stefan Schuetz Reads from His Work in Progress. Stefan
Schuetz, Hannover, Federal Republic of Germany. For
information call 228-5546 or 228-6403. Penthouse, Buchanan Building, 3:30 p.m.

Economics Seminar

Testing Inequality Constraints in Econometric Models. Frank Wolak, Stanford University. For information call 228-6589 or 228-3320. Room 351, Brock. 4:00-5:30 p.m.

Beer Garden

Sponsored by the Graduate Student Society. For information call 228-3203. Ballroom, Graduate Centre. 4:30-7:30 p.m.

Sponsored by the Graduate Student Society. With Tim Girdler. Free. For information call 228-3203. Fireside Lounge, Graduate Centre. 7:00 p.m.

Snooker Tournament

Sponsored by the Graduate Student Society. GSS Members only. Call Rob Sanbrook at 222-1332 or the office at 228-3203 to register. Free. Pool Room, Graduate Centre. 7:30 p.m.

Sponsored by the Graduate Student Society. With live band, The Bravados. Free. Everyone Welcome. For information call 228-3203. Fireside Lounge, Graduate Centre. 8:00-12:00

SATURDAY, MAR. 12

Journal Workshop

Sponsored by Centre for Continuing Education. March 12 & 13. Life Context Workshop. Dr. Lesly Merril, Clinical Psychologist. \$125; \$110 for old participants and 25% off for students & seniors. For information call 222-5261. Conference Room, Level III, Iona Building, 6000 Iona Drive, UBC. 9:00 a.m.-5:00 p.m.

50th Anniversary Alumni Reunion

Sponsored by the Chinese Varsity Club. For information call 228-3681. SUB Ballroom, SUB. 7:00 p.m.-midnight.

THE VANCOUVER INSTITUTE



Saturday, Mar. 5 From White Dwarfs to Black Holes: The Story of a Physics, University of Alberta, Edmonton. Saturday, Mar. 12 The Rise and Fall of the

American Empire? Mr. Earl Foell, Editor-in-Chief, The Christian Science Monitor, Boston Massachusetts, Lecture Hall 2, Woodward Instructional Resources Centre. Free. 8:15

NOTICES

UBC Fine Arts Gallery
Now until March 5. Tuesday - Friday, 10:00 a.m.-5:00 p.m.,
Saturday, noon-5:00 p.m. Keeveeok, Awake! Mamnguqsualuk and the Rebirth of Legend at Baker Lake. Main Library.
For information call 228-2759.

Faculty Club Exhibition

Now until March 5th. Photographs of the Nicaraguan People by Ben Clifford. Faculty Club. For information call 228-5426.

Frederick Wood Theatre
March 9-19, 8:00 p.m. A Flea in Her Ear by Georges
Feydeau. Directed by Denise Coffey. Reservations and
information at 228-2678. Room 207, Frederic Wood Theatre.

Indonesia Week

March 7-11, every day at 12:30, 4:30 and 7:00 p.m.

Experience some of the many aspects of Indonesia . For a detailed daily program check the Ubyssey or call the Indonesian Hotline at 228-3814 starting March 1.

Copying in the Libraries?

Save time and money with a UBC Library copy card. \$5 cards sold in most libraries; \$10, \$20 or higher cards in Copy Service, Main or Woodward. Cash/Cheque/Departmental Requisition. For information call 228-2854.

Badminton Club

Faculty, Staff & Graduate Student Badminton Club meets days 8:30-10:30 p.m. and Fridays 7:30-9:30 p.m. Gym A. Robert Osborne Sports Centre. For information call 228-4025 or 731-9966.

Personality Research

Volunteers needed for a questionnaire study to develop a personality inventory. This involves 3 sessions of about 45-60 min. each. Participants receive \$20 upon completing the 3rd session. For information call Chris at 228-7057. Lecture Theatre, Psychiatry Pavilion, HSCH.

Psychology Research Study
Couples, aged 30-60, needed for research on effects of
communication on bodily responses. Experiment conducted in UBC Psychology Department. Personal feedback and stress management information provided. For information call James Frankish at 734-2979. Kenny Building.

Computing Centre Non-Credit Courses

The Computing Centre is offering a series of free non-credit courses February and March. These courses are intended primarily for members of the university community who plan to use the facilities of the Computing Centre. A complete list of courses is available by calling 228-6611, or you can pick up a schedule from the Computing Centre General Office CSCI 420).

Centre for Continuing Education Public Forum

Fri., March 18 (7:30-9:30 p.m.), Sat., March 19 (9:30 a.m. 4:30 p.m.). Free Public Forum on The B.C. Debate on the Meech Lake Accord. Senators Lowell Murray, Eugene Forsey, and others. For information call 222-5238. Lecture hall #2, IRC.

Fitness Appraisal

Physical Education & Recreation, through the John M. Buchanan Fitness and Research Centre, is administering a physical fitness assessment program to students, faculty, staff and the general public. Approx. 1 hour. \$25, students \$20. For information call 228-3996.

Parents Wanted

For Psychology Research Project. Parents of children aged 5 to 12 years are wanted for a project studying parenting. Approx. 1 hour. Contact Dr. C. Johnston, Clinical Psychology

Statistical Consulting and Research Laboratory

SCARL is operated by the Department of Statistics to provide statistical advice to faculty and graduate students working on research problems. For information call 228-4037. Forms for lments available in Room 210. Ponderosa Annex C.

Language Programs and Services

Non-credit daytime, evening and weekend programs in Conversational French begin the week of March 8. Also offered is a course on Language Teaching Techniques. For inforamtion call 222-5227.

Language Exchange Program

Exchanging Languages on a One-to-One Basis. For information call 228-5021. International House. Office Hours 9:30 a.m.-4:30 p.m.

Walter Gage Toastmasters

Public speaking and leadership meeting, Wednesdays, 7:30-9:30 p.m. Guests are welcome to attend, ask questions, and participate. For information call Geoff Lowe at 261-7065.

Student Counselling and Resources Centre "Students Helping Students" is a service that provides

disabled students with assistance in disability-related tasks iffecting school. For information call 228-4840.

Nitobe Memorial Garden

Open Monday to Friday, 10:00 a.m.-3:00 p.m. Free. Cosed

Botanical Garden

Open daily 10:00 a.m.-3:00 p.m. Free.

UBC Calendar

SUNDAY, FEB. 28

UBC Symphony Orchestra

Sponsored by the School of Music. Gerald Stanick, director Free. For information call 228-3113. Old Auditorium, Music

MONDAY, FEB. 29

B.C. Cancer Research Centre Seminar Studies on the Role of Protein Phosphorylation in the Mechanism of Insulin Action. Dr. Roger Brownsey, Biochemistry. For information call 877-6010. Lectur Theatre, B.C. Cancer Research Centre. 12:00 noon.

Free Noon-Hour Films

Sponsored by the Institute of Asian Research. Korean Garments; Traditional Korean Wedding; Sculpture, Korean Folk Dance. For information call 228-2746. Auditorium, Asian Centre. 12:30 p.m.

Faculty Recital

Sponsored by the School of Music. Anne Elise Keefer, baroque flute; Darryl Nixon, harpsichord. Free. For information call 228-3113. Recital Hall, Music Building.

Biotechnology Seminar
Monitoring the Transposition of Ac in Tobacco. Dr. Jonathan
Jones, Advanced Genetic Sciences, Oakland, California. For
information call 228-4838. Room 201, Wesbrook Building.

Plant Science Seminar

Induction of Amylase Production in Wild Oat Endosperm. David Konesky, Plant Science. For information call 228-2329. Room 342, MacMillan Building. 12:30 p.m.

Mechanical Engineering Seminar
Computer Aided Sculpture. Dr. J.P. Duncan, Mechanical
Engineering. For information call 228-4350. Room 1215,
Civil & Mechanical Engineering Building. 3:30 p.m.

Biochemical Discussion Group Seminar Xenopus Transcript Factor IIIA: Wrapping Protein Fingers around 5s RNA. Dr. Paul Romaniuk, Biochemistry and Microbiology, University of Victoria. For information call 291-4804. Lecture Hall 4, IRC. 3:45 p.m.

Applied Mathematics Seminar

Calculation of Singular Points in Steady Mixed Convection Flow Through Porous Media. Dr. H.J. Weinistchke, Applied Mathematics, University of Erlangen, West Germany. For information call 228-4584. Room 229, Mathematics Building.

Astronomy Seminar
Active Galactic Nuclei. Dr. M. Ward, University of
Washington, Seattle. Coffee at 3:30 p.m. For information call 228-4134. Room 260, Geophysics & Astronomy. 4:00 p.m.

Physiology Seminar

Physiology Sentina:
The Infrastructure of Mitochondria. Dr. P.A. Srere,
Biochemistry, V.A.Medical Center, Dallas, Texas. For
information call 228-4228. Room 2449, Biological Sciences Building. 4:30 p.m.

Video Night

Sponsored by the Graduate Student Society. Citizen Kane & Last Tango in Paris. Free. For information call 228-3203. Fireside Lounge, Graduate Centre. 6:00 & 8:00 p.m.

Classic SubFilms
Sponsored by the UBC Film Society. Shadow of a Doubt.
Directed by Alfred Hitchcock. \$2. For information call 2283697. SUB Theatre, SUB. 7:00 & 9:30 p.m.

UBC Stage Band

Sponsored by the School of Music. Ian McDougall, director. Free. For information call 228-3113. Recital Hall, Music Building. 8:00 p.m.

TUESDAY, MAR. 1

Botany Seminar

Some Aspect of Plant Biotechnology - Title TBA. William L. Crosby, Plant Biotechnology Institute, Saskatchewan. For information call 228-2133. Room 2000, Biological Sciences

Classic SubFilms

Sponsored by the UBC Film Society. The Homecoming, by Harold Printer. \$2. For information call 228-3697. SUB Theatre, SUB. 12:40, 7:00 & 9:30 p.m.

Chemistry Seminar

Attornole Amino Acid Analysis - Capillary Separation and Laser Detection. Professor Norman J. Dovichi, Chemistry, University of Alberta. Coffee at 12:30 p.m. For information call 228-3266. Room 250, Chemistry Building. 1:00 p.m.

Electrical Engineering Seminar

An Overview of Two-way Satellite Communications Systems. Mr. Peter van der Gracht, President, The Nexus Group of Companies. For information call 228-2866. Room 410, Electrical Engineering Building. 1:30 p.m.

Determining Wave Directional Spectra by Beamforming Techniques. Dr. R. Marsden, Physics, Royal Roads Military College. For information call 228-5210. Room 1465, Biological Sciences Building. 3:30 p.m.

Geological Sciences Seminar

Application of Statistics and Geostatistics at Byron Creek: A Complexly Deformed, Actively Mined Coal Deposit in S.E. British Columbia, B. Nolan, ESSO Resources Canada Ltd. For information call 228-6179. Room 330A, Geological Sciences Centre. 3:30-4:30 p.m.

UBC Reports is published every second Thursday by UBC Community Relations 6328 Memorial Road, Vancouver, B.C. V6T 1W5, Telephone 228-3131. Editor-in-Chief: Don Whiteley Editor: Howard Fluxgold Contributors: Jo Moss, Lorie Chortyk, Debora Sweeney, Gavin Wilson.



Physical Education professor Stanley Brown enjoys leading lunchtime exercise classes. He is retiring in July at age 65 after 25 years on the job.

Biotechnology Seminar

ces Downstream of the Translation Initiation Codon on the High Level Expression of a Petunia rbcS Gene. Dr. Caroline Dean, Advanced Genetic Sciences, Oakland, California. For information call 228-4838. Room 2000, Biological Sciences Building. 4:00 p.m.

Financial Planning Seminar

Sponsored by the Faculty Association and Centre for Continuing Education. Financial Planning for the Future. Nancy McKinstry, Financial Advisor & Accounts Executive, Odlum Brown Ltd. Open to Faculty Association Members & Spouses; FREE. For information call 222-5270. Room 1100, Mathematics Annex Building. 4:30-6:00 p.m.

Lecture Series for Physics Teachers
Applied Physics Program at TRIUMF. R.R. Johnson. For information call TRIUMF Information Office at 222-1047. Free parking beside TRIUMF Buildings. TRIUMF Auditorium.

Our Common Future Lecture Series

Sponsored by the Environmental Interest Group. The Urban Challenge. Dr. Peter Oberlander, Director, Center for Human Settlements. For information call 224-0299. Lecture Hall 2, IRC. 7:30-9:30 p.m.

WEDNESDAY, MAR. 2

Pharmacology & Therapeutics Seminar

Genomic Organization. Dr. D. Bailey, Biological Sciences, SFU. For information call 228-2575. Room 317, Basic Medical Sciences Building, Block C. 12:00 noon.

Wednesday Noon-Hour Series

Sponsored by the School of Music. Tom Parriott & Ray Kirkham, trumpet; Edward Norman, organ. Admission by Donation. For information call 228-3113. Recital Hall, Music Building. 12:30 p.m.

Forestry Seminar

The Functioning of the Western States Legislative Forestry Task Force. Mr. James B. Corlett, Executive Director, Western States Legislative Forestry Task Force, Portland, Oregon. For information call 228-2507. Room 166, MacMillan Building. 12:30-1:30 p.m.

Career Planning

1st Session. Margaretha Hoek, Women Students' Office.
Pre-registration required at Office for Women Students, Brock
203. For information call 228-2415. Penthouse, Buchanan Building. 12:30-2:20 p.m.

Ecology/Resource Ecology Seminar
Experimental Studies of Temporary Pond Communities. Dr.
Henry Wilbur, Zoology, Duke University. For information cal
228-4329. Room 2449, Biological Sciences Building. 4:30

Jazz Live

Sponsored by the Graduate Student Society. Oliver Gannon, guitar. Free. For information call 228-3203. Fireside Lounge, Graduate Centre. 5:30-8:00 p.m.

Bridge

Sponsored by the Graduate Student Society. Beginners Welcome. For information call 228-3203. Fireside Lounge, Grad Centre, 6:00 p.m.

Free Lecture Series

Sponsored by Centre for Continuing Education. Health and The New Work Agenda; Planning Future Directions for a New Work Agenda for B.C. Clyde Hertzman, Director, Medicine. For information call 222-5238. Lecture Hall 4, IRC. 7:30-9:00

Retirement Planning Seminar

Sponsored by the Faculty Association and Centre for Continuing Education. Planning for the Retirement Years. Dr. James H. Lynch and panel of UBC emeritus professors and spouses. Open to UBC Faculty Association members & spouses. Free. To register call 222-5270. Music Room, Faculty Club. 7:30-9:45 p.m.

THURSDAY, MAR. 3

Psychiatry Lecture

Lessons from the Gaza Pseudohermaphrodites. Dr. W. Maurice, Head, Sexual Medicine, Shaughnessy Hospital. For information call 228-7341. 2NA/B, Psychiatric Pavilion,

Chamber Music Ensembles

Sponsored by the School of Music. Free. For information call 228-3113. Recital Hall, Music Building. 12:30 p.m.

Panel Discussion

Sponsored by the Department of Theatre. The Turn of the Screw, by Benjamin Britten. Dorothy Somerset Studio. 12:30

School of Community & Regional Planning Lecture

Regional Planning as Rural Planning. Dr. Gerald Hodge, School of Community & Regional Planning. For informatio call 228-5326. Room 107, Lasserre Building. 12:30-1:30

Biotechnology Seminar

Molecular Biological Approach to the Structure, Function and Assembly of the Sodium Pump Subunits. Dr. Kunio Takeyasu, Biology, The Johns Hopkins University, Baltimore, Maryland. For information call 228-4838. Room 3, IRC. 4:00

Physics Colloquium

Physics of Laminated Wood Products. Dr. Mark Churchland, MacMillan Bloedell. For information call 228-3853. Room 201, Hennings Building. 4:00 p.m.

Economics Labour Workshop
Labour Stoppages and the Theory of the Offset Factor:
Evidence from the British Columbian Lumber Industry. Harry
J. Paarsch, UBC. For information call 228-3320. Room 351, Brock. 4:00-5:30 p.m.

Douglas Mckenzie Brown Lecture Canada: Federation or Confederation? Professor M.D. Copithorne, Q.C., Law. Room 101, 102, Curtis Law Building.

Faculty Recital

Sponsored by the School of Music. Alan Rinehart, guitar Free. For Information call 228-3113. Recital Hall, Music Building. 8:00 p.m.

Political Science Forum

Forum on What an M.A. in Political Science Entails and Where It Can Lead? Six Guest Speakers. For information III 228-2717. Garden Room, Basement of Graduate Centre 8:00-10:00 p.m.

FRIDAY, MAR. 4

UBC Chamber Singers

Sponsored by the School of Music. Cortland Hultberg, director. Free. For information call 228-3113. Recital Hall, Music Building. 12:30 p.m.

Pharmaceutical Sciences Seminar

State-Dependent Modulation of Somatosensory Thalamus in the Awake Behaving Monkey. Dr. Tom Morrow, V.A. Medical Center, Ann Arbor, Michigan. For information call 228-3183. Lecture Hall 3, IRC. 12:30-1:30 p.m.

Calendar Deadlines

For events in the period March 13 to March 26, notices must be submitted on proper Calendar forms no later than 4 p.m. on Wednesday, March 2 to the Community Relations Office, 6328 Memorial Road, Room 207, Old Administration Building. For more information, call 228-3131.

Talks on Women and Research

Sponsored by the Academic Women's Association. History of Women in Journalism, Dr. Marjorie Lang & Linda Hale; The Women's Studies Programme, SFU, Dr. Mary Lynn Stewart, History, SFU. For information call 228-6477. Room 30, Family & Nutritional Sciences Building. 12:30-1:30 p.m.

Medical Genetics Seminar

Aberrant Situation of Growth Factor Genes in Myeloid Leukemia, Dr. Kevin Leslie, Biomedical Research Centre For information call 228-5311. Parentcraft Room, Main Floor, Grace Hospital, 4490 Oak Street, Vancouver. 1:00 p.m.

Chemical Engineering Seminar

Microbiological Leaching of Chalcopyrite. Ms. A. Blancarte, Chemical Engineering. For information call 228-3238. Room 206, Chemical Engineering Building. 3:30 p.m.

Economics Seminar

Behavior of the Yen-Dollar Exchange Rate. V. Roley, University of Washington; T. Ito, Minnesota. For information call 228-2748. Room 351, Brock. 4:00-5:30 p.m.

Beer Garden

Sponsored by the Graduate Student Society. For information call 228-3203. Ballroom, Graduate Centre. 4:30-7:30 p.m. Sponsored by the Graduate Student Society. With Mary

McAlister, Free, For information call 228-3203, Fireside Lounge, Graduate Centre. 7:00-12:00 midnight.

Music Building. 8:00 p.m.

UBC Chamber Singers Sponsored by the School of Music. Cortland Hultberg, director. Free. For information call 228-3113. Recital Hall,

SATURDAY, MAR. 5

Vocational Testing and Career Counselling Sponsored by Centre for Continuing Education. Pre-registration required. For information call 681-2910 or 685-3934. Women's Resources Centre, #1 - 1144 Robson Street.

9:30 a.m. or 1:30 p.m.

UBC RugbyUBC vs. Kats. For information call 228-2531. Thunderbird

International Food Fair

Sponsored by International House. Various meat and vegetarian dishes; entertainment from Ghana & South America; dance from 9-12 midnight. \$5, \$4 members, \$1 children (under 6). For information call 228-5021. International House, 5:00-9:00 p.m.

SUNDAY, MAR. 6

French Immersion Program

All-day French Immersion Program. \$60 includes lunch and dinner. For information call Language Programs and Services, Centre for Continuing Education at 222-5227. Registration at the door is possible for anyone over 18 years of age. Room D339, Buchanan Building. 10:00 a.m.-10:00

MONDAY, MAR. 7

Centre for Human Settlements Lecture
The First Two Post-War Decades: From Financing Houses to
Renewing Cities. George D. Anderson, President, Canada
Mortgage and Housing Corp., Ottawa. For information call
228-4818. Room 102, Lasserre Building, 12:30 p.m.

Plant Science Seminar

Integrated Management of Plant Disease in B.C. Agriculture. Andrea Buonassisi, B.C. Ministry of Agriculture and Fisheries, Cloverdale. For information call 228-2329. Room 342, MacMillan Building. 12:30 p.m.

Forestry Seminar

Ancient Forests - Priceless Treasures. Dr. C. Maser, College of Forestry, Oregon State University, Corvallis, Oregon. For information call 228-2507. Room 166, MacMillan Building.

Mechanical Engineering Seminar

Boundary Element Application for Porous Membranes. C. Keng Yu; Some Structural Dynamical Aspects of the Proposed Space Station. A. Suleman. For information call 228-4350. Room 1215, Civil & Mechanical Engineering

Cells. Dr. Darryl Stafford, University of North Carolina, Chapel Hill. For information call 228-3027. Lecture Hall 4, IRC. 3:45 p.m. **Applied Mathematics Seminar** Modified Adams Method for the Solution of Non-Stiff Problems. Dr. Saideh Mortezaie, Postdoctoral Fellow,

Biochemical Discussion Group Seminar
The Mapping of Antibodies to Human Factor VIII and IX, and
the Expression of Human Factor IX in E. Coli and Animal

Imperial College, London, U.K. For information call 228-4584. Room 229, Mathematics Building. 3:45 p.m. **Astronomy Seminar**

Menon, UBC. Coffee at 3:30 p.m. For information call 228 4134. Room 260, Geophysics & Astronomy Building. 4:00

Philosophy Lecture

The Vicissitudes of Virtue. Amelie Rorty. For information call 228-2511. Penthouse, Buchanan Building. 4:00 p.m.

Economics Seminar

Female Wage Growth in the United States: 1968-1983.
Thomas A. Mroz, Hoover Institute & University of Chicago.
For information call 228-3320. Room 351, Brock. 4:00-5:30

Preventive Medicine & Health Promotion

Population Attributable Risk on Microcomputer Spreadshee Dr. John H. Milsum, Head, Preventive Medicine & Health Promotion. Free. For information call 228-2258. Room 253,

James Mather Building. 4:00-5:30 p.m.

Physiology Seminar Energetics of Terrestrial Locomotion: From Running Sideways to Exercising without Legs. Dr. R.J. Full, Zoology, University of California, Berkeley. For information call 228-4228. Room 2449, Biological Sciences. 4:30 p.m.

Continued on Page 3