THE UNIVERSITY OF VICTORIA ALUMNI MAGAZINE AUTUMN 2021

UVIC TORCH

THE BRAIN ISSUE

We explore the complex marvel that rules our world.

INCLUDING:
Robin Mazumder on cities and mental health.

+ My Business | Rethinking Policing | Essay by Kim Senklip Harvey

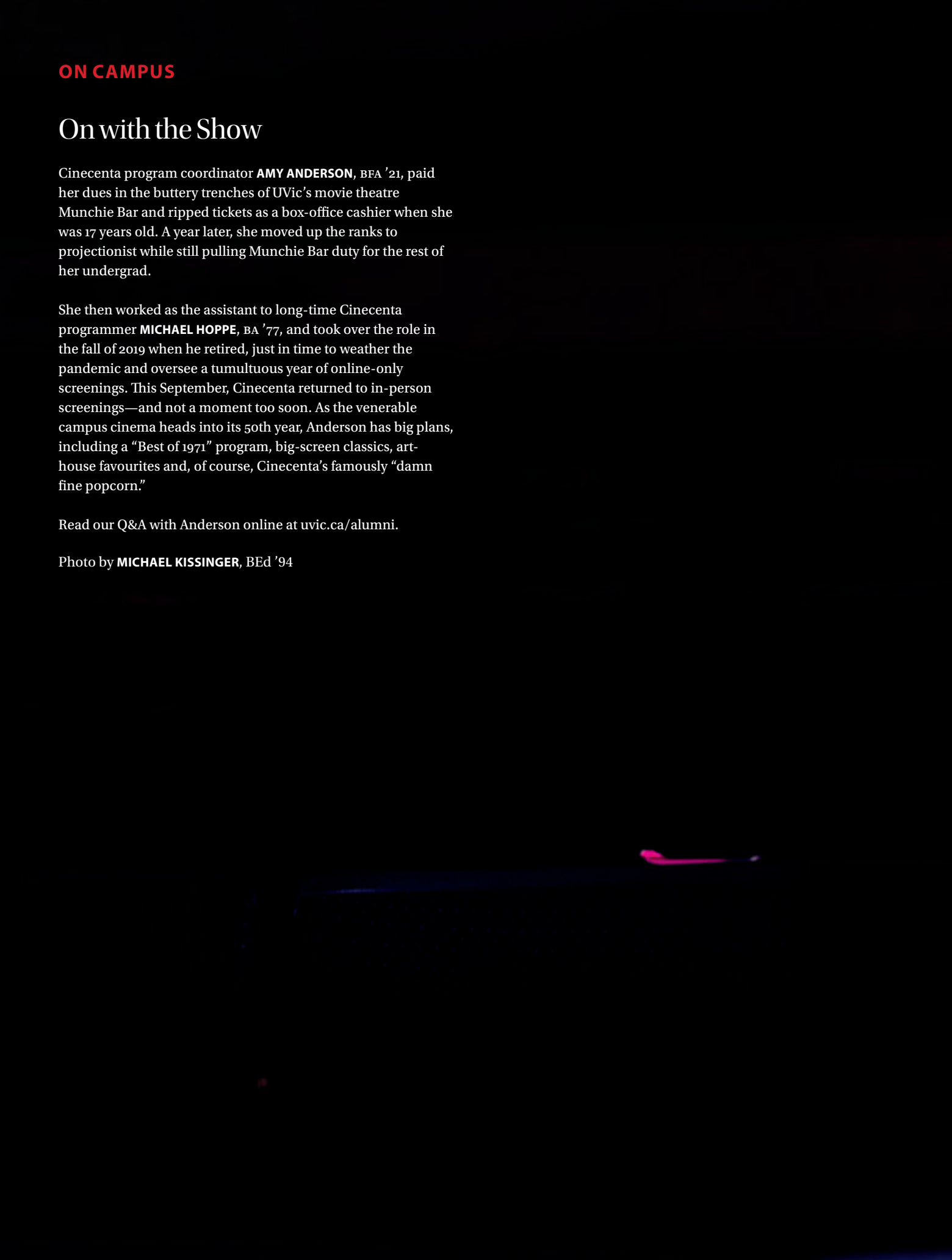
On with the Show

Cinecenta program coordinator **AMY ANDERSON**, BFA ’21, paid her dues in the buttery trenches of UVic’s movie theatre Munchie Bar and ripped tickets as a box-office cashier when she was 17 years old. A year later, she moved up the ranks to projectionist while still pulling Munchie Bar duty for the rest of her undergrad.

She then worked as the assistant to long-time Cinecenta programmer **MICHAEL HOPPE**, BA ’77, and took over the role in the fall of 2019 when he retired, just in time to weather the pandemic and oversee a tumultuous year of online-only screenings. This September, Cinecenta returned to in-person screenings—and not a moment too soon. As the venerable campus cinema heads into its 50th year, Anderson has big plans, including a “Best of 1971” program, big-screen classics, art-house favourites and, of course, Cinecenta’s famously “damn fine popcorn.”

Read our Q&A with Anderson online at uvic.ca/alumni.

Photo by **MICHAEL KISSINGER**, BEd ’94



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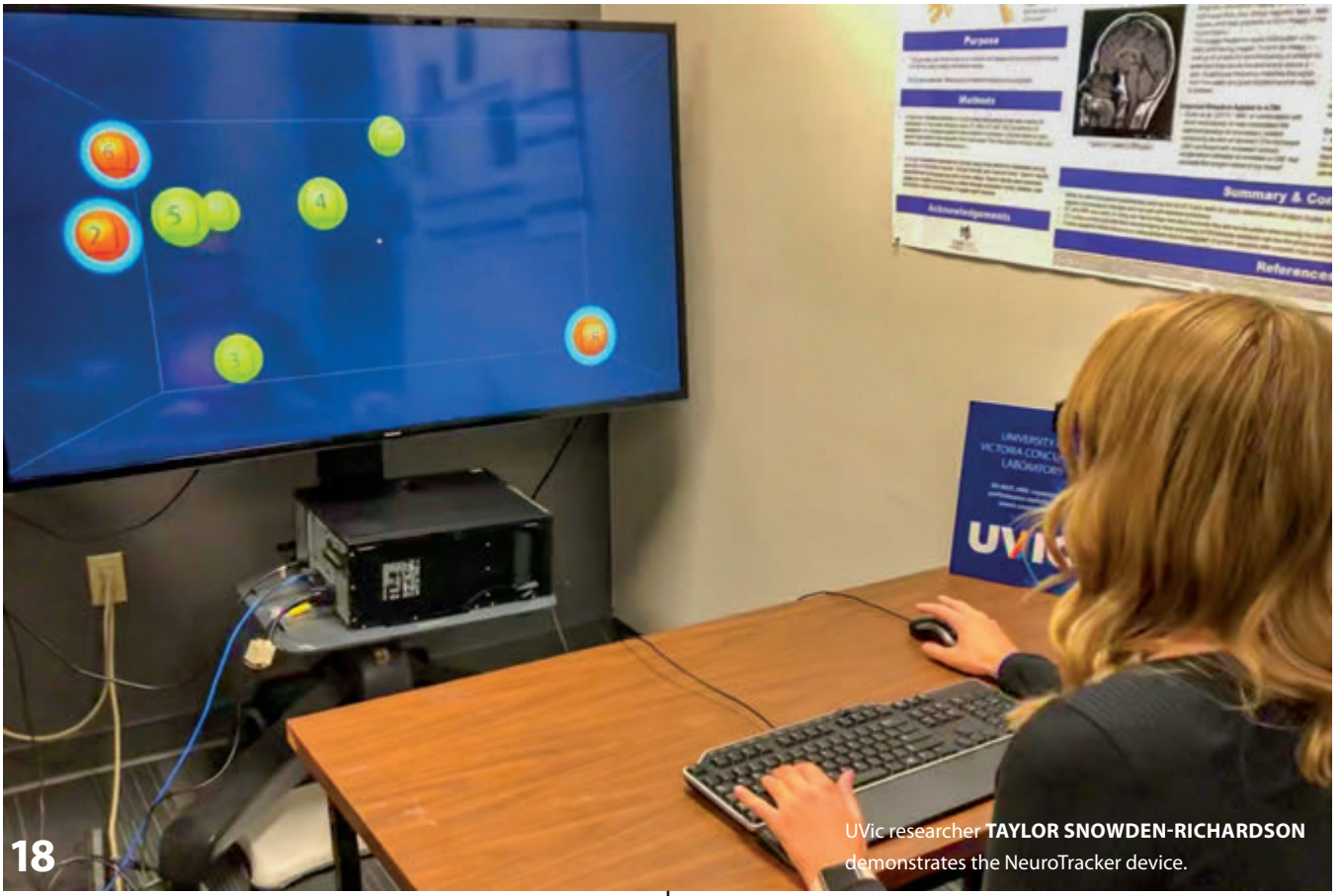

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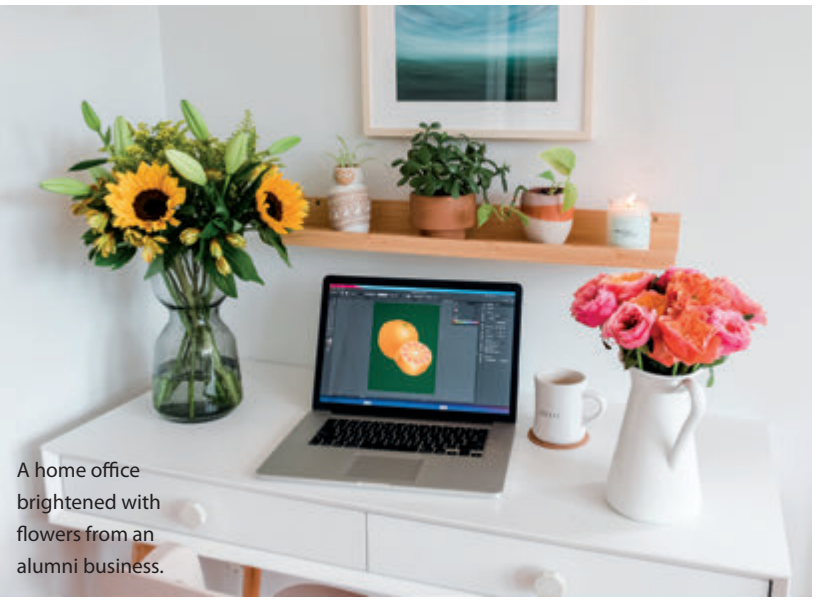

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CREDITS (CLOCKWISE FROM TOP LEFT): NUMINUS; COURTESY OF BEAR'S BLOOMS; COURTESY OF RANDOM HOUSE CANADA.

EDITOR'S NOTE

The Path Back

Mitch Lepore, MBA '16, once took his brain for granted. Then, while hiking, he plummeted down a steep cliff. His brain—and his life—changed forever.

BY JENNY MANZER, BA '97

MITCH LEPORE

It started out as a July hiking excursion on Galiano Island with close friends, a tradition of three years. The group was camping at Montague Harbour and had climbed the surrounding cliffs together as they always did. But that year, in 2012, the ground fell away from under Mitch Lepore's feet, and the then 19-year-old tumbled 50 feet down the cliff, sustaining a traumatic brain injury.

It was a catastrophic accident, but by chance, expert help was nearby. The head of BC's Search and Rescue, a firefighter and a physician all happened to be camping at Montague Harbour. Alerted by children in the campground who'd heard calls for help, these first responders kicked into gear to find Lepore, stabilize him and have him airlifted to Victoria General Hospital.

He was in the Intensive Care Unit in a coma for two weeks, the brain trauma unit for two weeks, then moved to a rehabilitation centre in Vancouver. "Brain injuries have a tendency to have an indeterminable timeframe," he says. "I got told I would be recovering for the majority of the next five years and likely up to 10 years."

His physical recovery took five years. His left side had been severely affected, and he needed to relearn how to do basic tasks, including walk. Brain imaging indicated that his language centres and executive functioning had been affected, so he knew he needed to read, to re-acquire vocabulary, and he wrote everything down—in fact, he still does. At the same time, his memory of how he used to be remained intact, which was both frustrating and motivating. "I am a very stubborn, very driven person," he reflects.

He'd begun his studies at University of Calgary before the accident, but after months of rehab, he enrolled at UVic—closer to his supportive family in Tsawwassen. He needed help from the Centre for Accessible Learning initially, but continued without accommodations and even did an exchange in Oslo, Norway. In 2016, Lepore graduated from the Gustavson School of Business.

His in-class public speaking experience served him well when he later became a spokesperson for the Victoria Hospitals Foundation, helping to raise funds for more imaging machines. Lepore did interviews and spoke at black-tie events with hundreds of people. Not all brain-injured people would be capable of that, he notes—and so he wanted to lend his voice.

Lepore, 28, lives in Victoria and works as a manager in digital marketing. Before the accident, he never thought about safeguarding his brain. Now, he knows all about caring for it, such as the value of taking Omega-3 supplements, or the dangers of alcohol to a young, developing brain.

Lepore grew up as an athlete and a hockey player—and he pushed through everything, which you can't do with brain injuries. "It's so tedious in the way that you recover—it's very much about listening to your own body, really learning how to listen to yourself and not pushing too hard."

Now he looks back on what happened to him as part of his journey. It made him who he is today. And he is grateful to everyone who helped him. "There was a lot of good luck involved, and there were a lot of people who carried me along the way."

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LETTERS
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COURTESY OF MITCH LEPORE

PRESIDENT'S PERSPECTIVE

Small Wonder

Universities have a key role in researching public-health interventions to benefit brain health—and you can take steps to safeguard your own complex "marvel."

BY LISA KALYNCHUK, PHD • VICE PRESIDENT RESEARCH AND INNOVATION

"The ability of the brain to change with experience is how we learn and adapt. It is also the reason why we are all unique individuals."

WHY STUDY THE BRAIN?

I have always been fascinated by the brain. My interest was piqued as an undergraduate student, when I took a third-year neuroscience class taught by a dynamic and engaging instructor. From that time on, I was captivated and set myself on a path toward a PhD in neuroscience and an academic career dedicated to understanding how the brain reacts to stress and how we can help people who experience mental-health disorders.

The brain is a marvel. Although it is small, weighing only about three pounds, it comprises billions of cells that are in constant communication with one another and with other organs in the body. Everything we do, everything we learn and remember, everything we see and hear and taste, every emotion we feel—it all comes from activity and connections between cells in our brain.

And our brains are always changing. We refer to this as brain "plasticity." The ability of the brain to change with experience is how we learn and adapt. It is also the reason why we are all unique individuals. Each one of us has our own distinct history and set of experiences that influence how our brain develops and evolves over time. In this sense, no two brains are alike.

WHAT HAPPENS WHEN THE BRAIN GOES AWRY?

All around us we see the impact of compromised brain health. We see it in the tortured faces of refugees who had to flee from persecution and potential death, and we see it in the unprovoked rage and anger or sometimes suicide of an athlete after a series of concussions. We see it in the blank stare of an elderly man who cannot recall the name of the daughter who just came for a visit. And we certainly feel it as many of us struggle to cope with an uncertain future created by a lengthy pandemic, a climate crisis and alarming geopolitical tensions.

All these issues have led to an epidemic of mental-health disorders and an unprecedented crisis of substance use and opioid overdose. These are not disorders of the elderly. The World Health Organization reports that approximately 20 per cent of the world's children and adolescents suffer from a mental-health condition, with suicide the second leading cause of death among young adults. There has never been a more critical moment to invest in research and public-health interventions to overcome these challenges. Universities have a key role to play in this.

THE PATH FORWARD

The brain is complex and difficult to study. Progress is slow because we lack the tools and technologies to view the human brain in detail and in real time. But as you will see in this issue of the *Torch*, UVic faculty, students and alumni are at the forefront of new discoveries and technologies to rapidly accelerate our knowledge.

We will continue to support this important work on our campus through the UVic Health Initiative and *Aspiration 2030*, our new Research and Creative Works Strategy. In signature areas of Indigenous health, healthy aging, mental health and translational medicine, UVic researchers are pushing the boundaries of what is possible and advancing lifelong health for all.

We all have a role to play. Given how sensitive the brain is to environmental conditions, you can be sure that eating and sleeping well, exercising and limiting stress will positively contribute to your brain health. But there is more. Accumulating evidence shows that keeping your brain active is one of the best ways to keep it healthy. So, challenge yourself with puzzles and games, learn a new language, engage in new social activities and travel to new places, even if all that means during COVID times is a trip to a new supermarket in the adjacent town.

Your brain does a lot of work for you. Be sure to take care of it.

UVIC PHOTO SERVICES

THINKERS ▶ CHANGERS ● DIFFERENCE-MAKERS

ALUMNI
University of Victoria

UVic Distinguished Alumni Awards 2022

Celebrating the remarkable achievements of UVic alumni

The University of Victoria (UVic) and the University of Victoria Alumni Association (UVAA) recognize UVic's stellar graduates who, through their extraordinary endeavours, bring honour to themselves and to their alma mater in a multitude of ways.

Through annual awards, UVic and the UVAA celebrate the diverse achievements of alumni and provide an opportunity to share these inspirational stories throughout the year.

AWARD CATEGORIES

PRESIDENTS' ALUMNI AWARDS

Top awards given by the President of UVic and the President of the UVAA to distinguished alumni. The Presidents' Alumni Award is the Alumni Association's highest honour. This award recognizes the outstanding lifetime accomplishments of alumni who have earned national or international regard or have had significant local impact as a result of their outstanding professional achievements and/or service to society.

EMERGING ALUMNI AWARDS

Recognize the outstanding professional achievements and/or contributions of recent alumni to the community. Nominees must have been graduated 10 years or less at time of nomination deadline.

INDIGENOUS COMMUNITY ALUMNI AWARDS

Recognize contributions of alumni to Indigenous communities, which have improved outcomes for Indigenous people and contributes to Truth and Reconciliation. Minimum of one award to be given to an Indigenous graduate.

Alumni award winners will be announced in February 2022 and will be celebrated at the UVic Distinguished Alumni Awards Ceremony in Victoria, British Columbia on April 7, 2022.

NOMINATE ONLINE BY **DECEMBER 17, 2021** | uvic.ca/distinguished-alumni

Healing Words

UVic grad Kahentehtha Angela Elijah studies the complex connection between emotion and speech as part of her work in Indigenous language revitalization.

BY AMANDA PROCTOR

Kahentehtha Angela Elijah, Cert '07, MEd '20, has always been able to understand Kanien'kéha, her language, but for many years she could not speak it. After 40 years of working in education, Elijah earned a Master of Education from the Indigenous Language Revitalization program, where she found that there was a term for people with her experience: "silent speakers."

While at UVic, Elijah's research into silent speakers was centred on her own lived experiences, and she was able to reflect on her childhood in Ahkwesahsne, one of the communities of the Kanien'kehá:ka, also known as the Mohawk Nation. Elijah realized that for her siblings and herself, not speaking "started in our own thinking. It was all about our beliefs about ourselves and how we believed that we couldn't speak."

Elijah and her siblings could speak Kanien'kéha around other children, but when a fluent adult talked with them, they would "become silent." For Elijah, this signalled that there was an emotional component to her relationship with the language. This realization led her to explore the mental, emotional, social and spiritual effects for silent speakers with the ability to understand but not speak their language. While teaching in a full-immersion Kanien'keha classroom, Elijah broke down some barriers by using what language she remembered with the students. This motivated her to begin using more of the language, which helped her gain the needed confidence to speak outside of the school setting. Elijah continues to learn new vocabulary.

"When you feel that you have this inability to speak, it really affects your whole body, it affects your whole being, your whole spirit and how you relate back to Creation. It's not just a tool used for communicating with one another, it's deeper than that, because it is really closely connected to our worldview and how we exist in this world," Elijah says.

USING TRADITIONAL METHODS TO HEAL

In her master's thesis, for which she was awarded the Lieutenant Governor's Silver Medal, Elijah worked with silent speakers in three Wolf Clan families in Ahkwesáhsne, documenting their experiences of grief, shame, guilt and fear around losing their language.

To begin the healing process, Elijah used the Ka'nikonhrakétskwas: Uplifting of the Minds Condolence Ceremony as a part of her research, showing how some parts of the ceremony could be utilized in healing traumas which resulted in becoming silent speakers. The ceremony addresses the feelings, removes the burden of them and uplifts by creating a new path to healing and regenerating speakers through the use of wampum strings.

"It just made sense that I would go back to use my own traditional methods in order to heal and to go back through, to make sense of what we had actually experienced with the losses," Elijah says.

IMMERSION LEARNING ON THE LAND

As the final component of the project, Elijah worked with silent speakers to develop strategies to become speakers. For many, a traditional classroom setting was not the answer.

KAHENTEHTHA ANGELA ELIJAH wears traditional regalia, including a beaded yoke made by Teiosakentihson Elijah and a feather hair piece made by DJ White.

"When we were first language speakers we learned in a natural setting. Then to go back to a class or to school and to actually try to relearn the language, we have a lot of difficulty with learning like that. I found that a lot of us were around that same age [when we stopped speaking], which probably had a lot to do with the education system and learning English."

When Elijah spoke to the silent speakers, she found that they wanted to come together to talk about their loss and to create a land-based education that involved immersion activities in nature that could bring them closer to the natural environment they initially learned in.

Elijah's thesis is just the beginning of her work with silent speakers to revitalize Kanien'kéha. She hopes to implement the strategies that the silent speakers suggested: creating land-based immersion language education, while also providing access to culturally relevant therapeutic methods to work through their feelings.

"The fear, the guilt, the shame, the grief: these are all different feelings that we have as we're trying to speak. If we're healing that, it should clear this path for us to be able to become speakers again."

KANERAHTIIOHSTHA SWAMP. TRADITIONAL REGALIA: BEADED YOKE MADE BY TEIOSAKENTIHSON ELIJAH; FEATHER HAIR PIECE MADE BY DJ WHITE

Pop Goes the Art

Legacy Gallery's *Pop Anthropology* celebrates the artistic impact of Eric Metcalfe.

BY JOHN THRELFALL, BA '96

When it comes to Victoria's artistic legacy, absurdist leopard-print paintings may not pop immediately to mind. But that's an oversight a new Legacy Maltwood exhibit seeks to address with *Eric Metcalfe: Pop Anthropology,* an overview of the multimedia artist's playful but powerful 60-year oeuvre.

While not quite a household name, the work of Visual Arts alumnus Eric Metcalfe (BFA '71, Hon DFA '21) epitomizes the avant-garde in Canadian art. From painting, drawing, sculpture, ceramics and printmaking to installation, performance, music and video, Metcalfe's work is often associated with the international Fluxus movement—which, during the '60s and '70s, explored the intersection of artistic disciplines, media and contemporary culture.

Metcalfe is a pioneer in performance art in Western Canada and co-founder of Vancouver's famed Western Front—one of Canada's leading and, at nearly 50 years, longest-running artist-run centres. Metcalfe's work can be found in 18 Canadian museums and 11 international collections, including the National Gallery of Canada and New York's Museum of Modern Art. Over the years, his achievements have been honoured with a Governor General's Award in Visual & Media Arts, an Audain Lifetime Achievement Award and, most recently, an honorary doctorate in Fine Arts from UVic in June 2021.

DORIAN FRASER

"He was very different from the regionalist world that was built around Victoria artists at that time," explains *Pop Anthropology* curator and Art History & Visual Studies graduate Dorian Fraser (MA '13). "And he fully expanded that practice when he moved to the mainland and started working with artist-run centres and the Western Front. But it definitely began in Victoria."

As a curator and writer whose areas of interest include "problematic artists, unfashionable queerness and weird archives," Fraser—currently teaching at at Edmonton's MacEwan University and a doctoral candidate at Concordia—seems ideally suited to Metcalfe's colourfully chaotic legacy. But they bring more than just experience to this particular exhibit.

"I've got a really personal connection to this work," Fraser explains. "My dad actually helped establish Western Front: I like to say my parents met over a plate of macrobiotic vegetarian food while my mom was a travelling hula dancer and my dad played in the Western Front's kazoo band," they say with a laugh.

As a result, Fraser found themselves growing up amidst the "absurdism" of the noted artist-run centre—which included not only Metcalfe but also his then-wife Kate Craig (whose own art Fraser would later make the focus of their thesis).

"Coming to it as an art historian now, it's very interesting to see the work and artists I was influenced by as a child," they explain. "An exhibition like this is what I treasure about art and art history: I love learning about what came before, what has influenced the contemporary art scene."

Indeed, Fraser says *Pop Anthropology* will offer both an archive of, and homage to, Metcalfe's role in the emergence of Victoria's post-modern art scene by drawing on the extensive holdings in UVic's Special Collections and University Archives: over 80 works spanning his early, middle and late career, as well as previously unseen notebooks, archival photographs and ephemera capturing his formative time in Victoria.

"Given the occasion of his honorary doctorate, this is a chance to both celebrate Eric and UVic's place in the art scene in Victoria, in BC, in Canada and in a larger sphere," says Fraser. "I'm very interested in the way Canadian art is represented—and alternately *not* represented—in the international art world."

Pop Anthropology runs October 23, 2021, to March 27, 2022, at the Legacy Maltwood Gallery in UVic's Mearns Centre-McPherson Library

ERIC METCALFE, UNTITLED, 1967. UVIC LEGACY ART GALLERIES, GIFT OF KAREN HENRY. COURTESY OF DORIAN FRASER.

IN PROFILE

Making Space

As the first female dean of Engineering and Computer Science at UVic, Mina Hoorfar wants to cultivate a climate of inclusion and belonging in the growing faculty.

BY ANNE TOLSON

MINA HOORFAR stands where a six-storey extension will be added to UVic's Engineering and Computer Science (ECS) Building as part of a major capital expansion for the ECS faculty. Learn more: uvic.ca/buildinginspiration

Mina Hoorfar failed the first year of her undergraduate degree in engineering. It wasn't due to a lack of ability, drive or aptitude—she simply felt that she didn't belong.

"My first year in engineering wasn't easy—I was the only female student among a hundred young men and going to class was very scary," recalls Hoorfar, UVic's new dean of the Faculty of Engineering and Computer Science, whose undergrad years were spent at the University of Tehran. "I didn't feel interested, engaged or included. So, I started missing classes, didn't make any friends and, in my first year, I failed everything."

The university handed Hoorfar an ultimatum: improve or leave.

Hoorfar decided to give engineering another chance. This time, however, she changed her approach. She took the time to develop a supportive and hard-working community of friends, who studied together and encouraged one another through the good days and the tough ones. Hoorfar worked diligently, discovered the innovative, solutions-oriented engineer within herself, and eventually graduated at the very top of her class. Yet she never forgot that early experience.

"In those early days, I always felt out of place and not as valuable as my peers," says Hoorfar, who, on July 1, became the faculty's first female dean. "I always thought that if I ever had the chance to change that type of environment, to make it more inclusive, I would do that."

It's no surprise, then, that one of Hoorfar's top priorities at the fast-growing UVic faculty is championing equity, diversity and inclusion (EDI). She says that as a woman of colour in the traditionally male-dominated field of engineering, EDI principles are close to her heart. She notes that while post-secondary institutions have had some success in recent years in increasing the number of students and faculty members representing diverse groups in the field, much more can be done to ensure an ongoing sense of belonging.

"We're all spending so much energy on bringing in these amazing, intelligent people from under-represented groups, but

UVIC PHOTO SERVICES

once they join our programs, we tend to leave them alone," she says. "I don't think we're doing enough *after* they arrive to ensure they feel included and have the support they need."

As dean, Hoorfar hopes to implement an effective mentorship program for new faculty members from under-represented groups. She also plans to work with students to find innovative ways to create a more inclusive community—in terms of gender, ethnicity, race, Indigeneity and ability.

Though she has plenty of ideas coming into her new role and describes herself as "a very passionate person who speaks from the heart," Hoorfar recognizes the importance of seeking input before enacting changes. In the six months before she officially became dean, Hoorfar met online with numerous faculty members, staff, student groups, research groups and external organizations to learn as much as she could about UVic, the faculty and the larger community.

"A dean who works 24-7 will get things done, but she may be very limited in terms of vision and scope."

During these months, Hoorfar was also winding up fifteen successful years as a professor at the Okanagan campus of the University of British Columbia (UBCO). There, she earned a reputation as a top-notch researcher, teacher and academic leader, who brings a tremendous level of energy, passion and dedication to her work. While at UBCO, Hoorfar founded the 20-person Advanced Thermo-Fluidic Laboratory, where her work led to advancements in areas such as monitoring water quality to detect pathogens, enriching natural gas with hydrogen to reduce its carbon footprint and developing wearable sensors to track disease. She collaborated with top international research labs, won several prestigious awards and became president of the Canadian Society for Mechanical Engineering. During the six years before she joined UVic, Hoorfar led UBCO's School of Engineering, which has more than 2,000 students and about 65 faculty.

Hoorfar says that throughout her education and career, she has always looked for fresh challenges and has never shied away from the long hours they required.

She left Iran in 1998 to pursue her Master's and PhD at the University of Toronto. Her father, who had previously visisted Canada, recommended the country as a place where people are evaluated on their accomplishments, not their gender or where they came from. Today, her parents and sister live in Toronto, while her brother remains in Iran.

In 2006, Hoorfar chose to teach and research at UBC Okanagan over the much larger, well-established Vancouver campus because she loved the prospect of working with the community to build up a new engineering school. She was looking for another challenge when she accepted the position at UVic, where about 3,600 undergraduate and graduate students are educated, 100 faculty members research and teach—and 60 staff support them.

"I'm someone who needs to be on a learning curve and I was looking for other ways to contribute," she says. "And as dean, I knew I could really implement my vision."

There will be many opportunities to learn and contribute at UVic Engineering and Computer Science, where student enrolment has been growing steadily for many years, largely because of the pressing needs of the tech sector. In 2018, in recognition of this demand, the provincial government provided funding for 500 additional undergraduate degree spaces in the faculty.

This past July, to accommodate the increasing numbers of students enrolling in engineering and computer science, as well as the high-impact work of the faculty's researchers, the Province of BC announced it would provide $64.8 million toward the construction of two new state-of-the-art facilities. The remaining $24.8 million of the project's total $89.6-million cost will be covered by UVic, through direct funding and a fundraising campaign.

Hoorfar is excited to take on the challenges that come with the faculty's growth. Still, in the same way that she found an effective strategy to thrive during her early undergraduate years, Hoorfar is shifting how she approaches her new job.

"If you'd asked me a year ago, I would have said that all I do is work, work, work," says Hoorfar. "A dean who works 24-7 will get things done, but she may be very limited in terms of vision and scope. You want a well-rounded person, who knows about politics, who exercises, talks to people and has a social life."

Hoorfar says living on her own the past few months has provided the opportunity to explore everything from hot yoga and hiking to meals out and music (she loves '70s and '80s tunes). Her son will move here from Kelowna next year when he finishes Grade 8.

"The moment I got off the ferry, I started this new chapter in my life," says Hoorfar. "I've made the choice to be a multi-dimensional person, I'm enjoying things and my life now has different colours.

"But I'm evolving as well. I still have a lot to learn and do to make myself a better person, and that's why I started this journey."

THE BRAIN ISSUE

UVic alumni and educators are shining a light on how to better understand and care for the complex organ that rules our intelligence, creativity, emotion and memory.

These innovations promise to **flag cognitive problems** more quickly, reveal the dark secrets of the **brain's immune cells**, tap into the importance of our **sense of smell**, show how video games can benefit **concussion patients**, advance new clinical uses for **psychedelic drugs** and deepen our understanding of **how cities affect mental health**. As Grace Slick of Jefferson Airplane sang, "feed your head" —and protect it, too.

Stress and the City

UVic grad and cognitive neuroscientist Robin Mazumder studies how urban design affects our mental well-being.

BY MICHAEL KISSINGER, BED '94

ROBIN MAZUMDER in downtown Victoria during a recent visit.

NIK WEST, BA '95

In his ode to his beloved New York, New York, there's a reason Frank Sinatra sings "If I can make it there, I'll make it anywhere." Living in a city, especially one that "never sleeps," can be tough. Not just financially and physically, but psychologically. For all the perks cities have to offer—whether it's proximity to shopping, public transit, bustling nightlife or an abundance of by-the-slice pizza—they don't fare nearly as well when it comes to the mental health of their residents. According to the Centre for Urban Design and Mental Health in London, UK, city dwellers have a 40 per cent higher risk of depression and over 20 per cent more anxiety than their rural counterparts. And cities are growing. Currently, 50 per cent of the world's population lives in urban areas and that number is expected to increase to 68 per cent by 2050.

UVic alumnus Robin Mazumder, BSc '08, thinks a lot about this busy intersection of city living and mental health. The cognitive neuroscientist studies the psychological impact of urban design and says, as populations grow, so does the need for better planned cities.

He says his interest in the subject grew out of his clinical work as an occupational therapist while living in Edmonton and Toronto. "I worked with people in urban environments and wondered how that stress affected them, because I certainly felt that myself."

Mazumder recalls a time when he briefly lived in a Toronto high-rise. It was on the corner of Bloor and Yonge, atop a Marriott hotel that included a level designated for apartments. And he hated it. Sure, it was cool to have a nice view of the city, he says, but it was also isolating. Interactions with his neighbours, let alone sightings of them, were few and far between. Plus it was cold. "Not just from the emotion of the landscape," Mazumder says, "but also [these buildings] create wind tunnels. So you get out of your apartment; you get knocked over. It's just brutal."

Mazumder's old high-rise apartment clearly cast a long shadow while he completed his PhD in psychology with a focus on cognitive neuroscience at the University of Waterloo. His dissertation was titled "The downside of building up: An exploration of the stress impacts of tall buildings and urban centres" and has since been published in the journal *Cities & Health.*

"So, I looked at low-rise buildings versus tall buildings, and how these sorts of architectural pressures might have an impact on our baseline stress level, which ultimately affects our body, but also our relationships with people, because if we're irritated, it's less likely we'll be nice to each other," Mazumder says.

For his research, participants were brought into an urban environment, in the real world, but also via virtual reality, through the use of 360-degree videos of cityscapes. In Study 1, 16 participants were taken to two locations in Central London, one where they were exposed to a high-rise building, and the other where they were exposed to a low-rise building. In Study 2, 121 participants were equipped with VR headsets and exposed to 360-degree video and audio of the same low-rise and high-rise buildings from Study 1. Participants were given a Self-Assessment Manikin (SAM)—a non-verbal pictorial assessment technique that measures a person's emotional reaction to a wide variety of stimuli—as well as asked a series of questions relating to the buildings they were positioned to face. They also had their electrodermal activity (emotional sweating) measured by a wearable device called an Empatica E4, which resembles a Fitbit, and tracks the rate of sweat-gland response.

"Electrodermal activity has a long history of use to determine an individual's arousal state and can provide fascinating insights into understanding how something looks influences how someone feels," Mazumder says.

What he found was that tall buildings make people uncomfortable when they're surrounded by them. Conversely, people have less of a stress response when they're in environments that are built at what's considered "human scale," or the European model where buildings tend to top out at five storeys.

So how do you design happier cities when the quick-fix is to build higher and "densify" in order to accommodate growing populations? Mazumder says it's a conversation with many moving parts—and levels of government—but it needs to start with not making cars the centre of a city's universe.

"I think that the noise pollution, that threat to safety, the fact that we need people wearing fluorescent suits with flashing lights to cross children across the street, is something that we should pay a bit more attention to fundamentally," Mazumder says. "At the same time, some people need cars because their work requires it, or they have a disability, or they can't afford to live downtown. So it's a nuanced conversation about how we build our cities in ways to help people move around that's good for our mental health, physical health, but also our environment."

Mazumder points to the "15-minute city," a concept recently championed by Paris mayor Anne Hidalgo and French-Colombian scientist Carlos Moreno, in which residents of a city are able get most of their needs met within a short walk, bike or transit ride from their homes. The underlying thrust of the 15-minute city, which owes much to Jane Jacobs' landmark 1961 book, *The Death and Life of Great American Cities*, is that getting people out of their cars and engaging with their urban environment on a more local level fosters community and, in turn, healthier citizens.

"When you consider a city that was built around the automobile, which is like post-industrial cities in Canada, they have big roads and population densities that are quite low," Mazumder says. "And when you have that, you have environments which are kind of hostile to community when you think about social connection as being perhaps one of the most important needs that we have."

For his own peace of mind, Mazumder says he escapes the stressors of city life by seeking solace in parks and other green spaces, away from crowds and vehicles. He practises and teaches yoga, and is contributing a chapter to a textbook on "the intersection of yoga, urban design and healthy cities." He's also working on a solo book project that "explores what transgenerational trauma looks like within the context of the urban environment, and the neuroscience of epigenetics, or how where we live shapes our bodies and our psychologies."

Despite his fraught relationship with cities, Mazumder maintains there's still plenty to appreciate and, more importantly, strive for. He says cities are "where human potential is on display." And when we get them right, they can be vibrant ecosystems filled with public art, architecture that doesn't feel oppressive, cycling infrastructure, accessible green space for all and affordable housing.

"Cities are where we come together to create beautiful things, and a future that considers the people who will live in that future. Seeing this expression of human potential gives me tremendous hope and makes me smile on days where I wake up with a heaviness," Mazumder says.

"When we build our cities with intention, with a reverence for and connection to nature, and a commitment to ensuring everyone experiences the beauty of the city on their terms and safely, we can live in cities that support well-being and equity and hopefully move towards a meaningful sense of reconciliation, with ourselves, and with each other. It's an aspiration."

Dark Matters

A University of Victoria team is shedding light on why some brain cells go to the dark side and damage the brain—and how we can prevent it.

BY JESSICA SKELTON

MARIE-ÈVE TREMBLAY's research unlocks the secrets of the brain's immune cells.

Marie-Ève Tremblay, an associate professor with the Division of Medical Sciences at UVic, admits she felt stressed out during her early career. On top of working as a postdoctoral fellow, she was pregnant with her first child and spending her free time learning how to eat properly.

Instead of struggling, Tremblay found inspiration in her situation. "It was so challenging that I started thinking about how environmental challenges like psychological stress and diet might affect microglia," she says, referencing the brain's resident immune cells and the focus of her lab's research.

Fast forward nearly a decade, and Tremblay, who is a Tier 2 Canada Research Chair in Neurobiology of Aging and Cognition, and her team are now pretty certain that these stressors can turn microglia to the dark side—figuratively and literally.

Microglia normally patrol the brain, gobbling up waste and unnecessary connections between neurons. When a person endures different kinds of stress, however, the brain becomes populated with dark microglia—shadowy versions of the immune cells that are prone to destroying valuable parts of the brain.

Tremblay's research and collaborations have shown that dark microglia can increase ten-fold in models of schizophrenia, chronic stress, depression and neurodegenerative diseases, such as Alzheimer's and other forms of dementia, as well as during aging. When these cells prune away too many of the wrong synapses, they can cause some of the learning, memory and other cognitive deficits we see in those conditions. Similarly, poor maternal diet can cause dark microglia to destroy neurological connections important for memory development in early post-natal offspring. Tremblay suspects this rogue pruning behaviour could also be directed toward the brain's vasculature system, contributing to changes associated with neurodevelopmental, neuropsychiatric and neurodegenerative diseases. It's possible dark microglia could even cause leaks in the blood-brain barrier, letting in all kinds of threats.

"Dark microglia have a tight association with disease, and both the environmental challenges and the diseases themselves are associated with high numbers of dark microglia," she says. "The cells are common to all of these diseases, suggesting they could serve as one mechanism for various associated conditions."

Fortunately, research in the Tremblay lab has found evidence that lifestyle changes could eliminate and prevent dark microglia, and may repair the damage already done. The team is currently investigating the use of ketogenic diet, and their research will also soon include stress-relieving activities such as exercise and socializing.

"I really think it's possible to change brain health with simple things," says Tremblay, though she adds her research will also lead to more targeted pharmaceutical treatments to supplement those lifestyle changes if needed.

The key to gaining this control will be in understanding where dark microglia come from and how they function. Her lab's research suggests that dark microglia are simply normal microglia in a stressed, malfunctioning state. If that's the case, then therapies could potentially revert the stressed immune cells back to normal, Tremblay says. For example, her lab's research suggests dark microglia are more reliant on sugar while their healthy counterparts can use ketone bodies. If a patient switches to a keto or low-carb diet—one of the potential therapies—then only the healthy cells would be fed. "If dark microglia are not provided with their source of energy, maybe they would just revert to normal microglia—if they were a state, that is," she explains.

Another theory is that dark microglia are unique cells that can't be normalized, and there is evidence they may even be senescent (resistant to cell death). In this case, therapies would need to eliminate the cells. (For example, there are already medications to remove senescent cells.)

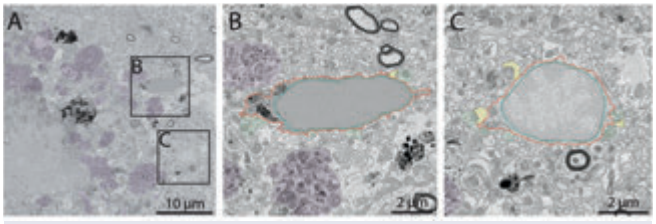
UVIC PHOTO SERVICES

"I think in the lab, everyone is convinced that healthy microglia hold the key to overall brain health," Tremblay says. "If we understand how to keep them healthy and how to control dark microglia, we will have beneficial outcomes."

No matter if dark microglia are normalized or eradicated, Tremblay says it's important the therapies don't harm healthy immune cells or prevent them from doing their normal functions. If they do, there will be other issues with learning and memory, and the lack of immune cells could lead to infection and other damages.

And so the research continues for Tremblay and her students, as do the stressful sources of inspiration. The Tremblay lab is currently researching the effects of viral infection such as COVID-19, lack of sleep and neurodegenerative diseases associated with aging, as well as potential therapies such as cannabinoids and exposure to nature.

"I think our research is really based on our life experience and, for me, it's really important that trainees find something they're really passionate about," she says.



Right: Panel A shows a section of the hippocampus, a region important for learning and memory, containing both dark microglia (centre of Panel B) and normal microglia (centre of Panel C). Note how the dark microglial cell is physically darker than its healthy counterpart. These images were captured by Marie-Kim St-Pierre (PhD student, Tremblay Lab) at nanoscale resolution using an electron microscope.

Risk factors:

Environmental challenges and lifestyle risk factors known to cause dark microglia include:

- Western diet
- Viral infection
- Maternal immune responses caused by stress, illness, etc.
- Aging (i.e., the long-term effect of stressors on microglia as we age)

The Tremblay lab is also currently or planning to investigate the effects of these stressors:

- Smoking
- Lack of exercise
- Poor water quality
- Pollution
- Cannabis and alcohol use
- Sleep disturbances

Therapies:

The following lifestyle factors are currently under investigation to see if they could help prevent, eliminate and repair damage caused by dark microglia:

- Low-carb diets
- CBD (Cannabidiol)
- Meditation
- Plasmalogens
- Dietary supplements, including Omega-3

On the bright side?

It's also possible that dark microglia aren't all bad. Preliminary results of a new study in the Tremblay lab suggest dark microglia are abundant and active during early post-natal development, pruning away unnecessary connections between neurons much like normal microglia. Similarly, dark microglia seem to appear in young and adolescent brains during times of additional development. She suspects this activity is normal as it doesn't result in any pathology, and the cells seem to disappear when they're no longer needed.

"Maybe they are beneficial initially, but we're not sure about it," she says. "We want to understand them during normal development, and then we can see what's different in terms of function between this normal development and all these contexts of environmental challenge and pathology where they become highly abundant."

Whether dark microglia are initially beneficial or not, Tremblay says it would be good to gain control over these cells. That way we could stop any pathological remodeling before it causes too much harm and potentially trigger the pruning behaviour when it's beneficial—such as during development and when neurons become too active during times of stress.

MARIE-KIM ST-PIERRE (PHD STUDENT, TREMBLAY LAB)

Diagnosis on the Double

UVic neuroscientist Olav Krigolson, BEd '97, PhD '08, is investigating a mobile test to rapidly flag cognitive impairment—potentially leading to diagnosis years earlier than current practice.

BY JENNY MANZER, BA '97

UVic neuroscientist **OLAV KRIGOLSON** at his lab on campus.

MICHAEL KISSINGER

Olav Krigolson is not afraid to celebrate his nerd origin story. In his TEDx talk, the UVic neuroscientist speaks about his love of comic books, his childhood yearning for X-ray vision glasses and hours spent watching *Star Trek*. But he disagrees with the sci-fi show's premise, voiced in the opening credits, that space is the final frontier.

"I believe the brain is the final frontier," he says in the talk, posted in May of this year.

After completing an Education degree at UVic, Krigolson became so captivated by the potential of the brain that he ditched plans to teach high school and coach basketball and went back to the books, earning his PhD at UVic. Since then, he has delved into the possibilities of decoding the brain's signals to better understand how it works and what happens when it's not performing well. He does this by measuring brain activity using a mobile EEG (electroencephalogram) device. These devices can take the form of glasses or a headband—all readily available for purchase at electronic stores.

Krigolson then creates algorithms to find the associations between the EEG findings and certain brain conditions. In other

words, he does the math, decoding the complex relationships in the patterns of the EEG waves. Krigolson and his team have already applied this technology to study cognitive fatigue in health care workers and in would-be astronauts destined for a space mission to Mars.

The current study, conducted in collaboration with Island Health neurologist Dr. Alexandre Henri-Bhargava, looks at whether the headband tech can be used to flag Mild Cognitive Impairment (MCI). The team found that it can—and is currently preparing the study of 40 subjects for publication.

Krigolson says they already know the mobile devices work to measure brain waves. He notes that if you can measure brain waves off an iPhone or iPad in a couple of minutes, that's a huge time savings over the traditional scan.

"That's how this project was born, this idea that 'Could we develop a five-minute test?' You could imagine you'd show up at the doctor's office, you put on the headset—it takes about a minute to put on—you do the test off of an iPad. And in five minutes your doctor has got some information that 'Hey, maybe we need to follow up on this person,' or 'No, everything looks great.' That was the starting point for this."

Co-investigator Dr. Henri-Bhargava, an affiliate associate professor at UVic in the division of medical sciences, says the test could potentially be regarded as a "blood-pressure cuff for the brain." The portable EEG could be simply administered in the primary-care setting, perhaps by a nurse, medical-office staff, or an occupational therapist.

While certain signs of dementia can be seen on a brain scan, it's not feasible to have patients undergo an MRI every year—the resource is expensive and in demand. But a mobile EEG can be done in just a few minutes with a series of simple games. Then, the patient has a baseline result to be used as a comparison in future tests. The mobile test would not diagnose, necessarily, but be part of a package of information, likely including a brain scan.

Doctors currently use pen-and-paper clinical questionnaires to flag problems—but these take time. The mobile test could provide a rapid assessment.

"Can the EEG give us a physiological measure that can help us understand whether somebody has various stages of cognitive impairment that can give us more information than just the pen-and-paper test?" asks Dr. Henri-Bhargava.

There is no cure for dementia, but you can delay or slow the onset. The earlier it's diagnosed, the better quality of life for a longer time, observes Krigolson. "You can make life better for a little bit longer."

Dr. Henri-Bhargava says diagnosis is important for a number of reasons. "There are treatments that can help with symptoms. There are also a whole host of educational processes that you can put in to help patients and families to deal with the condition and avoid a series of emergency or crisis visits down the line."

He also hopes the method, in addition to potentially being faster and offering greater specificity, could make it easier to explain the diagnosis to patients, who may regard it as more valid than a paper quiz. Dr. Henri-Bhargava acknowledges a history of "strike-outs" in developing new medications for dementia—but says the non-invasive EEG test could be extremely useful in testing new therapies because it could offer the ability to track patients over time.

The team expects the pilot study of 20 patients with cognitive impairment and 20 controls to be completed by the end of this year. They hope in future to do a larger study and use brain imaging to test and amplify the findings.

Watch a video of Krigolson's research in action at uvic.ca/alumni

Dr. **ALEXANDRE HENRI-BHARGAVA** is part of the team investigating use of mobile EEG in patients with cognitive impairment.

COURTESY OF DR. ALEXANDRE HENRI-BHARGAVA

Brain Gain

PhD student and former Vikes swimmer Taylor Snowden-Richardson, BSc '19, is studying how a cognitive-training system designed for athletes can help people with Traumatic Brain Injuries.

BY JENNY MANZER, BA '97

It all started with a very Canadian goal—to try and improve the reaction times and performance of ice-hockey players. UVic neuroscientist Brian Christie was working with a team to study the effects of the NeuroTracker, a patented system resembling a video game that uses 3D multiple object tracking to improve the brain's fitness.

Christie found something interesting—certain players didn't improve at the same rate as the others. It turned out these athletes had suffered a concussion in the past. The discovery paved the way for a current UVic study into how NeuroTracker training might help people with Traumatic Brain Injury (TBI).

Lead researcher Taylor Snowden-Richardson says NeuroTracker resembles a video game and is deceptively simple. "But it's actually a very complex game. It's requiring your brain to integrate a whole bunch of different functions. And by doing that it's helping to strengthen some of the areas of your brain and helping your brain talk to the different areas."

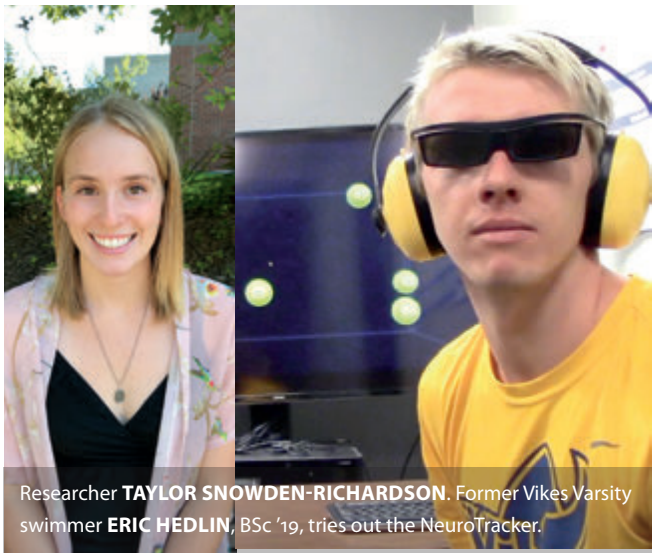
The participant in the lab puts on 3D glasses and sits in front of a large screen showing eight yellow balls. Four of the balls turn orange, which then become the user's target. The balls turn back to yellow and move around the screen—all in 3D. The user has eight seconds to track the four target balls. If the user does well, the test gets harder next time. It becomes easier if the user does not score well.

Snowden-Richardson describes it as a "staircase" algorithm. Some people are inherently better at multiple object tracking, but the tailored approach prevents frustration. "It's very adaptive to each individual's cognitive potential for the task. Everyone's getting the same amount of stimulation."

NeuroTracker can be used by many ages and abilities because it is so simple, she says. It was originally developed to improve performance in sports such as football and soccer, but, as Christie discovered, the results also seemed to flag brain injury. "This was the first indication that NeuroTracker might serve as a biomarker for concussion status," says Snowden-Richardson.

For the current research, her team collaborated with the Victoria Brain Injury Society. The study included 15 subjects with severe concussion or mild-to-moderate TBI. The study, being supervised by Christie, is completed and Snowden-Richardson is now analyzing the data.

The subjects underwent NeuroTracker training twice a week for five weeks. Findings suggest the people not only improved at multiple-object tracking but in other domains, including cognitive functioning, processing, memory attention and even verbal fluency. "It seems to have lots of different benefits," observes Snowden-Richardson. While every brain injury is different, it commonly involves trouble with memory and attention, a kind of cognitive fog—which NeuroTracker training seems to improve.



Researcher **TAYLOR SNOWDEN-RICHARDSON**. Former Vikes Varsity swimmer **ERIC HEDLIN**, BSc '19, tries out the NeuroTracker.

The team also worked with neuropsychologists to test cognitive function and gauge if the training is helping patients outside the labs in coping with the rest of their lives. Many of the participants reported that their symptoms—such as headache, dizziness and nausea—improved after the training.

A former Vikes swimmer, Snowden-Richardson did undergrad research into whether NeuroTracker training could speed swimmers' reaction times from the block—and it did. For her current work, she was awarded a fellowship from the Canadian Institutes of Health Research to do patient-oriented research, which involves incorporating feedback from patients and others in aspects such as study design, objectives and end points.

This makes research directly applicable to practice, she notes. The team would now like to follow up these findings with a larger study, potentially involving blood tests to check for protein markers and use of functional magnetic resonance imaging (fMRI). Snowden-Richardson suggests the NeuroTracker training could also help patients with long COVID address the "brain fog" associated with the condition—and she has already created a protocol for home use of the technology.

COURTESY OF TAYLOR SNOWDEN-RICHARDSON

A Nose for Health

UVic grad Jamie Knight, BA '15, MSc '17, is championing smell testing as a way to gain insights into brain health.

BY ANNE MACLAURIN, BA '91, CERT '00

From springtime blooms, to the aroma of a summer campfire, to the fragrance of fall leaves, our sense of smell plays a vital role in our lives. A decline in smell can not only affect everyday safety, but also diet and nutrition, physical well-being and relationships. Research shows we bond with our partners and children through smell. We also stay safe by using our sense of smell to detect food spoils, smoke or gas.

Jamie Knight, UVic PhD candidate in psychology, is fascinated by the connection between smell and brain health. She suggests smell has been underutilized by the medical community for over 30 years. The connection between loss of smell and cognitive decline was first reported in the mid-1980s by Dr. Richard Doty, a researcher from the University of Pennsylvania. Interest in olfactory research only recently came back into the spotlight when health professionals flagged the loss of smell as a COVID-19 symptom.

"Since COVID, more research funders have come forward and now more people are interested in the research on how smell and the brain work," says Knight.

Knight, who earned a BA in psychology in 2015 and then a Master of Psychology in 2017, began her work with smell when she realized how much was still unknown about the onset of dementia and the connection with a loss of smell.

"A change in our sense of smell can be an early marker of cognitive decline," says Knight. "Sometimes 10 to 15 years before any other symptoms appear."

As our population ages, rates of dementia, Alzheimer's and Parkinson's diseases continue to rise in Canada. Medical research focuses on cures, but inexpensive tests such screening for a loss in sense of smell could potentially improve health outcomes if testing is done early.

"People with Alzheimer's disease tend to have no sense of smell," says Knight. "The earliest brain areas impacted by Alzheimer's disease pathology are also important olfactory processing areas."

Since the olfactory pathway maps onto the same area affected by Alzheimer's disease, Knight is excited about using functional magnetic resonance imaging (fMRI) on the brain to learn more about the connection between smell and neurological diseases.

"fMRI studies allow researchers to further explore connections between smell and cognitive functioning and brain degeneration," says Knight.

JAMIE KNIGHT

The fMRI measures brain activity while a person is doing a task, such as a smell test. The ability to identify a smell is the cognition side of the equation. Knight hypothesizes that if we cannot match the name of the smell to the odour, it could be a sign of impaired cognition.

The good news is that training our olfactory system does improve our sense of smell, but more research is needed to determine if it also improves cognition.

"There are big implications for dementia if we can show cognition gets better as our sense of smell improves," says Knight, whose work is funded by AGE-WELL NCE Inc. and the Canadian Institutes of Health Research.

For most people, sense of smell may be overlooked and not explored unless you are a chef or sommelier; however, most of us would want to know if we are headed toward dementia.

Currently, our health care system is not promoting testing sense of smell, yet all it takes is a simple test that would not even require a physician to administer it. According to Knight, people in their mid-40s should be encouraged to start testing early.

"My dream is to have locations, much like we do with hearing clinics, for people to test their smell every couple of years," says Knight.

Find out more at olfactoryhealth.org.

UVIC PHOTO SERVICES

Psychedelics Revisited

Could magic mushrooms and ecstasy reshape mental health care in Canada? Two UVic grads weigh in from the frontlines of the psychedelic renaissance.

BY MICHAEL KISSINGER, BED '94

Once relegated to the far-out domain of Deadheads and counterculture folk looking to turn on, tune in and drop out, psychedelic drugs are having a moment again. But don't call it a comeback—or even a flashback. Two UVic alumni are among the researchers studying the potential of psychedelic-assisted therapies for use in hard-to-treat conditions. In fact, they say, these misunderstood medications could launch a paradigm shift in mental-health treatment in Canada.

COLLABORATIVE EFFORT

David Clements, BA '97, readily acknowledges his journey from the ink-stained 'zine-laden scene of the UVic Writing program to the vanguard of a scientific movement isn't your typical career trajectory. But the executive director of Psychedelics Research at Queen's University's Faculty of Health Sciences says those heady, pre-Woodstock '99 days of co-editing UVic's the *Martlet* and writing for the *Ring* laid the foundation in many ways for his current gig.

"Some of what I really love doing now I learned a lot about at that period of time," Clements says. "When I was at the *Ring*, the editor would give me the names of certain scientists doing things, and they'd say, 'Well, why don't you follow up with this person about this project or area,' and I realized I loved it. I love working with scientists, and I love being able to add the skills that I have in areas like policy, communications, planning, and so on, to be able to increase the impact of their work."

Initially, Clements had his sights set on the world of journalism. But a communications job in the health sector proved "transformative," and he would spend the next twenty years in Ottawa in various senior roles around health policy and communications, including a stint as senior advisor and communications director for then-Minister of Health Dr. Jane Philpott.

After three years with the Canadian Institutes of Health Research, followed by a position at Health Canada as a director general for health care strategies, Clements is now working for his old boss again—Dr. Philpott is dean of the Faculty of Health Sciences at Queen's University.

This summer, the faculty announced it was creating a research collaborative to support research and innovation in psychedelic-focused therapies. The work is supported with a fund established by Dimensions Health Centres, a psychedelic wellness company.

DAVID CLEMENTS, BA '97, is the executive director of Psychedelics Research at Queen's University's Faculty of Health Sciences. Dr. **EVAN WOOD**, BSc '97, is the chief medical officer for Numinus Wellness Inc.

"[The] terminology was really intentional," Clements says. "It is truly collaborative in the sense that we're looking at connecting folks that may have been doing this work in a very disconnected way previously. So, introducing those folks to each other, facilitating collaboration not only at Queen's but also with scientists and other institutions, to be able to move the science forward in the area of psychedelics as rapidly as we can."

DOORS OF PERCEPTION

The use of psychedelics is nothing new. Plants with psychedelic properties have been used for thousands of years in different cultures as part of religious ceremonies, rituals and for their supposed transcendental and healing powers. Psychedelic research, particularly around LSD, flourished in universities and labs during the 1950s and '60s. These studies in the fields of psychiatry, psychology, psychotherapy and neuroscience showed encouraging results. But enthusiasm for these mind-altering substances soon spread beyond the lab and found its most vocal

PHOTO OF DAVID CLEMENTS SUPPLIED. PHOTO OF EVAN WOOD COURTESY OF NUMINUS.

and provocative proponents in the counterculture and anti-Vietnam War movements, triggering a backlash that would last decades. In 1970, the US government under President Richard Nixon criminalized all uses of psychedelics, shutting down sanctioned psychedelic research. Countries around the world followed suit, and psychedelics later got caught up in another costly and intractable conflict—the so-called "war on drugs."

In recent years, however, shifting demographics, increased scrutiny of conventional approaches to mental-health treatment and a growing body of research on psychedelic-assisted therapy's impact on depression, PTSD, addiction and end-of-life anxiety have led to what many are calling a psychedelic renaissance.

For many years, this work was led by underground therapists, but Clements points to Michael Pollan's best-selling 2018 book *How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence* as another watershed moment in the psychedelic movement.

And while Clements is excited about the ever-evolving landscape of psychedelics and its possible implications for mental-health treatment in the future, he stresses that enthusiasm needs to be balanced by science and research-informed policy.

"One of the things that we're seeing right now is the emergence of a number of small and medium-size enterprises that are working in this space… I'm learning about a new one every month," Clements says. He applauds the innovation and creativity in the sector, but stresses the importance of ensuring that a strong scientific base is in place to support future change in policy and clinical practice. He also notes the importance of providing clear, evidence-based messages to patients and the public, tempering overenthusiasm from those who might see psychedelics as a mental-health panacea.

'A NEW WAY OF THINKING'

One of the more prominent players to emerge on the Canadian scene is Numinus Wellness Inc.

In June, the Vancouver-based enterprise specializing in psychedelic research became the first publicly traded company granted a license from Health Canada to conduct research to standardize the production and extraction of psilocybin, the active ingredient in "magic mushrooms." The research is conducted in a lab in Nanaimo, BC. Numinus has also received Health Canada approval to study Methylenedioxymethamphetamine- or MDMA-assisted therapy for post-traumatic stress disorder (PTSD). The drug commonly known as "Ecstasy" or "Molly" will be studied in collaboration with the California-based non-profit MAPS (Multidisciplinary Association for Psychedelic Studies), which has been leading the charge internationally in psychedelic research since it was founded in 1986.

So far, the findings have been promising. Results from a MAPS' Phase 3 clinical trial, published in *Nature Medicine* this past spring, showed that 67 per cent of PTSD sufferers who had MDMA with an intensive course of psychotherapy no longer qualified for a PTSD diagnosis following the trial. Overseeing Numinus's expansion into this research market is Dr. Evan Wood, BSc '97. The UVic social sciences grad has taken an unpaid leave from his post as executive director of the British Columbia Centre on Substance Use—a leading research organization into the treatment of substance use and addiction—to dip his toes in the private sector as Numinus's chief medical officer.

Wood brings two decades of research expertise in the fields of addiction and substance use to the psychedelic start-up. As a founding principal investigator of Insite, North America's first supervised injection facility, Wood has dedicated much of his career to reshaping addiction-treatment polices and substance-

COURTESY OF NUMINUS

use policies toward what he describes as "a public health and safety lens rather than a criminal-justice lens."

Wood says conventional mental-health treatment has fallen short for many patients, which is one of the reasons interest in psychedelic-assisted therapies has grown in recent years.

"Certainly a motivation has been the limitations of existing treatments for different mental disorders, in terms of certain medications being given out almost as if they're health-food supplements, when we know that lots of people continue to suffer with mental-health challenges when they're prescribed existing treatments, or [have] major limitations with existing treatment approaches," Wood says.

Rather than treating mental health as a chronic condition, psychedelic-assisted therapies attempt to go after the root causes of the problem with relatively few doses, as opposed to typical psychiatric drugs, which often require ongoing use to mitigate symptoms.

Although the science behind psychedelic-assisted therapies differs depending on the drug and what's being treated, Wood says there is evidence showing that when properly administered, psychedelics can lead to a fundamental shift in a patient's thinking.

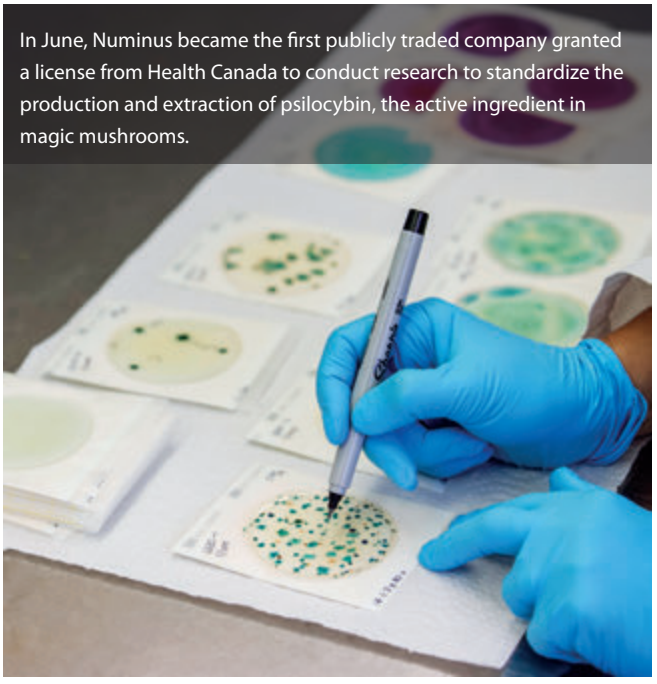
"There's a notion of plasticity of our brains, and that our brains are able to make fundamental changes, while at the same time being in an ecosystem or a way of thinking can entrench certain ways of thinking," Wood explains. "So if you think of water running down a mountainside, eventually it will dig valleys and water will continue to flow. And we know from the latest in brain science that wave patterns of thinking affect how we feel… And we think that psychedelic-assisted psychotherapy enables a level setting where people—through a structured evidence-based psychotherapeutic intervention involving the use of the psychedelic—can actually create a new valley and a new way of thinking."

Another reason more people are turning on to the idea of psychedelic-assisted therapy is that the drugs no longer carry the same stigma.

"I'm a rigorous, scientific, evidence-based practitioner and what guides me as a scientist and as a clinician is real evidence, and I have a long-standing history of contributions to evidence-based medicine. And when I tell people that I do work in psychedelics, I kind of gird myself because of that cultural baggage that comes along with it. But I think some of the really serious opposition or skepticism that existed once upon a time is kind of in the rearview mirror."

READY FOR THE MAINSTREAM?

In the next four to five years, it's likely that psychedelic-assisted therapy will be part of mainstream mental-health care in Canada, says Wood. It's going to take "private-sector motivation and ingenuity" coupled with leadership from federal policymakers to achieve this, he adds. "I think all policies should be driven by the best available evidence. And so, when I see instances where there's something like psilocybin that is clearly safe, and research has shown benefit, policymakers should be enabling ways of people accessing proven treatment in a way that helps fill information gaps, if they exist."



In June, Numinus became the first publicly traded company granted a license from Health Canada to conduct research to standardize the production and extraction of psilocybin, the active ingredient in magic mushrooms.

Easier said than done, according to Clements, in part because it involves some big questions.

"Some of them are basic mechanistic questions about how this works in the brain," Clements says. "Some of them are really social and cultural questions about how you would integrate these compounds alongside current approaches or new approaches that we have in the area of psychotherapy, for instance. So, they pose very significant challenges for government [and] they pose very significant challenges for clinical professionals, in terms of how to integrate some of these developments into their practice."

As to whether or not psychedelic-assisted therapies will become part of mainstream mental-health treatment in Canada, Clements is taking a wait-and-see approach. But like his fellow UVic alumnus, Wood, he stresses that changes to public policy will have to be driven by science.

"It is fascinating," Clements says. "And to be honest, my sense is it's almost changing day by day. We have a lot of companies starting up and a lot of investors that are looking in Canada. It's growing by leaps and bounds. So, hold on to your hat!"

Rethinking Policing

UVic grad and police officer James Clover, MPA '19, writes about the intersection between police and public health in an upcoming collection.

BY JENNY MANZER, BA '97

JAMES CLOVER on the water with his pug, Ozzy.

James Clover, like many in policing, says he initially joined the profession as a way to help people. He's since spent more than two decades lacing up his boots for late-night shifts and standing in people's living rooms when they are at their most vulnerable. He has worked in vice, with gangs and high-risk offenders—on almost every assignment.

Now a staff sergeant with the Edmonton Police Service, Clover, who earned a Master's of Public Administration from the University of Victoria, is helping to find answers to the painful questions of how modern police can help more, harm less and promote overall health and well-being in the community.

He is an editor and contributor to *Law Enforcement and Public Health: Partners for Community Safety and Wellbeing*, an upcoming textbook from Springer Books that brings together multidisciplinary commentators on a wide range of issues in both law enforcement and public health. Clover wrote the chapter "Defund, Dismantle or Define" for the collection, expected out in December 2021.

Modern police officers are often not responding to actual crimes but to incidents rooted in pre-existing situations of deprivation, he notes in his essay. The police have long reported that a significant portion of their work is not enforcing laws but dealing with matters of public welfare. "We will need to ask the difficult question of whether policing, in its current state and design, complements an overall objective of public health; or does the mission of law enforcement as currently defined conflict with improving collective well-being?" he writes.

"You can't police crisis, you can't police homelessness, you can't police substance-abuse issues," he says, speaking from Edmonton in a phone interview.

One of the things he learned during his studies at UVic is that public bodies need to remain relevant. If the understanding of criminality and health determinants is changing, then police need to change, he adds. Over his two decades in policing, Clover noticed that sometimes police were making people's lives less healthy. It's a matter of the perception of their role, he says. For example, Edmonton was faced with the horrific problem of sex workers, who were largely Indigenous women, being murdered. The police lens was to exclusively ask how to catch the perpetrators who were committing the crimes.

"When I was in vice, I looked at the issue in a different way," he says. He started by asking the question "Why are the women working the streets?" The answer was that many were missing all kinds of determinants of health and this put them in harm.

At the moment, law enforcement can be at cross purposes with promoting health. In one extreme example cited in the collection, an AIDS control police officer in West Africa tries to reduce HIV transmission rates on the one hand, while also being asked to prosecute sex workers for carrying condoms on the other.

In his personal view, the number one job of a police officer responding to any call is to make

COURTESY OF JAMES CLOVER

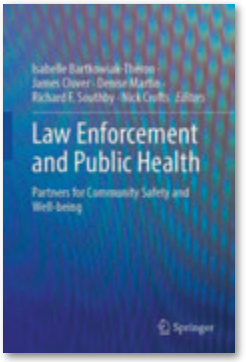
things safe. "So, that's different than law enforcement, that's different than policing. It's responding to make everything safe with the least amount of harm. What follows after that needs to be developed." He suggests police need access to services around the clock, such as housing and mental-health supports—to help them help clients. That means they might not always be collecting evidence and considering criminality. The idea is to safeguard wellness in the moment, then bring others together for continuity of care of the clients.

While the idea of civilian mental-health workers to stand in for police is interesting to Clover, he is concerned about what might happen if one of these helpers is hurt, or worse, while intervening in an explosive situation. He fears the idea might then be abandoned altogether.

Police are often in the news when the interactions with the public go poorly. The interactions are visceral, visual, in-your-face examples of systemic issues such as racism, poverty and substance use, he notes. The issues can be harder to see in schools, hospitals or the workforce. High-profile cases such as the police murder of George Floyd in the United States—and many examples in Canada—all show entire systems failing people, he says.

These are not easy or simple issues. In his essay, Clover suggests that perhaps the very mission statements of police need to change to be one of promoting health of the community. Police could be regarded as guardians, not as warriors. He acknowledges this idea of police as warriors is ingrained in culture, both in the profession and in popular culture, including in cop and forensic television shows.

He says his position is that a healthy community is a safe community—food security, mental-health supports—all these need redefining. "I don't support defunding, I support defining," he says. One of the big questions is "What do we really want police to do?"



Law Enforcement and Public Health by Springer Books is expected in December 2021.

He acknowledges some police agencies might be getting defensive under the constant scrutiny—yet he has trained hundreds of recruits and is steadfast in the belief that most officers simply want to do the right thing.

The idea is to see clients not as law breakers, but people who have needs, and bring the needed disciplines together. "You control institutions through money but you change institutions from within."

Clover says police should look through the health lens first. If we think of police as guardians, they should come with tools to make you safe and use minimal force to resolve the situation and when it's the only option left. Clover has discharged his firearm on duty, and it's not the part of his career he reflects on fondly.

Clover is married to a retired police officer and has two grown children. When he works in his home office, his two pugs, Ozzy and Birdie, keep him company. He chose the MPA program at UVic for his studies because it was practical, and he saw that change needed to be imbedded in policy. In order to be part of that change, he needed to be able to write good public policy.

His time at UVic included working with other disciplines such as nurses and non-governmental organizations, which provided a wealth of perspectives. There needs to be pressure from the outside system to breed a new idea of what police officers can look like, he says. "Really fixing the police also requires fixing all the other systems."

Blood Type

Michael LaPointe's debut novel blurs the lines between facts and fictions.

BY JOHN THRELFALL, BFA '96

Author **MICHAEL LAPOINTE**.

Twenty years into the post-truth world of the 21st century, it's hard to remember a time when both the rise and fall of a promising young journalist could be caused by mixing a bit of fiction into the facts. We might call it journalistic fabrication, but Writing alumnus Michael LaPointe (MFA '15) has a better name for it: "the creep"—an overpowering need to improve a story by adding intriguing untruths and undetectable white lies.

In LaPointe's debut novel, *The Creep*, we follow journalist Whitney Chase out of the culture pages of the venerable New York magazine, *The Bystander* as a chance encounter gives her the inside scoop on a potentially game-changing (and highly lucrative) medical discovery: synthetic blood. But when Whitney's investigation puts her on the trail of a string of grisly fatalities across the country, she becomes drawn into a much darker and more nefarious story than even her internal creep could imagine.

Set in the lead-up and immediate aftermath of the 9/11 attacks—and the subsequent decline of print journalism—*The Creep* is a skillfully plotted science-thriller exploring how deceitfulness can be transfused into fact. But LaPointe also sees 2001 as the logical jumping-off point for the beginning of the end of truth in journalism.

"Once I started building the world around this artificial blood substitute—wherein the broader metaphor of fiction being transfused into fact and the artificial being transfused into the real—it seemed to map very quickly onto a broader historical vision of 21st century media, the way in which the world of so-called objective media has gradually morphed into the very subjective media ecosystem we have now, where people's media diets are determined by their pre-existing ideological or cultural beliefs," he explains.

"It seemed to me that the immediate post-9/11 period was one of the major crucibles of this change," he continues. "For me, speaking generationally, 9/11 and the run-up to the Iraq war was the first time I really saw obvious fabrications being accepted and touted as real, where the media was actually becoming a vessel for the intrusion of artificial information into the historical record. It seemed like an apt time to set a story of someone who is susceptible themselves to lying—but is also being lied to and being manipulated into becoming a vessel for untruths."

LaPointe is based in Toronto, but takes a decidedly international approach to his writing— which has appeared in the likes of *The New Yorker*, *The Atlantic*, *The New York Times*, the *Times Literary Supplement* and *The Paris Review* (for which he pens a column titled "Dice Roll"). His fiction has appeared in *The Walrus*, *Hazlitt* and has been anthologized in *Best Canadian Stories*; he has also been nominated for the National Magazine Awards, the Journey Prize and the Digital Publishing Awards. *The Creep* was published in June 2021.

"I'm probably one of the 0.01 per cent of Creative Writing graduates who works full-time in writing," he chuckles. "Between freelance magazine work, the books and some TV/podcast writing, I've been able to cobble together a living as a writer."

While familiar with the cases of Jayson Blair and Stephen Glass—both high-profile writers dismissed by the *New York Times* and the *New Republic* (respectively) for journalistic fabrications in the late '90s/early '00s—LaPointe quickly points out that he's never been susceptible to "the creep" himself.

"I've never met anyone who'd done it or done it myself," he says. "I could see the temptation in my own journalism—especially when writing about hard news. There was always a frustration where I thought, 'If only they had said this or done this, then the story would have had more shapeliness.' Because fiction has always been my main writing practice, I could see ways to improve the story—if I could just have the lenience of fiction, I could make it a better story."

The Creep offered him an ideal outlet. "I think of Whitney as a novelist trapped in a journalist's life: what for her is a great existential crisis—this urge to fabricate and improve reality by giving it an artfulness it lacks—is just normal artistic practice for a novelist. That's how I imagined myself into her: I pictured myself trapped in a journalist's life."

Not that *The Creep* will leave readers feeling trapped: LaPointe's inherently cinematic writing offers a gripping mix of Michael Crichton-style science thriller and Cronenberg-esque

ALEX WARRENDER

body horror anchored by sound editorial ethics, and seems ideally suited to a limited-run series.

"*The Creep* was actually inspired by horror films and is very visual, but I think that's one of its stumbling blocks," he admits. "For me, it seemed like a plus to borrow from different genres—it's exciting, it's filled with sex and violence and it's very plotted—but for people who are strictly literary readers, it has a waft of genre fiction, which perplexes them. And people who like straight-up thrillers are wondering why it's talking about media and history and has all these digressions about George W. Bush."

LaPointe's time as an instructor in UVic's Writing department also influenced his style.

"So much literary fiction has that 'vitamin quality' to it, but I like to engage the audience and pay off their attention with something exciting," he says. "I started writing that way at UVic, actually. I think it came from reading a lot of student work with good style and good characters but not much story … that energized me to always have a strong, propulsive storyline onto which I could hang all these other ideas: if the reader is worried about who's going to die, that will grant you a degree of attention and a bunch of pages where you can discuss other ideas that are important to you. I don't read a lot of genre fiction, but I do have a strong desire not to be boring."

The Creep is available from Random House Canada.

Currently working on his second novel ("this one takes place in the world of cinema"), LaPointe is hoping *The Creep* offers enough to set him apart from the latest crop of debut authors. "It's like being the new kid in town: you have to be interesting. You have to come at them with something that's bright and vibrant and exciting."

THE CHANGE-UP

Food for Good

Julian Bahati Axmann, BA '18, was an unlikely entrepreneur, starting up the conservation-focused Safi Sana Superfoods to bridge the gap from farm to market.

We profile UVic alumni who recently made a bold life change.

Name: JULIAN BAHATI AXMANN

Age: 26

Hometown: Morogoro, Tanzania. My roots are at Mbuyuni Farm, where my family grows organic herbs and spices. I source most of the ingredients for Safi Sana Superfoods from Mbuyuni.

UVic degree and year: Bachelor of Arts in Environmental Studies and Geography, 2018.

What I used to be: After uni, I collected used cooking oil for a biodiesel start-up. Whenever possible, I got my hands dirty on farms. I feel at home working with the land. Starting a business was far removed from my outlook at the time.

Then I had the idea to: Connect the dots between my upbringing, my education and the community I was growing with. I moved to Canada for a scholarship at UVic. Of all the mind-bending concepts thrown my way in uni, the one that struck me on the deepest level was food as a restorative ecological force. I didn't just hear this and know it an academic sense, I felt it because of how I grew up. Expanding that feeling to the world's food system—wow, that's power! I want to channel that energy in Safi Sana Superfoods.

Why I did it: The seeds for Safi Sana really were planted in the early 2000s. I watched my parents go from thriving to struggling, live through droughts, market up- and downturns. In short, we were vulnerable to forces beyond the control of farmers. With merciless markets, the earth and farmers suffer. Meanwhile, the gap between the field and our kitchen is widening.

My motivation is to help bridge that critical gap. Starting with a deep appreciation for food and the wild world and adding a splash of fun, I drew up Safi Sana's flagship product Rhinocolate. Rhinocolate is an energizing coffee booster that is on a mission to keep rhinos "Horny Forever™."

UVic grad and entrepreneur **JULIAN BAHATI AXMANN**. A vegan chocolate energy tart.

How I did it:

1 Networking. Family and friends helped me immensely. I visited trade shows and worked on all stages of the products from farming, processing and packaging to marketing. I developed a line of four products: moringa powder, Herbal Moringa Tea (a blend with lemongrass and hibiscus from the farm), Green Dream (a smoothie/protein shake with moringa), and Rhinocolate. Then, with the help of my friend, Price Foster, I launched an e-commerce site.

2 Persistence. I got onto shelves in stores in Victoria, Vancouver and Tofino by showing up consistently. Now, I'm working with a distributor to get into the bigger stores. You can find us in bulk at Neighbourly Café in Victoria.

3 Diversity. I never solely relied on my business. Starting off, I worked as a door-to-door canvasser for the Wilderness Committee. Now, I direct the Nature Climate Jobs campaign at BC Spaces for Nature. Safi Sana is my side-hustle.

What I love about my new life: The face to face with people. Whether I am at a farmers' market chatting with customers or meeting a grocery-store owner, the delight people take in Safi Sana Superfoods gratifies me.

What I miss about my old life: Not much, I'm very happy with the path I'm on. I miss working outside—it beats staring at a screen. The time I used to have for podcasts while driving a big, dirty truck was also neat.

One lesson learned: If you believe in what you are doing, others will too.

One person who helped me: Only one? My friend, Lars Mühling. I met him at the world's main organic fair. Lars imports moringa from my parents. He pays farmers a fair price and generously shares his experience.

One trade secret: Selling in bulk not only reduces plastic but cuts costs.

You can find me: Sign up for the Inside Scoop—the Safi Sana Superfoods newsletter on safisana.ca

PHOTOS COURTESY OF JULIAN BAHATI AXMANN

MY BUSINESS

Fresh Blooms

UVic grad Parker Atkins uses his tech skills to grow his sustainable subscription flower enterprise.

We profile enterprises run by UVic alumni.

Name: PARKER ATKINS, co-founder/Chief Technology Officer.

UVic degree: Bachelor of Software Engineering in 2017.

My business: Bear's Blooms.

Where it's located: Vancouver, BC.

What we do: Bear's Blooms is an e-commerce flower subscription business. We're like a meal-kit but for flowers. We built a completely custom tech platform that gives our customers full flexibility over their schedule so they can have fresh, local blooms delivered whenever they like.

Why we're unique: We're on a mission to change the way people buy flowers. We ship buds, not blooms, so our flowers consistently last two weeks. We use 95 per cent local flowers, even in the winter, to support BC's amazing farmers. And we buy exactly to order each week so we cut out 90 per cent of the waste associated with traditional brick-and-mortar florists. We even collect and reuse our boxes to extend the life of our packaging.

The story: Parker and his sister, Tess Atkins, co-founder and CEO, had dreamed of starting a family business together since they were small. Their mother's love of flowers fueled the dream of a floral business. The team also delivers in Victoria, with parents and UVic law alumni **ANDREW ATKINS**, LLB '85, and **COLLEEN CATTELL**, BA '82, LLB '85, sometimes pitching in.

Our ideal customer is: Any and all flower lovers.

I wasn't expecting... To discover that Vancouver has the second largest Dutch-style flower auction in North America.

We'll know we're successful when: We deliver across Canada.

Where to find us: bearsblooms.com

Bottom line: We're the best new way to buy flowers: local, sustainable and beautiful!

UVic grad **PARKER ATKINS** and his sister and co-founder, Tess Atkins. A Signature Bouquet.

COURTESY OF BEAR'S BLOOMS

Class Notes

News and photos from around the alumni world

1970s

ROD LINK, BA '78, has edited and written the introduction for the book *No Compromise* (Walhachin Press), a memoir by the late labour activist John Jensen. Jensen, an immigrant from Denmark, advocated for

labour, environmental and Indigenous interests in BC's northwestern region for many decades. He also helped found several programs at the former Northwest Community College (now Coast Mountain College, or CMTN), along with the Academic Workers Union whose members teach in those programs. One of those members is **DINA VON HAHN**, BA '86, who is currently on leave from her faculty position in the CMTN University Credit program. Link and von Hahn met through UVic's Creative Writing Co-op in the 1980s and married in 1994. Their younger daughter started at UVic this fall.

1980s

LAURA LYNCH, LLB '88, and **MANUSHA JANAKIRAM**, BA '04, have won the Canadian Journalism Foundation's Award for Climate Solutions Reporting for their podcast and CBC Radio show *What On Earth?* The new award honours work that "shines a spotlight on climate change and innovative solutions in Canadian print, broadcast or online news reporting," according

LAURA LYNCH

MANUSHA JANAKIRAM

to the CJF. The award includes a $10,000 cash prize, which the CBC has donated back to the CJF to support its journalism awards and fellowships program. The *What on Earth?* podcast focuses on climate change, potential solutions and the future of the planet. Lynch is the host and Janakiram serves as senior producer. Find the podcast at cbc.ca/radio/whatonearth.

LANE TROTTER, BA '89, MPA '92, will be the next president of Camosun College. Trotter is currently the president and chief executive officer at Langara College in Vancouver. He begins his five-year term at Camosun on Jan. 1, 2022. Trotter holds a PhD from Simon Fraser and has decades of leadership experience in the post-secondary sector.

Richmond lawyer **NELSON M. TSUI**, LLB '86, has published a book about his 15 years working part-time at a federal correctional institution as a prison judge at one of BC's Serious Courts—a court for serious offences inside prisons. *Serious Court: Confessions of a Prison Judge* contains real-life stories of prisoners that are at times humorous and other times heartbreaking. It is intended to give inmates a voice, particularly those being judged through Serious Court. The book is available in paperback and Kindle at amazon.ca.

1990s

MERLE ALEXANDER, BA '94, LLB '99, was named one of the 500 most influential business leaders in BC by *Business in Vancouver*. Alexander, QC, is a principal at Miller Titerle + Co. He is a hereditary chief of the Tsimshian Nation and a member of the Kitasoo Xai'xais First Nation. He was recognized for "making exceptional contributions to Indigenous reconciliation and to the advancement of Indigenous lawyers and students," according to the magazine. His practice focuses on Indigenous resource law and legal-reform initiatives. In 2018, Alexander received a UVic Distinguished Alumni Award, alongside his spouse, **TAMARA NAPOLEON**, BA '04, LLB '07.

MERLE ALEXANDER receives a UVic Distinguished Alumni Award.

CHRIS CLARKSON, BA '94, MA '96, has published his second book, *Disruptive Prisoners: Resistance, Reform and the New Deal* (University of Toronto Press). Co-authored with criminologist Melissa Munn, it recounts the history of prison reform in mid-20th-century Canada by making use of prison newspapers created by the prisoners themselves. Clarkson writes, "It was important to us to demonstrate that prisoners—who are so often silent in criminological and historical texts—were actually central figures in this story and active agents of change. The inclusion of prisoners' voices and experiences allowed us to better understand the origins, the successes, and the eventual failures of Canada's 'New Deal in Corrections.'" Clarkson, who also holds a PhD from the University of Ottawa, is chair of the department of history at Okanagan College.

MARION NEWMAN, BMus '93, is the new cohost of CBC Radio's *Saturday Afternoon at the Opera*. Newman, who is a member of Kwagiulth and Stó:lo First Nations, takes over from long-time host Ben Heppner, who retired in September.

SYLVIA OLSEN, BA'94, MA '98, PhD '16, shares some "purls of wisdom" as she explores Canada's history, landscape, economy and social issues on a cross-country knitting-themed road trip in her new book *Unravelling Canada: A Knitting Odyssey* (Douglas & McIntyre). With stops in more than 40 destinations, including urban centres as well as smaller communities such as Sioux

MERLE ALEXANDER PHOTO BY UVIC PHOTO SERVICES

Lookout, ON, and Shelburne, NS, the history grad observes that the knitters of Canada are as diverse as their country's geography.

CARLA QUALTROUGH, LLB '97, has been inducted into the Canadian Disability Hall Of Fame in its builder category. Qualtrough, the Minister of Employment, Workforce Development and Disability Inclusion, was first elected as the Member of Parliament for Delta, BC in 2015. She has practised human-rights law at the federal and provincial levels and chaired the Minister's Council on Employment and Accessibility in BC. She has been of significant service through sport and volunteerism, including with the International Paralympic Committee and for the Toronto 2015 Pan and Parapan American Games. Visually impaired since birth, her athletic achievements include three Paralympic and four World Championship medals.

2000s

SHELAGH BRENNAN, BSc '03, MSc '09, is a retired registered nurse living in Langley, BC. She needs a kidney transplant. If you might be able to help, please contact Roya, the kidney transplant nurse, at Vancouver General Hospital (604-875-5182) or kidneydonornurse@vch.ca and mention Shelagh Brennan. Donors are eligible for expenses that they may incur during the donation process such as testing, travel, accommodations, meals and travel.

Computer Sciences grad **MIKE COUSINS**, BSc '05, and his team have launched the online health platform gofreddie.com, a virtual-care company focused on HIV prevention. Freddie streamlines the process for patients who are seeking prescriptions for PrEP, a daily pill that reduces one's risk of acquiring HIV by 99 per cent. Since launching, Freddie has become one of the largest HIV prevention services in Canada.

Former UVic roommates Karen Hope and **MONIQUE ZIZZY**, BA '00, decided to shake things up during the pandemic and start a high-end cocktail and mocktail mix company called Fuse and Sip. Fuse and Sip's drink mixes are hand crafted, contain 100 per cent natural ingredients, including dehydrated fruit, herbs, flowers and organic cane sugar and are free of any additives. We'll drink to that. More info at fuseandsip.com.

CHRISTINA SPENCE PROTEAU, LLB '08, won the 50th Canadian Women's Mid-Amateur Championship earlier this year. Success on the greens is nothing new for Proteau. She was the first golfer to ever be inducted into the University of Victoria's Sports Hall of Fame back in 2020 and has won the Women's Mid-Amateur title five previous times.

Victoria's Metalhead Software, maker of Super Mega Baseball and co-founded by alum **CHRISTIAN ZUGER**, BEng '04, is headed for the majors. The Vancouver Island gaming studio has been acquired by big hitter EA SPORTS. "We're excited and energized by the opportunity to bring sports fans compelling new experiences that are original, authentic and innovative. We're confident that together with the Metalhead team, we'll have what it takes to knock it out of the park," EA said in a press release.

2010s

JAIMIE DAVIS, owner of Jada Creations, was named Best Solopreneur at the 2021 Small Business BC Awards. The new award recognizes an individual who started a solo business, "wore multiple hats" and navigated challenges while growing the business on their own. Davis, an entrepreneur from the Gitxsan and Nisga'a Nations, built her business around her original jewelry designs. Davis is a 2016 graduate of the award-winning Northwest Aboriginal Canadian Entrepreneurs (NW-ACE) program. The innovative program was launched in 2013 by Tribal Resources Investment Corporation (TRICORP) and the University of Victoria Gustavson School of Business.

JAIMIE DAVIS

MAUREEN GRUBEN, BFA '12, was longlisted for this year's Sobey Art Award, considered Canada's most prestigious contemporary art prize for emerging artists of all ages. According to the Inuvialuk artist's bio, "Gruben explores intimate materiality as she disassembles and re-combines disparate organic and industrial elements. Polar bear fur, beluga intestines, and sealskins encounter resins, vinyl, and bubble wrap, forging critical links between life in the Western Arctic and global environmental and cultural concerns."

UVic Vikes rugby legend and Olympic flagbearer **NATHAN HIRAYAMA** is hanging up his cleats. The 33-year-old, world all-time third-leading scorer in sevens with 1,859 points, has announced his retirement earlier this fall. Hirayama represented Canada at three World Cups, led Canada into the Commonwealth Games, gold in the Pan Am Games and to the quarter-finals of the Tokyo Olympics.

BHUVI KASIVISWANATHAN, MBA '17, is the director of finance for Breathe99. The start-up's B2 reusable mask landed on *TIME* magazine's Best Inventions of 2020 list. The team behind Breathe99 completed two successful crowdfunding campaigns, launched a popular Shopify store and, to date, has generated more than $1.5 million in sales.

BHUVI KASIVISWANATHAN

ANGÉLIQUE LALONDE, PhD '13, has been nominated for this year's Scotiabank Giller Prize for her story collection, *Glorious Frazzled Beings*, published by House of Anansi. Lalonde holds a PhD in Anthropology from UVic and won the 2019 Journey Prize for her short story "Pooka," which appears in her Giller-nominated collection.

JOSH LOVELL, BMus '15, will be appearing at the legendary Milan opera house La Scala next fall. Lovell will play Ferdinand in Thomas Adès' *The Tempest*, directed by Robert Lepage and co-produced with l'Opéra de Québec, the Metropolitan Opera and Wiener Staatsoper. *The Tempest* runs Nov. 5 to 18, 2022.

BRANDON MARLON, MA '13, will publish his fourth book, *Essentials of the Land of Israel: A Geographical History*. The companion volume to its predecessor, *Essentials of Jewish History: Jewish Leadership Across 4,000 Years*, is a comprehensive reference book that "foregrounds the most significant political and natural features of [Israel's] landscape and the major biblical and historical events associated with them." According to one reviewer, it's "perfect for the armchair traveller, the actual traveller, or the reader of the Bible who wants to add depth to the two-dimensional map."

TAYLOR MCCARTEN, MBA '19, has teamed up with UVic chemistry professor Harmen Zijlstra to help reduce smell and the presence of fruit flies in compost bins. Their product, BinBreeze, is a non-toxic deodorizing powder that reduces both the smell of compost waste and fruit flies by creating a mixture from minerals and waste products—wood waste, specifically. McCarten made an appearance on CBC's *The Dragon's Den* last winter, and accepted a partnership agreement with dragon Arlene Dickinson, the general partner of District Ventures Capital and CEO of Venture Communications, when she offered him $270,000 for 49 per cent of the company.

LAUREN MINOGUE, BCom '14, landed on *BC Business Magazine*'s 30 Under 30 list of the top young business professionals and entrepreneurs from across the province. The 29-year-old VP at Connor, Clark & Lunn Private Capital works with high-net-worth clients and also sits on boards of Social Venture Partners Foundation Vancouver and the Learning Disabilities Society of Greater Vancouver.

VICTOR NICOLOV, BEng '18, has come up with a disposal idea worth keeping. The founder and CEO of Anvy Technologies has invented a garbage disposal/composting solution called Sepura, which not only doesn't clog pipes like conventional garburators, but is environmentally friendly. The device grinds kitchen scraps and separates and collects the solids in an odourless bin under the sink ready for the compost. Sepura has already attracted the attention of *TIME* magazine, which included the invention on its Best 100 Innovations of 2020 list. Nicolov was recently featured in *BC Business Magazine*'s 30 Under 30 list of young entrepreneurs.

Brothers **ROSS RICH**, BCom '14, and **RYAN RICH**, BCom '15, recently landed $6 million in seed money to boost their San Francisco-based start-up tech firm, Accord. The platform aims to streamline and bring order to the unruly world of Business to Business (B2B) sales.

Future Ecologies, a podcast on climate change created by Mendel Skulski and science grad **ADAM HUGGINS**, BSc '18, has received international attention and praise since launching. This year, its eight-part series, *Scales of Change: A Field Guide to the Dragons of Climate Inaction*, earned one of the internet's highest honours with a Webby Award nomination in the Science and Education category. For more information or to listen to an episode, go to futureecologies.net.

Mendel Skulski and **ADAM HUGGINS** host the *Future Ecologies* podcast.

YUSUF SAADI, MA '16, has been shortlisted for the $65K Griffin Poetry Prize for his debut collection, *Pluviophile*, published by Nightwood Editions, which he wrote while completing his degree at UVic. One of *Pluviophile*'s poems, "The Place Words Go to Die," was the winner of *The Malahat Review's* 2016 Far Horizons Award for Poetry. In case you're wondering, a "pluviophile" is a lover of rain—someone who finds joy and peace of mind during rainy days.

PATRICK SHANNON, also known as Nang **K**'uulas, has co-founded Supernaturals, Canada's first Indigenous modelling agency. The Vancouver-based agency's focus is to celebrate and increase the representation of Indigenous people at the highest level across Canada and in the global market, in both the commercial and fashion world. In 2015, he graduated from the Indigenous Advancement of Cultural Entrepreneurship (I-ACE) program, delivered by the Gustavson School of Business.

PATRICK SHANNON

Inuk leader and 2016 UVic honorary degree recipient Dr. **MARY SIMON**, LLD '16, was appointed Governor General of Canada. Simon, who was born in Kangiqsualujjuaq, is the first Indigenous Governor General in Canada's history. Simon has devoted her life to achieving social justice for the Inuit and advocating for her peoples' participation in the environmental, economic, and

PHOTO BY PATRICK SHANNON

political decision-making processes that affect their lives. Her work, at the national and international level, has included her role as a senior Inuit negotiator during talks leading to the recognition of Aboriginal rights in the Constitution Act of 1982. She later served as policy co-director for the Royal Commission on Aboriginal Peoples. During her term as president of Inuit Tapiriit Kanatami (the national body representing Inuit in Canada) she developed and led the national Inuit Education Strategy. She is also the former chair of the National Committee on Inuit Education.

2020s

Syilx and Tsilhqot'in playwright **KIM SENKLIP HARVEY**, MFA '21, became the first Indigenous woman to win the Governor General's Literary Award for Drama for her play *Kamloopa: An Indigenous Matriarch Story*—less than a week after receiving her MFA from UVic Writing. "It's always been about amplification… about the fact that I just want people to read a play with characters of women who are full and funny and sexy and particularly brave and courageous in figuring out what it means to be Indigenous in this era," Senklip Harvey said in her acceptance speech. She started her PhD at UVic Law this fall.

DANITA BILOZAZE, MILR '20, became the first person to be issued a new passport under Canada's new name-reclamation policy. The new policy implements a recommendation from the Truth and Reconciliation Commission to allow residential-school survivors and their families to reclaim names changed by residential schools. The Indigenous educator experienced an emotional and frustrating nine-month journey to reclaim her Indigenous name. She received her Master of Indigenous Language Revitalization in 2020.

HARSH RATHOD, PhD '20, has been tapped by *BC Business Magazine* for its annual 30 Under 30 list, which recognizes top young business professionals and entrepreneurs from across the province. Rathod is the co-founder and CEO of Niricson Software. Niricson, which means "inspection" or "detailed investigation" in Sanskrit, is a data-analytics business that makes infrastructure inspections faster, cheaper, safer and more accurate—with drone software and signal processing to detect subsurface damage.

What's New With You?

Be in the next Class Notes. Send news and photos to: torch@uvic.ca

Farewell

CAMERON CHRISTIE, BEng '05, passed away Dec. 16, 2020 from a glioblastoma brain tumour. After graduating from UVic, Cameron moved to the Silicon Valley, where he was employed by Volkswagen Electronics Research Laboratory. He was then headhunted by Tesla, where he led the team designing the infotainment screen found on all Teslas. He eventually became head of electronics at Aurora Innovations from 2017 to 2020, designing the platform for the autonomous car. Known for his intelligence, determination, ingenuity, perseverance and sense of humour, Cameron, who is predeceased by his father, David Christie, leaves behind his mother Susan, brother Kyle, sister Noelle, wife Melanie, children Isla and Callum, aunts, uncles, cousins and many friends.

IAN G. THORNTON, BSc '68, MSc '88, passed away May 22, 2021. Born in Bristol, England, he and his family moved to Kirkintilloch, Scotland when he

IAN G. THORNTON

was a boy and then to Powell River, BC, when he was a teen. Always passionate about the natural world, Thornton earned his Bachelor and Master of Science at UVic and spent 40 years as a senior lab instructor there, inspiring hundreds of students who passed through his biology labs. The poetry of Robbie Burns, classical music, cooking, travel, photography and good scotch were among his many interests. He travelled extensively in his retirement and volunteered with the Horticultural Centre of the Pacific and the Shaw Centre for the Salish Sea. He cherished his family and friends, and they sustained him through 10 difficult

MARILYNNE CONVEY

years after a devastating stroke. Ian is survived by his wife, Carol, children Claire (Ryan), Nick (Laura), grandchildren Ewan and Maggie, sister Jeanne and nephews, niece and cousins.

MARILYNNE CONVEY, BSc '87, passed away Nov. 14, 2020 from aplastic anemia. After UVic, Convey continued her studies with a Masters of Science in Nursing from UBC in 1993. During her nursing career, she held leadership positions in the Vancouver Island Health Authority's Home Care and Residential Care Programs as well as the Professional Practice Office. She travelled to Scotland and Australia studying models of care, incorporating what she learned in overseeing the planning, building, staffing and management of Heritage Woods, a small home-like model of care for persons with dementia. In addition to her dedication to the nursing profession, she enjoyed curling, hiking, bridge, decorating, gourmet cooking, buying shoes and volunteering. She and her husband were involved in the local Hallmark Society, garnering an award for the restoration of a 1912 home on Cavendish Street in Oak Bay. Convey is survived by Paul, her husband of 57 years, daughters Cindy, Shawna and Krista, and their spouses, and four grandchildren. And, not to be forgotten, her faithful canine companion, Sadie.

On July 15, 2021, **LLOYD DAVIES** passed away peacefully at the age of 93. A graduate of Victoria College in 1946, Davies worked for the family business, Spencers Stores, starting at age 14 sweeping floors and stocking shelves. He and his brother, Spencer, continued to grow the business over the next 40 years with locations on Douglas Street and Government Street, until closing the doors for the last time in March of 1986. Davies enjoyed being on the water and was a long-time member of the Victoria Yacht Club. His last days were spent with the comfort of his wife and family around him. He is predeceased by brother Dennis, and survived by his brother Spencer Davies and family, his wife of 66 years Margaret Davies, his children Brad (Nancy), Wendy (Brian), Chris (Cathy), Lynn, and Joy (D'Arcy), and grandchildren Jill, Bek, Mark (Haley), Taleah (Aaron), Savannah, Lydia and Emylia.

Long-time UVic alumni board member **JOY BARRETT** passed away in July at the age of 94.

Once described in these pages as "the good-humoured matriarch of the alumni board," Barrett attended Victoria College from 1945 to 1946 when classes were held in Craigdarroch Castle and she would take the streetcar from the family home in Vic West.

After Second World War veterans began returning home and the college reached capacity, classes moved to the more spacious Lansdowne campus, which also housed the Victoria Provincial Normal School, where Barrett took her teacher training. Her first teaching job was in Duncan in 1947, but most of her career was spent in elementary schools in Victoria, including Sir James Douglas and Willows, until she retired in 1987.

Barrett was membership secretary and past president of the Victoria College Craigdarroch Castle Alumni Association and represented the Victoria College Alumni Chapter on the UVic Alumni Association board beginning in 2009. Over the years, she attended some 52 alumni events and played an integral role in helping organize and emcee nearly two dozen "Lunch and Learn" events featuring talks by UVic researchers and grad students. Past alumni board president Brian Cant says Barrett loved to share stories about growing up in Victoria and was fiercely proud of her two grandsons. Cant and his husband also had the privilege of being Barrett's "dates" for a number of alumni events.

JOY BARRETT

"Obviously, the height difference was pretty comical, especially as she got shorter over time," Cant says. "She was never shy to take your arm and say some sort of flirty comment as a grandmother can do. She was a great date. The only challenge of having her as your date was she would wander around and talk to everybody, so you'd have to find her." Cant says Barrett instilled in the board the notion "that you have to put the time in to get the results."

Brian Cant and Joy Barrett on one of their "date nights."

"That's how she approached the board and helped us approach the board. But, also the importance of continuing to volunteer for things well past retirement. Being involved with the community doesn't stop when you retire."

Barrett is survived by her son Bill, his wife Shellie, and her two grandchildren Andrew and Ian.

The Confusion of Colonial Ceremonies

Acclaimed writer and recent UVic grad Kim Senklip Harvey recalls her life to date in ceremonies—and lineups, many lineups.

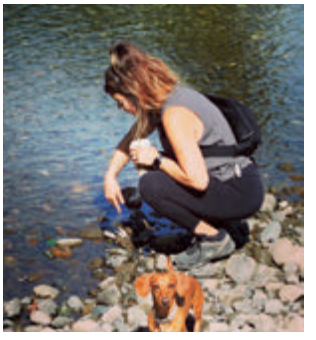
BY KIM SENKLIP HARVEY, MFA '21

At my kindergarten graduation, the teacher gave us a certificate and a penny to "start our future wealth." I wore a Minnie Mouse dress, styled it with my Sally Jessy Raphael glasses, frilly socks, Shakespearean bob cut and topped it off with an expression of disappointment… or maybe it was fear. This photo has become I dare say "iconic" with my friends and family, an emblem of my hilarious discomfort with the ceremony of "completing" an education. It's a totem of what I now understand to be my discomfort with colonial ceremonies. Or I could just be mad that I would no longer get to see my cute, kind and freckled BF Ian every day and that I rather enjoyed the happenings of the garden of kinder, and I didn't appreciate this notion of having to move on.

Either way, this first graduation started a series of marks on my spirit from the confusing completions of colonial education systems. There was the kindergarten penny (like really, they couldn't give us a nickel?). Then there was Grade 7 graduation, where we spent what I remember as hundreds of class hours using the projector to outline our faces, cutting them out of construction paper and Scotch taping them to the gym walls to create a 2D dirtbag suburban bust gallery. Then there was Grade 12 graduation, where we commemorated our maturation into adults by renting inflatable bouncy castles and secretly drinking Malibu rum out of Gatorade bottles in a stinky community centre bathroom with our parents babysitting us in shifts.

There was so much drama infused into these ceremonies, but I craved guidance on what they meant. The most important and cherished element of these colonial ceremonies seemed to be the sacred act of lining up. So many lineups, so much waiting to just strut, shuffle or prance (player's choice) for 20 to 30 seconds across a stage. I was a shuffler, or maybe a jokester, or both. For my Grade 7 graduation I decided to dress like Jack Nicholson if he was a farmer. I wore blue sunglasses and shorteralls with a baby blue polyester bowling shirt. This was my attempt to "screw the system" and undermine the expectation that I had to wear a rayon flower dress from Mariposa.

But what might just be my most comfortable graduation ceremony to date occurred this past May when I completed my MFA in Writing at UVic. There was no in-person ceremony due to COVID, so I was mailed what looked like a UVic pizza box with a grad cap, pen and a lil banner that I think read "HOORAY." I opened it up at the kitchen table with my Ma and Pa, deeply grateful for their witnessing. I took a deep breath and exhaled the joy of this moment and the pain of two educations stolen from the smartest people I know.



Top: **KIM SENKLIP HARVEY** with her award-winning play, *Kamloopa*. Left: Harvey is less than certain about Kindergarten graduation. Above: A water ceremony on the Tsilhqot'in.

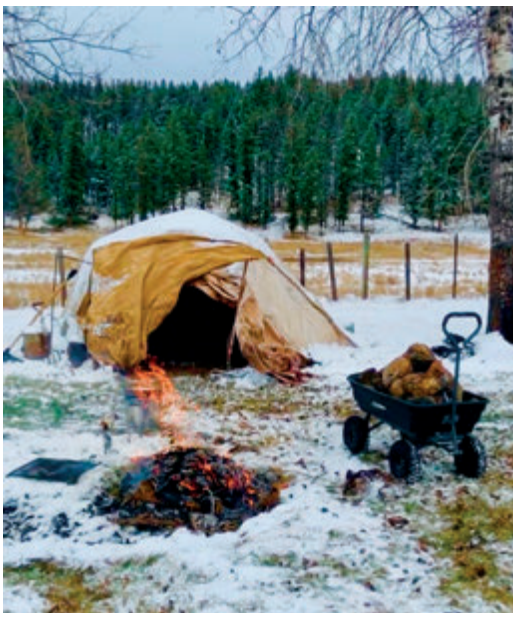
COURTESY OF KIM SENKLIP HARVEY

They said "We're proud of you." I pushed past the anger and let their courageous love into my heart, then jokingly put my grad cap on Pa, grabbed my master's pizza box and shuffled upstairs. My Ma yelled "Should we take a picture?!" and I yelled back "*Naaaaa,* another time." This has yet to come—and I like it. I like that the totem is the feeling of that moment.

The ceremonies I understand the most are the ones I participate in with my family and peoples on my territories that centre around nourishing our spirits and relations. The ceremonies that help me prepare for what will be my greatest and final graduation, when the teachings of this life are determined to be complete, and I do my last shuffle in this world to my final resting place. Until then, I will eagerly and good humouredly continue to collect the pennies, the busts and pizza boxes with great reverence, love and a bit of confusion.

Sechanalyagh, limelet.

Kim Senklip Harvey is a writer, director and actor from the Syilx, Tsilhqot'in, Ktunaxa and Dakelh Nations. Her play, *Kamloopa: An Indigenous Matriarch Story*, won the 2020 Governor General's Literary Award for English-language drama. She earned an MFA from UVic and is currently pursuing a PhD in Law at UVic. She loves Cheezies and questions.



Top: The author's family sweatlodge on Tsilhqot'in territory. Below: A view the author describes as "from my rez, Tl'etinqox."

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Orange Shirt Day

The University of Victoria community commemorated Orange Shirt Day with events throughout the week of Sept. 27, both on campus and online. This year, Sept. 30 was designated by the federal government as the National Day for Truth and Reconciliation, a way to honour former residential-school Survivors and their families.

UVic raised more than $60,000 for Orange Shirt Day initiatives through sales of the 2021 T-shirt designed by Carey Newman Hayalthkin'geme (Kwakwaka'wakw/Coast Salish).

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