No more needles?

BY DAVID LEIBL  
For The Bulletin

Three enterprising University of Manitoba students have teamed with one of the university’s rising research stars on an initiative that could have a dramatic impact on the lives of people with diabetes.

J.H. Asper School of Business students Allen Ortega and Derek Duncan are heading up the business side of a project that has pioneering research conducted by chemistry professor Michael Freund as its centrepiece.

Freund, who is a Canada Research Chair in conducting polymers and electronic materials, has developed leading-edge glucose sensors that are the width of a human hair. The tiny sensors open the door to new, minimally invasive ways of continuously monitoring blood sugar levels in diabetics. Ortega and Duncan have been working on a business plan they hope could bring such a product to market in as little as five years.

If successful, the product has the potential to revolutionize the way people living with diabetes cope with the disease. Instead of the discomfort of testing blood sugar levels at intervals throughout the day with a finger prick, the team envisions a minimally invasive sensor implant that would transmit a signal to a receiving device. The sensors would transmit information to a wristwatch, meaning people with diabetes would know their blood sugar levels simply by glancing at their wrist. And unlike traditional monitors, Freund’s glucose sensors would provide continuous monitoring with much greater accuracy.

Engineering graduate student Michael Trachtenberg, a friend of Ortega, is focusing on developing a means to transmit information from the sensor to an external device on which the signal could be read.

See NEW/P. 3.

Students help out over holidays

There’s no doubt about it, University of Manitoba students are a giving bunch, and they were out in force during the holiday season doing what they could to help people in Winnipeg.

Bison athletes were busy volunteering at Siloam Mission, located on Princess Street in Winnipeg’s core area. Male and female athletes from a variety of different sports divided up a week and each took a turn dishing up meals for the Siloam Mission’s clients.

Fifth-year women’s volleyball player Lindsay Poggemiller was the driving force behind the initiative. She’s been a volunteer at the mission for the past three years.

“This is a small way for Bison Sports to reach out to the community during the holidays. They are in need of volunteers during this time of the year and I knew that we could rally and provide help,” Poggemiller said. Approximately 350 - 450 people visit the Siloam Mission each day. Approximately 95 per cent of the mission’s patrons are First Nations people. The mission assists in transitioning homeless and disadvantaged people to more self-sufficient and healthier lifestyles by providing referral services, life-skill development, education upgrading and employment training opportunities.

Over the first half of the season, Bison Sports collected over 600 lbs of canned and dry food items for Winnipeg Harvest during various “tin for the bin” drives during Bison home events. In addition, over 175 lbs of non-perishable food items were donated to the U of M Food Bank and over 30 wrapped toys were donated to the Christmas Cheer Board.

Meanwhile, second-year dentistry students made a difference in the lives of two families this holiday season by collecting food and cash donations in conjunction with Winnipeg Harvest.

This marked the first time dentistry students coordinated a hamper initiative for underprivileged families. The students appealed to classmates, staff and faculty in the Faculty of Dentistry to fill two hampers and raise $900 – $450 for each family.

Coordinators Jonathan Archer and Lori Simoens put out the faculty-wide call for donations in November and set up collection depots in the dean’s office and student lounges. “We are all extremely fortunate,” Archer said. “We must not forget those in our community who are less fortunate.”

“We may be stressed and tired, but we’re not unfortunate,” Simoens echoed.

The students were pleased with the success of the hamper drive, even though they collected less money than planned.

Because it was a trial year, the students had deliberately set a high goal for cash donations, and found they raised more than enough despite the perceived shortfall.

See FOOD/P. 2.

Prerequisite change gives students more flexibility

The University of Manitoba is increasing the range of high school classes that students are allowed to use to meet university entrance requirements for University 1.

The change will allow high school students to tailor their high school work to their future interests in university. However, the most significant change that comes out of the revision will be dropping the Grade 12 math requirement for entry to University 1.

A unique approach to treating first-year university students, University 1 serves as a springboard into other faculties for students. Grade 12 math and English have been required for entrance into University 1, however while the science and medical oriented faculties specifically require Grade 12 math for entry into all or most of their courses, Arts, Law and other faculties do not.

At other major universities across Canada, only math is a requirement for Grade 12 math for entry into the Faculty of Arts. The concern for the University of Manitoba is that a student debating whether to apply to the U of M or another university might choose the other university if their goal is an Arts degree.

But, at the Dec. 7 Senate meeting, Science dean Mark Whitmore said dropping the Grade 12 math requirement will cause problems for students looking to transition from U1 into Science.

“If math were dropped from University 1, we would need to look at new entrance requirements to our courses for students transitioning out of U1,” Whitmore said.

Enrollment services executive director Peter Dueck said the change shouldn’t alter what students will need if they plan a career in the sciences. They’ll still need to ensure they have Grade 12 math, or they’ll need to pick up an equivalent level course in University 1 before they can transfer into the Faculty of Science and the more medically oriented faculties.

University 1 will not allow students to graduate with half empty classrooms or empty labs by the end of the academic year.

However, the university still has an unusually high percentage of students who withdraw from classes compared to other universities. Reason enough, vice-president (academic affairs) Karen Grant said, to review the situation.

However, the rationale for getting rid of the voluntary withdrawal restriction also has a technological component – the new Aurora Student Information System does not allow for a voluntary withdrawal cap.

That technological motivation for changing policy irritated Senate members Arlene Young and Philip Hultin at the Dec. 7 Senate meeting.

“This situation is an example of allowing the tail to wag the dog,” Hultin said. “I disagree with having a cap. I give a piece of software tells us how to run our business.”

Registrar Neil Marnoch said as with any computer program, Aurora will allow the university to do some new things – such as tracking different streams of GPAs (academic affairs) Karen Grant said, to review the situation.

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New innovation would help people with diabetes

From Page 1

His experience working with antennas will have a practical application as the project moves forward.

The students have started a business to develop a product intended to alleviate the daily regimen of blood testing and lessen the complications that stem from the relatively sparse information that traditional testing provides. They’ve named their company GlucoCor, and Ortega is serving as CEO. They have no misconceptions about the amount of money they’ll need to do further research and then build and test a prototype, although they do have a plan to shore up the necessary capital.

This spring, the students will leave for San Diego and then hit three more stops in the United States. They’ll be competing in major American business-plan competitions that boast big cheques for the winners and an opportunity for face time with industry players and potential investors.

If history repeats itself, the students will return to Winnipeg with a higher profile and some money to help build their business. Under the leadership of Bob Warren, who heads the university’s Asper Centre for Entrepreneurship, University of Manitoba business students have consistently returned from the major American competitions with top awards. A combined $200,000 in prize money is up for grabs at the major American business-plan competitions that boast big cheques for the winners and an opportunity for face time with industry players and potential investors.

Although it will be two months before the students unveil their business plan at the U.S. competitions, they’ve already received interest from a local business person. The students are certain there will be demand for their product if they’re successful in bringing it to the marketplace.

"Diabetes is a $9-billion market," Ortega says. "Freund points out that the product would result in savings to the health-care system. "There’s so much money plowed into the system because of complications due to lack of diabetes control," he says. Precise, continual monitoring would help change that. In fact, because the glucose sensor opens the door to continual monitoring outputted to an external device, it could be detailed blood sugar data that could be provided to health practitioners.

If successful, the team believes their product would render the traditional enzyme-based testers obsolete. The accuracy of the glucose tester, as well as the prospect of non-invasive continual monitoring, would spell the end of the testers now on the marketplace, they say.

For individuals with diabetes, a procedure to implant the glucose sensors would likely take place about twice per week. Because the sensors are so tiny, the process would be simple and minimally invasive. "No more invasive than the average piercing," Freund says only half-joking.

The students are eyeing a timeline of about five to six years before their product would hit the market. They point out, however, that the more money they can show up from venture capitalists, the more they can allocate to the research, product development and testing that will be necessary to end up with a product that could have a big impact on people living with diabetes. Freund is looking even beyond the glucose sensor. Paired with a device that administers glucose, for example, the technology could someday make daily blood testing and insulin injections a distant memory.

BY RENEE BARCLAY
For The Bulletin

Students at the Bannatyne Campus are showing their creative side with a collection of their photography depicting international poverty.

In an effort to raise awareness and funds for international aid, students at the Faculty of Medicine are selling 2006 calendar images taken by students at the Bannatyne Campus.

We asked all faculties at the Bannatyne Campus for international students to submit photos to represent the theme 'Make Poverty History,'" says Joce Reimer, a second-year Medicine student and president of the Manitoba Medical Students Association (MMSA). "The MMSA put out a call for photos recently and the response was better than expected with over 100 submissions.

"The idea was supposed to be a way to both raise awareness about poverty and to give students an opportunity to share their experiences with others," Reimer says. "To shortlist the shots submitted, the MMSA enlarged 66 of the photos to 8x10 and put them on display in the Bannatyne Centre Atrium in November. Students, staff and faculty voted on the ones they like best, and the top 12 now appear in the 2006 Make Poverty History calendar.

First-year Dentistry student Kiet Do submitted a striking black and white photo of his father's scarred and disfigured hand, holding the tiny hand of his young child. "This picture means so much to me," Do says of the photo he took to honour his parents for the sacrifices they made in order to raise their seven children. "It reminds me of how hard my parents worked to raise (us). I know that it hurt them a lot that their children grew up in poverty and did not have the privileges that other children had."

While none of the calendar’s images are overly disturbing, they all focus on international poverty. The calendars are on sale for $12, and all money raised above the cost of production will go to the Red Cross and CARE Canada – an organization fighting global poverty. For more information or to obtain a calendar, contact Joce Reimer at jocereimer@gmail.com.

The National Bible is a rare first edition

Scholars at the University of Manitoba and Canadian Mennonite University have discovered that an old Bible donated to St. John’s College in 1897 is actually an original first edition of the King James Bible.

“We could never prove until now that it was a first edition, first printing,” says Shelley Sweeney, head of archives and special collections in the University of Manitoba Libraries.

For many people, the English language Bible as we know it today is the King James Bible. Original first editions have sold for over $400,000 US at recent auctions. The Bible has engraved title pages, oak wood and leather bindings, ornamental woodcut borders and an added genealogy and lineage of Jesus.

It was printed in England in 1611. Sweeney says there was a note in its provenance that it was even used by King James I himself.

English scholar Paul Dyck at the Canadian Mennonite University researched the University of Manitoba copy of the Bible.

Working with Sweeney, checking early records and stylistic irregularities, they realized it was not just an early version, but a rare first edition and first printing.

The Bible was part of a collection donated to St. John’s College in 1897 by Rev. Daniel Greatorox. St. John’s College was one of the founding colleges of the University of Manitoba.

"It’s an exciting find, firmly establishing a significant value and importance to this item in our collection," says Sweeney.

The Rare Book Room in the University of Manitoba Libraries contains many early works of interest, including a Book of Hours printed on parchment in Venice in 1501, illustrated with images of the Blessed Virgin Mary including the birth of Jesus in the stable.

A public affairs news release detailing the history of the University of Manitoba’s King James Bible was released just before Christmas and generated a lot of media interest. It recently in- cluding l’Agence France-Presse and a feature on CBC’s The National on Dec. 21. Sweeney was also interviewed on CBC Newsworld, the morning of Dec. 22.
COPSE debates requirements for medical professions

BY DALE BARBOUR

The Bulletin

The Council on Post-Secondary Education, which oversees university programming, gave the University of Manitoba the go-ahead to continue developing new academic programs, including a bachelor of science in health sciences, a bachelor of arts in health studies and a bachelor of science in geological studies.

However, a request by the university for initial support to develop a master of veterinary medicine was denied by COPSE. A change that would turn physical therapy into a graduate level program has been reviewed.

In a letter to the university, COPSE post-secondary programming manager Susan Deane said departments of health across Canada have been concerned about the number of health-related professions that have increased the education credentials required for entry to practice. As a result, the coordinating committee for entry to practice credential change has been established to review such requests.

Deane noted Dalhousie University is already looking at replacing its bachelor in physical therapy with a masters program, similar to the U of M request. Any consideration of the U of M request, similar to the U of M's request.

Senate briefs

MASTERS PROGRAM

Senate approved changes on Dec. 7 intended to streamline and remove redundancies in its joint masters programs general regulations. The regulations outline how the program is run in partnership with the University of Winnipeg.

Previously, the Graduate Students' Association had selected two student representatives to the joint masters program's committee. However, under the changes final approval for the U of W student regualtions and rests in the hands of the U of W Senate.

GSA president Meghan Gallant said the change breaks with tradition by taking the appointment of the student representative outside of the direct control of the students – although the committee involved in the appointment would have students representatives on them.

Gallant noted the GSA represents graduate students from both universities and that students involved in the joint masters program typically don’t see themselves as tied to one specific university.

The University of Winnipeg Senate has already approved the new regulations and after some debate, Senate did vote to go ahead with the revisions as presented.

NEW APPOINTMENTS

The Faculty of Music and the Faculty of Nursing both have new people sitting in the dean’s position.

Dean Care has stepped in as acting dean for the Faculty of Nursing following the recent death of Marlene Reimer. Reimer had assumed the dean’s position in July.

Juliette Cooper was appointed acting dean of the Faculty of Medicine, following in the footsteps of Dale Lonis who recently stepped down from the position. Cooper has previously served as the director of the School of Medical Rehabilitation. Vice-president (administration) Robert Kerr said both positions will extend until June, 2007, giving the faculties stability while the search for permanent deans goes on.

Meanwhile, in the Faculty of Pharmacy, Sheryl Zelenitsky will serve as acting dean while David Collins is on leave to do work at the Bannatyne campus.

PAYING RESPECT

The University of Manitoba Senate paid its respect at its regular meeting on Dec. 7 to a number of faculty members and former faculty members who died recently.

Edmund Berry, classics, died on Nov. 3 at the age of 90. He had joined the University of Manitoba in 1940 and was awarded the title professor emeritus which he retired in 1980.

Paul Fortier, French, Spanish and Italian, died on Oct. 15 at the age of 66. Fortier had been with the university since 1972 and held the title of distinguished professor. At the time of his death, Fortier was working on a research grant administered through the Centre on Aging.

A memorial service was held for Richard Wesley MacAmmond, Education, on Sept. 19. MacAmmond had joined the University of Manitoba in 1965 after working as an instructor in the Manitoba Teachers College.

Donald Bruce Sealey, a professor emeritus in Education, died on Sept. 7 at the age of 79. A Metis, Sealey had taught cross-cultural education in the Faculty of Education.

Faculty of Nursing dean Marlene Reimer died on Nov. 1. Reimer had just joined the faculty as its new dean on July 1 after spending the majority of her career at the University of Calgary.

PROGRAM CAP

The Faculty of Human Ecology is capping the number of entrants to each of its major programs at 80 students.

The faculty's four major programs are family social sciences, human ecology (general degree), human nutritional sciences and textile sciences. Overall the faculty has about 450 students. Human Ecology dean Gustaaf Sevenhuysen said the challenge for the faculty is that entry to programs is uneven – stressing some programs, while leaving others with available space.

NEW CONVOCATION CEREMONY

The Faculty of Medicine will celebrate convocation at the Bannatyne campus in 2006. Senate agreed to a proposal to hold a session of convocation for graduates of the Faculty of Medicine on the Bannatyne campus beginning this year. The medical convocation will be held Friday, May 12.

Toy drive helps Winnipeg children

The University of Manitoba Security Services’ Toy Drive had a successful year with donations totalling 76 toys for boys and girls from infant to 12 years of age. All of the donations were delivered to Salvation Army Community Ven- ture on Logan Ave. on the morning of Dec. 21. There is always a demand for toys at this time of the year and Security Services appreciated the generosity of donors.

UM Merit Awards for 2005

Applications and nominations for the Merit Awards for UMFA members are now being accepted. The awards are for the calendar year 2005.

Article 25 of the Collective Agreement between The University of Manitoba and The University of Manitoba Faculty Association provides for Merit Awards of $5,000 each. Awards will be available in four specified categories:

a) Teaching - up to eight (8) awards;

b) Research, Scholarly Work, and Other Creative Activities - up to eight (8) awards;

c) Service - up to six (6) awards; and

d) Any combination of Teaching, Research, Scholarly Work and other Creative Activities, and Service - up to eight (8) awards.

Applications and nominations must be made using the form available from:

• the offices of Deans, Directors, College or Department Heads;

• the Human Resources Department;

• the University of Manitoba Faculty Association office; or

• www.umanitoba.ca/admin/human_resources

The original and 4 copies of the completed application/nomination form and 4 copies (if possible) of any supporting documentation must be received by the Joint Committees, c/o Human Resources Department, Administration Building no later than 4:00 p.m. February 17, 2006. Late applications and nominations will not be considered.

Please contact Marvel Sheldrake at 474-7861 if you have any questions.

IEEQ COORDINATOR

Design Engineering, Faculty of Engineering University of Manitoba

This position will primarily coordinate a newly established national initiative of the Internationally-Educated Engineers Qualification Program (IEEQ Program). Duties include designing and maintaining the recruitment program and materials, promoting the program to professional organizations across Canada, recruiting students into the program, maintaining the program budget and reporting on the program to local and national stakeholders.

Qualifications:

Bachelor of Science in Engineering with Professional Engineer (PEng) designation required. A minimum of five years professional Engineering experience required.

Knowledge of the engineering industry and university academic processes preferred. Excellent public speaking experience essential. Experience with program development and with developing and managing a budget required. Excellent verbal and written communication skills essential. Effective organizational and administrative skills (i.e. MS Office) required. Ability to work effectively both independently and as a team member. Ability to set priorities, multi-task and work effectively under pressure and time constraints. Ability to work in harmony with others. Ability to provide a professional and positive public relations image.

For more information on this opportunity, please visit the website: www.umanitoba.ca/employment

The University offers excellent benefits programs. Salary: $48,359 - $73,389 per annum. Qualified candidates are asked to submit a resume and the names of three business references by 4:00 pm, January 27, 2006 to Myra Friesen, Office Manager, Design Engineering, Faculty of Engineering, E2-262 EITC, Winnipeg, MB R3T 5V6.

Volunteer language partners

The University of Manitoba Language Centre invites you to volunteer as a language partner.

• The offices of Deans, Directors, College or Department Heads;

• The Human Resources Department;

• The University of Manitoba Faculty Association office;

• www.umanitoba.ca/admin/human_resources

You will ...

• work 2 hours a week in the Language Centre, University of Mani- toba! Spend one hour a week for Creative Activities, and Service - up to eight (8) awards.

• service to the Language Centre.

• work 2 hours a week in the Language Centre.

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WELCOME TO OUR NEW FACULTY MEMBERS

The University of Manitoba has always focused on the twin goals of teaching and research. With those goals in mind, The Bulletin is proud to welcome the university’s new faculty members. As a new feature The Bulletin will be profiling new professors, looking at where they come from and where their teaching and research projects will take the university in the future.

STEPHEN GRIMMER
Assistant Professor and Area Head
Department of Ceramics
School of Art

She is also with saxophonist MB, R3T 5V5. Studies Centre, 328 Fletcher Argue

Position number:

Salary:

Position:

Application deadline:

The Bulletin is pleased to announce that Ms. Sherri Walsh has assumed responsibility for investigations under the University of Manitoba’s Respectful Work and Learning Environment Policy.

LAURA LOEWEN
Assistant Professor of Collaborative Piano, Vocal Coach
Faculty of Music

For information: 474-8555 or 474-7388. Advisor and can be reached at

Ms. Walsh’s involvement with equality and social justice issues continues outside her practice. She is currently a member of the National Legal Committee of the Women’s Legal Education Action Fund and Vice-President of the Board of Winnipeg Harvest.

FACULTY OF ARTS
Asian Studies Centre

sarial instruction at the Faculty of

Ms. Walsh is frequently retained by the Manitoba Bar Association Pro Bono Publico In- terest Law Award and in 2000 she was the recipient of the Human Rights Commitment Award, the latter being awarded jointly from the Federal and Provincial Hu-

MANITOBASherrri Walsh

Salary:

Position:

Application deadline:

FACULTY OF MEDICINE
Office of Medical Education

For information: Dr. Dan Roberts, professor and head, department of internal medicine, Room GC430, Health Sciences Centre, 820 Sherbrook St., Winnipeg, MB, R3A 1L9.

FACTORIAL NUPPOMI

Position: Assistant professor in Water Resources Engineering

Start date: July 1

For information: Ms Betty Carol, administrator, Co Faculty of Medicine, University of Manitoba, 270 Brodie Centre, 727 McDermot Ave, Winnipeg, MB, R3E 3P5.

Department of Internal Medicine
Winnipeg Regional Health Authority

Program: Head, University Section of Physical Medicine and Rehabilitation head and Winnipeg Regional Health Authority medical director

Salary: Salary and rank will be dependent upon qualifications and experience

Application deadline: March 15

Position number: AEA 672

For information: Dean, Faculty of Nursing, The University of Manitoba, Winnipeg, MB, R3T 2N2, fax 4747500.
Taking a multidisciplinary look at Aboriginal issues

**Books by University Staff**

**BY DALE BARBOUR**
The Bulletin

History professor Denise Fuchs and PhD candidate Mary Jane McCallum didn’t start out with the goal of producing *Intersecting Worlds: Rural and Urban Aboriginal Issues*. But, having gone through the process of editing the collection of student papers that covers everything from historical to legal to sociological research on Aboriginal issues, they wouldn’t have missed the experience for the world.

*Intersecting Worlds* began with a Canadian Studies conference held at the university in March 2004,” Fuchs said. “We were both on the steering committee and at the very last meeting we were all commenting about the quality of the papers. Canadian Studies coordinator Kathryn Young said it would be a good idea to pull the essays together into a book and Mary Jane and I jumped in and said we would give it a try.”

It was a new experience for both of them.

“We went through the whole process, from working with the writers to finding a publisher to figuring out a cover,” Fuchs said. “In the end, St. John’s College Press was their best fit and the cover features a picture of lobster traps at Burnt Church, where the 1999 confrontation between Aboriginal people and other Maritime fisheries occurred.

“All the essays have to do with current debates, whether it be repatriation of artifacts or Aboriginal rights and justice,” Fuchs said. *Intersecting Worlds* kicks off with an essay by University of Ottawa professor Olive Dickason that had formed the keynote address for the original conference.

The rest of the book is drawn from graduate students who made presentations at the conference: “An essay by University of Manitoba Native Studies student Karen Froman throws into question the stability of known categories of ‘Indianness,” McCallum said. “Froman can trace her roots to Mohawk, Dutch and English groups. She has lived through the conflicted issues of identity and her paper gets to the heart of these intersections.”

For most of the students, it was the first chance to see their work in print, making them keen participants in the process of putting the book together. An essay about self-government, for example, looks at whether self-government is as liberating as it sounds or whether it could be as restrictive as the laws under the Indian Act,” Fuchs said. Another essay by Obijway master’s student Marie-Asante Marciel was official and unduly convoluted writing often found in government documents and rephrases it in plain English to illustrate how official language can form a barrier to Aboriginal people looking to use government programs.

The Canadian history student looks at the intermediary role played by Metis people between Aboriginal and government officials when the numbered treaties – the treaties that signed over most of Western Canada to the Canadian government – were being negotiated between 1871 and 1877.

“It’s probably the most historical paper in the collection,” McCallum said. In contrast, the essay focusing on B.C. Church recognizes the historical roots of the 1999 “Lobster Wars,” but its subject matter is entirely contemporary – the role of Aboriginal women in the context of activism. Using interviews with the people, Danielle Soucy writes about women’s resistance, and how it is often disregarded by the mainstream media. Merrill-Ann Phare’s paper reflects on the legal implications of international trade agreements’ disregard of Aboriginal water rights. Two other papers on contemporary issues – repatriation and management – argue that Aboriginal input and cooperation are changing the ideology and methods of Canadian museums and national parks.

New student record system is almost ready to go live

This is the year that Aurora will go live. Previously known as Banner, Aurora is the new student and finance information system. Much work has been going on behind the scenes for a couple of years; soon other members of the University of Manitoba community will begin to see benefits of this web-based system.

Aurora will replace the current IMS system and brings with it the technology and functionality to take the University into the future.

The U of M is joining other universities in moving from legacy administrative systems to ones supporting current information requirements and technological opportunities.

Aurora Finance launches on April 1, 2006. Aurora Student begins its rollout in the spring, with the fall student registration to take place in July of 2006.

Aurora Finance will replace the current financial system, including general ledger, accounts receivable and billing system, purchasing/payables (WallTracker System), budget striking and maintenance, inter-departmental charges and the Capital Equipment Inventory System. It also provides a great reporting tool that enables users to easily monitor their budgets from their desktops.

Aurora Student will offer enhanced services to students, support staff and faculty. Students and staff will be able to access information about registration, courses, grades and status in degree programs easily through the web. Faculty will be able to calculate and report grades to students on-line.

Change of this magnitude always brings challenges for users, and to ease the transition a number of supports will be provided. Practical, mostly hands-on training will begin soon and will be available throughout the year as different modules go live. Participants will be asked to self-select sessions, available at a variety of times, based on the ways they will use the systems. Registration will be available on-line.

A web site is currently being updated and will house all Aurora user information, including help files and other user support materials such as self-paced learning resources.

Other supports will include a help desk, coaches, and information in *The Bulletin*, *The Manitoban*, newsletters, and e-memos directing readers to the web-site. You will soon receive an e-memo regarding Aurora Finance training on-line registration. Some users have been invited to specialized training for Aurora Student in this month; general user training will be in Spring 2006.

If you have questions in the meantime, please contact Miranda Hodgson, communications specialist, LDS, at 474 6357, hodgsonm@ccumanitoba.ca.

The word you see is ‘Hope’

**BY KIMBERLEY CORNEILLE**

For The Bulletin

University of Manitoba medicine and dental students banded together on Dec. 1, to raise awareness and hope for United Nations World AIDS Day. More than 200 students gathered to spell out HOPE and raise more than $2,000 for CARE Canada, an organization that is dedicated to providing education and prevention of HIV/AIDS in developing countries.

David Allen, committee chair and second year medicine student, said he developed the idea after visiting Ethiopia in summer 2004 with a Christian humanitarian AIDS group. It was then he saw first hand what this devastating disease was doing to the people there and knew that he could help make a difference.

After discussing his visit with fellow students, the Birth of Hope campaign was developed by the committee members.

“Students became involved with the ‘Birth of Hope’ campaign because we knew we can make a difference,” said Allen. “It is part of our journey to do something caring and compassionate doctors.”

Allan Ronald, former associate dean (research) and an Officer of the Order of Canada, spoke to the students about his work in Africa and the benefits of his research and treatment for HIV/AIDS patients. In particular, he discussed his treatment of more than 200,000 children in Africa infected with HIV. Currently, more than 40 million people are infected with HIV and nearly 7,000 die daily from the disease.

Students at the Bannatyne campus banded together to spell the word “hope” on Dec. 1 in recognition of the United Nations World AIDS Day.
Smith is behind the scenes at the Black Hole Theatre

A Day in the Life of a technical director

BY DALE BARBOUR
The Bulletin

Dennis Smith’s job can sound as complicated as you want it to. He’s the technical director and production manager of the Faculty of Arts’ theatre program. He also works as a sessional lecturer in the theatre program teaching a survey course in the technical aspects of the theatre.

But here’s a simpler way to look at it: Smith makes sure everything runs on time at the Black Hole Theatre.

The Black Hole Theatre Company serves as the practical model for the teaching end of things. It’s a producing theatre company staffed and run by the students for the most part,” Smith said. In fact, it’s the students who pick the shows – the Black Hole Theatre.

But after graduation he did a few shows with the Black Hole Theatre since the early-1980s. His own degree was in film with a theatre minor. But after graduation he did a few shows with the Black Hole Theatre on a contractual basis and found he liked the work. When the job of technical director and production manager opened up, it wasn’t hard for Smith to take the position. He has been with the theatre ever since, with the exception of a leave of absence in 1999-02 when he and his partner, Carolyn Kutchyera, worked in Zimbabwe for CUSO running an NGO-sponsored program called the Theatre Project Resource Centre.

The focus of that project was to offer theatre management and technical skills training to roughly 30 drama groups in the high-density suburbs in and around Bulawayo, the second largest city in the country. The drama groups were made up primarily of school leavers who were using theatre as a source of income. He also spent a year dividing his time between the university and professional theatre at the Prairie Theatre Exchange in the early 1980s. He still does professional freelance lighting design and production management on the side, but the appeal of the Black Hole Theatre overrides the other projects.

“I enjoy working with the students and watching them learn and gain confidence in the new skills they’re acquiring. I find that far more engaging than working in professional theatre,” Smith said.

Smith has seen the technology end of the theatre transformed over the course of his career. Equipment that used to fill a room, has been replaced by one or two desktop computers. Although the sound and light control booth is still perched at the back of the Black Hole Theatre in the basement of University College, Smith says that it is possible with the current technology used by the Theatre Program to control the lighting and sound for a production from a location as remote as one’s own home.

“For me, the teaching and training end the students are much more technically savvy than they were 10 or 15 years ago because of their exposure to computers,” Smith added. But if there’s a downside to the changes that have occurred over the past 20 years, it’s that students are also more crunched for time with part-time work and school commitments.

University of Manitoba Students’ Union Scholarship & Bursary and Endowment Funds

Board of Trustees 2005-2006

UMSU is pleased to announce the members of the 2005-2006 Scholarship & Bursary and Endowment Funds Board of Trustees

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On behalf of the University of Manitoba Students’ Union, Amanda Aziz, President, is pleased to announce the Board of Trustees for the UMSU Scholarship & Bursary and Endowment Funds.

The UMSU Scholarship & Bursary and Endowment Funds were created in 1996 to assist students in need, reward excellence and provide services to improve student life.

These two funds, separately incorporated and wholly owned by UMSU, are governed by a Board of Trustees. The Board is comprised of UMSU Executive, students and UMSU Staff and members from the Community at large. Since inception, awards to students surpass 10,000 in number and $5 million in value.

Each year, the combination of student fees and Provincial matching funds from the Manitoba Scholarship and Bursary Initiative, creates annual revenues in the order of $1.3 million. Of those monies, 40% are allocated to bursaries, 30% to scholarships and 30% is endowed in the charity-status Endowment Fund. In recent years, the Endowment has funded several projects on campus including the Bison Patrol, the UMSU Travel Grant Fund and the Gallery of Student Art.

For more information on the UMSU Scholarship & Bursary and UMSU Endowment Funds, please contact UMSU at 474-6822 or umsu@umsu.ca
The Black Hole Theatre Company will be having some fun when it presents Ah, Wilderness! by Eugene O’Neill. Jan. 19 to 22, and 24 to 28 at the Gas Station Theatre.

O’Neill’s great comic vision of American life as it’s supposed to be, Ah, Wilderness! is funny, romantic and poetic; a mood play steeped in nostalgia without being lost in it. This play complements and contrasts the darker side of the family O’Neill gives us in Long Day’s Journey into Night. Can the Millers, an idealized version of the author’s own family, accommodate wilderness within the home place? Ah, Wilderness! is the only comedy in this season’s MTC Master Playwright Festival. It is O’Neill’s version of the classic coming of age story. High school senior, Richard Miller toys with communism, love and alcohol on the Fourth of July. It depicts a happy lighthearted version of the childhood O’Neill longed for.

The 1936 Nobel Prize winner described Ah, Wilderness! as a “comedy of recollection. He wrote the play to prove to his critics that he could portray the comic side of life as well as the tragic.

Ah, Wilderness! will be directed by William Kerr who co-directed our production of Brecht’s Caucasian Chalk Circle for the 2002 Festival. Three years ago, Kerr directed Toodthome Breed’s production of Aches to Aches for the 2003 Pinterfest.

Medical rounds are typically targeted at university staff and professionally directly involved in the medical field.

**Monday, January 12**

**Immunology: Annual Graduate Student Research Presentations,** Viral immunity profiles useful markers for asthma, bronchial and prematurity by Renée Douville, B.Sc. (Hons.) (University of Manitoba), Ph.D. in Immunology (University of Manitoba, in progress), 12 p.m., and Protective immunity induced by a mutant of Chlamydia muridarum by Deepthi Manda, B.Sc. (Anhiva University, India), M.Sc. (Nagazhina University India), M.Sc. in Immunology (University of Manitoba, in progress), 500 John Buhler Research Centre, 12:30 p.m., Thursday, Jan. 12.

**Tuesday, January 17**

**Internal Medicine,** Biological Therapies in ILD by Brian Reagan, professor of medicine, University of Western Ontario, Robarts Research Institute, Theatre A Basic Medical Sciences Building, linked to NG002 St. Boniface Hospital, 12:30 p.m., Tuesday, Jan. 17.

**Tuesdays, January 24**

**Internal Medicine,** Hemopoietic Stem Cell Transplantation: Progress and Strategies in Cellular Therapy by Oncology Christopher Bredeson, director – Manitoba BMT Program and Program in Blood Research at the Biomedical Sciences Building, linked to NG002 at St. Boniface Hospital, 8 a.m., Tuesday, Jan. 24.

**Wednesday, January 18**

**Obstetrics, Gynecology and Reproductive Sciences,** Is Antenatal Care Necessary? by Carrie Corber, department of obstetrics, gynecology and reproductive sciences, Theatre B Basic Medical Sciences Building, linked with links to NG002 Nursing Building St. Boniface General Hospital, 201 Thompson General Hospital, Brandon General Hospital, 7:45 a.m., Wednesday, Jan. 18.

**Thursday, January 19**

**Pediatric Grand Rounds,** Imaging Guidelines by Martin Reed, Theatre A Basic Medical Science Building, linked NG002 St. Boniface Hospital, 8 a.m., Thursday, Jan. 19.

**Immunology: Annual Graduate Student Research Presentations,** Cytokine responses to Toll-like receptor stimulation among Manitoba Aboriginal and Caucasian children by Yury Lissitsyn, M.Sc. in Immunology (University of Manitoba, in progress), 12 p.m., and IL-17 antagonist GM-CSF induced survival in human neutrophils: Role of MAPKs by Stéphane Dragon, Ph.D. (Collège universitaire de Saint-Boniface, University of Manitoba), M.Sc. in Immunology (University of Manitoba, in progress), 500 John Buhler Research Centre, 12:30 p.m., Thursday, Jan. 19. Lunch provided.

**Friday, January 20**

**Surgery: Clinical Research and Development,** Role of the Integrins in Hypoxic Arrest by Max Jelinek, M.D., Ph.D., (Cancer Research Bureau, Cancer Research Institute, Free World) Research Building, 5 p.m., Friday, Jan. 20.
Nuclear Probes of Atomic,

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THURSDAY, JANUARY 19

Physics: Nuclear Probes of Atomic Magnetism by J.M. Cadogan, University of New South Wales, Sydney, Australia, 205 Armes Building, 2:30 p.m., Thursday, Jan. 19.

FRIDAY, JANUARY 20

Clayton H. Riddell Faculty of Environment, Earth, and Resources Seminar Series, Water Soft Paths: A Method to Analyze the Fresh Water Component of Sustainable Development by David Brooks, Friends of the Earth Canada, 221 Wallace Building, 2:30 p.m., Friday, Jan. 20.

Religion, The Act of Writing and the Mad, a True Karmic Story by Samantha Pascoe, 111 St. John’s College, 2:45 p.m., Friday, Jan. 13.

WEDNESDAY, JANUARY 18

Native Studies, There have been grave disappointments: Anglican missions to the Inuit by Chris Trott, Department of Native Studies, 125 St. John’s College, 12:30 p.m., Wednesday, Jan. 18.

Agricultural and Food Sciences, User Requirements and Quality Assurance in the Wheat Sector by William Wilson, department of agribusiness and applied economics, North Dakota State University, Carolyn Sillson Lecture Theatre, 12:30 p.m., Wednesday, Jan. 18.

THURSDAY, JANUARY 19

Disability Studies Seminar Series, From Mexico to Canada: A Journey in Language Acquisition by Charlotte J. Ems, associate professor, Faculty of Education, 326 Education Building, 4 p.m., Thursday, Jan. 19.

Department of Icelandic, Vignettes from daily life in Iceland by Kristín Áswaldsdóttir, Associate Professor, Faculty of Education, University of Akureyri, Icelandic Collection, 3rd Floor Elizabeth Dafoe Library, 7 p.m., Thursday, Jan. 19.

THURSDAY, JANUARY 20


Clayton H. Riddell Faculty of Environment, Earth and Resources, Facing the Ice to the Atmosphere: Understanding climate change through international networks and collaborations by Jim Douglas, International Polar Year (IPY) and the Circumpolar Flaw Lead (CFL) system by David Barber, Clayton H. Riddell Faculty of Environment, Earth and Resources, 221 Wallace Building, 2:30 p.m., Friday, Jan. 20.

History, AssiniBola Lecture Series, Imagining Nationhood: Reflections on the History of Ancient North America by Donna Gabaccia, Rudolph J. Vecoli Professor of Immigration History Research and director, Immigration History Research Center University of Minnesota, Cross Common Room, St. John’s College, 5 p.m., Friday, Jan. 20.

WEDNESDAY, JANUARY 25

Institute for the Humanities New Faculty/UMIH Affiliates Colloquium, A Head for Headless Rome: Decapitation in Roman History and Literature by James Clagap, Classics, 409 Tier Building, 2:45 p.m., Wednesday, Jan. 25.

THURSDAY, JANUARY 26


FRIDAY, JANUARY 27

Native Studies, Is there a place for Aboriginal Scholars with Advanced degrees in Aboriginal Traditional Knowledge in Native Studies by Brian Rice, University of Winnipeg, 307 Tier Building, 12:30 p.m., Friday, Jan. 27.

Elizabeth Dafoe Library Graduate Student Lecture Student Lecture Series 2005-06, Children’s Perceptions of Punishment by Nanide Sigurdsson, Family Social Sciences, Icelandic Board Room, 3rd floor, Elizabeth Dafoe Library, 12:30 p.m., Friday, Jan. 27.

Clayton H. Riddell Faculty of Environment, Earth and Resources, Transportation Demand Management in Winnipeg by Serge LaRochelle, Resource Conservation Manitoba, Clayton H. Riddell Faculty of Environment, Earth and Resources, 221 Wallace Building, 2:30 p.m., Friday, Jan. 27.

Religion, The trace as tragic vision: Hegel and Derrida. by Dawne McCance, English, 2:45 p.m., Friday, Jan. 27.

TUESDAY, JANUARY 31

Institute for the Humanities New Faculty/UMIH Affiliates Colloquium, Weegino and Windigo: The Role of Oral Traditions in Cree and Anishinaabe Residential Schools by Reanne Sifton, Department of Native Studies, 326 Education Building, 2:45 p.m., Tuesday, Jan. 31.

WEDNESDAY, FEBRUARY 1


THURSDAY, FEBRUARY 2

Education, Science Education Reform: Where Have We Been and Where Are We Going? by Norman G. Lederman, chair and professor of mathematics and science education at the Illinois Institute of Technology, 224 Education Building, 7:30 p.m., Thursday, Feb. 2.

Institute for the Humanities Food for Thought, An Unsuitable Job for a Lady: Revelations of Victorian Lady Detectives by Arlene Young, English, McNally Robinson Bookstores, Grant Park Mall, 7:30 p.m., Thursday, Feb. 2.
Research projects offer a world of possibilities

THE FOLLOWING PEOPLE RECEIVED AWARDS IN THE October 15, 2005 COMPETITION OF THE UNIVERSITY RESEARCH GRANTS PROGRAM AND THE UM/SSHRC RESEARCH GRANTS AND TRAVEL GRANTS PROGRAMS:

UNIVERSITY RESEARCH GRANTS PROGRAM (URGP) COMPETITION: October 15, 2005 (New Faculty)

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Department</th>
<th>Project Title</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alessi-Severini</td>
<td>Pharmacy</td>
<td>Use of antipsychotic agents in Manitoba: Prescribing and effectiveness</td>
<td>7,578</td>
</tr>
<tr>
<td>Alexandrion</td>
<td>Religion</td>
<td>Dream visions of mystical time: shams al-Din Al-Daylami (d.ca 1197 C.E.)</td>
<td>6,000</td>
</tr>
<tr>
<td>Anderson, S.</td>
<td>Pharmacology</td>
<td>PARP activation in a model of Multiple Sclerosis</td>
<td>7,500</td>
</tr>
<tr>
<td>Anderson, W.G.</td>
<td>Zoology</td>
<td>Growth rate and life history determination of ball sharks</td>
<td>7,650</td>
</tr>
<tr>
<td>Asadian</td>
<td>Dental Hygiene</td>
<td>Learning from experience: Reflection in dental hygiene education</td>
<td>6,159</td>
</tr>
<tr>
<td>Baader</td>
<td>History</td>
<td>Gender and middle-class formation among 19th century German Jews (1800 - 1870)</td>
<td>6,878</td>
</tr>
<tr>
<td>Blaas</td>
<td>German &amp; Slavic</td>
<td>Configurations of memory: Russia's literature and films about World War II</td>
<td>6,878</td>
</tr>
<tr>
<td>Brewin</td>
<td>Agriculture/Business/AcEconomics</td>
<td>Viability &amp; sustainability in agricultural communities: Residents’ perceptions of community and macro-level causal factors</td>
<td>6,997</td>
</tr>
<tr>
<td>Broadbent</td>
<td>Anthropology</td>
<td>A critical edition of Melito of Sardis &quot;On the Passover&quot;</td>
<td>4,345</td>
</tr>
<tr>
<td>Burke</td>
<td>Anthropology</td>
<td>Health, disease and demography in a Carribbean Colony: Antigua, 1700-1950</td>
<td>6,500</td>
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<tr>
<td>Chaday</td>
<td>History</td>
<td>Displaced women, displaced urbanization: Rural women’s flight to Harare in the 1970s</td>
<td>5,980</td>
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<tr>
<td>Compron</td>
<td>Economics</td>
<td>Does it take a revolution?</td>
<td>3,016</td>
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<td>Fazel-Rezaei</td>
<td>Elec &amp; Comp. Eng.</td>
<td>Brain-computer interface design improvement using EEG-MRI</td>
<td>7,500</td>
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<tr>
<td>Frank</td>
<td>History</td>
<td>“Track or trade: Working class consumption, organized labour and the law in 19th century Britain”</td>
<td>6,046</td>
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<tr>
<td>Ghoghino</td>
<td>Civil Eng.</td>
<td>Impact resonance method for structural evaluation of PVC pipes</td>
<td>7,500</td>
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<tr>
<td>Grimmer</td>
<td>Ceramics</td>
<td>Porcelain: The link between pottery of 9th century Iraq and China</td>
<td>5,499</td>
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<tr>
<td>Gwinner</td>
<td>Physics &amp; Astr.</td>
<td>Frequency stabilization of a laser system for studies of relativistic effects in atoms</td>
<td>7,435</td>
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<tr>
<td>Hanson</td>
<td>Environ &amp; Geo</td>
<td>Measuring secondary production in Manitoba wetlands to assess ecosystem health</td>
<td>7,500</td>
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<tr>
<td>Heine</td>
<td>Phys. Ed</td>
<td>Historical documentation of 'Tee 'lit Gwich'in' in History</td>
<td>3,956</td>
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<tr>
<td>Hombach-Kloensel</td>
<td>Human Anatomy</td>
<td>Relaxin in breast cancer</td>
<td>7,500</td>
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<tr>
<td>Hua</td>
<td>Physics &amp; Astr.</td>
<td>Microwave photofunctionivity spectroscopy on microstructured ferromagnets</td>
<td>7,500</td>
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<td>Klionsch</td>
<td>Human Anatomy</td>
<td>Novel transgenic mouse lines for studying relaxin-like peptides in prostate carcinogenesis</td>
<td>7,500</td>
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<tr>
<td>Koper</td>
<td>NRI</td>
<td>Effects of habitat loss on birds of the tall-grass prairie</td>
<td>7,452</td>
</tr>
<tr>
<td>Krak</td>
<td>Psychology</td>
<td>Understanding visual attention anomalies in children with reading difficulty</td>
<td>7,250</td>
</tr>
<tr>
<td>Lentzweaver</td>
<td>Anthropology</td>
<td>Mildwomen and malnourished children: Health and family law in persianian adoptions</td>
<td>6,858</td>
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<tr>
<td>Lengsel</td>
<td>Human Nut. Sc.</td>
<td>The effects of relocation on the nutritional status, expectations, and adjustment of older adults residing in personal care homes</td>
<td>7,500</td>
</tr>
<tr>
<td>Leung</td>
<td>Computer Sc.</td>
<td>Development of a data mining engine for discovering knowledge from the streams of data</td>
<td>7,500</td>
</tr>
<tr>
<td>Liu</td>
<td>Computer Sc.</td>
<td>Supporting multiplayer online games in deadline-based networks</td>
<td>7,500</td>
</tr>
<tr>
<td>Mark</td>
<td>Microbiology</td>
<td>Structural and functional investigation of AmpG</td>
<td>7,500</td>
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<tr>
<td>Mignone</td>
<td>Family Social Sc.</td>
<td>Effectiveness of intercultural health care: Assessment of a colombian experience</td>
<td>7,470</td>
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<tr>
<td>Montufar</td>
<td>Civil Eng.</td>
<td>Walking speed of older pedestrians at signalized intersections</td>
<td>7,415</td>
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<tr>
<td>Neveu</td>
<td>Architecture</td>
<td>Origins of architectural pedagogy: From Treatise to Manual</td>
<td>6,262</td>
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<tr>
<td>Nguyenhain</td>
<td>Elec. &amp; Comp Eng.</td>
<td>Ultra wide band (UWB) antenna design for microwave breast imaging</td>
<td>7,500</td>
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<tr>
<td>Qing</td>
<td>Pathology</td>
<td>Characterization of high-mobility-group Box 1 (HMBG1) oncogene in human lung carcinomas</td>
<td>6,835</td>
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<tr>
<td>Racine</td>
<td>Psychology</td>
<td>Relations between pointing, mother-infant affective engagement and infant development</td>
<td>7,500</td>
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<tr>
<td>Restall</td>
<td>Occup. Therapy</td>
<td>Assessment of organization support for user participation in mental health service planning and evaluation</td>
<td>7,500</td>
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<tr>
<td>Sandred</td>
<td>Music</td>
<td>Computer assisted composition - expert systems for musical structures</td>
<td>6,609</td>
</tr>
<tr>
<td>Shav</td>
<td>Physical Therapy</td>
<td>Kinematic analysis of bilateral knee joints during gait and stair climbing</td>
<td>5,996</td>
</tr>
<tr>
<td>Speers</td>
<td>Political Studies</td>
<td>The impact of performance measurement in three policy areas in government</td>
<td>4,345</td>
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<tr>
<td>Suh</td>
<td>Human Nut. Sc.</td>
<td>Comparison of polyenic fatty acid compositions between lean and obese rat testes: Pilot study</td>
<td>7,500</td>
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<tr>
<td>Tedds</td>
<td>Economics</td>
<td>Search for evidence of bunching at tax kink points by individual taxpayers</td>
<td>6,999</td>
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<tr>
<td>Thompson</td>
<td>NRI</td>
<td>Environmental services and sustainable livelihoods in aboriginal communities in the prairies</td>
<td>7,050</td>
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<tr>
<td>Van Lierop</td>
<td>Physics &amp; Astr.</td>
<td>Nanoparticle size dependent magnetism</td>
<td>7,500</td>
</tr>
<tr>
<td>Watt</td>
<td>English</td>
<td>Profit and peril: Making the middle English pilgrimage of the soul</td>
<td>7,250</td>
</tr>
</tbody>
</table>

Note: Forty-six (46) of the seventy-four (74) applications received funding.

UM/SSHRC RESEARCH GRANTS PROGRAM (RGAP) COMPETITION: October 15, 2005

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Title</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bailis</td>
<td>Psychology</td>
<td>Goal salience effects in the choice to pursue position behaviours</td>
<td>7,000</td>
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<tr>
<td>Biddle-Crowe</td>
<td>Anthropology</td>
<td>Going home, showing home, first nations’ filming as gendered social activism</td>
<td>6,500</td>
</tr>
<tr>
<td>Chen</td>
<td>History</td>
<td>Moving home: Chinese migration from Rangoon to Chonqing as a result of Japanese occupation in the 1930s and 1940s</td>
<td>6,997</td>
</tr>
<tr>
<td>Cossar</td>
<td>History</td>
<td>The woman in the priest’s house: Clerical “Concubines” in late medieval Italy (1300 - 1500)</td>
<td>6,783</td>
</tr>
<tr>
<td>Matthews</td>
<td>Music</td>
<td>Symphony No. 3</td>
<td>6,636</td>
</tr>
<tr>
<td>Morry</td>
<td>Psychology</td>
<td>Attachment styles and the attraction-similarity model</td>
<td>6,975</td>
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</tbody>
</table>

Note: Six (6) of the twenty (20) applications received funding.

UM/SSHRC INTERNATIONAL CONFERENCE TRAVEL GRANTS PROGRAM (TGP) COMPETITION: October 15, 2005

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Department</th>
<th>Conference Title</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chen</td>
<td>Finance &amp; Acctng</td>
<td>Hawaii International Conference on System Sciences, 2006</td>
<td>1,347</td>
</tr>
<tr>
<td>Guth</td>
<td>Law</td>
<td>XVI Congress of the International Academy of Comparative Law</td>
<td>1,712</td>
</tr>
<tr>
<td>Kwong</td>
<td>Sociology</td>
<td>XVIII (ISA) World Congress of Sociology: The Quality of Social Existence in a Globalizing World</td>
<td>2,000</td>
</tr>
<tr>
<td>Lehoe</td>
<td>Psychology</td>
<td>4th International Conference on Memory (ICOM-4)</td>
<td>5,121</td>
</tr>
<tr>
<td>Lentzweaver</td>
<td>Anthropology</td>
<td>Latin American Studies Association International Congress</td>
<td>1,200</td>
</tr>
<tr>
<td>Milgram</td>
<td>City Planning</td>
<td>A “Global City Regions - Towards a Shareholder City” b: “Shrinking cities - a new paradigm?”</td>
<td>1,450</td>
</tr>
</tbody>
</table>

Note: Six (6) of the ten (10) applications received funding.

Shop by George* For details call 474 8111
**By Frank Nolan, Research Promotion Officer**

As you read this, proteins are regulating virtually everything you’re doing. They’re activating all of the chemical reactions essential to your survival, they’re regulating the activity of your genes, and they’re providing structural support for every one of your millions and millions of cells.

Scientists know that proteins are long chains of amino acids that typically carry out their functions by first folding into specific three-dimensional shapes. What they are still trying to find out is exactly what these three-dimensional shapes look like. That’s where structural biology comes in.

In the Department of Microbiology, structural biologist Brian Mark is studying the three-dimensional arrangement of the atoms that make up proteins. Recruited last year from the Los Alamos National Laboratory in New Mexico, Mark uses a technique called protein crystallography to grow crystals made of a specific protein that can then be further studied to determine the structure of the protein itself.

“You can actually coax a protein out of a solution to grow into a very nice, uniform crystal,” Mark said. “You can then mount the crystals on a machine that shines a brilliant beam of x-rays through them. Similar to the way a prism diffracts light, the crystal will diffract x-rays, giving rise to a very distinctive diffraction pattern.”

As the crystal rotates in the x-ray beam, Mark collects a number of diffraction patterns and uses Fourier mathematics to combine the diffraction wavelets and calculate the three-dimensional internal structure of the crystal.

“This shows where the electrons within the crystal are located, and using this as a map, we can build a computer model of the protein structure itself,” Mark said.

Knowing the specific structural arrangement of a protein can provide important insight into genetic diseases, since the normal structure of a specific protein can be compared with the molecular structure of the mutated protein.

Structural biology is also a powerful tool in designing new drugs. Based on the molecular structure of a specific target enzyme, new molecules can be designed that prevent it from functioning.

“HIV protease is now a classic example of a drug target where structural biology was used to design a small molecule to inhibit the enzyme in order to alleviate symptoms of the disease,” Mark said.

This kind of drug design is much more accurate when you know what the target looks like. You can then design a small molecule that fits the target like a key fits a lock, shutting it down.”

Mark said structural biology can be applied to virtually all aspects of the life sciences.

“You can use it to understand the structural basis of cellular processes, and it can help improve drug design. It also has application in protein engineering, and there’s a lot of effort being put into custom enzymes that carry out certain bio-processing functions. There’s a lot of interest in structural biology here in Manitoba, and I’m sure you’ll see this field expanding very quickly in the next few years.”

**By Frank Nolan, Research Promotion Officer**

When most of us think about textiles, what usually comes to mind is the clothing we wear. When you talk to Wen Zhong, however, you soon learn that textiles include much, much more.

“Today, apparel accounts for only about 30 per cent of the total textile market, which means that 70 per cent of the market is made up of something other than clothing,” she said.

Zhong is assistant professor in the Department of Textile Sciences, which recently changed its name from clothing and textiles to reflect this reality.

“With textiles, we’re basically talking about all those materials that are made from fibers,” Zhong said. “Fibers are materials that have a large ratio of length versus diameter. If that ratio is larger than 100, we call the material a fiber.”

Many of the materials now used in engineering applications are considered textiles. In the aerospace industry, this includes not only the materials used in the seats and carpets of an aircraft, but the materials used to build the plane itself.

“The composite materials used to build auto and aircraft parts are composed of high-performance fibers,” she said. “For example, 25 per cent of the Airbus 380 is constructed of carbon fiber composite materials.”

Zhong’s research is focused on medical textiles, including the high-tech protective clothing worn by health care workers. The field also incorporates things like artificial blood vessels and heart valves, and the nanoscale fibrous materials used in tissue engineering.

“Right now in my lab, we have several ongoing projects,” she said. “I am currently working with the Riverview Health Centre on ways we might be able to reduce the formation of pressure ulcers, or bed sores, in people who must spend long periods of time lying in bed. We’re looking at synthetic textile products that might be able to reduce friction while doing a better job of transporting moisture away from the patient’s skin.”

Zhong said researchers in textile sciences work closely with those in other disciplines, including medicine, engineering, chemistry and physics. Zhong holds a cross appointment in the Department of Medical Microbiology, where she is applying her expertise in the transport properties of fibers to new research on biofilms.

“I’m working with medical microbiologist Michelle Alla on a project to build computer simulations of biofilms,” she said. “These are layers of bacteria that can build up on the surface of medical devices, and they are very difficult to remove.”

Zhong has done previous work with computer simulations of moisture transport through fibrous materials, and she is adapting these simulation techniques to build a computer model that can be used to study biofilms much more efficiently than traditional laboratory methods.

“Laboratory experiments can be very time consuming and expensive. It can take months to get meaningful results, so our goal is to create a computer model that can mimic the behaviour of these biofilms.”

Zhong said the department plans to expand its focus on medical textiles, due to the increasing demand from Winnipeg’s growing medical and bioscience research community.

“We have developed good cooperative relationships with places like the National Microbiology Laboratory, which is understandably very interested in textiles that are protective against bacteria and other potentially harmful things,” she said.
Human Ecology focuses on maintaining health

Understanding and fostering his faculty’s identity is a big part of Sevenhuysen’s job

Meet

The Dean

By Dale Barbour

It’s all about identity for the Faculty of Human Ecology. Fifty years ago the faculty was training mostly women in the latest techniques involved in running a household. Today it is training people to be everything from clinical dieticians, to family counselors to researchers designing fabrics that can keep out viruses and disease.

“The faculty has transformed itself and does health-related science-based work that benefits everyone in society,” Human Ecology dean Gustaaf Sevenhuysen said.

“The history is important because the faculty gave women access to academic learning when originally none was available to them. The faculty has a very strong group of alumni that identify with the Human Ecology tradition,” Sevenhuysen said. Home Economists, as it was known until 1985, was originally part of the Faculty of Agriculture and didn’t become an independent faculty until 1970. Its alumni form a strong contingent at Homecoming celebrations, providing the most concrete example that the university experience was of value to them.

The names have changed over the years but Human Ecology has always had three departments: human nutritional sciences, family social sciences, and textile sciences.

“Over the years they have specialized more and more whereas before they provided learning related to the particular skills young women needed in those days,” Sevenhuysen stated.

But with the specialization, the question becomes what does a Human Ecology degree mean?

“All of the faculties that’s not a problem. For example, the Faculty of Law or the Faculty of Engineering have specialties. But in this faculty because of its history and diversity of work, we find it important to consider the common ground.”

The key is to look at what the departments do and have in common.

“All of the teaching we do and all the research we do fits under the label of health promotion,” Sevenhuysen said. “We’re distinct from what other faculties do because we deal with healthy situations and focus on how to continue them. We examine areas where disease has occurred and learn how to prevent that from happening the next time.”

“If the only faculty that takes a similar approach is the Faculty of Physical Education and Recreation Studies, but they don’t have the same range of study areas that we have and the reason we have this range is historical.”

If anything, Sevenhuysen’s own history is more colourful than his faculty’s. He was born in Holland, but spent most of the first six years of his life in Indonesia before moving back to Holland. When he was a teenager in the mid 1960s he picked up stakes and moved to Great Britain to pursue an education in nutrition.

“I had seen somebody do experiments with axolotls – water salamanders. The salamanders have extraordinary regenerative abilities; if they lose a tail or a leg it will grow back. This professor was working independently trying to see if he could influence the process with various nutrients and components in their food,” Sevenhuysen said. “That guy was regarded by some as being on the boundaries of society and by others as a genius. At the time I thought, ‘That’s interesting.’ Now we’re seeing it more fully borne out with the human body being shown to be able to regenerate cells that previously we didn’t think it could.”

And certainly the ability of food to influence health is a part of mainstream science now. At the time the best place to learn about nutrition was the University of London. The program offered everything from courses on economics to soil science and plant diseases.

“In one of the final exams we were presented with a stack of wheat or barley and had to identify the type of disease. For the final physical exam we had a six hour practical exam where we had to canulate the aorta of a live rat,” Sevenhuysen said. “You don’t have those type of labs anymore, primarily because of the cost. But it’s illustrative of the extremely eclectic line up of courses I had as an undergraduate student. I think the comfort level I have with different jobs is no doubt due to my training.”

Sevenhuysen’s graduate studies took him into Africa, working in rural Ethiopia for two years.

“There was no running water, no electricity, the phone only worked for two hours a day and the nearest mailbox was a two-hour drive away,” Sevenhuysen said. But this was not the Ethiopia that so many people think of now – the land of famine shown on TV screens in the 1980s. When Sevenhuysen was there between 1973 and 1975, famine was a problem in some areas, but the bigger issue was chronic malnutrition – people had food, but not quite enough of what they needed. The country itself had much working in its favour, including a school system and airline that were the envy of Africa.

From Ethiopia, Sevenhuysen went to Zambia to work for UNICEF helping the local bakeries market their products, looking into fortifying food for small children and helping conduct surveys for the local government. From Zambia, Sevenhuysen moved over to the food and agricultural organization of the United Nations. The job was based in Rome, but he ranged across Africa helping local governments decide food policy, public education and surveys.

But for all that Sevenhuysen’s work was showing him the world, there was other things it wasn’t doing for him.

“There was so much administration work it was tough to keep up to the technical edge. If the agency wanted technical work done, they brought in a consultant,” Sevenhuysen said. “I wasn’t satisfied so I decided to see if anyone in academia was interested in my skills. That was in 1979 and as it turned out, the University of Manitoba did want what Sevenhuysen had to offer. It even interviewed him in Europe, making his trip to the university when he accepted the job even more dramatic.

“I had never set foot in North America before and I had never seen the institution. When I landed at the airport it was a blazing hot day in late June and there was very little traffic. On the way into town, I saw a tumble weed blowing across Ellice Avenue and I had a moment of doubt.

He got over it. And the research he was doing at the university took him back into Africa.

“When you do work with developing countries as an academic it’s a curious mixture of applied research and consultancy,” Sevenhuysen said. “It’s the countries where he was working expect results on the ground, but the granting agencies also want to see results from a research point of view.

In 1999 and 2000 Sevenhuysen took leave from the university to travel to South East Asia to look at how a social safety net could be set up in Indonesia. Through the experience, Sevenhuysen added to the administration experience he had already picked up over the years.

Not long after he returned, the dean’s position came open and Sevenhuysen was picked to fill in as acting dean – that job was extended for a year and finally he put his hat in the ring for the full position.

Much of Sevenhuysen’s job involves facilitating cutting-edge and highly diverse research activities, and supporting program changes to more closely reflect the contemporary demands of the field.

“I make a big deal about the identity of the faculty because people who know us through collaborative research or joint teaching, they know what we’re doing and how advanced we are in the field.”

“But the people who don’t know us may not have a clear perspective on what we offer or they have the wrong perspective. The only Human Ecology or Home Economics they know is from high school and a long way removed from what we truly do.”