ARTS&SCIENCE

Sisters and scientists Escape from Afghanistan An Indigenous voice in STEM



university of saskatchewan College of Arts and Science artsandscience.usask.ca

A

ARTS SCIENCE

SPRING 2023

Arts&Science is published for alumni and friends of the College of Arts and Science, University of Saskatchewan.

Editors Kristen McEwen Christopher Putnam

Designer Larry Kwol

Produced by Communications Office College of Arts and Science University of Saskatchewan 512 Arts Building 9 Campus Drive Saskatoon SK S7N 5A5

Contact us artsci.communications@usask.ca

Stay connected ¶ ♥ @ ● @usaskartsci

Printed in Canada Mister Print, Saskatoon, Sask

A University of Saskatchewan publication Canadian Publications Mail Agreement #40805056

On the cover:

From left, siblings Rita (PhD'14) and Fidelia Orji (MSc'19) grew up in a low-income community in Nigeria. Today, they are both winners of Vanier Graduate Scholarships and innovators in the field of persuasive technology.

Photography: Daniel Abriel / Dalhousie University; David Stobbe



university of saskatchewan College of Arts and Science artsandscience.usask.ca





FROM THE DEAN MESSAGE



Photography: David Stobbe

This April, the University of Saskatchewan (USask) launched the largest fundraising campaign in Saskatchewan's history. The Be What the World Needs Campaign is raising \$500 million to tackle the world's most pressing challenges.

With the support of our donors, the College of Arts and Science will play a central role in USask's efforts to address complex issues such as climate change, social inequality, infectious diseases, and access to safe food and water. As a place where artists and scientists, professors and students, communities and visionaries come together in the spirit of collaboration, we are in an ideal position to respond to the challenges that cannot be faced alone.

With your help, we will lead critical research, support Indigenous achievement, inspire students to succeed and design visionary new spaces.

We have exciting ambitions in the College of Arts and Science. We aspire to create new student awards, graduate fellowships and experiential learning opportunities. We will build on our successes and expand our efforts to close the retention gap between Indigenous and non-Indigenous learners. We will create new research chairs and professorships to recruit some of the world's best minds and deliver research breakthroughs. Through a new Centre for Indigenous Scholarship, we will build partnerships and advance research that matters to Indigenous communities in Saskatchewan and beyond.

This will only be possible with your support. I invite you to learn more about the opportunity to be part of this historic campaign by visiting artsandscience.usask.ca/give.

In the previous issue of *Arts&Science* magazine one year ago, I wrote that 2022 would be my last year as dean of our college. Well, plans sometimes change! I agreed to serve for one more year while the search for my successor continued.

The search is completed and Dr. Brooke Milne will begin a five-year term as dean of the College of Arts and Science on Aug. 1. Previous to her appointment, Dr. Milne held academic leadership roles at the University of Manitoba and the University of Alberta, and I welcome her as the new leader of our college during this transformational time.

I want to say once again that I am grateful for the experience of leading this college for the last eight years. Working, each day, with such wonderful people—it has been a privilege collaborating with our outstanding faculty and staff and building relationships with our students, alumni and donors.

Let's together answer the call to be what the world needs. ${\scriptstyle \bullet}$

Dr. Peta Bonham-Smith Dean and Professor, College of Arts and Science

NEWS IN BRIEF



Photography: David Stobbe

Indigenous Student Achievement Pathways marks 10-year anniversary

For the past 10 years, a unique program has welcomed First Nations, Inuit and Métis students to the University of Saskatchewan (USask) College of Arts and Science.

Indigenous Student Achievement Pathways (ISAP) builds confidence, knowledge and skills through academic and social programming offered through a learning community model.

"If I didn't have ISAP, I don't think I would have lasted (at university)," said Leanne Harris (BA'22), who studied sociology. "The small-cohort classes were a big help and helped me understand the material more."

Harris credits ISAP with helping her to succeed as a post-secondary student. She is from Pelican Lake First Nation, and began her studies at USask in 2018 with ISAP.

ISAP—previously known as the Aboriginal Student Achievement Program (ASAP)— connects students with Indigenous faculty members, staff, alumni, Elders and peers. Students benefit from dedicated and culturally responsive instructors; subject-specific tutorials; financial advocacy and bursaries; career preparation support; celebrations and cultural engagement throughout the academic year; and other opportunities.

"Our students—approximately 80 per cent First Nations and 20 per cent Métis each year—are a cohort that have been strongly affected by the residential school legacy," said ISAP team lead Dr. Sandy Bonny. She considers ISAP programming "a direct and vital response" to the Truth and Reconciliation Commission of Canada's calls to address educational and employment gaps between Indigenous and non-Indigenous Canadians. •



Photography: Gibson Photo, University Archives and Special Collections, A-8504

Remembering a USask computing pioneer

Several of the innovations that made the Information Age possible can be traced to a founding member of USask's computer science department

The passing of Dr. Kathleen Booth at the age of 100 in fall 2022 brought renewed attention from around the world to her achievements. From 1962–72, Booth was a researcher and later a faculty member in the College of Arts and Science.

While working in the United Kingdom in the 1940s and 50s, Booth was the first to invent assembly language and wrote one of the first books on programming. With her husband, Dr. Andrew Booth, she helped create an algorithm—Booth's multiplier that is fundamental to billions of computer processors today.

The Booths were cofounders of the Department of Numerical Automation at the University of London's Birkbeck College, which is thought to be the world's first university computer science department.

In the early 1960s, the couple moved to Saskatchewan to take up positions at USask. Booth was director of a National Research Council project investigating computer translation between French and English. She taught courses on programming and information storage, and helped develop the original curriculum of what is now called the Department of Computer Science.

"They had offers from all over the world many in the United States, New Zealand, etc.—but settled on Saskatchewan because Canada, and USask in particular, was at the forefront of scientific support and innovation," said the Booths' daughter, Dr. Amanda Booth (DVM'83, MVetSc'86). ■



erythrocytes under a microscope at the Prince Albert USask campus.

Photography: submitted

USask expanding biology program at Prince Albert campus

With the purchase of new laboratory equipment, the Prince Albert USask campus is expanding its biology courses.

The Department of Biology at the College of Arts and Science purchased the equipment for BIOL 224, "Animal Body Systems," a basic physiology course. Lab work in the course requires students to use the equipment to monitor body responses to activities such as exercise and a simulated diving experience.

Before the Prince Albert campus opened in 2020, USask classes shared classroom and laboratory space with Saskatchewan Polytechnic, formerly known as SIAST, for decades. Time with laboratory equipment was limited to accommodate other classes.

Expanding the biology program will allow students to stay and study longer in Prince Albert. The biology department hopes to continue expanding its programming and eventually offer the first two years of a biology degree at the Prince Albert campus.

"There are a lot of students who want to learn close to home and we want to provide the opportunity to take classes that will make a meaningful contribution towards a science degree," said department head Dr. Christopher Todd.

College of Arts and Science appoints new dean

Dr. Brooke Milne, a professor in the Department of Anthropology at the University of Alberta, has been appointed dean of the College of Arts and Science at USask. Milne will begin a five-year term on Aug. 1, 2023.

"I am honoured and excited to be taking on this role to lead the largest, most diverse College of Arts and Science in Western Canada, which is renowned for its excellence in interdisciplinary teaching and research, and where students are engaging in transformative learning opportunities to tackle the world's wicked problems, showing us that the University of Saskatchewan is truly the university the world needs," said Milne.

An anthropological archaeologist, Milne has spent nearly three decades applying interdisciplinary approaches to explore the long-term human occupation of the Canadian Arctic. She has a proven track record of successful academic leadership at the University of Manitoba and the University of Alberta.

At the University of Manitoba, Milne served as graduate chair in the Department of Anthropology and as associate dean (social sciences and humanities) in the Fac-



Photography: University of Alberta

ulty of Graduate Studies. She later moved to the University of Alberta and served as vice-provost and dean of the Faculty of Graduate Studies and Research.

Milne earned her PhD in anthropology from McMaster University. She holds a Master of Arts degree from Trent University and a Bachelor of Arts (Honours) degree from the University of Waterloo.

Dr. Peta Bonham-Smith, the current dean of the College of Arts and Science, will conclude her term on June 30 after eight years in the position and will return to her research and teaching role in the Department of Biology. Dr. Bram Noble, the College of Arts and Science's vice-dean research, scholarly and artistic work, will serve as interim dean starting on July 1.

USask researchers colead climate science satellite mission

Two College of Arts and Science researchers are leaders of a national team developing three new climate science satellite instruments that will be launched into space as part of a large NASA satellite mission.

Department of Physics and Engineering Physics professors Drs. Adam Bourassa (BE'01, BSc'01, MSc'04, PhD'07) and Doug Degenstein (BSc'89, BE'93, PhD'99) are key in the creation of two satellite instruments focused on aerosol and water vapour measurements. Both professors are part of USask's Institute of Space and Atmospheric Studies.

The instruments, named SHOW (Spatial Heterodyne Observations of Water) and ALI (Aerosol Limb Imager), will be developed at USask.

Thirteen universities from across Canada are participating in the project, titled HAWC (High-altitude Aerosols, Water Vapour and



HAWC is a Canadian mission on NASA's Atmosphere Observing System, a four-satellite constellation. It will support extreme weather prediction, climate modelling and disaster monitoring.

Photography: Canadian Space Agency

Clouds). The Canadian Space Agency, Environment and Climate Change Canada, the National Research Council of Canada, and several Canadian aerospace companies are also contributing.

Data collected from the satellites will provide critical information for predicting extreme weather in Canada, and improve prediction models of the impact of climate change.

Honouring COVID-19 victims



Photography: Christopher Putnam

As the number of people who died from COVID-19 grew, individual tragedies were converted into statistics. The Remember Rebuild Saskatchewan team at USask is working to help Saskatchewan remember the lives lost.

The team has created a memorial website called Remember Lives Not Numbers that identifies more than 100 people whose families listed COVID-19 as the cause of death. Each person's information was collected from news stories and obituaries, and includes a brief highlight about their life as reported by family members and friends.

The team behind the digital memorial includes Department of History faculty members Dr. Jim Clifford and Dr. Erika Dyck (BA'98, MA'00); research officer Dr. Patrick Chassé (PhD'18); graduate student Bethany Knowles and undergraduate research assistant Domenica Medina Sanchez.

"I am one of many Saskatchewan residents who lost friends during COVID-19 and could not attend a memorial service or grieve with friends to honour their passing," said Dyck. "I hope this site also helps us collectively grieve the losses of our friends and family as we look back at three years of pandemic conditions."

View the memorial or submit a name at www.rememberrebuild.ca.

Sustainability of mountain water sources focus of new UNESCO Chair



Photography: Mark Ferguson

Department of Geography and Planning faculty members Drs. John Pomeroy (BSc'83, PhD'88) and Corinne Schuster-Wallace are co-chairs of a new UNESCO position focused on preserving critical mountain water sources endangered by climate change.

Nearly four billion people worldwide

depend on water from the high mountains for survival. The UNESCO Chair in Mountain Water Sustainability will address the challenges of sustaining and managing mountain water sources such as the Canadian Rockies snowpacks and glaciers.

"Chairholders will have to find the regionally appropriate and problem-specific solutions and be sure not to force a one-solution-fits-all approach, but to listen to local needs and to codevelop the most appropriate solutions in each of the regions," said Pomeroy.

The UNESCO position is hosted at the University of Calgary and held by a total of six chairholders from Western Canada, Chile and Nepal. Each scholar brings a distinct research focus from their geographic region. Chairholders will proactively work with local mountain-based communities and relevant stakeholders and decision-makers.

Medieval monks' moon-watching sheds light on volcanoes and climate change

An international research team that includes a College of Arts and Science physicist has developed a deeper understanding of volcanoes and climate change thanks to medieval-era records created by monks.

The researchers examined astronomical records written by monks and chroniclers across Europe, the Middle East and Asia from 1100-1300 CE. The monks described 51 lunar eclipses that occurred in Europe during the period, noting that five were especially dark—something that can occur when dust from major volcanic eruptions is present.

When volcanoes erupt, ash and sulfur is released into the atmosphere, resulting in a haze that can decrease the intensity of the sun and reduce global temperatures over a period of years.

Dr. Matthew Toohey, assistant professor in the Department of Physics and Engineering Physics, is part of the interdisciplinary research team that published its findings in the journal *Nature* in April 2023. His role focused on translating eclipse



Consolation de Boèce, Ms. 822, fol. 61v, Bibliothèque Municipale de Toulouse / Gallica, BnF.

Photography: Recueil de poésies françaises

records into estimates of when the volcanic eruptions took place.

"The more accurately we can estimate the magnitude and timing of past eruptions, the better we can understand past climate variations and use that to test climate models that are used to predict future climate," said Toohey.

Making the stage more inclusive through design

USask Department of Drama head Carla Orosz (BFA'04) and her team are building a free and accessible resource to guide theatre designers in creating inclusive sets, costumes, makeup, scenery, projection and lighting.

"Until relatively recently, the Canadian professional theatrical design field and the training that supports emerging designers has historically had limited opportunities to work with diverse casts due to embedded biases in the industry," said Orosz.

"Why can't we see their faces?' is a familiar refrain from many directors due to poor contrast in the colour palette in relation to skin colours."

Orosz is working with professional theatre designers to develop web-based resources for theatre training institutions and the theatre community to "train the eye" in developing colour palettes for diverse skin colours. The study uses a Department of Drama studio theatre as a laboratory to collect data about the staging elements necessary to create co-



Carla Orosz gathered theatre artists to create different scenarios on stage and examine the necessary design elements to support diverse skin tones.

Photography: Carla Orosz / Images of Research

lour palettes that complement diverse actors.

Orosz is also working with the Gordon Tootoosis Nīkānīwin Theatre, the only Indigenous theatre company in Saskatchewan, to engage Indigenous artists and youth with the development and outcomes of the project.

USask awards inaugural ohpinamake Indigenous art prize

Winnipeg-based artist KC Adams is the inaugural recipient of ohpinamake, a new donor-funded prize for Indigenous artists from the USask Art Galleries and Collection.

Adams, an Anishinaabe, Inninew and British artist, was selected by a jury of cultural workers and community members to receive the first \$10,000 award. Adams refers to herself as a "social practice artist," noting community and mentorship are important aspects of her work. As she builds her artistic career, she is showing Indigenous students "that this is possible for their future," she said.

The word ohpinamake is a nêhiyawêwin (Cree) term meaning "to lift others." The name was gifted to the USask Art Galleries and Collection by a group of three Indigenous community leaders: Elder Maria Campbell, Elder Louise Bernice Halfe – Sky Dancer and artist Ruth Cuthand (BFA'83, MFA'92).

Six other artists—Holly Aubichon, Darren Gowan, Laura Grier, Audie Murray, Taryn Walker and Brody Burns (BA'21)—were



KC Adams, an Anishinaabe, Inninew and British artist living in Winnipeg, is the winner of the first \$10,000 ohpinamake award. Photography: submitted

selected to receive \$1,000. The prizes were made possible thanks to the generosity of donors Jim and Marian Knock.

Museum of Antiquities acquires replica Sleeping Hermaphrodite



The Sleeping Hermaphrodite at the Museum of Antiquities is a replica of the original sculpture located in the Louvre in Paris.

Photography: Christopher Putnam

The Museum of Antiquities at USask has obtained a 3D-printed replica of the Sleeping Hermaphrodite—a famous Roman sculpture located in the Louvre in Paris, France.

The full-sized replica, which is made of resin and painted to look like marble, was created by Ateliers d'art de la Réunion des musées nationaux – Grand Palais in France. It is the first 3D-printed replica of the statue ever produced by the Ateliers.

"The Sleeping Hermaphrodite has been at the top of the museum's acquisitions wish list for several years," said Dr. Tracene Harvey (BA'98, MA'02), the museum's director/curator. "This acquisition helps to fill one of the gaps in the museum's collection, namely sexuality and gender in ancient Greek and Roman art."

Sleeping Hermaphrodite is now part of more than 120 replica sculptures in the museum's collection, the vast majority of which have been funded by donations. The purchase of the Sleeping Hermaphrodite replica was made possible by a \$25,000 gift from the estate of Cleo Girgulis.

COMMEMORATING A USASK GRADUATE'S PASSION

Claire Mueller's family has established an award to support undergraduate students in linguistics and studio art

Painted by Claire Mueller

🔨 KRISTEN MCEWEN

As a burgeoning young artist who spoke five languages, Claire Mueller (BA'21) had an insatiable appetite for learning and life.

Sadly, Claire died as a result of a vehicle collision near Saskatoon in August 2021, shortly after graduating with her linguistics degree. She was 22 years old.

Claire's mother, Joanne Mueller (BSN'88), described her daughter as someone with a bohemian personality, long hair that flowed to the backs of her knees and a sense of justice for others.

"She was very passionate about the underdog," Joanne said. "She would fight tooth and nail for somebody. She did not like people being excluded because they didn't have money, or they were different.

"(Claire) was very adamant that everybody gets a chance," she added. "She was always so distressed when she couldn't help people or solve a problem and make people happy. So, we thought, 'Well, let's do this for the two things she loved the most—she loved languages, and she loved art."

The Mueller family—including Claire's mother and father, Joanne and George, and her younger brother Maxwell—wanted to commemorate her ambition, talents and kindness with the Claire Mueller Memorial Award in Linguistics and Studio Art.

The award is intended to provide financial support to undergraduate students in linguistics or studio art in the College of Arts and Science.

Growing up, Claire's family spoke multiple languages in their home, starting with English and French on her mother's side.

"She had quite an aptitude for (languages),"



A photo of Claire compared to a self-portrait.

"She did not like people being excluded because they didn't have money, or they were different."



In conjunction with her Cree language class, Claire wrote and illustrated a storybook based on her real-life friendships. (Illustrations by Claire Mueller)

JOANNE MUELLER

Joanne said. "She's the kind of person that when she got her hooks into something, it was done."

Throughout elementary school, Claire learned Spanish as her third language. In high school, Claire learned German. Since her father's side of the family was German, she received lessons from her aunt. In Grade 11, she also participated in a three-month long foreign exchange student program in Germany with long-time friend Hannah Ickes, which immersed her in the language.

"She would just pull everybody in, and everybody would get excited about it," said Joanne. "Claire was able to explain things really well, and so I think that's why everyone was engaged with what she was into."

When Claire arrived at the College of Arts and Science, she decided to earn a linguistics degree. She took Cree as a language course elective—her fifth language.

"There wasn't a day when she didn't come home from school and say, 'Oh, did you know the root of this or that word?"" Joanne said.

Claire was also passionate about art. When she was 10 years old, she began art classes at The Gail Adams Studio of Art in Saskatoon—starting with pencil drawings and eventually working with pastels and acrylic paint. She often worked with materials other than paint, including clay, cardboard and wood to create sculptures—whatever the project required, Joanne said.

"Even while she was working on her linguistics degree, Claire would take art classes all summer just because she liked



Claire Mueller, 22, graduated from the College of Arts and Science in 2021 with a bachelor's degree in Linguistics.

Photography: submitted

it," she said.

Claire also enjoyed drawing fantasy characters for her friends in their Dungeons and Dragons (D&D) groups. D&D requires participants to create unique character personalities and traits for the game—it was fitting that Claire designed appearances to match.

One day, Joanne read about an opportunity for an art program in Vancouver and encouraged her daughter to apply.

"'Why don't you try?" Joanne recalled saying to her daughter. "If you don't get in, you don't get in. But if you don't try, then you won't."

Claire put together a portfolio and sent it in the mail. Soon, she learned she had been accepted into the fine arts program at Emily Carr University of Art + Design. Because Claire had taken many art classes, she would have started as a second-year student in the 2021 fall semester.

The memorial award will receive an initial gift of \$30,000 from Joanne and George in order to establish this fund as an endowment. This will allow the award in Claire's name to be made in perpetuity.

Claire's family and friends plan on completing several of her ongoing projects and donating proceeds to the fund. They are currently working on translations of a book Claire had written in conjunction with her Cree language class. The book is about the friendships of three woodland animals, based on the relationships she shared with two of her close friends— Marissa St. Amand and Marie Hardouin.

The summer after Claire graduated university, she worked for a short time on the Prairie Lily Riverboat in Saskatoon. She made connections quickly with the owners and her coworkers. They had planned to create a colouring book of the riverboat. Mike and Joan Steckhan (BA'88), owners of the riverboat, are working with Claire's family to complete the book and will donate the proceeds as well.

Other donations to the fund can be made through the College of Arts and Science website.

"As much as I'm sure she would appreciate us helping others, I'm sure she's not too excited to be up front and centre with the (award)," Joanne said. "That's the kind of person that she was—behind the scenes, get things done, type of person."

"She was able to pack a lot into a very short period of time."

OUR VOICES ARE SO IMPORTANT

A USask science graduate is inspiring the next generation of Indigenous students

Micheala Merasty is pictured working on an environmental consulting project near Langley, B.C.

Photography: Mark Storey

Micheala Merasty holds a Columbia spotted frog while working to relocate amphibians on a project for Triton Environmental Consultants in Blue River, B.C.



Photography: Javier Vargas

🔊 CHRISTOPHER PUTNAM (BA'07)

When Micheala Merasty (BSc'22) crossed the stage in November to receive her University of Saskatchewan (USask) Bachelor of Science in environmental biology, no one cheered louder than her daughter.

Taylah Merasty began her first year of studies in the College of Arts and Science just as her mother was graduating.

"She fought hard for this and I'm really lucky that I got to experience that, because it makes me want to do school. I guess it influenced me to know that even though it's hard, you just—you keep going," said Taylah Merasty.

The inspiration goes both ways. Micheala Merasty sees her daughter as a big part of the reason she succeeded.

"I definitely wanted to show her that hard work and determination can really take you places, and that anything is possible. If you want to do something, go for it," Micheala Merasty said.

Merasty, who is Cree and grew up in Pelican Narrows in Northern Saskatchewan, finished her degree with distinction after 10 years of studies. Along the way, she worked numerous jobs, raised her daughter as a single mother and became an advocate for Indigenous participation in the sciences.

Merasty is now working in a dream job as a biologist at an environmental consulting company, where she

ensures that companies pursuing development projects follow environmental regulations.

"I get to spend all day, every day, outside. I get to work in beautiful places. I get to do the best I can to help whatever species we're working with. And at the end of the day, I feel good about myself and the work that I did.

"It's pretty wild. You know, I never thought I'd be this happy so quickly right out of my undergrad. So I feel really blessed, to be honest," she said. It's been a long road getting here. Merasty, who has adult ADHD (attention-deficit/ hyperactivity disorder) dropped out of her studies twice before returning to USask for good in 2012. During the past decade, she continued to face doubts, mental health struggles and other challenges.

"Because I had left university before, I kind of always had one foot out the door, thinking that maybe I wasn't good enough, or dealing with imposter syndrome—that I wasn't allowed in these spaces or my voice wasn't important in these spaces," she said.



Merasty with her mother Phyllis and daughter Taylah on the day of the 2022 USask Fall Convocation.

Photography: Breanna Doucette-Garr

Support from family helped carry her through. So did a slate of USask student services.

Merasty was one of the first students to sign up for the College of Arts and Science's Indigenous Student Achievement Pathways (ISAP) when it launched in 2012. The program, which connects participants with a supportive community of Indigenous students and dedicated instructors, introduced Merasty to many friends she remains close with to this day.

Elders at the Aboriginal Students' Centre

guided Merasty to get in touch with her culture and recognize her own worth. An Indigenous counsellor at the Student Wellness Centre helped her unpack her intergenerational trauma and embrace her gifts.

"It's amazing, because my daughter can see—now that I've transitioned into my professional career—she sees that it's worth it. It's worth it to get through," Merasty said.

During her studies, Merasty worked to encourage and empower other Indigenous students in the sciences. She co-founded the USask student chapter of the Canadian

> Indigenous Science and Engineering Society as a way of building connections between students like her across campus.

> "Representation matters. By entering academic spaces, we're actively working against systems that were put in place to silence our voices. Our voices are so important because they haven't been in these conversations," she said.

> As a student, Merasty dreamed of being a voice for the environment. Now that she's graduated, she plans to spend her career doing just that.

> "As an Indigenous person in the sciences, you know, I have an innate connection to the land and the waters, and I feel that that brings a lot more to the table as a scientist. I'm able to bridge traditional ecological knowledge and western scientific knowledge and see the world

through a broader lens," she said.

Merasty's mother, Phyllis Merasty (BEd'93), is a residential school survivor and a graduate of USask's College of Education.

She was the first in the family to graduate from university. Micheala was the second.

Taylah Merasty has grown up watching their example.

"Once I graduate, I'll be a third-generation alumni," Taylah Merasty said. "And that feels really good, to have those people who are influencing me to live a better life and make a good life for myself."

PERSISTENT AND PERSUASIVE

🛰 KRISTEN MCEWEN

Resilience and persistence enabled University of Saskatchewan (USask) graduates Rita (PhD'14) and Fidelia Orji (MSc'19) to support their siblings after their parents passed away, while pursuing their academic and research careers.

From left, University of Saskatchewan graduates Dr. Rita Orji (PhD'14) and Fidelia Orji (MSc'19) both won the prestigious Vanier Graduate Scholarship.

Photography: Daniel Abriel / Dalhousie University; David Stobbe



Though Nigerian-Canadian sisters Fidelia and Rita Orji are experts in their field—persuasive technology in computer science—their family didn't have a computer when growing up.

"We didn't even use one before starting to study computer sciences in university," Rita said.

Both sisters' academic careers have focused on persuasive technology. Persuasive technology has been used to develop apps that empower people and help them achieve various self-directed changes in behaviours such as increasing physical activity, managing stress and anxiety, and controlling alcohol consumption.

Dr. Rita Orji (PhD'14) is a Canada Research Chair in Persuasive Technology and an associate professor in the Faculty of Computer Science at Dalhousie University in Halifax, NS. She is the founder and director of the Persuasive Computing Lab and a part of the Human-Computer Interaction, Visualization and Graphics Research Cluster.

"We design different types of interactive systems as persuasive tech-

persuasive technology," Rita said. "At my Persuasive Computing Lab, you'll find some of my trainees working on games, while others work on mobile apps, virtual reality, web apps, artificial "My research explores how we can improve e-learning systems so they can encourage more engagement and support people to achieve their learning objectives."

Growing up in Nigeria

Fidelia and Rita come from a family of nine children. "We grew up in a community where (the) majority of the people there were low-income earners," Rita said.

Fidelia was known to be reserved, intelligent and hard-working. Rita was also known to be smart, but more outgoing and vocal.

"People often try to compare me and Fidelia. When they see that I am everywhere and like talking, some people would tell me, 'Why can't you take after your sister?" Rita laughed. "People who knew my sister is very smart often thought that I probably don't know what I am doing because I don't behave like my sister—I am not as reserved. However, although we are different in some ways, we share several important virtues, growing up in the same place—such as the value of hard work, perseverance, resilience and contentment."

> Rita said that she and her siblings "learned how to manage resources to achieve success."

"We also learned how to use whatever we have in the community to solve problems and help people," she said.

"We also learned how to use whatever we have in the community to solve problems and help people."

RITA ORJI (PHD'14)

intelligence (AI) driven applications, or social media applications."

Most of Rita's research has been in the area of health and wellness, focusing on physical and mental health and well-being.

"The major thing about our research is the focus on how to design interactive applications to help people to achieve various behaviour change objectives that are important to them," Rita said. "In terms of the methodology, the key thing is that we employ the user-centred design approach to tailor our applications to be suitable for the target users."

Her older sister, Fidelia (MSc'19), is currently a PhD student in the Department of Computer Science at the USask College of Arts and Science.

Fidelia's research also utilizes persuasive technology but focuses on education. Her current research explores improving e-learning systems using machine learning and persuasive technology for better engagement and achievement of intended learning objectives.

The importance of online learning became readily apparent in 2020 when the pandemic caused the majority of learners to switch to online learning environments.

"Now we know that online learning is very, very important," Fidelia said. "However, low engagement and high attrition rates are major issues that need to be addressed to improve the effectiveness of the systems in supporting people to achieve their learning goals."

For online courses that are facilitated without a live instructor, learners are required to self-guide and manage their time.

"When you live in such communities to survive, you have to be able to depend on one another, so people learn to help each other. We look out for one another and are selfless."

Both siblings had a knack for technical subjects like math, and liked figuring things out—like puzzles and radios. Fidelia and Rita were used to helping support the family, at times selling vegetables on the roadside in their community located in Enugu State, in the eastern part of Nigeria, to bring in extra money, or hauling water before and after school. They got used to multitasking, balancing their schoolwork while helping the family with petty trading and farm work.

Fidelia started her academic career at Nnamdi Azikiwe University, Nigeria, enrolling in an undergraduate program in computer science.

"Since I'm technically inclined and good at math, I decided to take computer science as a course so that I could help in developing software and technologies that people can use to solve different problems," Fidelia said.

A year later, Rita enrolled in the same program.

"When I was going into university, Fidelia had a very big influence on me because she was already in computer science," Rita said.

"Fidelia had set a good pace that left big shoes to fill," she said. "It wasn't exactly like we were competing, but it's more like setting a good example for all the younger ones (siblings) just like me. And I'm hoping the younger ones following me will go higher than myself because they have someone they can look up to."



Photography: David Stobbe

While they were enrolled at university, their father passed away. Taking care of their siblings rested with the older siblings and their mother, who also unfortunately passed on a few years later.

Once she completed her bachelor's degree program, Fidelia put her dreams of further education on hold, and decided to enter the workforce to support her younger siblings. She gained perspective while working in the computer software industry.

"I look at my own position in the family as a privileged one because it helped me to learn to be responsible at an early age," Fidelia said. "It helped me to learn how to settle disputes, how to plan things and set up goals not just for myself but also for other people following me. Because if I'm not achieving or if I make mistakes, it may lead them astray. The important thing is for me to set a good standard. I was conscious of that."

She also recognized the advantage of getting a job right out of university.

"Work was also a privilege because there are so many graduates that finished their education and didn't get work. Rita and I were able to start supporting our younger ones right from a very young age," she said.

Rita finished her undergraduate degree and was accepted into a master's degree program at USask, but her visa to Canada was denied. Instead, she attended a graduate school program at Middle East Technical University located in Turkey with scholarships, where she attended from 2007 to 2009.

"When I got the admission and scholarship for grad school, it was a bit of a dilemma for us because I had also gotten a good job as a software engineer in the industry," Rita said. "Considering that we had a lot of younger ones who need our support to go to school, and our father had died, there was not much support."

Rita didn't expect that she would attend

graduate school as the family needed money to support her younger siblings to even attend secondary school.

"We needed money, but my family encouraged me to go—that they would find a way to manage," Rita said. "Fidelia and my other sisters continued to run the family and to support the younger ones while I contributed as much as I could from the stipend I

otograpny: Davia Stobbe

received from my scholarship as a student. "During my master's degree, due to the change in environment and school system, things were not as easy as I thought it would be," she added. "I remember struggling a bit and missing home.

"However, whenever I spoke to my family, they encouraged me to try my best—that I can do it. I know that people were sacrificing a lot to keep me in graduate school, so I did not have any room for mistakes, so, I did my best and graduated with excellent grades," said Rita.

Academic excellence at USask

In 2010, after completing her Master of Science degree, Rita secured her visa and was accepted at USask to complete her PhD and fulfill her dream of becoming an internationally renowned computer scientist.

As an international student, Rita received the Vanier Graduate Scholarship in 2011 through the federal Natural Sciences and Engineering Research Council. Her research focused on developing a computer app to combat obesity.

The annual award is Canada's top graduate student award, recognizing researchers who demonstrate academic excellence, research potential and leadership ability. Rita went on to graduate and eventually take a faculty position at Dalhousie University.

Over the next few years, Fidelia migrated to Canada with her husband and daughter. She enrolled in a graduate program at USask to continue her education with a scholarship.

In 2021, Fidelia also received the Vanier Scholarship as a PhD student for her research in developing e-learning tools to assess learners' engagement, motivation and frustrations in real-time. Fidelia credits her sister, Rita, and her supervisor, computer science professor Dr. Julita Vassileva, for encouraging her to apply for the award.

"I was excited that we shared this achieve-

ment, even though sometimes I'm more of a conservative person," Fidelia said.

"The fact that we both earned the scholarship was evidence of the work ethic and the value of perseverance engrained in us when we were growing up," Rita said.

Fidelia is continuing to work on earning her PhD at USask. Though they live far apart, the sisters regularly keep in touch. Rita sometimes reaches out to Fidelia for advice—life, work or otherwise.

"Fidelia is very supportive and helpful no competing spirit between us," Rita said. "My hope is that she goes higher than myself to succeed, and I think she hopes the same for me. I appreciate lots of things about her. She sets a good standard and she goes out of her way to help and assist others."

Fidelia echoed her sister's sentiments.



Dr. Rita Offi (PhD 14) is a is a Canada Research Chair in Persuasive Technology and an associate professor in the Faculty of Computer Science at Dalhousie University.

"Rita is smart, intelligent and hardworking. She's always herself, wherever she is. If she has set out to achieve anything, she will pursue it and persist no matter the obstacle on the way."

The sisters reflected on their academic and personal journeys to where they are today—and how none of it would be possible without the support of each other.

"People don't really know how it was," Rita said. "There was no reason why any of us would get to this level, considering where we came from. The only thing that actually helped us is that we worked together and supported each other.

"When you come from such a big family, we complement each other. Where one is weak, the other is strong."

Photography: submitted

BE WHAT THE WORLD NEEDS

The world needs problem solvers and global citizens that will confront the challenges and opportunities ahead. And more than ever, the world needs the next generation of leaders from the College of Arts and Science.

Donations to the College of Arts and Science enable students to work with cutting-edge technology, study abroad, learn in state-of-the-art facilities and, above all, help them succeed in their journey at USask. Our students are our greatest strength and thanks to donors, we know they are ready to take on the complex challenges of today and tomorrow.

To make your gift today, visit give.usask.ca/impact/artsandscience



THE SURVIVOR Arash Jafari was wanted by the Taliban. Education was his escape.

Crowds of people at a checkpoint at Hamid Karzai International Airport, Kabul, seeking evacuation from Afghanistan on Aug. 21, 2021. Photography: U.S. Marine Corps; usage does not imply or constitute U.S. Department of Defense endorsement

CHRISTOPHER PUTNAM (BA'07)

In late October 2021, Arash Jafari reached the Torkham border crossing and joined the massive crowd of people seeking escape from Taliban-controlled Afghanistan.

He spent the next 48 hours in line as tens of thousands of people slowly walked to the Pakistan border, sleeping wherever they found room.

"The night was too cold and everybody frustrated. Families, children crying. That was the end of the world," Arash said.

If his students in Kabul had seen him then, they might not have recognized him. He had grown out his beard and dressed in traditional Afghan garb for the trip, his life savings hidden in cash within his clothing. His story was that he was a farm worker looking for employment in Pakistan.

Should he be questioned, Arash hoped the Taliban would see only a quiet, conservative Afghan farmer. If they learned the truth, he would certainly be killed.

Arash—now a 33-year-old graduate student in the University of Saskatchewan (USask) Department of Political Studies—was born in Afghanistan and raised in Iran.

Politics and international conflict were always part of his world. He grew up hearing stories from his father, a former mujahid, of battling Soviets in Afghanistan in the 1980s. As a young adult, Arash studied political science at a university in Mashhad, Iran, and earned his bachelor's degree.

It was 2013—well into the United States' military mission in Afghanistan. Arash was 22 and filled with an optimism about his birth country that he now views as naïve. "(My studies) made me very idealistic and hopeful about Afghanistan, because America was there. And not only me: so many people in Afghanistan, folks all over the world, ... we were hopeful," he said.

Against his father's advice, Arash became determined to return to Afghanistan and serve his country.

"My father told me, 'I fought in that country. I know there is something wrong. That country will never be built.""

Arash went anyway. In Afghanistan, he found work as a field researcher, an installer of antenna systems for the Afghanistan military and a translator for the United States Army.

While traveling with the American military, he survived attacks by Taliban insurgents and was present for interrogations of captured Taliban soldiers. He came to understand the Taliban's tactics, motivations and structure. He saw how local corruption and support from neighbouring countries empowered the group.

Arash's jobs took him to every part of Afghanistan and he was shocked by the conditions he saw. In some remote villages, he witnessed 10-year-old girls forced to marry 70-year-old men, and worse things that he prefers not to talk about.

He now realized how little he had understood about the country of his birth.

"When you're in class, you just learn it theoretically, but when you're on the ground that's the reality. That means killing, the blood on your face of your friend. That's the reality."

Arash's work with the American military ended in 2016. He left for China to pursue graduate studies in international relations and returned to Afghanistan in 2018 with a master's degree. He took a job as a politics lecturer at Kateb University in Kabul,

Arash Jafari is a graduate student in the Department of Political Studies at USask.

Photography: David Stobbe

but knew that he could have no long-term future in Afghanistan.

In the spring of 2021, as the United States and its allies began to withdraw the last of their troops from Afghanistan, the Taliban launched a major offensive. Taliban forces retook large parts of the country with a speed that stunned most people in the West.

Arash was not surprised. Nor was Dr. Colleen Bell, a faculty member in the USask Department of Political Studies.

"When the United States and its allies, including Canada, launched those operations

(in Afghanistan), they essentially helped to generate a domestic insurgency in the country. And of course, the Taliban and other groups in Afghanistan had a long history of essentially having a problem with foreign intervention and occupation. So in many ways, I think those actions actually emboldened them," said Bell, who specializes in theories of war and security.

Before and during the withdrawal, the Afghan government and its security forces were not given the support they needed to withstand the Taliban, added Bell.

"They had reasons, in fact, to cooperate more than to resist."

By this time, Arash had been contacting universities overseas for almost a year, hoping to be accepted into a graduate studies program. He knew that education was his best chance

at escaping Afghanistan and focused his search on universities in Canada: a country he knew by its reputation for good government and good people.

On Aug. 12, 2021, as Taliban forces were nearing Kabul, Arash sent an inquiry to Bell in Saskatoon about the USask master's program in political studies. Through email, they had a typical discussion of admission requirements and funding options.

Three days later, the Taliban attacked Kabul.

"I'll never forget that day. That was a Sunday, 11:30," said Arash. "It was midterms. One student remained in the class. Suddenly the (security guard) opened the door and said, 'Hey, teacher, you're still here? Taliban entered. Go to your home. Close the door. Or go to airport, whatever you can do.'

"I went out (and saw) people running. Not jogging—running. Everybody. Because those people who were in Afghanistan before, they remembered the last time that the Taliban took Kabul."

During its previous takeover of Afghanistan in the 1990s, the Taliban conducted mass bombardments of Kabul and massacred civilians in the streets of other cities. As it seized control in 2021, the group unleashed reprisal killings, but this time it was more discriminating.

Arash's life was in danger not only because of his work as a translator for the Americans, but because of his status as a secular academic. He no longer considered



Photography: David Stobbe

himself Muslim. In his classes at Kateb University, he allowed his female students over the protests of other students—to remove their hijabs in the classroom.

Some of his former students had radical beliefs. Some were now Taliban soldiers.

Arash made it home safely that day and his correspondence with Bell took on a new urgency.

"I'm really desperate about the current situation of Afghanistan. Every day, so many unimaginable dramatic scenes have happened in this country. All the universities, banks, etc. have been closed and there isn't any possible hope for the future of this country," he wrote on Aug. 23.

Bell—who is also the graduate chair of her department—scrambled to verify Arash's eligibility for the USask program and see him admitted outside of the usual intake period. Staff in the College of Arts and Science stretched university procedures to their limits to hasten his acceptance and secure him funding. Arash worked to obtain the necessary documents as society collapsed around him.

With reports of the situation in Afghanistan dominating the news in Canada, correspondence with Arash brought the turmoil close to home for Bell and the college staff members.

"We're all watching this very difficult violence and disaster unfold—one which I personally see Canada, the West, as implicated in. And you have a person who's saying, 'Can

> you get me a ticket out of here? Could you help?" said Bell.

"Sometimes you get these opportunities in your career to do something that maybe can make a real difference for somebody."

Arash was accepted as a USask graduate student under a full scholarship, but getting out of Afghanistan was a greater problem.

In the aftermath of the Taliban takeover, Arash spent several days and nights at Kabul's airport unsuccessfully seeking a flight out of the country. Hundreds of thousands of Afghans hoped to escape the same way, and few were granted tickets. Some desperate people clung to the sides of departing aircraft and fell to their deaths as the jets took off.

Arash was on the waitlist for a U.S. program to evacuate vulnerable residents from the country, but his approval never came

through. With Bell vouching for him to the Canadian government, he applied for Canada's refugee program. He never heard back on his application.

For two-and-a-half months, Arash lived in limbo in Kabul as the Taliban consolidated power. Finally, in October, he received a hurried phone call from someone at his former employer.

"I am calling everybody," he was told. "Escape."

The company, a provider of logistics services to the U.S. military, had coordinated Arash's work as a translator. Taliban soldiers had just arrived at the business with a message: You work for us now.

Arash's name, and the names of many others who had helped the Americans, were now in the hands of the Taliban.

Arash fled. A bribe to a bank employee allowed him to withdraw some money and

"For a generation, they studied, they had free mass media. Now, just in one day shut down."

ARASH JAFARI



Photography: David Stobbe

hire a car to take him 200 km east to the border crossing at Torkham. With his cash and his cover story in place, he joined the queue to enter Pakistan.

At one point during his two days spent in line, Arash pulled out his phone to check the time, only to see it instantly confiscated and pocketed by a Taliban soldier. The phone was a painful loss, but he knew better than to protest. The Taliban would find nothing incriminating on the device; he had wiped everything before leaving Kabul.

Arash made it across the border to sanctuary and stability in Pakistan. He lived for the next six months in Islamabad while awaiting the study permit that would allow him to travel to Canada.

Rents in the city had risen dramatically following the influx of Afghan nationals, and Arash's money soon ran out. He relied on financial support from his friends around the world, many of whom he'd met during his studies in China.

"I found out who my best friends were in that time," he said.

Arash's study permit came through in April 2022 and he immediately booked a flight to Canada. Bell paid for the ticket from her own research funds.

On April 25 of that year, Arash arrived in Saskatoon. During his first visit to the USask

campus, he individually thanked all of the people who had helped get him to Canada. Finally, he met Bell in person.

"That's the first time I don't know how to thank someone," he said. "She did everything for me."

Arash began graduate studies at USask in the fall of 2022. His research, under Bell's supervision, focuses on why the U.S. counterinsurgency failed in Afghanistan. He is still deciding his future and adjusting to Canada's culture.

He thinks it's unlikely he'll ever return to Afghanistan.

"I am in paradise," Arash said. "I see humanity here. People do not want to cheat each other. People are nice, kind, human."

Arash sends money to charitable causes in Afghanistan but struggles with what to say when people back home ask his advice. The best answer he can give is to seek education.

"For Afghanistan, for the whole future of the country: education. There is no other way."

He urges Canadians to support scholarships and opportunities for Afghans to study in Canada—especially women and girls, who have been denied access to higher education by the Taliban.

"In those 20 years in which western coun-

tries had Afghanistan, apart from all difficulties and problems, there was hope. For a generation, they studied, they had free mass media. Now, just in one day—shut down," he said.

But Arash doesn't want others to despair for his country.

"There are so many things that I can cry about Afghanistan, but crying doesn't solve any problem."

Those who know him in Canada are struck by his sense of humour and positive outlook despite the trauma he has seen.

"He's obviously a survivor. And he has a way to find the light in experiences that are quite tragic and difficult. I think that's an incredible skill and gift to have as one moves through life," said Bell.

Arash attributes this to his experiences back home. Afghanistan taught him to take nothing for granted.

When he was a translator, Arash often traveled through war zones with foreign journalists and civilians. Horrified by the brutal conditions and the recurring threat of death, they would ask how he could remain happy in that environment.

"OK, tomorrow maybe I will die," he would answer. "So what—today I shouldn't be happy?" Photos (clockwise from top left):

Aly Bear (BA'17, JD'20) has become the first lawyer from her home community of Whitecap Dakota First Nation. Photography: David Stobbe;

Mark Abley (BA'75) was awarded an honorary degree at USask Fall Convocation. Photography: John Kenney;

Jebunnessa Chapola (Cert'18, PhD'22)—pictured with her children—has been recognized for her leadership of a community garden. *Photography: Ranjan Datta;*

Michael Long (BSc'15, MSc'19) and Jeff Long (BSc'04, MSc'06) led the development of the video game Kaiju Wars from Foolish Mortals Games. Photography: Foolish Mortals Games;

Victoria Stinson (PhD'22) served as geologist-in-residence at Pukaskwa National Park in Ontario. Photography: submitted



Lynne Warner Murphy (BA'57) has published a new collection of suspense and mystery stories titled *Potluck and Other Stories*, and a novella titled *A Damaged Heart*.

Dr. Frank Farley (BA'60, MA'63) organized and chaired the National Violence Summit held in Washington, D.C., which is available for viewing on YouTube. Farley has been president of more than 10 scientific and professional societies in psychology, education and social sciences.

Sharon Butala (BEd'62, BA'63, PGD'73, LittD'04) spoke in Calgary at the 75th anniversary celebration of *Who Has Seen the Wind*, W.O. Mitchell's iconic book about the Saskatchewan prairie. Butala is the author of more than 20 books and the winner of many awards, including the W.O. Mitchell Book Prize.

Robert Currie (BSP'61, BA'64, BEd'66, Educ'66) published his latest book, *Shimmers of Light: New and Collected Poems*. The book was named to CBC's list of Canadian poetry collections to watch for in 2022.

Sister Teresita R. Kambeitz (BA'69, BEd'69) was honoured as a professor emerita of Newman Theological College in Edmonton, Alta.

Six alumni of the College of Arts and Science were winners of 2022 Saskatchewan Book Awards: Guy Vanderhaeghe (BA'71, Cert'72, MA'75, LittD'97) for August Into Winter; Theressa Slind (BA'95) for Only if We're Caught; dee Hobsbawn Smith (MFA'14, MA'21) for Bread & Water: Essays; Dr. Allyson D. Stevenson (BA'00, MA'04, PhD'15) for Intimate Integration: A History of the Sixties Scoop and the Colonization of Indigenous Kinship; Beverley Brenna (BEd'84, MEd'91, BA'02) for The Girl with the Cat; and Lisa Bird-Wilson (BA'93, BEd'99, MEd'05) for Probably Ruby. Bird-Wilson was also among six finalists for the 2022 Amazon Canada First Novel Award.

Clare F. Beckton (LLB'74, BA'74) was inducted into the Women's Executive Network Hall of Fame for her award-winning advocacy for advancing women's leadership, diversity and inclusion. She was also recently appointed chair of the Beechwood National Cemetery and Foundation boards.

Award-winning Canadian author, journalist, poet and editor **Mark Abley (BA'75)** was honoured by the University of Saskatchewan (USask) during the 2022 Fall Convocation. Abley was presented with an honorary Doctor of Letters. Audrey Gauthier (BSN'77, BA'79, HosAdmin'82, Arts'96) was awarded the City of Red Deer Mayor's Recognition Award for Distinguished Voluntary Service. During her lifetime, Gauthier has volunteered with many charitable organizations, including Big Sisters and the Red Deer Hospital Foundation.

Dr. Dwayne Brenna (BA'77, MA'83) released two new books. *Long Way Home* is a novel about a baseball team's journey home during the eventful summer of 1934. *Nights That Shook the Stage* tells the true stories of forty pivotal events in theatre history. This spring, the long-time USask drama professor directed his final Greystone Theatre production before retirement.

Anthony Bidulka (BA'83, BEd'91, BComm'91) is publishing his 12th novel, Going to Beautiful, a love-letter to life on the prairies. For his promotion of Saskatchewan through his books and for his volunteer and philanthropic efforts in the community, Bidulka was also recently honoured with the selection of a two-part park in Saskatoon to be named Bidulka Park and Bidulka Park North.

S. Portico Bowman (BFA'85) has received a Canada Council for the Arts Research and Creation Grant for her second book, *Would You Give Up Arms For Wings*? The book is



a story inspired by the life and writings of Paulus Berensohn. Her first novel, *Cashmere Comes from Goats*, is forthcoming.

Dr. Parminder S. Raina (BSc'89) was appointed a member of the Order of Canada for "his leading research in aging and population health in Canada and for his impact on national policymaking in geriatric care services."

Darryl Bazylak (BEd'93, BA'97, MEd'02) is the new director of education at the Métis Nation-Saskatchewan (MN-S). Bazylak joined MN-S following his role as director of education for Prairie Spirit School Division. He has worked in education for the past 31 years.

Christa Kucey (BA'95, BComm'98) has been formally appointed by the Embassy of the Kingdom of Morocco as the honorary consul of the Kingdom of Morocco to the province of British Columbia. The appointment comes on the 60th year of diplomatic ties between Canada and Morocco.

The Hon. Judge Ian W. Mokuruk (BA'98, LLB'01) was appointed as a judge of the Provincial Court of Saskatchewan in North Battleford, Sask.

Foolish Mortals Games—the Saskatoonbased independent video game studio founded and directed by **Michael Long** (BSc'15, MSc'19)—released its latest game, *Kaiju Wars*, on Steam, PlayStation, Xbox and Nintendo Switch. Long's brother **Dr. Jeff Long** (**BSc'04**, **MSc'06**) is the designer of *Kaiju Wars*.

A new book titled *Courage, Change & Faith: Inspiring Narratives of Black Women Leaders* tells the personal leadership stories of members of the group Black Women Leaders Saskatchewan. The 13 contributors to the book include **Hannah Chukwu (MA'06, CTESL'08), Halima Mela (BA'09)** and **Theodocia Quagraine (BA&Sc'16)**.

Mark Thompson (BComm'07, BA'08) has been appointed executive vice president and chief commercial officer at Nutrien. Thompson has served in a number of executive and agriculture industry leadership roles with Nutrien, most recently as the company's executive vice president and chief strategy and sustainability officer.

Tenille K. Campbell (BA'07) was among 23 writers shortlisted for the fifth annual Indigenous Voices Awards. A Dene/Métis author and photographer from English River First Nation, Sask., Campbell was nominated in the published poetry in English category for her poetry collection *nedi nezu (Good Medicine)*.

Federation of Sovereign Indigenous Nations (FSIN) Third Vice Chief **Aly Bear** (BA'17, JD'20) signed the Law Society of Saskatchewan's roll of law, becoming the first-ever lawyer from her home community of Whitecap Dakota First Nation. Bear was also the youngest woman to be elected to the FSIN at the age of 30.

Dr. Jebunnessa Chapola (Cert'18, PhD'22) received the 2023 MOMA Student Changemaker Award from the International Association of Maternal Action and Scholarship. Chapola, who raised three daughters during her studies at USask, created supportive spaces and advocated for other academic mothers through her leadership of a community garden on campus.

Nana Kwaku M. Asamoah (MA'21) has taken a role as a senior policy analyst for the Government of Saskatchewan in the Ministry of Health.

Dr. Victoria Stinson (PhD'22) became the first Canadian Federation of Earth Sciences geologist-in-residence with Parks Canada. At Pukaskwa National Park in Ontario, Stinson spent two weeks in the summer of 2022 conducting field work and hosting educational programming for visitors.

Arts&Science wants your news! Send your updates and photos to alumni.artsandscience@usask.ca.

THE STRAW GAS CAR



Photography: University Archives and Special Collections, A-2926

In an early venture into alternative fuel research at the University of Saskatchewan (USask), Prof. R.D. MacLaurin experimented with straw gas as a means of powering a motor vehicle. The Department of Chemistry professor extracted methane gas from straw—an abundant resource after harvest time in Saskatchewan—and modified a McLaughlin Motor Car to use it as fuel.

MacLaurin successfully tested his prototype car on a drive to downtown Saskatoon in 1918, but straw proved to be an inefficient source of energy. Despite the massive gas bag mounted above the car, the vehicle could travel only a short distance on a tank.

The last straw for this research came the following year when MacLaurin was dismissed from USask over a funding dispute with the university president. A replica of the straw gas car is displayed at the Western Development Museum in Saskatoon.



Your gift helps USask researchers and students soar

A shared passion for birds between donors and researchers helped launch the **Stuart and Mary Houston Professorship in Ornithology**.

Because of Dr. Stuart and Mary's longtime support and gifts in their Wills, USask professor and researcher Dr. Karen Wiebe had the necessary support to uncover the unknown and nurture the passion of graduate students studying avian biology—carrying on Stuart and Mary's labour of love.

You can make a difference too by leaving a gift in your Will to an area that you are passionate about. "The financial support from the Houstons has been invaluable to my research program by allowing me to focus on 'basic' or curiosity-driven questions of bird behaviour."

DR. KAREN WIEBE

usask.ca/giftplanning

(306) 966-5186 or 1-800-699-1907 gift.planning@usask.ca

Charitable registration number 11927 9313 RR0001



BE WHAT THE WORLD NEEDS

TOBELER MARKEN STATE

BE WHAT THE WORLD NEEDS



university of saskatchewan College of Arts and Science artsandscience.usask.ca

Return Undeliverable Addresses to:

Communications Office College of Arts and Science, University of Saskatchewan 512 Arts Building, 9 Campus Dr., Saskatoon, SK S7N 5A5 Canadian Publications Mail Agreement #40805056

give.usask.ca