

JULY 9, 2021

Volume 28, Issue 11



USASK AT THE OLYMPICS

In this edition of *On Campus News*, we take a look at current and former University of Saskatchewan students, staff and coaches preparing to represent Canada at this year's Summer Olympics and Paralympics in Tokyo. From defending national champion Huskie women's basketball coach Lisa Thomaidis, to College of Education student Shelby Newkirk, to College of Kinesiology students Rylan Wiens and Keely Shaw, and alumna Rhonda Shishkin, USask will be well-represented on the world stage this summer.

SEE PAGE 5-8

— 3-4 —

WATER SECURITY

— 9 —

FINDING FOSSILS

— 12 —

SLEEP STUDY

On Campus News is published 12 times per year by University of Saskatchewan Marketing and Communications. It is distributed to all USask 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 \$24 per year. Story and photo ideas are welcome. Advertising rates are available online or on request.

On Campus News aims to provide a forum for the sharing of timely news, information and feature stories about people and events of interest to the USask community.

We acknowledge we are on Treaty 6 Territory and the Homeland of the Métis. We pay our respect to the First Nation and Métis ancestors of this place and reaffirm our relationship with one another.

EDITOR

James Shewaga

WRITERS

Shannon Boklaschuk, Ashleigh Mattern, Kristen McEwen, Chris Putnam, Erica Schindel, James Shewaga, Rachel Sloane, Alyssa Wiebe.

DESIGNER

Pierre Wilkinson

ISSN: 1195-7654

PUBLICATIONS MAIL AGREEMENT NO. 40065156

Return undeliverable addresses to:

UNIVERSITY OF SASKATCHEWAN
MARKETING AND COMMUNICATIONS
G16 THORVALDSON BUILDING
110 SCIENCE PLACE
SASKATOON, SK S7N 5C9

Email: news@usask.ca

USask research: Improving cardiac surgery recovery

KRISTEN MCEWEN

A multidisciplinary University of Saskatchewan (USask) research team is working to improve recovery for patients of cardiac surgery when faced with limited health care resources during the pandemic.

Led by Drs. Michelle Clunie (MD) and Ryan Pikaluk (MD), assistant clinical professors in the USask College of Medicine Department of Anesthesiology, the research team recently received a Saskatchewan Health Research Foundation (SHRF) Research Connections grant for their project, “Introducing Cardiac Enhanced Recovery After Surgery (ERAS) Best Practices for COVID-19 and Beyond.”

“With the pandemic, we found that cardiac surgery numbers dropped across the province,” Clunie explained, citing there were nearly 200 fewer surgeries in 2020 compared to the year before. More than 800 Saskatchewan patients require heart surgery annually.

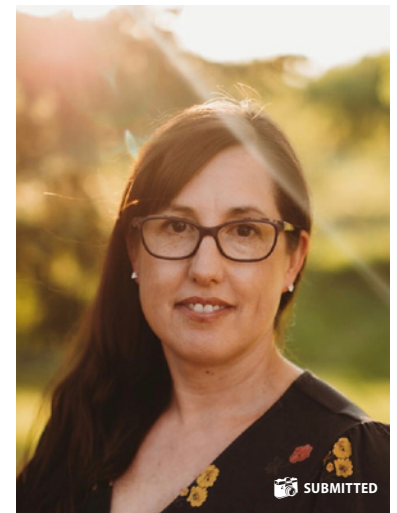
“COVID patients and cardiac patients share a lot of the same resources – including intensive care unit beds,” she added. “When beds filled up, surgeries were cancelled (or rescheduled).”

A group of health-care professionals from across medical disciplines—including anesthesiologists, surgeons and nurses from across

Saskatchewan—virtually met to discuss how surgical care teams could maintain high quality care while preserving limited resources. Clunie and Pikaluk are based in Saskatoon and Regina, respectively.

“Cardiac surgery is a major type of surgery,” Pikaluk said. “Everyone involved on a surgical team is looking at ways to work together to make the most meaningful change, rather than implement (changes) on their own.”

The research team looked to ERAS guidelines for cardiac surgery. ERAS is a global society of health-care professionals that focus on patient-centered, evidence-



Dr. Michelle Clunie (MD) of USask's College of Medicine.

based methods, research and audit, to improve surgical care and recovery.

By following these guidelines, health care teams and patients can improve outcomes by taking extra steps for care before, during and after surgery.

SEE COLLABORATION, PAGE 15



IN CASE YOU MISSED IT

A lot happens at the USask during the weeks when *On Campus News* isn't published. Here are a few of the top stories from news.usask.ca:

VIDO vaccine

The Vaccine and Infectious Disease Organization (VIDO) at USask has announced positive interim results from their Phase 1 clinical trial for COVAC-2, VIDO's COVID-19 subunit vaccine candidate. The interim data from the study led by the Canadian Centre for Vaccinology (CCfV) demonstrates COVAC-2 is safe and well tolerated. Importantly, even the lowest vaccine dose tested significantly increased the participants' antibody levels, including neutralizing antibodies against SARS-CoV-2. Participants continue to be recruited for the clinical trial in Halifax, with a new clinical trial site opening in Saskatoon later this summer.

Merlis Belsher Place

The decommissioning process of the potential pandemic field hospital at USask's Merlis Belsher Place is expected to begin August 1 and take about four weeks. In April of 2020, USask made the state-of-the-art multipurpose complex available to the Saskatchewan Health Authority to house coronavirus patients on an emergency basis, if necessary. Recently, the 120,000-square foot complex was being used as an immunization clinic. The facility is home to Huskies hockey as well as basketball practice facilities with two full-sized ice rinks and two basketball courts, and the Ron and Jane Graham Sport Science and Health Centre.

waniska Centre

A new regional centre for Indigenous research on HIV, Hepatitis C Virus (HCV) and sexually transmitted blood-borne illness (STBBI), based at the University of Saskatchewan (USask), was officially launched on June 21. The *waniska* Centre for HIV, Hepatitis C Virus and sexually transmitted blood-borne illness, which will serve Saskatchewan and Manitoba, celebrated its start live-streamed from the Wanuskewin Heritage Park. The centre is funded by the Canadian Institutes of Health Research and partners with community, academics and others to address the issues of HIV/HCV/STBBI in Indigenous communities.

Muir WCVM dean

More than three decades after graduating from the Western College of Veterinary Medicine (WCVM), Dr. Gillian Muir (DVM, PhD) was appointed the college's dean, effective July 1. Muir, who served as the interim dean for the past 12 months, was appointed to a five-year term by the University of Saskatchewan. She is the first WCVM graduate as well as the first female to be named dean of the western Canadian veterinary college. She joined WCVM in 1996, and is a professor in the Department of Veterinary Biomedical Sciences. Muir has served as department head and graduate chair, and WCVM's acting associate dean (research) and interim dean.

FOR MORE UP-TO-THE-MINUTE NEWS, VISIT: news.usask.ca @usask

NSERC CREATE for Water Security leaves lasting impact

CHRIS PUTNAM

As a unique water security training program wraps up at the University of Saskatchewan (USask), the program's leaders look back on the past six years as an overwhelming success.

"The students went beyond even what I and the rest of the team members had imagined," said Dr. Cherie Westbrook (PhD), director of the NSERC CREATE for Water Security.

The NSERC CREATE for Water Security is a USask-led initiative funded through the Collaborative Research and Training Experience (CREATE) program of the federal Natural Sciences and Engineering Research Council (NSERC).

Launched in 2015 with a \$1.65-million NSERC grant, the program provides career-focused skills training to graduate students and post-doctoral fellows studying water security.

"What we're trying to do is train people across the broad field of water security—kind of blurring those lines between research and practice and helping students develop personal and professional skills so that they're ready for whatever career in whatever sector they're interested in," said Westbrook, a professor in the College of Arts and Science's Department of Geography and Planning.

Originally planned to conclude in 2021, the NSERC CREATE for Water Security has been extended until March 2022 due to COVID-19. However, most of the program's activities will wind down by this fall.

Students in the program take practical courses and are provided funding to expand their skills through professional development training, internships and laboratory exchanges.



Geography and planning PhD candidate Caroline Aubry-Wake is pictured on the Athabasca Glacier in July 2020.

ROBIN HEAVENS

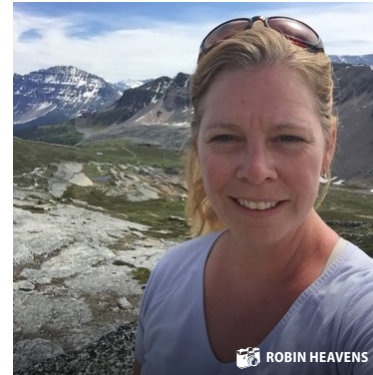
"I think PhD programs do a great job at training us to become scientists, but there's not always an emphasis on developing the other skills that we need as professionals. The CREATE program allows you to get that hands-on training that is really helpful," said Caroline Aubry-Wake, a PhD candidate in the Department of Geography and Planning who is nearing completion of the NSERC CREATE for Water Security.

More than 60 students and four post-doctoral fellows have participated in the program. Alumni

have gone on to jobs with governments, First Nations, non-profits and private companies. Others have accepted faculty positions at universities or founded their own consulting firms.

USask partnered with the University of Manitoba, University of Waterloo, University of Calgary, McMaster University and industry collaborators to offer the program. Students in water security programs at any of the partner universities could participate and earn a certificate of completion.

USask—the No.1-ranked



Dr. Cherie Westbrook (PhD) is director of the NSERC CREATE for Water Security at USask.



Dr. Bram Noble (PhD) is a professor in the Department of Geography and Planning at USask.

university in Canada for water resources research—was well suited to lead the unique-in-Canada program. Faculty members from the College of Arts and Science, Global Institute for Water Security, School of Environment and Sustainability, College of Engineering, College of Agriculture and Bioresources, and Johnson-Shoyama Graduate School of Public Policy all assisted with the NSERC CREATE.

Westbrook and fellow geography and planning professor Dr. Bram Noble (PhD) co-taught the final course in the program in March 2021. The intense one-week online course featured guest speakers from industry and government. Students were challenged to work as an interdisciplinary team to respond to a mock request for proposals addressing an issue in urban water security.

"It's just amazing to see how the students can respond, think on their feet, work together as a team," said Noble, a co-applicant on the NSERC CREATE. "I think they come away from a course like this and learn that they actually have a lot more to offer than what they thought

they did going into the course."

Although the NSERC CREATE is ending, Noble and Westbrook want to carry some of its innovations forward into future graduate training at USask.

"I think across campus, and within the College of Arts and Science especially, there's a real opportunity to develop courses of this nature that push students beyond the boundaries of science and scholarship, and expose them to different career opportunities and skills," said Noble.

For some NSERC CREATE graduates, the program confirmed their love for academia, while others "realized there are other pathways that they hadn't explored," said Westbrook.

Aubry-Wake hopes to find a faculty position after she completes her PhD.

"I really enjoy academia," she said. "But it's been really nice to know that I have other options and that I have a network that could help me achieve those career goals." ♥

Chris Putnam is a communications officer in USask's College of Arts and Science.



The effects of climate change and population growth are stressing freshwater resources around the world.

SUBMITTED

Managing water supply in changing times

Population growth, climate change threatens world water security

ASHLEIGH MATTERN

When talking about future water issues, Dr. Jay Famiglietti (PhD) says there are two main concerns: Population growth and climate change.

Famiglietti, executive director of USask's Global Institute for Water Security and the Canada 150 Chair in Hydrology and Remote Sensing, says that the water availability we've been counting on the past 50 to 100 years is changing—and the Saskatchewan River Basin is just one example of that change.

"We're going to get less precipitation stored as snow in the mountains, and therefore greater river flows in the spring and lower flows in the summer," he said. "The timing of available streamflow will change, and the difference between the peak and low flows, the maximum and minimum, will increase."

People used to think the availability of water from sources like rivers and groundwater would always be reliable, but that's no longer the case, and that change is happening rapidly. Famiglietti notes that Canada is warming at twice the global rate, the Prairies at three

times the global rate and northern Canada at four times the global rate.

"The way we experience climate change is through water; it's the messenger that delivers the bad news about climate change to your front door," he said.

Increasing world population is putting even more pressure on these systems.

According to the United Nations, there are about 7.7 billion people in the world today, and that number is expected to grow to about 8.5 billion in 2030, 9.7 billion in 2050, and 10.9 billion in 2100. The growth has largely been driven by an increasing number of people surviving to reproductive age—the global lifespan was 64.6 years in the early 1990s, and 72.6 years in 2019.

Famiglietti said there are huge, water-driven challenges all over the world—places that are experiencing prolonged droughts, or places that rely on groundwater that's

unmanaged.

"Over half the world's aquifers are being depleted. In Australia, Africa, the Middle East, South America—literally on every continent," he said. "Water problems touch virtually every person."

As the water cycle becomes more impacted by climate change and population growth, access to water is going to become an important issue.

"It's going to pose greater challenges for access to water for different groups, especially marginalized groups, like Indigenous communities, poor communities, and communities of colour," Famiglietti said. "Equitable access to water should be a fundamental human right."

MANAGING THE WATER SUPPLY

The pace of change is now so rapid, Famiglietti said it poses big challenges for water managers—the

people at municipal, provincial, and national level who ensure water treatment facilities are working, the infrastructure is up-to-date, and reservoirs are properly managed.

"What a water manager strives to provide and what we as consumers want is a completely reliable water supply; we want to turn the faucet on, and not worry about it," he said.

"When the water cycle becomes more variable with more flooding and drought ... water managers must make their decisions under greater uncertainty. They don't know what's going to happen tomorrow, so they do their best to provide a reliable water supply. But it is going to be far more difficult for them in the future."

It is these water managers who are on the front line of the water challenges the world is facing.

"We're not going to solve climate change, but we can manage our way through," Famiglietti said. "We can make better predictive models, make better observations from ground and space. There is a lot of room for improvement."

Better models would allow

managers to answer tough questions more easily, such as, 'Should we let the water out of the Lake Diefenbaker reservoir because we need room to store water to come?'

"Imagine if you could accurately predict the weather every day, or even better, every month—then water management would be simple," Famiglietti said.

He added the challenge is daunting when he looks at the global nature of the problem, but he feels optimistic when he sees how places like Canada are approaching the issue.

"This government has recognized the huge scope of the problem, and that it has a bunch of smart people in research labs, universities and as future students. Canada has wisely invested a tremendous amount of in research to help develop solutions to help better predict climate change and how it's going to impact Canada's water security down to the local level." ♥

Ashleigh Mattern is a USask alumna and journalist in Saskatoon.



PARALYMPIC GAMES:

USask education student set for the Paralympics

 JAMES SHEWAGA

It took a year longer than she had hoped, but Shelby Newkirk is finally counting down the final days to living her dream of competing for Canada in the Paralympic Games.

Delayed a year by the pandemic, the Tokyo Paralympics are scheduled to begin August 25, with Newkirk having her first chance to make a splash on the international scene in her very first race on the opening day of competition.

“I have been working so long for this and it took a little bit longer to get here, but it is so close now that it is definitely starting to feel real and the excitement just keeps

building,” said Newkirk, a 25-year-old University of Saskatchewan (USask) student in the College of Education. “This has been a dream of mine for since 2014, when I think I first said out loud that my goal was to make the Paralympics. The closer it gets, it’s really exciting to see that it is within arm’s reach after so long.”

Newkirk never imagined a global health crisis would derail a dream years in the making, with Canada the first nation to pull out of 2020 Tokyo Games, two days before the International Olympic Committee officially postponed the Games until 2021.

“When Canada withdrew, that was the moment that I thought I was going to be left behind,” said Newkirk, whose father, Dr. Rex Newkirk (PhD), is a professor in USask’s College of Agriculture and Bioresources. “That was a day I took off to take care of my mental health, but I was definitely glad to hear a couple of days later that the decision had been made to postpone. The world had to get to a place where we had this under control and I am happy that all the safety protocols are in place now to hold this event and it is finally happening.”

All Olympic and Paralympic

athletes have been provided with vaccinations prior to the Games, giving Newkirk a sense of security heading overseas, with the pandemic not over yet.

“I was able to get my second (vaccination) and we have great protocols around masks and bubbles and daily testing, so I definitely feel very confident in the protocols put in place,” said Newkirk, who clinched her spot on the Canadian team by winning a silver medal at the 2019 World Para-swim Championships in London.

Unfortunately, Newkirk’s family and friends will have to watch her compete over the internet, with Japan banning out-of-country visitors from attending any Olympics and Paralympics events.

“They are not allowing out-of-country spectators, but I totally understand from a safety aspect,” said Newkirk, who will be joined by her Saskatoon Lasers Swim Club coach Eric Kramer in Tokyo. “My parents are going to be up in the middle of the night watching the livestream with my grandma from home.”

Newkirk’s Lasers teammates will also be closely following her as she completes a journey that began a decade ago when Newkirk began para-swimming after being diagnosed with dystonia, a rare neurological disorder that affects

mobility in her limbs, as well as her torso, neck and face. However, the pool proved to be her new sanctuary, as she dove into the sport and starting setting national and world records.

However, preparing for the Paralympics proved challenging, as qualifying events were cancelled and pools closed, forcing Newkirk to switch to dryland training and build a home gym to prepare for the biggest competition of her life. Swimming Canada’s 2017 and 2018 Female Para-swimmer of the Year, Newkirk will compete in the 50m freestyle in the S6 category (one of 10 classifications for physical impairment) on Aug. 25 and will close out competition in the 100m backstroke—her best event—on Sept. 3.

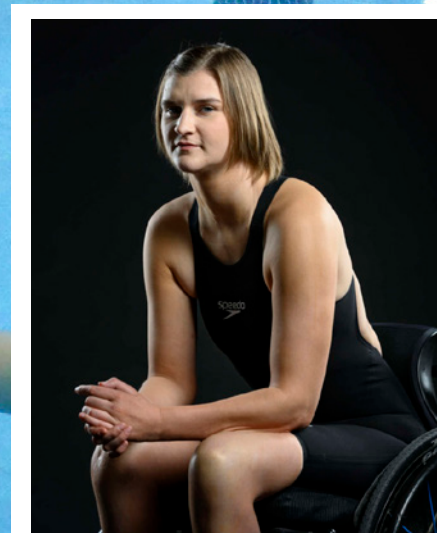
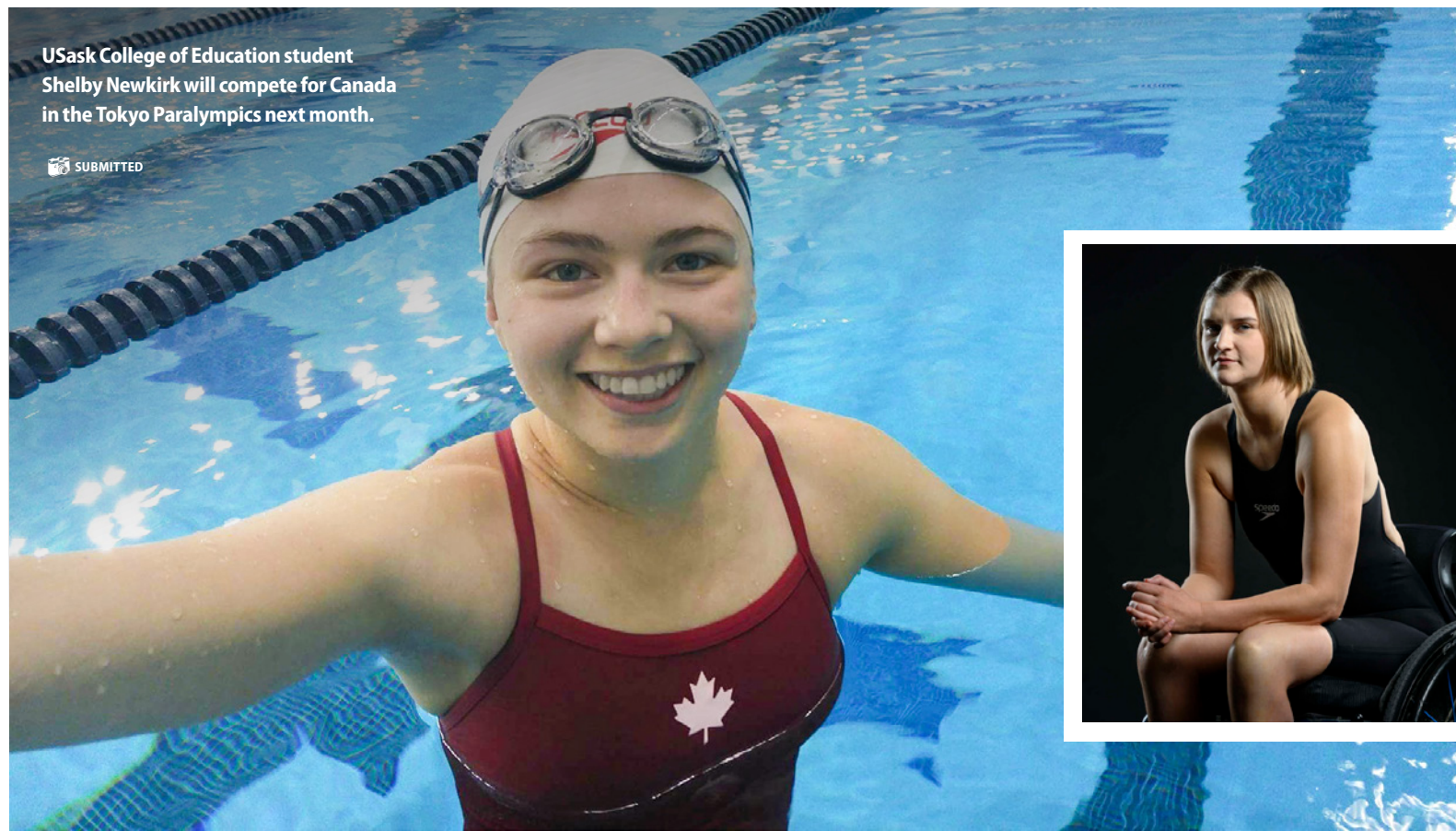
“We haven’t been able to have competitions in so long, but based on my times in training it is definitely going well and I am really excited to see what I can do in Tokyo,” said Newkirk, who has been taking part-time education classes remotely and has two practicums remaining to complete her USask degree.

So what would it mean to come home with a medal?

“It would mean so much to me,” she said. “It is something I have been working towards for so long. When I first set this goal to make it to Tokyo, I didn’t want to tell too many people just in case it didn’t happen. But when it got to the point where I was ranked in the top five, top three, top two in the world, I knew it was a realistic goal. It is something I have been working towards for years and I know I am so close. I just have to get in the water and race now.”

USASK ALUM ALSO NOMINATED

Newkirk’s Lasers teammate Nikita Ens has also been provisionally nominated for Canada’s Para-swim team, which will be officially announced in August. Ens, a 32-year-old former Huskie track and field student-athlete who earned a Bachelor of Science at USask in 2011, was provisionally selected on May 11, after advancing to two finals at the 2019 world championships. Ens, who has also set national records, lives in Saskatoon and trains with the Lasers swim club coached by Kramer. 





OLYMPIC GAMES:

Huskies women's basketball coach Lisa Thomaidis addresses members of the national women's basketball team during a timeout.

BASKETBALL CANADA

Thomaidis leads Team Canada to Tokyo

JAMES SHEWAGA

Back on March 8, 2020—just days before the World Health Organization declared the COVID-19 global health crisis a pandemic—coach Lisa Thomaidis guided the University of Saskatchewan Huskies women's basketball team to the gold medal at the U Sports national championship.

On August 8, 2021—precisely 17 months later—Thomaidis is hoping to have the chance to lead Canada to an Olympic medal at the Tokyo Summer Games.

"It would be truly a dream come true," said Thomaidis. "There's no question about that."

Postponed for a year by the pandemic, the Olympic Games open in Japan in two weeks on July 23 and close out with the basket-

ball gold-medal games and closing ceremonies on Aug. 8. While the pandemic is far from over in some countries, those 17 days hold the promise of bringing back some sense of normality to the world, particularly to the world of sports.

"It has certainly been something none of us could have imagined," said Thomaidis. "There were so many unknowns when the Olympics were postponed and our (university) season was cancelled. But we have been anxiously waiting for this and now, I can't believe how quickly it has come. It is getting very real very fast, so the excitement certainly is building."

Thomaidis and Team Canada flew overseas on July 4 and face Serbia in their first test on July

26 to open what will be a tightly controlled Summer Olympics, with strict athlete village and venue quarantines and full pandemic protocols in place, and no foreign fans allowed to attend the Games. However, that will be nothing new for Thomaidis' team, which has been in health and safety "bubbles" for months now while training at the Toronto Raptors practice facility in Tampa and playing in Puerto Rico.

"It has been bubble after bubble after bubble, so it has been something else," said Thomaidis. "But we all know it's of the utmost importance to keep our team and our staff healthy and be able to compete. With it being a team sport, even one positive test could sideline

our whole team from training for 10 days and if it happens closer to the Olympics, it could completely eliminate an athlete, or a few, or an entire team. So we are taking it very seriously. We just have to stay disciplined and know that there is a big goal in sight and we just have to be smart and stick to it."

It has been a whirlwind preparation period for Canada, after sitting idle for 16 months between games before ramping up by playing seven games over eight days at the FIBA AmeriCup in Puerto Rico in June.

Under Thomaidis, Canada has climbed the rankings to fourth in the world, but struggled at times in Puerto Rico without four key players, including starters Kia

Nurse, Bridget Carleton and Natalie Achonwa, who were not available while continuing to play for their WNBA teams. Thomaidis' team was disappointed to finish fourth at the AmeriCup, but was happy to have had the chance to get back on the court, tinker with some offensive sets and work some new players into the national team picture.

"There has definitely been some different athletes introduced into the mix while we have a bunch that are still in the WNBA, so it was definitely a different team," said Thomaidis. "But it was certainly great to get some games in Puerto Rico so that we get a chance to evaluate and see where we need to adjust and we had time to do that. The most important part was to be tested by being in some close games and we had a number of those. So while we were disappointed not to win it, as far as the big picture, it was a good tournament."

With their WNBA stars returning and Kim Gaucher possibly re-joining the team if she wins her appeal to bring her newborn baby with her to the Olympics, Thomaidis' team will be looking to make a medal run after advancing to the quarter-finals at the 2016 Olympics in Rio de Janeiro.

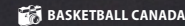
So what would it mean to lead Canada to an Olympic medal?

"It would mean everything," said Thomaidis, who took over as national team head coach in 2013. "This is what we have been working towards for a very long time. In the not-so-distant past, I am not sure saying that would be realistic in any way, shape, or form, thinking of Canadian women's basketball as a medal contender. And now, to be in that conversation is really a privilege. It really says a lot about the work that has been done to get to this point, and the commitment and dedication that our athletes and staff have had to this goal. So it is pretty exciting to be where we are to put us in the best position possible to compete for a medal and we can't wait to get started." ■



Shishkin serving as physiotherapist for Olympic basketball team

USask alumna and Team Canada physiotherapist Rhonda Shishkin tapes the hand of Olympic women's basketball player Kia Nurse.



how different groups of people will or will not mix. We are expecting that we will be at our Team Canada accommodations and at the basketball venue and that's it. So, they are making sure we have access to TVs to see the other Canadians perform, but it won't be like past Games where if you did have a day off you could maybe go see another Canadian team play. That won't happen this time, but that's what it takes to make sure we can do this safely."

Shishkin said she is proud to represent her alma mater and Huskie Athletics at the Olympics, with her work at USask helping prepare her for this opportunity.

"I am certainly bringing my years of experience with Huskie Athletics to the services that I can give to these athletes and the things that I learned at Huskie Athletics about supporting athletes and communicating with athletes, has served me extremely well at this level," she said. "And certainly Huskies provided me all the opportunities in the world to be on these types of stages, by supporting me going to a World University Games and supporting me when I was spending time with Basketball Canada. And that is something that I will be forever grateful for."

Canada is ranked fourth in the world going into the Olympics, and one of the favourites to make the medal round that begins Aug. 4. For Shishkin, helping Canada win a medal is the ultimate goal, but her focus is simple: keep the athletes as healthy as possible.

"We work with the athletes to make sure they are as healthy as possible to perform their best on that stage on that day," said Shishkin. "Ultimately, if I have everybody on the court to perform the best of their ability and see great performances by our athletes, for me that's my success. I have one job to do and that is to make sure that they are available to play each day. And if they get a medal out of that, I will celebrate it as much as any athlete." 🍀

✍️ JAMES SHEWAGA

She has been to the Pan-Am Games, Commonwealth Games and the World University Games, but this month Rhonda Shishkin gets to experience the pinnacle of sport.

The former Huskie Athletics physical therapist and University of Saskatchewan (USask) alumna will be wearing Canada's colours while serving as the physiotherapist with the national women's basketball team at the Tokyo Summer Olympic Games, July 23 to Aug. 8. For Shishkin, it will be the highlight of her career.

"It is coming up fast and it is starting to feel more real now," said Shishkin, who earned physical therapy and physical education degrees at USask and worked with

Huskie Athletics for 21 years from 1997 to 2018. "I have been fortunate to be involved with Basketball Canada in the past, and have been to the Pan Am Games with them. I have been involved with Athletics Canada and been to a Commonwealth Games, and through my work with the Huskies I have been to the World University Games.

"But the Olympics is different. The Olympics are special. When you look at a lifetime of opportunities, it is one that really want to have on your list."

For Shishkin, it has been a five-year journey of spending summers with the national team, an opportunity opened to her by Team Canada head coach and Huskie

women's basketball coach Lisa Thomaidis.

"A few years ago Lisa said they had a training camp coming up and needed a therapist and asked if I was interested and I said sure," said Shishkin, who has known Thomaidis for more than two decades through working together with Huskie Athletics. "That door was opened for me and I was able to spend this last five years with them, so I am really fortunate to be with this team. Basketball has been a love of mine and I feel very fortunate to work with Lisa, who I worked with at the university since 1998. To be with a coach that you know so well and that you respect and that you work well with, is just

an added bonus."

Shishkin, who is now the director of physiotherapy at Craven SPORT services, left Saskatoon two months ago to begin her latest stint with the national team, moving from one pandemic protocol quarantine "bubble" to another. After starting training camp at the Toronto Raptors practice facility in Tampa, Fla., the Canadian team headed to Puerto Rico to compete in the FIBA Women's AmeriCup from June 11-19, before returning to Tampa for final preparations prior to flying to Japan on July 4.

"When we travel, we re-establish our bubble," said Shishkin. "Tokyo will have really strict rules about where you can and can't be and



OLYMPIC GAMES:

USask kinesiology student dives into Olympics

ALYSSA WIEBE

University of Saskatchewan (USask) student Rylan Wiens will compete for Canada in diving at the Tokyo Summer Olympics.

The 19-year-old College of Kinesiology student from Pike Lake, Sask., saved his best for last at the Canadian Olympic team trials on July 1 in Toronto, clinching a berth in the Summer Games on his sixth and final dive of the competition.

"It feels surreal qualifying for the Olympics. It was a great relief to finally achieve a goal I have had since I was very young," said Wiens.

Wiens qualified for the Olympics for the first time by earning 983.05 points to finish second to national champion Nathan Zsombor-Murray in the men's 10-metre individual platform final in Toronto, with both divers booking their trips to Tokyo for the Summer Games, July 23 to Aug. 8. In May, Wiens

helped Canada clinch a second qualifying spot in the 10m event in the Olympics by earning a bronze medal at the Diving World Cup in Tokyo.

A member of the Saskatoon Diving Club, Wiens starting diving competitively when he was only seven years old. Wiens won his first junior national title at the age of 10 and stepped into the international spotlight in 2018 when he represented Canada and reached the finals in the World Cup, the Commonwealth Games, and the world junior championships.

Opportunities to dive competitively elsewhere continued to be presented to him throughout his career. However, Wiens chose to stay close to home and push himself and teammates, helping put Saskatchewan diving on the competitive map.

"I chose to stay at home in Saskatoon to continue diving and

further my education because I really enjoy living in the country in Saskatchewan. I know a few of the older divers went through the kinesiology program at USask and they had a great experience."

Although the COVID-19 restrictions won't allow for his family members to travel to Tokyo with him, he knows they will be watching on television throughout the night, cheering him on.

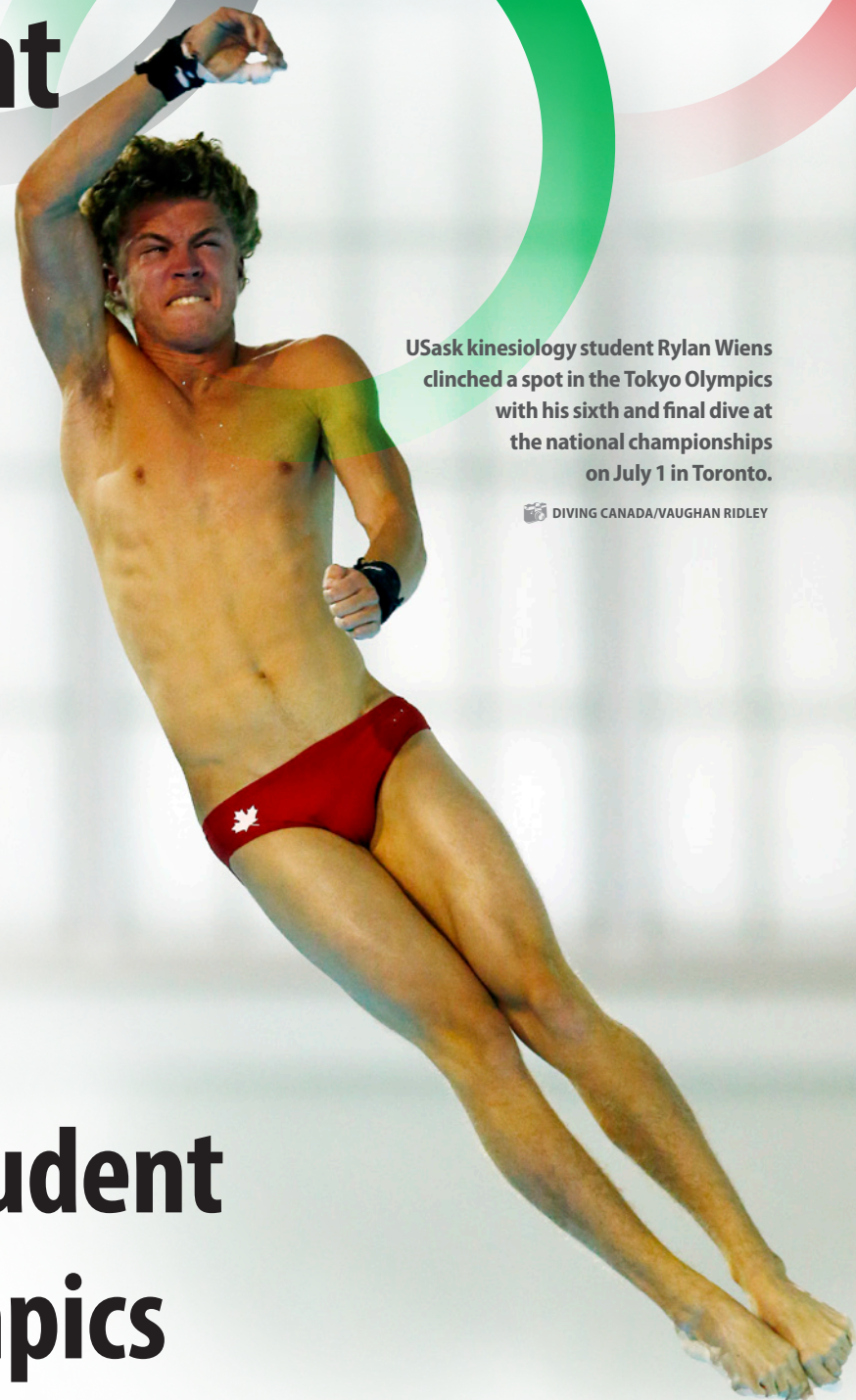
"I know it will be a unique Olympics, and I am excited to say that I was there and got to take part in it," he said.

Wiens is scheduled to compete in the 10m event at the Tokyo Olympics on Aug. 6-7. ▀

Alyssa Wiebe is the communications and advancement officer in the College of Kinesiology at USask.

USask kinesiology student Rylan Wiens clinched a spot in the Tokyo Olympics with his sixth and final dive at the national championships on July 1 in Toronto.

DIVING CANADA/VAUGHAN RIDLEY



USask graduate student picked for Paralympics

University of Saskatchewan (USask) graduate student Keely Shaw is going to the Paralympics.

The College of Kinesiology PhD candidate was one of nine racers named on July 7 to Canada's Para cycling team in the C4 class.

JEAN-BAPTISTE BENAVENT

Shaw, who is from Midale, Sask., has been a national team member for four years and earned a silver medal at her first world championships in 2019. Shaw, who was named Saskatchewan's female athlete of the year in 2019, is scheduled to race from Aug. 25 to Sept. 3 in Tokyo.

Shaw earned bachelor's and master's degrees at USask, and is currently pursuing her PhD in exercise physiology and sports nutrition.

Brown in consideration

Former USask Huskie student-athlete Jennifer Brown is a

candidate to be named to Canada's Paralympic track and field team, which will be announced July 22. Brown was the F38 discus champion at nationals June 27 with a throw of 28.49 metres, which met one of the standards to make the Paralympic team. ▀



USask museum's tour focuses on fossils found in local buildings

✍ SHANNON BOKLASCHUK

Did you know that Saskatoon's downtown area is filled with fossilized creatures that are much older than the dinosaurs?

This summer, the Museum of Natural Sciences at the University of Saskatchewan (USask) is encouraging residents to get outside and explore this fascinating history.

Dr. Erica Bird (PhD) is one of the collaborators on the On Safari Downtown Saskatoon Tour, which highlights local buildings that were built with Tyndall Stone. This type of sedimentary rock built up over time, trapping the remains of plants and animals that were preserved as fossils inside it.

"All the fossils are basically the same age: 450 million years old," said Bird, who manages the Museum of Natural Sciences, which is housed in USask's College of Arts and Science. "They are all part of the Tyndall Stone, which is a limestone formed at that time in what is now known as the Selkirk Member of the Red River Formation," she said. "Back then, what is now southern Saskatchewan and southern Manitoba was covered in a warm and shallow sea just south of the equator. A diverse community of animals and plants lived at the bottom of this sea in a muddy carbonate platform, similar to the Caribbean today. After they died, they were buried in the sediment and, over time, they were fossilized."

Tyndall Stone is named after the small community in Manitoba where it is found. It was a major building stone in the early days of Saskatoon, in part because the rail line made it easy to get it here. Canada is the only source in the world for this stone.

There are many kinds of fossils found in Tyndall Stone, the same type of limestone that is featured on buildings throughout the USask campus. On the downtown walking



A close-up of one of the 450-million-year-old fossils embedded in the Tyndall Stone in the MacMillan Building.

tour, people will see nautiloids, corals, stromatoporoids, gastropods and receptaculites. There are other fossils also found in Tyndall Stone, such as brachiopods, bryozoans, crinoids, trilobites and calcareous algae, but they can be difficult to spot because they are small, less common or are more susceptible to splitting when the stone is cut.

Using the museum's online resources as a guide, people can "hunt" for the fossils at several downtown landmarks, including the Avenue Building, the Odd Fellows Temple, the MacMillan Building and more.

"People walk by these buildings all the time, and many have told me they never knew about the fossils," said Bird. "I hope that once people



A look at the front of the historic MacMillan Building, one of the stops on the On Safari Downtown Saskatoon Tour.

see them, they will always notice them as they pass by—and it will be a reminder that we are all part of the incredible history of the interconnected natural world."

The fossil tour was recently created for the museum's website, but it has "actually been a labour of love for many years" in various forms, said Bird. She noted that the original tour was created in 1982 by Peggy Sarjeant, with help from her

late husband, Dr. William Sarjeant (PhD), a former faculty member in USask's Department of Geological Sciences who passed away in 2002.

"Then, in 2016, Jody Cason with the Saskatoon Heritage Society created and printed a hard-copy guide and colouring book with more information and fossils to find," said Bird.

"When the COVID-19 pandemic closed the Museum of



Dr. Erica Bird (PhD) manages the Museum of Natural Sciences, which is housed in USask's College of Arts and Science.

Natural Sciences and campus to the public, I was looking for something new and unique that would encourage people to get outside and explore the Tyndall Stone fossils I knew we had in downtown Saskatoon. I ended up finding and meeting Jody, and this virtual version was born.

"As well as digitizing everything so that the tour can be done on a phone, we updated it with more information on the fossils and Tyndall Stone, turned the scavenger hunts into an app-like experience with photos and hints and collaborated with partners, like the Museum of Antiquities, to add some cultural content."

Bird hopes that when people see the fossils, they will come to understand a bit more "about the amazing and very, very long history of life on our planet." For example, the first big gastropods—invertebrate mollusks related to snails and slugs—appeared on Earth around 495 million years ago. In comparison, *Homo sapiens*—modern-day humans—have only existed for around 300,000 years.

"Humans are such a tiny part of Earth's history and understanding that puts a lot of things in perspective, I think." 🍀

Shannon Boklaschuk is a communications officer in the College of Arts and Science.



USask ornithologist Dr. Karen Wiebe (PhD), a faculty member in the Department of Biology, with a rare stuffed passenger pigeon dating back to 1875.

MEDIA PRODUCTION

Bird collection a feather in the cap for USask ornithologist

SHANNON BOKLASCHUK

A stuffed specimen of a now-extinct passenger pigeon dating back to 1875 is one of the highlights of the bird collection amassed over more than a century at the University of Saskatchewan (USask).

“There are estimated to be 1,500 stuffed passenger pigeon specimens at institutions around the world, but I’m not sure how many other Canadian universities have specimens—certainly not very many. We are lucky to have one,” said ornithologist Dr. Karen Wiebe (PhD), a faculty member in the Department of Biology in USask’s College of Arts and Science.

“Passenger pigeons were once the most numerous bird species in North America and their story of being hunted to extinction is very

tragic,” she said.

The passenger pigeon is one of the oldest and rarest stuffed bird specimens at USask. It is one of about 2,500 birds currently found in the university’s vertebrate collection, which also includes about 3,000 specimens of mammal skulls and stuffed mammals. Stored in the teaching wing of the W.P. Thompson Biology Building, the bird collection is highlighted in a new video on the website of the Museum of Natural Sciences.

The bird collection was started in 1917, near the founding of USask, when early biology professors began accumulating deceased birds. Since then, it has been gradually growing for more than a century, as students and faculty members continue

to add more samples. Wiebe has curated the collection since she was hired at USask in 1997.

The collection is mainly used by faculty members and graduate students studying the morphology and evolutionary ecology of vertebrates. For example, tissue samples from the toenails or feathers of the stuffed birds have been used to obtain stable isotope profiles, which are useful for determining the birds’ diets and geographical origins.

“I am currently using DNA samples from snowy owl feathers for phylogenetic analyses and to determine genetic similarity between populations and subspecies. Bird specimens in the collection have also been used to study fault bars in feathers and variation

in plumage colour, which can be signals of individual quality or environmental stressors,” said Wiebe.

“On the teaching side, the study skins and/or skulls of birds and mammals are used in the labs for upper-level biology courses to teach about morphological variation, adaptations and evolution of vertebrates. The biology labs are so much more vivid and engaging with real specimens to show students and not just photographs or videos.”

As an ornithologist, Wiebe studies the behaviour, reproduction and ecology of birds. Much of her work focuses on factors that determine the reproductive success of individuals, such as predation risk, food supply, and habitat and nest site selection. She is especially interested

in incubation and hatching patterns, and sex roles during reproduction.

While it is difficult for Wiebe to choose a favourite species, she is particularly fond of the northern flicker—a bird she has studied for two decades.

“The flicker is a colourful woodpecker and a great example of hybridization of subspecies which exist in different plumage colours—a process called introgression,” she said. “I’ve added several unusual hybrid flicker specimens from my field site in British Columbia to the department’s collection over the years. I’ve especially tried to add species from British Columbia that were missing from the collection, birds like Steller’s jay, barn owls, varied thrush—things that I find as road kills or window strikes out here.”

In the summer, Wiebe travels to B.C. to conduct fieldwork. Until the wildfires of 2017 burned down her long-term study site at Riske Creek, B.C., her primary focus was on the behaviour and ecology of northern flickers—a 20-year study of a colour-banded population.

“I’m now doing fieldwork on other cavity-nesting birds—mainly mountain bluebirds and tree swallows—which use the approximately 250 nest boxes I’ve put up in the area. My main research questions include the effects of habitat alteration—clearcutting—on prey availability and reproductive success. I’m also studying competition for nest sites among species of cavity-nesting birds,” she said.

“In the winter, when I’m in Saskatchewan, I study snowy owls by tracking their movements with satellite transmitters.”

More videos featuring Wiebe’s research can be found on the Museum of Natural Sciences website. ♥

Shannon Boklaschuk is a communications officer in the College of Arts and Science.

USASK RESEARCH:

Examining how therapy dogs support well-being

RACHEL SLOANE

A University of Saskatchewan (USask) sociology researcher is studying how St. John Ambulance therapy dog-handler teams can further support people—including Indigenous people—dealing with substance use concerns and/or mental health concerns when visiting online, and in the future, in-person.

Dr. Holly McKenzie's (PhD) new research project is supported by a \$140,000 Banting Post-Doctoral Fellowship. McKenzie is a community-engaged and patient-oriented researcher and has been working alongside her Great Dane, Opal, who is a therapy dog in training. McKenzie's main supervisor is Dr. Colleen Dell (PhD), the Centennial Enhancement Chair in One Health and Wellness, and an advisory group that includes patient and family advisors, therapy dog handlers, health care decision-makers, researchers, a Knowledge Keeper and a local dog trainer.

McKenzie said a study like this is relevant to both Indigenous and non-Indigenous people who deal with mental health concerns and/or substance use concerns.

"I'm trying to make sure that Indigenous peoples' experiences and perspectives are included in this project," said McKenzie. "One of the ways I'm doing that is taking guidance from a Knowledge Keeper, Betty McKenna, who is from the Anishnaabae Nation, Shoal River Band, and is a member of the advisory group."

In previous research led by Dell, people reported feeling supported

and comforted by visiting therapy dogs. Studies have also demonstrated visits with therapy dogs lower people's levels of stress and anxiety in various settings. Therapy dog visiting programs do not replace essential health programs or services but rather complement them.

When McKenzie began her Post-Doctoral Fellowship, her plan was to study how St. John Ambulance therapy dog-handler teams support and comfort women, including Indigenous women, who seek assistance for mental health concerns and/or substance use concerns at Saskatoon's Royal University Hospital emergency department. The hospital was the first in Canada in 2016 to introduce therapy dogs to support people waiting for emergency services.

Due to the pandemic, McKenzie had to adjust her project. In March 2020, St. John Ambulance suspended in-person therapy dog visits nationally, with some programs, such as USask's PAWS Your Stress, transitioning online. In-person therapy dog visiting is still suspended.

She worked with the project's advisory group to figure out ways to achieve similar aims to what she had originally planned, even though in-person therapy dog visiting was suspended.

The redesigned project focuses on how policies, training and resources can facilitate therapy dog handlers' support of people. This project also considers therapy dog welfare and handler well-being.

McKenzie said the inclusion of Indigenous peoples' perspectives



You can read more on the project and find results at:
hollyannmckenzie.wordpress.com/fostering-pawsitive-wellbeing/

USask professor Dr. Holly McKenzie (PhD) with her Great Dane, Opal, a therapy dog in training.

MAKI FOTOS

within this study is important, as research has shown that a service or support that is effective for the population overall, may not be true for Indigenous peoples, who are a large part of Saskatchewan's population.

Other Indigenous members of the advisory group include patient and family advisor Paulete Poitras, health policy expert Cassandra

Opikokew Wajuntah, and addictions expert Sharon Acoose.

Due to the pandemic and having to redesign the study, McKenzie's project has been delayed. She is currently conducting interviews with therapy dog handlers and service providers as well as reviewing policies. She plans to hold a community presentation in the fall

when she will release her findings through community products like infographics, training resources or policy checklists. She will also publish the results in academic journals. ▀

Rachel Sloane is a communications intern at the University of Saskatchewan.

USASK RESEARCH:

Sleep and fitness go hand-in-hand

RACHEL SLOANE

The University of Saskatchewan's (USask) Dr. Heather Foulds (PhD) and her team of students have conducted a new study which confirms the connection between sleep and physical activity among middle-aged women.

The study has shown a significant difference between women with higher aerobic fitness levels getting more sleep each night and feeling more rested.

Although this study was conducted prior to the pandemic, Foulds believes this research is still applicable to women experiencing the pandemic.

"There's more underlying stress and more challenges," said Foulds, an assistant professor in the College of Kinesiology who specializes in Indigenous health and cardio-

vascular health, and the Heart & Stroke/CIHR Indigenous Early Career Women's Heart and Brain Health Chair at USask.

Sleep plays an important role in our health. As women enter menopause, which typically happens between the ages of 40 to 50, they could experience a decrease in their sleep quality.

Physical activity has been associated with improved sleep among older people. The purpose of this study was to determine if physical activity and/or physical fitness are associated with sleep quantity and quality in middle-aged women. This study recruited 114 healthy women, aged 30-55 from Saskatoon, Saskatchewan, from 2015-2019.

Participants were classified on their aerobic fitness, grip strength and how physically active they were. The aerobic fitness test was based on walking. Participants were asked to walk as far as they can, as fast as they can in six minutes. Women who were more fit could walk farther and

were able to keep a higher speed.

Next was grip strength to test their musculoskeletal fitness. They had participants hold a device in their hand and squeeze it as tightly as they were able. The device measured how many kilograms each participant was able to squeeze. This was done on both hands to get an overall total for their grip strength.

Participants also filled out a questionnaire to measure their level of physical activity. The results from each test helped divide the participants into two classifications—those who were more fit and those who weren't—to provide a more accurate representation of the relationship between each participant's fitness level and their sleep experience.

Both sleep quantity and quality were evaluated through questionnaires. Sleep quantity was measured by noting the number of hours slept. Sleep quality was measured through the answers the women gave in the questionnaire. The questions surrounded the ability to fall asleep, staying asleep, waking up earlier than intended, and if they felt restless when waking up or if they felt tired or fatigued.


From thinking about which activities are possible to do safely and won't put your family's health at risk to juggling responsibilities between working from home and looking after their children, the pandemic was also relevant to the study.

"All of these things can contribute to a lack of sleep," said Foulds.

However, overall, the study has shown that women who are more physically active and have a higher aerobic fitness level tend to have better sleep.

The high aerobic fitness group had a greater mean sleep duration of 7.04 hours compared to the low fit group of 6.61 hours after adjusting for age, Body Mass Index, waist circumference and menstrual status.

The percentage of high aerobic fitness women who felt rested was calculated at 67 per cent compared to low aerobic fitness women at just 45 per cent. ♥

A portrait of Dr. Heather Foulds, a woman with long brown hair, smiling. She is wearing a dark blue blazer over a grey top and a colorful, patterned shawl. The background is a soft-focus autumn forest with yellow and orange leaves.

Dr. Heather Foulds (PhD) is an assistant professor in USask's College of Kinesiology who specializes in Indigenous health and cardiovascular health.

SUBMITTED



Dr. Jen Budney (PhD) is a professional research associate in the Canadian Centre for the Study of Co-operatives at USask.

DAVID STOBBE



Dr. Marc-André Pigeon (PhD) is the executive director of the Canadian Centre for the Study of Co-operatives at USask.

DAVID STOBBE

USask celebrates expansion of co-operatives programming

ERICA SCHINDEL

In May 2021, when Miranda Flury received a certificate recognizing her as a certified co-operative director, she was one of the first 48 Canadians to ever receive such a designation.

Flury, the secretary of the board of the Fort St. John Co-op in northeastern British Columbia, was a member of the first cohort of graduates of the Advanced Co-operative Governance program, offered by the Canadian Centre for the Study of Co-operatives (CCSC) at the University of Saskatchewan (USask), in collaboration with the Johnson Shoyama Graduate School of Public Policy (JSGS) Executive Education unit. Within hours of receiving her certificate, she had added her new designation to her LinkedIn profile.

“I’m very proud to be in the business of supporting co-operatives, and the designation provides additional credibility in this space,” Flury explained.

As the United Nations celebrated International Day of Co-operatives on July 3, co-operatives

around the world were busy helping communities meet their needs and aspirations in areas as diverse as health, agriculture, production, retail, finance, housing, employment, education, and social services. Canada’s nearly 6,000 non-financial co-operatives and close to 700 credit unions are a part of a global movement of more than three million co-ops and a billion members.

Co-operatives are businesses collectively owned by the people who use them, rather than faraway shareholders seeking returns, focusing on member and community needs before profits.

“In uncertain economic times, co-operatives have proven to be more stable than investor-owned firms, because they make decisions differently,” said Dr. Jen Budney (PhD), professional research associate at the CCSC. “This is why interest in the co-operative movement is growing today, not just in Canada, but globally.”

The CCSC, originally estab-

lished at USask in 1984 as the Centre for the Study of Co-operatives, is committed to strengthening the co-operative sector, nationally and internationally, by providing co-operative organizations and policymakers with the data and conceptual tools they need to continue developing solutions to complex challenges facing the world today.

To that end, the CCSC developed Canada’s first-ever board director designation tailored to co-operative board members.

“There are quite a few advanced training programs for corporate board directors in Canada, but none of them consider the co-operative business model, which has a host of governance challenges that investor-owned firms don’t have,” explained CCSC Executive Director Dr. Marc-André Pigeon (PhD). “We saw a need for a different kind of education, and that’s what we’ve created.”

In June 2021, the CCSC issued 48 certificates to directors from the Co-operative Retailing System

(CRS) and Federated Co-operatives Limited (FCL), who all received the Co-opD.D designation, which stands for Co-operative Director. The certificates were issued by JSGS, a provincial policy school with unique ties to both USask and the University of Regina.

Everyone who received the Co-opD.D designation participated in a three-day online workshop on Advanced Co-operative Governance created and facilitated by Pigeon and Budney, along with JSGS Executive-in-Residence and former Saskatchewan Deputy Minister Ken Acton. As part of the program, students were required to complete a three-hour multiple-choice and long-answer exam, and score at least 70 per cent.

“The exam wasn’t easy!” said Budney. “Participants were given very complex scenarios that a co-op in the CRS might face, and they had to demonstrate their understanding of the role of governance in these scenarios and what a board should do to ensure the long-term viability

of operations, keeping in mind that co-ops always have multiple bottom lines.”

Co-operatives are democratically controlled, with each member receiving one vote. In most co-operatives, governance is delegated to an elected board of directors, who are chosen from the general membership.

Co-ops in the CRS, which include grocery stores, gas stations, cardlocks, feedlots, hardware stores, and more, may be Canada’s best-known co-operative organizations, with their trademark red-and-white CO-OP logo. Because these organizations are responsible to thousands or hundreds of thousands of individual members and manage operations generating millions to hundreds of millions of dollars for their local communities, it is essential that they are governed well.

John Stevenson, board president of Sherwood Co-op, which serves the greater Regina area, was one of the 48 graduates of the 2021 Advanced Co-operative Governance program.

“Our Co-op, like all Co-ops, brings a social contract as well as a financial contract to our members and our communities,” he said. “We as board members know that our communities are changing and evolving. We need to make sure our governance is staying relevant and representative of our communities, and that includes a regular evaluation of the effectiveness of our governance.”

Plans are underway to expand the program to co-ops outside the CRS, while also continuing to work with FCL on workshops designed specifically for the CRS.

Flury, like Stevenson, found the course stimulating as well as practical.

“The practical takeaways I got for the co-operative board I sit on are unmatched,” she said. “I have already updated my governance committee annual plan to incorporate the discussions we had during the workshops.”

Erica Schindel is communications and marketing manager with the Johnson Shoyama Graduate School of Public Policy.



USask students thrive in career transition program

JOHN GRAINGER

With aspirations to be a military emergency surgeon, Mikayla Steadman, a fourth-year University of Saskatchewan (USask) student in the College of Kinesiology, knows she needs as much knowledge and preparation as possible as she strives toward achieving her dreams.

“I knew the skills I needed to build upon were along the lines of leadership and knowing how to deal with different situations,” said Steadman.

Much like Steadman, David MacTaggart, a current USask graduate student, knew he needed to develop specific professional skills as he moved into the Department of Plant Sciences master’s program in the College of Agriculture and Bioresources to eventually work in the agriculture industry.

“My primary interest is communication and agriculture and being able to get messages across to our farmer audiences, so they can adopt innovation faster and in a way that’s meaningful for their farm,” said MacTaggart.

Through their professors, both Steadman and MacTaggart heard about a pilot program called the RBC Learn to Work, Work to Learn program, which had been initiated through a partnership between USask and RBC Future Launch in 2019.

RBC Future Launch is a 10-year, \$500 million commitment to empower Canadian youth for the jobs of tomorrow. With a focus on networking, skills devel-



USask students Mikayla Steadman (left) and David MacTaggart. SUBMITTED

opment, practical work experience and mental well-being supports and services, the initiative aims to help break down the barriers facing young people.

The RBC Learn to Work, Work to Learn program is designed to give students a taste of life in the workplace before their university classes are over, while at the same time building transferrable skills like communication, collaboration and enhanced critical thinking that would ultimately lead to improved employability.

Upon completion of the program, Steadman worked at a Saskatoon seniors’ care home, while MacTaggart landed a position with Bayer Crop Science at a field site in rural Saskatchewan.

“It helped me to develop that confidence to be able to communicate effectively with those people that I work with,” said MacTaggart. “And I think that’s a skill that’s

quite universal because we’re all so different.”

The successful pilot program began with an initial \$300,000 investment from RBC, and over the two-year period, the program reached more than 2,000 students.

Building on that success, RBC has since generously committed \$1 million to expand the program at USask to students in other colleges.

“RBC has been a committed partner and long-time supporter of the University of Saskatchewan and our students,” said USask President Peter Stoicheff. “At the core of their generosity has been a desire to see our students succeed.”

Stoicheff believes the university’s role is to provide students with the knowledge and skills they need to succeed after graduation and go on to make a difference in communities, both here and around the world.

“In that way, our students can

be what the world needs,” he said.

RBC Regional President Kim Ulmer believes creating connectivity and collaboration builds a solid foundation that enhances the students’ career options.

“RBC is fortunate to have the University of Saskatchewan as an innovative partner and friend in preparing Canada’s next generation of leaders for a dynamic future that awaits them,” said Ulmer. “We feel strongly that it is important to not only give back, but show up in meaningful ways, contributing however we can.”

Nancy Turner, director of teaching and learning enhancement at USask, has been thrilled with the program thus far, having had the opportunity to work closely with many of the staff and students involved.

“This program has been very well received by students and our industry partners alike, adding to and amplifying the skills acquired during employment and devel-

oping many foundational skills that are critical for career success,” said Turner. “None of this would have been possible without the support of RBC.”

She said students who have finished the RBC Learn to Work, Work to Learn program have come away with a sense of growth and are ready to tackle a real career after graduation.

“Additionally, the experience has helped them identify career paths, become more skilled in the process of getting a job, and ease into work,” said Turner.

Both Stoicheff and Ulmer believe students will leave the program positioned to succeed in their future endeavours, and Steadman knows she has an advantage over others because of her participation in the program.

“I would say to RBC, thank you very much for the opportunity of participating in such a wonderful program. I believe it has improved my life greatly.”

Because of this generous gift, USask is expanding the RBC Learn to Work, Work to Learn program to more colleges to be able to reach more students across the university. To find out more about the program, contact Program Lead Alicia Wehrkamp at alicia.wehrkamp@usask.ca

Collaboration for knowledge translation

FROM PAGE 2

The multidisciplinary team decided to focus on five key recommendations to educate surgical health-care professionals and cardiac patients. The guidelines focus on surgical care steps, such as removing breathing tubes earlier than six hours, managing pain with alternative painkillers to opioids, mobilization, fluid management and pre-habilitation—ensuring patients improve nutritional deficiencies, understand the importance of stopping smoking, diabetes control and learn about pain goals and expectations.

Having received training in implementing ERAS guidelines with general surgery in Regina, Pikaluk has had experience implementing ERAS, such as decreasing the time patients are taking to wake up, decreasing and changing medications to manage patient pain.

Cardiac surgeon Dr. John Tsang (MD), an assistant professor in the Department of Surgery and a key supporter of the project, noted he has observed ERAS projects working in other surgical areas.

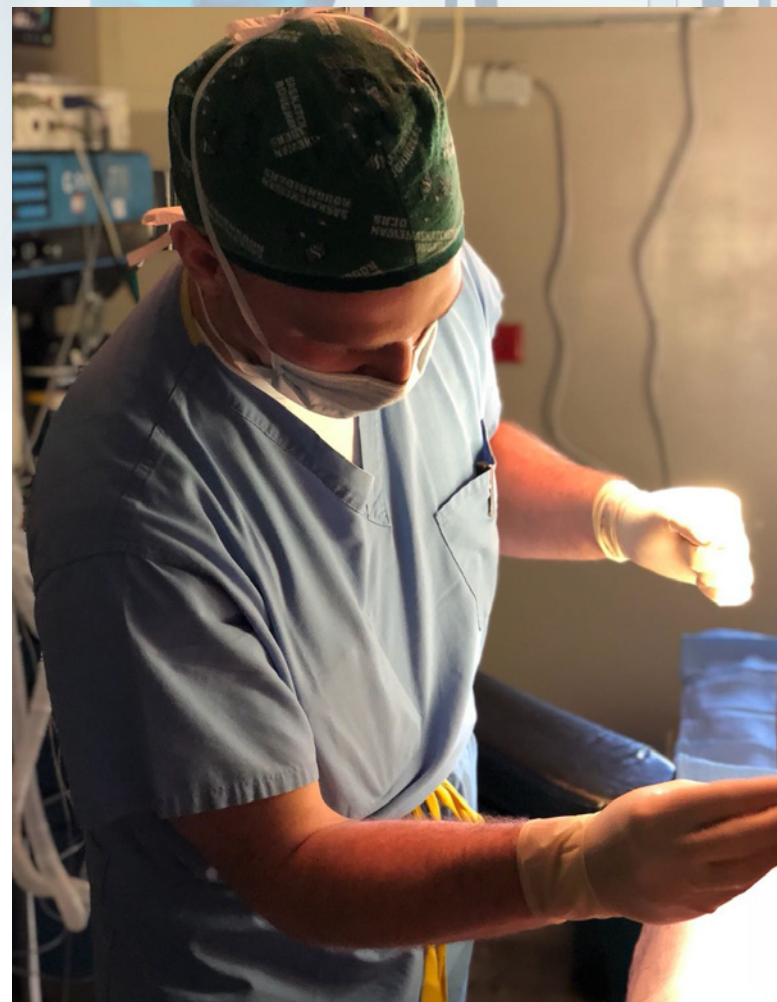
“In Regina, there was work on an ERAS project for colorectal surgery,” Tsang said. “It has improved patient care for this group of patients. I am hopeful that increasing education and

improving the preparedness of the patients for their heart surgery will improve the patient experience and outcome.”

With nearly \$7,000 in funding from SHRF for knowledge translation, matched by funding from the Department of Anesthesiology and in-kind contributions from medical experts, the research team intends to create and distribute educational tools on the benefits of ERAS to health-care workers and patients across the province. These tools will include education sessions for physicians and nurses, an online platform to host information, as well as animated videos to explain the benefits and impact of cardiac ERAS guidelines.

The cardiac surgical patients in Saskatchewan were “impacted in care delivery due to lack of ICU capacity at tertiary sites,” said Lori Garchinski, provincial executive director of Tertiary Care at the Saskatchewan Health Authority.

“This project will help drive our strategic goals and priorities related to access to health services and ensure that we continue to provide connected care for the people of Saskatchewan,” Garchinski said. “It is very exciting seeing both the Saskatoon and Regina teams work together to strive for quality



improvement goals for this patient population.”

An additional benefit to the

project is the potential for collaboration in Saskatchewan. Regina and Saskatoon are both smaller tertiary



Dr. Ryan Pikaluk (MD) is an assistant clinical professor in the USask College of Medicine Department of Anesthesiology.

centres, however the collaboration between health care teams in both cities allows the functionality of a bigger centre.

“I don’t know of another place in Canada that exists like this,” Pikaluk said. “To have our teams in smaller separate cities work together and pool resources together, we end up with better results than either of us could have done by ourselves.”

Kristen McEwen is a communications co-ordinator in the USask College of Medicine.



USASK'S RESEARCH FACILITIES AND TECHNOLOGY STATE-OF-THE-ART

 JAMES SHEWAGA

When it comes to advanced technology and specialized research centres, the University of Saskatchewan's (USask) cluster of extraordinary equipment and unique facilities is unmatched among Canadian universities.

It's not exactly the best-kept secret on the Prairies, as researchers at USask and the scientific community have known for years. However, the university's reputation is growing across the country and around the globe as a prime destination for world-leading researchers.

"Our unique array of advanced research facilities on campus give USask researchers and visiting scientists throughout the province, across the country, and around the globe the opportunity to conduct world-lead research," said USask Vice-President Research Baljit Singh.

USask is well-known as home to three national research centres. These include the Canadian Light Source (CLS)—featuring Canada's only synchrotron—and the Vaccine and Infectious Disease Organization (VIDO). VIDO had the first lab in the country to isolate the SARS-CoV-2 virus that causes COVID-19 and was the first in the country to test a vaccine in animal models. USask also leads the Super Dual Auroral Radar Network



A dog receives a scan in the new PET-CT unit in the Western College of Veterinary Medicine at USask.

(SuperDARN) Canada, part of an international scientific network of 35 high-frequency radars. But CLS, VIDO and SuperDARN are only some of the features that make USask unique.

One of the latest additions to USask's impressive assortment of research assets is the new positron emission tomography-computed tomography (PET-CT) scanner in

the Western College of Veterinary Medicine (WCVI). This is Canada's only PET-CT unit dedicated to animal-human research and to clinical use in animals.

The university also recently installed a new made-in-Saskatchewan BioPETx, a first-of-its-kind nuclear imaging detector designed specifically for plant and soil research in

USask's Saskatchewan Centre for Cyclotron Sciences (SCCS). The SCCS, owned by USask and managed by the Sylvia Fedoruk Canadian Centre for Nuclear Innovation, is home to the province's first cyclotron, which has produced medical isotopes for nuclear imaging scans of thousands of Saskatchewan patients at Royal University Hospital since 2016.

Saskatchewan's research-intensive medical-doctoral university also features social science and epidemiology research hubs, global institutes for food and water security, and the Livestock Forage and Centre of Excellence (LFCE), a unique world-class complex of field and science laboratories.

Research scientists at the CLS have also built the first linear accelerator in the world that is dedicated to producing molybdenum 99—the medical isotope that is used the most—in a safe and cost-effective way that does not create nuclear waste. CLS also features the unique Biomedical Imaging and Therapy facility, designed for the study of humans and full-sized animals. This is another life sciences advancement, adding to USask's collection of research facilities and technology on campus that is unmatched among Canadian universities.

"From the Canadian Hub in Applied and Social Research, new PET-CT scanner at WCVI and the BioPETx and cyclotron at the SCCS, to Canada's only synchrotron national research facility, no other university in the country has all of these state-of-the-art facilities located right on campus," said Singh. 