

ON CAMPUS NEWS ocn@usask.ca news.usask.ca



Bronze Age bones reveal ancient cancer

U of S helps discover one of the world's earliest cancer cases

MICHEAL ROBIN

More than 4,500 years ago, a Siberian man succumbed to a scourge all too familiar to modern humans, a disease that left telltale signs on his bones for Angela Lieverse and her colleagues to read and diagnose.

"This represents one of the earliest cases of human cancer worldwide and the oldest case documented thus far from Northeast Asia," said Lieverse, a bioarchaeologist at the University of Saskatchewan. The findings are published in the journal *PLOS ONE*.

Lieverse worked with Baikal-Hokkaido Archaeology Project colleagues Daniel Temple from the U.S. and Vladimir Bazaliiskii from Russia to examine the skeleton of an Early Bronze Age man. Exhumed from a small hunter-gatherer cemetery in the Cis-Baikal region of Siberia, he was not in good shape.

By the time it took him, the cancer had riddled his bones with holes from head to hip, including



The bones of this Bronze Age man, who died more than 4,500 years ago, have revealed some of the earliest evidence of cancer in humans.

his upper arms and upper legs, and virtually all points between. As he lay dying, severe pain and fatigue would have been his constant companions, punctuated by periods of panic as he struggled to breathe.

When he passed, his community buried him in a fetal position in a circular pit. Unlike

most men of this period, who would have been buried lying on their back with fishing or hunting gear, he was laid to rest with an ornamental bone and a sex and the lesions on his bones point to lung cancer or possibly prostate cancer."

Angela Lieverse

bone spoon, intricately carved with a winding serpent handle. The researchers estimate he would have been between 35 to 40 years old.

Lieverse and her team performed a differential diagnosis on the man's remains, just as if he had died recently. After ruling out possibilities such as tuberculosis or fungal diseases, the most likely culprit was metastatic carcinoma, that is, cancer that starts in one part of the body and spreads.

See **Evidence**, Page 4

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Searching the world for perfect light

KRIS FOSTER

Rob Lamb was surprised at how similar Australia and Canada are; even the electrons inside the synchrotron's rings go around in the same direction, he joked, referring to the popular myth that the Coriolis effect causes water to drain in opposite directions in the two hemispheres.

"The cool thing is that once you make the jump across the Pacific, Canada and Australia are pretty similar culturally," said Lamb, who is the new executive director of the Canadian Light Source (CLS). "And we have the same woman on our money. The one major difference is the weather, and what a difference."

Since arriving in Saskatoon to take up his post at the CLS this past August, Lamb, who was the founding director of the Australian Synchrotron in Melbourne, has been getting familiar with the city, the university, the facility, and its scientists and staff.

He has loved everything he has seen so far, but what really stands out is the CLS itself, which he puts as one of the best in the world.

"Lightsources are among the best scientific tools in the world," said Lamb, adding that he spent half his life in Australia and the other half working around the world including Hong Kong,



Rob Lamb, executive director, Canadian Light Source

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England, Germany and the U.S. "I'm like a universal moth,

drawn to synchrotron light," he said with a laugh. "Very few people have been director of two national light sources."

Lamb said the CLS is "simply a light, but it is the brightest light in Canada. Whatever you can shine this light on we can give value to that observation."

He uses an analogy of how eyesight changes with age to explain what the synchrotron can do. "The text gets harder to read, so you hold the page further back and further back (to read) until your arms can't stretch any further."

But if you shine a light on the page, he continued, all of a sudden the text gets clearer and sharper in focus. "Now imagine the universe's most perfect light, not only will the text become focused, but the light can detect the ink, the paper's structure, the interaction of molecules and atoms of the ink and paper. That's what we have here, the most perfect light."

Lamb wants to use that "perfect light" to add value to areas of expertise at the university, Saskatchewan and Canada, using agriculture and mining

It is the brightest light in Canada. Whatever you can shine this light on we can give value to that observation.

Rob Lamb

sectors as examples.

"Imagine you have a million acres of a crop here in Saskatchewan and we were able to improve the growth of that crop, even just subtly by one per cent. Consider mining and minerals and if we improved processes by even a fraction of a per cent. These minor improvements could result in billions of dollars."

The key, he continued, is to apply the best scientific tool in the world to add value, and Saskatchewan has "vast opportunities to tweak things by a small percentage" for big gains.

He has seen small improvements result in big gains in his own scientific research in material coating, for which he has developed numerous non-stick coatings for industrial use.

"It is important that we continue to look at the world around us and discover more about it, but it is equally important that we use that understanding to make the world better for the people in it," he said, adding that work with big industry, like pharmaceuticals, is a great example.

There will be more opportunity to work with industry in the

See **People** Page 4



826 Wilkins Court \$729,900

This stunning 2176sqft two-story home boasts a large open concept living featuring efficient style plus inviting warmth. Overall 5 bedrooms and 4 bath. Notable features include; custom cabinets, quartz

counter tops, SS appliances, wine fridge, walk-in pantry, wired-in surround sound, triple glazed windows, hardwood flooring, triple car garage, A/C, high efficiency furnace, ICF foundation, underground sprinklers, hot tub, landscaped yard and much more. Your little piece of paradise awaits you. MLS

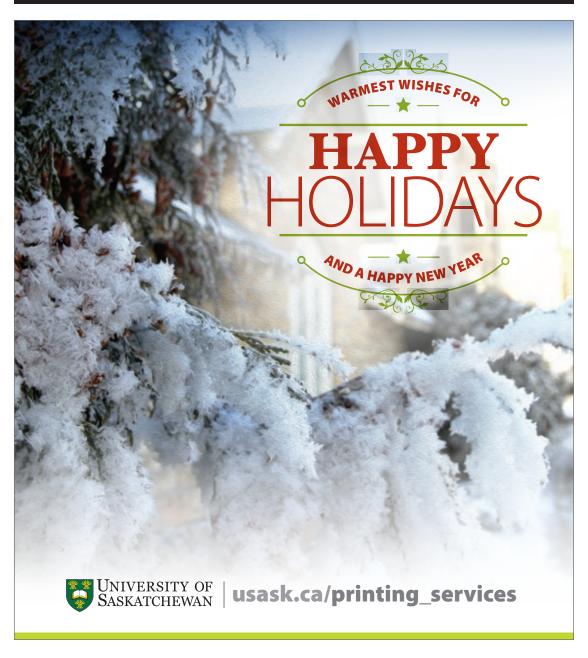
103 Masuda Terrace \$422,500

Fully developed 1042sqft bi-level in show home condition. Many upgrades including kitchen, flooring, lighting, appliances, blinds and much more. 3+1 bedrooms, 3 bathrooms, vaulted ceilings,



7 appliances, central air, central vac. Wonderful kitchen with corner pantry, large island and eating bar, under cabinet lighting, wall mounted TV. Gate to on-site RV parking. MLS

More pictures and info **www.susank.ca**





PRESIDENT CROSSES THE PACIFIC

Gordon Barnhart, interim president, recently visited China as part of his president's tour. Stops during the visit included alumni receptions in Hong Kong and Beijing, as well as numerous meetings and dinners with donors, research partners and friends of the university.

Innovative course for an innovative North

KRIS FOSTER

Even Ken Coates appreciated the irony of him struggling with the volume control on his computer while explaining a new course he is teaching on innovation and technology in the North.

The main question to be answered in Circumpolar Innovation—a truly open online course that anybody, anywhere can take—is whether "we can mobilize innovation and technology to improve life for everyone," explained Coates, director of the International Centre for Northern Governance and Development (ICNGD) and co-developer of the course with Kathy Walker of ICNGD.

Northern communities, he continued, have not benefitted as much from technology and innovation as other parts of the

"It's a numbers game. In global terms, the greatest investments go to wealthy nations and then to the issues affecting the poorest two billion peoplewater in Africa, cell connectivity in South America or food security in India. A million people in Africa or 1,000 people in the North?"

The component pieces of what is considered the North-Alaska, Yukon, Northwest Territories, northern provinces, northern Scandinavia, Siberia and Greenland among others are too small to register in the numbers game described by Coates, "but when taken altogether that's 15 million people."

Coates, who is also Canada Research Chair in Regional Innovation at the Johnson-Shoyama Graduate School of Public Policy, is clear that innovation and technology does make its way to the North, just at an uneven pace. And he stressed his goal is not to celebrate technology but rather to have students analyze its impact and implications on such northern realities as job loss and quality of life.

"The future is uncertain. Those who think it (technology) is all good are wrong and so are those who think it is all bad.

"We are really good at resource development in the North; we can drill in the high Arctic, but addressing remote health, not as much. We know more about polar bears, and



Ken Coates, director of the International Centre for Northern Governance and Development (ICNGD)

SUBMITTED

I love polar bears, than we do about e-commerce in the North. Not enough is being done and we need solutions and the ability to apply science and technology in creative ways."

As an example of an innovation that could greatly benefit northern residents, Coates referred to contact lenses that can monitor signs of health in

diabetics and provide medical advice. "Diabetes is a major problem in the North, but imagine if this technology could indicate when you need a shot of insulin, especially in communities where it is difficult to even get a nurse to come."

Coates said the important message he wants students to take away is that a "circumpolar innovation ecosystem needs to be created that brings together the needs of the North, the technology and skills to address those needs, and the entrepreneurial spirit to create usable products and services."

The non-credit course,

developed with the help of Heather Ross, instructional design specialist with the Gwenna Moss Centre for Teaching Effectiveness, is the first of this kind to be offered at the U of S, he explained. "It's available to everyone. We use copyright-cleared material and it is all open source. We open this knowledge up online to the biggest group possible."

Coates is also excited that any university in the world can adapt the course and its materials for other purposes. "They would just have to create the assignments."

The long view for Coates is that other universities will begin contributing content, in "recognition of the fact that learning constantly changes and is continual. We can add new content and update the material easily and on an ongoing basis. It's flexible learning."

While hoping everyone will be interested in the course, which really showcases U of S contributions to northern innovation, Coates did have a specific group in mind when developing the 10-module program that will begin in February.

"Northern people hopefully will take it. When communities are part of the discussion around technology and innovation, they can steer it to best fit their needs. You can shape the future more if you do it yourself." ■

From medication to meditation

LESLEY PORTER

Pain has been a constant for much of Anita Chakravarti's life.

Now she is using her own experiences managing chronic pain, and exploring new treatment options, to help and educate others.

A College of Medicine alumna, she began her medical practice with the Saskatoon Health Region (SHR) in 1987 as an anesthesiologist helping surgical patients manage their acute pain. The tables turned in 1998 when she was thrown from a horse. It was an accident that left her with chronic neck and back pain.

Chakravarti maintained her clinical practice and became problem with these strategies, Integrative Medicine all while undergoing multiple pain management strategies, hoping for a magic cure. The irony of the situation was not lost on her.

"I was not only living in pain, I was teaching pain to students, seeing pain patients and promoting pain advocacy. The word 'pain' would go through my mind thousands of times a day," she recalled.

Her quality of life suffered and Chakravarti soon realized she could not continue her work in the operating room. She shifted her practice to pain medicine in 2006, working as medical director of the SHR Chronic Pain Centre. She also continued her pain treatment regimen that she refered to as "largely pills and needles." The



Chakravarti

involved with the Center for she explained, is that they only temporarily numbed the pain, rather than getting to the root of

> "There needed to be a different way to manage my own pain," she said.

> She was introduced to Mindfulness-Based Reduction (MBSR) in 2009, a widely adapted program promoting mindfulness—the awareness of one's thoughts, emotions and sensations in the current moment, in a non-judgmental way. She explored mindfulness in her own life and pursued MBSR teacher training, realizing the value of it in a much broader context than just her own chronic pain.

Chakravarti's own self-care practice includes the foundational yoga and mindfulness

meditation integrated with other strategies. "The key is daily practice," she said, noting that she is not completely pain-free, but now "there is more right with me than wrong with me."

Inspired by her own progress, her professional focus shifted again, this time to personal wellness and mindfulness education. She focuses on those employed in health and social care—workers with a high degree of stress that may in turn affect a patient's quality of care. "We're always the caregivers, we don't tend to take care of ourselves," she said, referring to recent data that about half of Canadian physicians suffer from burnout.

To help change that, she has made student wellness a priority, speaking frequently to various student groups on campus. Involvement with students carries over into her research as well. She facilitates drop-in courses on mindfulness over an eight-week period for junior-level students in the College of Medicine, with pre- and post-session analyses measuring stress levels, resilience and positive and negative coping strategies.

Encouraging busy med students to attend was a challenge, but the response from participants has been positive.

"So many students are engaged. It's really powerful when you see people take it on for themselves." ■

FROM THE ARCHIVES

Water, water everywhere



PATRICK HAYES, UNIVERSITY LIBRARY. UNIVERSITY ARCHIVES AND SPECIAL COLLECTIONS

Pictured here is C.D. Stewart, professor and head of the Department of Agricultural Engineering, standing along the irrigation channel that was constructed on campus as part of an irrigation research project. The image is from about 1960 and the ditch, pipe and pump were located just south of the CPR tracks. The city of Saskatoon can be seen in the background. Information with the photo reads: "A system of irrigation has been set up at the University of Saskatchewan in Saskatoon so that a study may be made of the best methods of irrigation. Findings will be helpful when the South Saskatchewan dam brings irrigation to the province in six or seven years. The university's project is under the direction of the Department of Agricultural Engineering, whose head Dr. C.D. Stewart, is shown standing along the main ditch near the point where the water enters the area after being pumped from the South Saskatchewan River about 300 yards away." ■



NEW TO US



Steven Prime credits his father with instilling in him a thirst for knowledge, one that would lead him into a career in cognitive neuroscience exploring one of the last great uncharted territories—our brains.

Prime, who joined the U of S this past July as an assistant professor in the Department of Psychology, relates how his father, a chemical engineer, would regularly ask him or one of his four siblings to read from a volume from the family's collection of *Tell Me Why* science books for children.

"He came and said, 'Read me this. Tell me how the telephone works," Prime said. "When I was done, he said, 'Come with me,' and he took me into his workshop where he had one of these old phones." His father took apart the phone, identifying every component they had just read about, then put it back together to finish the lesson.

"My father was endlessly curious, and it was something he wanted to instill in his children," Prime said.

After first considering a career with the RCMP, Prime settled on cognitive neuroscience. He completed his bachelor's degree at Simon Fraser University before continuing with graduate studies at York University where he completed his PhD.

Prime is particularly interested in how the brain decides what is important. Humans are constantly bombarded with sights and sounds, but few make it through for processing and storage. An example is the ability to pay attention to a single voice in a noisy room.

"You're not picking up everything; you're not processing all of it," he said. "(Your brain) has to be very selective to deliver the most relevant and important information. Understanding how that works drives a lot of my research."

Prime's tool of choice is transcranial magnetic stimulation, which allows him to map brain function while barely messing a subject's hair. He can pinpoint, for example, the precise spot in the brain responsible for hand movement.

"For centuries, as a curious species, we've looked up," he said. "We looked to the stars to try to understand them. Now with the technology we have, we can actually start turning our investigations inward."

PRINTING NOTICE Get your jobs in now!

Christmas is around the corner, and it is time to send a quick reminder to everyone on campus, that you need to submit your print and design jobs early.

Printing Services experiences very high demand during December, as it is exam, new class preparation and the holiday

season. The result is our regular three business day production window will become five days.

Additionally, we will be closed **December 25, 2014 to** January 1, 2015.

Seasons Greetings from Printing Services

On Campus News is published 18 times per year by University of Saskatchewan Marketing and Communications. It is distributed to all U of S faculty, staff, graduate students and members of governing bodies, as well as to others in the university community, related organizations, some Saskatchewan government officials and news media.

Subscriptions are available for \$22 per year. Story and photo ideas are welcome. Advertising rates are available online or on request.

 ${\it On Campus News} \ aims \ to \ provide \ a forum for the sharing \ of timely news, information and opinions \ about \ events \ and \ issues \ of interest to the U of S \ community.$

The views and opinions expressed by writers of letters to the editor and viewpoints do not necessarily reflect those of the U of S or *On Campus News*.

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Evidence of ancient cancer may increase

From Page 1

"It's clear the disease had progressed considerably, metastasizing far beyond its original location in the body and contributing to his death," she said. "His age and sex and the lesions on his bones point to lung cancer or possibly prostate cancer."

Lieverse explained that ancient skeletons exhibiting signs of cancer are quite rare, sparking the hypothesis that the disease is mostly a recent phenomenon, reflecting various aspects of our modern lifestyle. Siberia's Cis-Baikal is a vast, mountainous region northwest of Lake Baikal. It is the deepest freshwater lake on earth, home to the world's



Lieverse

only freshwater seal, which would have made up part of the man's diet, along with fish, wild game and seasonal plants—there were certainly no processed foods on the menu.

These latest findings provide evidence that may help refute this hypothesis, Lieverse said. She suspects that, taking into account variables such as longer life expectancies, cancer may have been considerably more common in ancient times than is generally presumed.

"As we become more familiar with what metastatic carcinoma looks like in the skeleton, the number of cases identified by bioarchaeological research is likely to increase," she said. "A related example is scurvy. Once we knew what scurvy does to the skeleton and became familiar with the signs, identification of the disease increased." ■

People drawn to the lightsource

From Page 2

years ahead because "this (CLS) is a magnet. It is growing larger and attracting investment—it is the largest scientific infrastructure investment in Canada, with a replacement value of \$360 million—and attracting more users. We are already receiving applications at 160 per cent of capacity."

said seven more beamlines are in development. "I see it more than just a service and our own science and technology

community to know what the the year ahead." ■

To meet that demand, Lamb lightsource, which has a \$2 million annual electricity bill, is and what it does.

"We have a thousand supporting operation. We add annual users and we train and educate hundreds of U of S students here, but we also As the CLS approaches want the public to come in and its 10th anniversary—its first see what we do. There will be user was in May 2005—Lamb a noticeable increase in our said he wants everyone in the community engagement work in



Intern preserves culture

🖉 LANA HAIGHT

The University of Saskatchewan's first Aboriginal library intern is preparing to be part of a new generation of Aboriginal knowledge keepers.

"I want to preserve Aboriginal identity and culture in a fast-paced information world," said Jessica Generoux.

"My passion is keeping the culture alive and making sure that our values and our teachings and our systems of knowledge are integrated as an equal with other systems of knowledge."

As the library intern, Generoux is enrolled in the online Master in Information and Library Science degree program at the University of Buffalo, Graduate School of Education. The U of S is paying the tuition for the three-year program. Generoux is also working in a part-time salaried position within the U of S library system.

Establishing a library internship specifically for an Aboriginal person fits with Promise and Potential, the university's third integrated plan. The library is striving to engage Aboriginal people through its collections, facilities, services and workforce. Of the 140 people working at the seven branches of the University Library, only a couple of employees have self-identified as Aboriginal, said Vicki Williamson, dean of the University Library.

"A significant component of our student and user population self-identify as Aboriginal learners. We have been very mindful and respectful of that. We've done a number of things in-house to train our staff, but we felt that an additional commitment to having our workforce be more representative of the population at-large was an important contribution to make," said Williamson.

The U of S library is not unlike other libraries across Canada, and Williamson is aware of only a handful of Aboriginal people working as librarians. The U of S is the first university in Canada to establish an Aboriginal internship in its library.

Over the next three ve Generoux will make stops at each U of S library branch, allowing her to apply what she is learning in a supportive environment.

"We've got lots of potential mentors for her," said Williamson.

But the internship won't just benefit Generoux. Williamson expects she will be a role model, encouraging other Aboriginal students to consider a career as a librarian.

"Her presence on the floor, delivering services, will make our libraries more friendly and more welcoming. Increasing the number of Aboriginal employees will also serve as a stronger reminder about the need for us to remember that we are all treaty people and to remember the need for cultural sensitivity around the resources that we handle,"

explained Williamson.

Generoux is no stranger to libraries. A member of Sturgeon Lake First Nation, she remembers her first encounter with books at the library in Prince Albert when she was in Grade 2.

"I found a cozy little spot by myself and I read this scary story. It opened my mind to the world. I checked out more and more books. I found my special place,"



Generoux

said Generoux.

She wants to share that love of reading and literature with Aboriginal children who tend to have lower literacy skills than non-Aboriginal children.

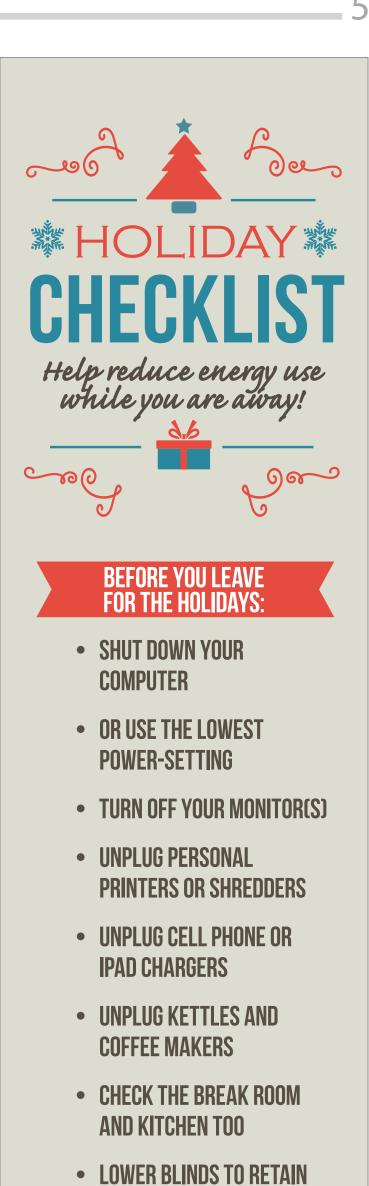
"That's what I always have on my mind," said Generoux, whose daughter has just started kindergarten.

She makes a direct connection between improved literacy and an improved quality of life, with libraries and librarians playing a significant role. "Libraries are a great place for networking," Generoux said.

After high school, Generoux earned a Bachelor of Arts in geography from the First Nations University of Canada. She worked at Regina Public Library for about seven years, where as a library assistant, she established and co-ordinated Aboriginal-based programming.

Lana Haight is a Saskatoon freelance writer.





BUILDING HEAT

ARE TURNED OFF

ENSURE THAT ALL LIGHTS

University of Saskatchewan sustainability.usask.ca



Gift giving tips for campus shoppers

Snow was flying, festive carols were playing, and seasonal decorations were being placed high and low. Indeed, it was beginning to look a lot like Christmas as this issue of On Campus News came together. So with the holidays in mind, we decided to send members of the marketing and communications team to shops across campus in search for the perfect gift idea for that special, or not-so-special, someone. Here's what they found:

Looking for **more**

When seeking insight and opinions on matters in the national and international political arena, Saskatoon media select these STM Political Studies scholars:



Charles Smith, PhD

Research Interests:

Canadian Provincial Politics in the age of Globalization; Organized Labour and the Charter of Rights and Freedoms; Law, Politics and Collective Bargaining in Canada



David McGrane, PhD

Research Interests:

Canadian Politics; Federalism; Saskatchewan Politics: Ouébécois Nationalism; Immigration; Childcare Policy; Canadian Political Parties; Federal NDP



Bohdan Kordan, PhD

Research Interests:

Nationalism; Conflict; State Minority Relations; Canada-Ukraine Relations; Contemporary Ukraine Director, Prairie Centre for the Study of Ukrainian Heritage (PCUH)

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- business plans (existing business, expansions, new businesses)
- organizational and human resources policy review

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Not sure where to start? Contact our office and we'd be happy to help! Accepted projects may begin as early as January 2015 with completion by July 2015.



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JENNIFER BOYLE, director of strategic and college communications

I found a cute pencil case in the Arts Tuck Shop for \$3.75 that doubles as a make-up bag. I stopped by the Medicine Shoppe Pharmacy in Place

Riel and found a decent selection of make-up. I would create a little make-up bag gift by selecting a few of the products from the pharmacy and filling up the case and voila! All my girlfriends love make-up, so I'd buy one for each of them and could mix and match the items for each bag. This would make a cute stocking stuffer or small gift.



JEFF DRAKE, manager of creative services Backing up your Christmas files is important, but not as important as accurate branding. This USB has U of S colours, a photo of our campus on the package and, most importantly, it uses the correct logo—twice. Do not use the round logo anymore; it's 10

years old. This is our logo. I gave this gift to Julian Demkiw in the President's Office with files he needed on it. I paid for it with my own money so it doubled as his Christmas gift. I purchased it in the main bookstore.



KRIS FOSTER, communications specialist The University Bookstore has so much more than books. I could've bought pink jogging pants, a tartan-printed backpack or a reasonably priced set of artist paintbrushes. But if I were to buy my lovely wife something other than what she really wants this Christmas, it would be this wooden model

dog because she often drops not-so-subtle hints about getting a second canine companion. This guy would be even better than our first; it is hairless, doesn't bark and won't try to steal our son's breakfast.



COLLEEN MACPHERSON, editor,

On Campus News

I figure if one is to shop on campus, one better find something not readily available elsewhere. My search lead me straight to the bookstore outlet in the Health Sciences building where I quickly decided a life-size skeleton would round out my gift giving. For a cool \$365.95, you get the bones and a handy stand that comes complete with wheels (toque and scarf are extra). If that's too rich, there is a mini table-top version for just \$80.



TERI PARKHURST, marketing and communications specialist

This scarf is warm and cozy, just what your loved ones need for cold days. It's an infinity scarf, so there's no chance you'll catch the end of it in your car door

or a garbage disposal—it's very safe! It's the perfect gift for your mom, sister or the friend you only want to spend \$10 on. Found in the Tuck Shop in Arts.



LESLEY PORTER, communications co-ordinator Recent Statistics Canada data states that 5.6 million mittens are lost every winter. While that fact is very false, chances are you probably know someone in need of a new pair. These green fleece mittens with the U of S logo are delightfully fuzzy and will keep their hands toasty warm during our

sub-arctic winter. (Bonus: they kind of look like Hulk hands.) Marquis Hall bookstore, \$24.95.



MICHAEL ROBIN, research

communications specialist

According to the helpful and knowledgeable staff at the Campus Computer Store, this premium wireless speaker from Braven (\$169.99) would let my boy Zaheed Bardai in Human Resources enjoy his metal music

wherever he travels. No need to worry about dampening the mood if it gets punted into the pool at the after party either—this bad boy is waterproof. A stuffie from Plants vs Zombies (\$12.99) makes a marvelous metal mascot. needing only a demon's head chrome belt buckle to bring on tour.



ANDY SARGENT, social media specialist

I found these dinosaur socks at the Tuck Shop in Arts. They are \$10.95. I would buy them for my husband because he loves dinosaurs. No, wait, I'm the one who loves dinosaurs. I would buy them for my husband because I would love him more if he were wearing dinosaur socks. Also, the dinosaurs have Santa hats and red booties on.

Coming **Events**

Seminars/Lectures

WCVM Lectures

• Dec. 9, 12:30 pm, Room 2115, the Robert and Virginia Rausch Visiting Professorship presents Manon Simard, previously with Makivik Corporation, Kuujjuaq, QC, who will deliver a lecture entitled Ten years' research on zoonotic diseases in Nunavik land: learning and living with Nunavimmiut.

Philosophy in the Community

• Dec. 10, 7 pm, The Refinery, the free lecture and discussion series Philosophy in the Community continues with Will Buschert presenting Robot Ethics: Can Machines Be 'Moral'?

Partnerships for Health: Universal Health Care in Tanzania

• Dec. 11, 3:30 pm, Canada Room, Diefenbaker Building, a presentation by Cara Spence Gress, PhD candidate, co-op concentration interdisciplinary studies, will explore the design of a multi-stakeholder co-operative to provide access to primary health-care services for vulnerable women, children and families in Tanzania.

Saskatoon Archaeological **Society December meeting**

• Dec. 12, 7 pm, Room 132 Archaeology Building, the Saskatoon Archaeological Society is pleased to present Margaret Kennedy as its December speaker. Everyone is welcome to attend.

Engaging the Future - Global Institute for Food Security

· Dec. 16, 3 pm, Atrium, NRC Building, everyone is invited to a presentation by Maurice Moloney, executive director and CEO of the Global Institute for Food Security, about the institute's mission, vision and strategic direction. Light refreshments to follow.

Veterinary Microbiology Seminars Fridays at 12:30pm, Room 2105 WCVM

- · Dec. 12, Joseph Darbellay, PhD graduate student, Department of Veterinary Microbiology/VIDO, presents Antigen presenting cell innate immunity to PRRSV, and Jennifer Town, PhD graduate student, Department of Veterinary Microbiology, presents: Characterization of the microbial communities during anaerobic digestion of distillery waste.
- · Jan. 9 Arinjay Banerjee, PhD graduate student, Department of Veterinary Microbiology, presents The dynamics of Bat-Coronavirus interaction: Role of innate antiviral response, and Ruwini Gamage, PhD graduate student, Department of Veterinary Microbiology presents: Antimicrobial susceptibility of Brachyspira spp.

Huskies @ Home

Women's Hockey

Jan. 23 and 24 vs. Manitoba Feb. 14 vs. Regina

Men's Hockey

Jan. 3 and 4 vs. Lethbridge Jan. 9 and 10 vs. Calgary Jan. 29 and 30 vs. Alberta

Volleyball

Jan. 9 and 10 vs. Brandon Jan. 23 and 24 vs. Manitoba Feb. 6 and 7 vs. TRU

Basketball

Jan. 16 and 17 vs. Regina Jan. 30 and 31 vs. TWU Feb. 13 and 14 vs. Calgary

Courses/Workshops

The Gwenna Moss Centre for **Teaching Effectiveness**

For more information or to register go to usask.ca/gmcte/events

• Dec. 8, 8:30 am-5 pm, Instructional Skills Workshop with Tereigh Ewert-Bauer and Kim West

• Dec. 9, 10:30 am-4 pm, Indian Residential Schools: Experience Chronicled with

Edwards School of Business, Executive Education

For information call 306-966-8686, email execed@edwards.usask.ca or visit edwards. usask.ca/execed

- · Dec. 10-11, Business Writing and Grammar Workout
- · Jan. 13-April 14, Introduction to Transportation
- Jan. 31-Feb. 6, The Effective Executive Leadership Program - Elk Ridge Resort,

Centre for Continuing and Distance Education

For more information, visit ccde.usask.ca or call 306-966-5539

U of S Language Centre

Multilingual Conversational Language Classes Jan. 19-March 28

- French levels 1 to 7: \$210.00 (GST exempt • Italian level 1: \$220.50 (GST included)
- Portuguese level 1: \$220.50 (GST included)
- Spanish levels 1 to 7: \$220.50 (GST included) • German level 1 and 2: \$220.50 (GST included)
- Japanese for the Traveller: \$241.50 (text-
- book and GST included) • Cree level 1: \$232.00 (class materials
- and GST included) Textbooks and workbooks are extra. (excluding Japanese for the Traveller and

Please call 306-966-4351 or email reception. uslc@usask.ca for a language assessment.

- Spanish Weekender for Real Beginners for the traveller who has little or no Spanish-speaking skills. Feb. 6-8 or Feb. 27-March 1, 20 hours over 2.5 days; Cost: \$294.00 (GST, textbook and workbooks included)
- One-Week Intensive French Immersion for those who wish to quickly advance their language skills. Feb. 16-21, 35 hours over 5.5 days; Cost: \$550.00 (GST exempt), materials and final luncheon provided
- Part-Time ESL Program winter term begins Jan. 12: spoken English, writing and grammar, reading skills, listening and note taking skills, pronunciation, graduate-level writing.

Check website for new programming in 2015

Nature and Ecology Call 306-966-5539 to register

• Southern Africa: 21-Day Northern Explorer Ecological Safari (Feb. 1-21, 2015) includes South Africa, Namibia, Botswana and Victoria Falls; two spots available, fee: \$5,668 plus airfare. For itinerary go to ccde.usask.ca/edtours

Community Arts, USCAD/AYAP **USCAD Art classes**

- Visual Arts Survey I, Jan. 19-April 20
- 2D Design I, Jan. 22-April 23
- Drawing I (morning), Jan.19-April 20
- Drawing I (evening), Jan. 22-April 23
- Drawing II, Jan. 19-April 20
- Drawing in Soft Pastel I, Jan. 20-April 21
- Life Drawing I, Jan. 21-April 22
- Life Drawing II, Jan. 21-April 22
- · Advanced Drawing for Illustration III, Jan. 20-April 21
- Painting I, Jan. 19-April 20
- Painting II (morning), Jan. 20-April 21
- Painting III, Jan. 20-April 21 • Developing Design in Painting/Mixed
- Media II, Jan. 21-April 22 • Open Project Painting II/III Critique and
- Advice, Jan. 17-April 25 • Open Project Painting II/III, Jan. 20-April 21
- Open Project Painting II/III, Jan. 22-April 23
- 3D Design I, Jan. 22-April 23
- 3D Design I, Jan. 21-April 22 • Sculpture I, Jan. 22-April 23
- Sculpture I, Jan. 21-April 22 • Sculpture II, Jan. 21-April 22
- Welding in Sculpture II, Feb. 26,
- March 7, 28, 29
- Photography I, Jan. 20-April 21
- Photography I, Jan. 21-April 22
- Advanced Photography II, Jan. 21-April 22
- · Black and White Darkroom Photography, Jan. 20-April 21

- Intro to Computer Mac, Jan. 14-15
- Photoshop I, Jan. 21-April 22
- Photoshop II, Jan. 22-April 23
- Art Spaces and You, Feb. 7

Community Music Education

The Community Music Education Program offers classes in Music in Early Childhood, Suzuki Early Childhood and Parenting with Music. Private lessons in traditional guitar, Suzuki guitar, traditional piano, Suzuki piano and violin are also available. For more information contact Nicole Wilton at 306-966-5625 or visit ccde.usask.ca/ community-music. New classes will be provided soon for January 2015.

The Arts

Silence

The 16th annual student art show reception and auction is taking place on Dec. 5, 7 9:30 pm at the Gordon Snelgrove Gallery.

St. Thomas More Gallery

Showing in the gallery until Dec. 10 is "Everyday..." by David Dyck, an exhibition "about the loss of the handmade and a testament to the psyche of laboring."

Fall Semester Concert

Glen Gillis will direct the University of Saskatchewan Concert Band in its Fall Semester Concert Dec. 5 at 7:30 pm in Quance Theatre, Education Building. The band will perform a variety of works by Allan Gilliland, Frank Ticheli, Scott McAllister, Pieter Leemans/John Bourgeois, Edward Elgar/Alfred Reed, Naohiro Iwai, and John N. Klohr. Admission is by silver

Milne Exhibit

A World Closely Observed: The photography of Courtney Milne continues until the end of the year and includes prints of various sizes, copies of publications featuring Milne's photographs, memorabilia, awards, family photographs, one of Milne's cameras, and exhibition cards and posters.

Expedition: Arctic

The Diefenbaker Canada Centre is hosting an exhibit from the Canadian Museum of History produced in collaboration with the Canadian Museum of Nature entitled Expedition: Arctic. Images and artifacts help visitors explore the goals, successes and drama of the Canadian Arctic Expedition of 1913-18, one of the world's last great journeys of discovery before the age of modern communication and airborne reconnaissance. The exhibit will be on view until January 2015.

Miscellany

USSU Young Alumni Excellence Award nominations

Nominees must have graduated from the U of S in the past five years, be 35 years old or younger, be actively involved in their community, and have maintained a strong connection with the U of S and/or the LL of S Alumni Association Deadline is I 6, 2015. Visit alumni.usask.ca/ussuaward for more information.

January Orientation

Jan. 3, 1-6 pm, 143 Arts Building, orientation is your official welcome to the university. New students starting university in January are invited to sign up to attend! Sign up at: http://students.usask.ca/events/ orientation.php

Coming **Events**

Next OCN: Friday, Jan. 9, 2015 Deadline: Friday, Jan. 2, 2015

Email ocn@usask.ca

Around the Bowl

Kieran Stuart Kobitz has joined the College of Pharmacy and Nutrition as communications and alumni relations specialist. The role involves internal and external communications that support the college's reputation, priorities and goals. Kobitz's previous position was marketing co-ordinator for Beagle Productions.



Kobitz



Sheridan

McCaslin

pharmaceutical industry. Dr. Nora McKee, associate professor in the Dept. of

The College of Medicine has

appointed Marg Sheridan

to the new position of online

communications co-ordinator. Sheridan is a former

national online editor with Sun Media and holds a

degree in corporate communications and public

relations. She has also been a medical writer in the

Academic Family Medicine, has received the Reg L. Perkin Award from the College of Family Physicians of Canada. The award acknowledges McKee as one of the country's most outstanding doctors.

Sarah McCaslin has joined the University Learning Centre as the peer assisted learning co-ordinator.

academic goals.

Currently in the final stages

of her PhD studies in history

at the University of Edinburgh, McCaslin has experience teaching and helping students achieve their

Brenda Byers has joined the University Library as operations manager in its library systems and information technology unit. Byers' previous employment was with PotashCorp, with her most recent position being senior director of technical systems.



The following appointments have been announced by the Office of the Provost and Vice-President Academic:

Dan Pennock to the position of acting associate dean academic in the College of Agriculture and Bioresources until June 30;

Dr. Athena McConnell as assistant dean, quality, College of Medicine, for a

- five-year term that began Nov. 1; **Liz Harrison** to an extended term as associate
- until Dec. 31, 2015; Charlene Sorensen to the position of interim associate dean, University Library, June 30, 2015; and

dean, physical therapy and rehabilitation sciences

Beth Bilson appointed to the position of interim dean, College of Law for a period up to one year, beginning Oct. 17, 2014.



Harrison

THANK YOU!

READ Saskatoon would like to thank the employees of the University of Saskatchewan for their support through the payroll deduction plan.

"READ Saskatoon thanks you for your generous support!"

THE GIFT OF A LIFETIME



If you have come to help me, You are wasting your time. But if you have come because your liberation Is bound up with mine Then let us work together.

- LILLA WATSON



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This year's back-page feature explores the hidden treasures from University Library, University Archives and Special Collections, and the people who use them.

Fit fascination

"Don't Just Think About It – Do It, Do It, Do It!"

"Keep Fit and Have Fun!"

Most Canadians can identify these catchphrases and their origin in an instant: ParticipACTION.

Beginning in 1971, this health promotion advertiser could be found in Canadian schools, workplaces, and on radio and television broadcasts. Victoria Lamb Drover's PhD dissertation explores the collective memory of this publically funded organization, how it became entrenched in Canadian pop culture, and what long-term influence ParticipACTION had on Canadians' vision of a physically fit and happy body. Luckily, the complete national ParticipACTION archives are housed in the University Library, University Archives and Special Collections.

This rich resource includes 7.6 meters of textual materials, along with 12 meters of audiovisual materials in the form of VHS tapes, Beta tapes and CD-ROMs. At the completion of Lamb Drover's studies, the

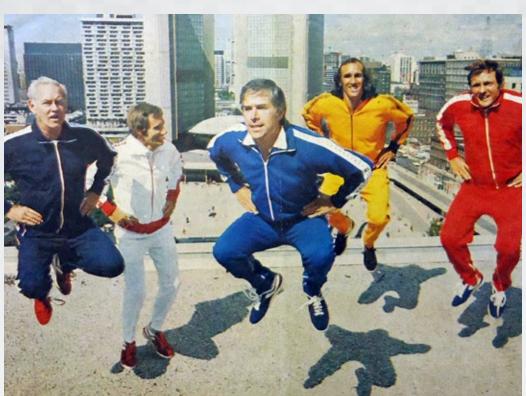


Victoria Lamb Drover

collection will also include extensive oral interviews she did with surviving ParticipACTION founders, employees and event participants.

In 2004, three years after its dissolution, 93 per cent of Canadians could still identify and explain ParticipACTION either by its name or familiar pinwheel. In the field of social marketing, this level of sustained brand recognition is unheard of and as such, longitudinal analysis of ParticipACTION's methods and strategies drawn from Lamb Drover's work will have significant policy implications for present and future social marketing agencies. The research could not have been undertaken without the ParticipACTION archives at the U of S.

Lamb Drover is a doctoral candidate in the Department of History. She will defend her dissertation, entitled *ParticipACTION: A legacy in motion*, this year.



These guys showed their Particip ACTION in the $\it Toronto\, Star$, Ocotber 27, 1973.

PARTICIPACTION FONDS MG291

