

The University of British Columbia MAGAZINE



**WHAT DOES HEALTHY
AGING LOOK LIKE?**

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PRESIDENT'S HIGHLIGHTS



Dr. Benoit-Antoine Bacon reflects on the people and places shaping UBC.

MOST OF OUR new undergraduate students coming to UBC this fall were born in 2007! By the time they are raising families, Canada will have added about three million seniors to its population. According to Statistics Canada, nearly one in four Canadians could be 65 or over by 2043. This demographic shift will reshape our healthcare and economy, and it raises a pressing question: How can we ensure that longer lives are also healthier, more independent, and more fulfilling?

At UBC, we believe the pursuit of knowledge is inseparable from the pursuit of a better life. Central to that mission is addressing the world's most pressing challenges – such as caring for our aging population and adapting our systems to meet their needs. This priority is also embodied in our FORWARD fundraising campaign, where fostering “healthy lives” stands as one of three core pillars.

This commitment came to life for me this summer during a visit to the Blusson Spinal Cord Centre, home of the International Collaboration on Repair Discoveries (ICORD). Based at Vancouver General Hospital, ICORD is a spinal cord injury research centre of the UBC Faculty of Medicine and Vancouver Coastal Health Research Institute. Touring the facility with Dr. Brian Kwon (PhD'04), ICORD's director, and the great Rick Hansen (BPE'86, LLD'87) – a UBC graduate and friend to the university – we met researchers, clinicians, students, and patients working together to make spinal cord injury preventable, livable, and curable.

Spinal cord injury research is, at its heart, research into healthy aging. An injury can limit mobility and independence at any stage

of life, but these challenges can become more pressing as people grow older. ICORD's work is about more than medical innovation. It is about ensuring that people with spinal cord injuries can remain active, independent, and socially connected throughout their lives. You can read more about ICORD's important work on page 48.

At UBC, we understand healthy aging in line with the World Health Organization's definition: the process of maintaining the functional abilities that enable wellbeing in older age. Healthy aging does not simply mean being free of disease, although preventing illness and injury is important. It means having the capacity to do what you value and to live with dignity, independence, and purpose.

ICORD is just one example of UBC's commitment to healthy lives. At the Edwin S. H. Leong Centre for Healthy Aging, researchers are taking a life-course approach – looking across the entire lifespan to identify the best opportunities to intervene. Led by Dr. Michael Kobor, a global expert in epigenetics – the study of how our environment and life experiences affect the way our genes are turned on or off – the centre brings together experts across the fields of medicine, the social sciences, and the natural and applied sciences, with the goal of helping people remain healthier for longer into their later years.



Rick Hansen at the Blusson Spinal Cord Centre this summer. Photo: Martin Dee

Building on this work, many other UBC researchers are advancing healthy aging from multiple perspectives. At the Djavad Mowafaghian Centre for Brain Health, scientists are advancing research into Alzheimer's disease and dementia, while the Aging, Mobility and Cognitive Health Lab is defining the role of exercise in promoting brain health and mobility. And at UBC Okanagan, the Aging in Place Research Cluster is developing supportive technologies to help older adults maintain independence and social connection.

These examples remind us that healthy aging is not a single field of study, but a shared challenge across the university and society. Healthy aging touches all of us, whether as individuals, families, or communities. At UBC, we have the talent and skill to bring the best of our teaching and research to this challenge, so that every generation can live with dignity and purpose.



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Editor's Note



GOLDEN YEARS

Tech billionaire Bryan Johnson is said to be spending an estimated two million dollars per year on slowing down his aging. He is attempting to control – even reverse – his biological age by using advanced medical science. The title of a Netflix documentary released this year about Johnson's project is more explicit about his goal – *Don't Die: The Man Who Wants to Live Forever*.

It depicts a regimented life of rigorous exercise and precise nutrition, a piñata's worth of daily supplements, and forays into treatments such as plasma exchange and gene therapy. His team regularly measures the biological age of his organs and feeds the data into an algorithm, which tells them how to tweak his protocol for optimal results.

To some extent, Johnson's project reflects the legitimate and peer-reviewed healthy aging research underway at universities like UBC. Here, researchers are seeking not only to treat or cure age-related diseases, but to understand the mechanisms of aging at the cellular, genetic, and molecular levels, and to approach aging as a lifelong process that starts in the womb. Their aim, too, is effective intervention: to delay or prevent the diseases and functional decline that can accompany aging.

But unlike Johnson, who seems focused on living indefinitely, their objective is to support people in living healthily and independently for as much of their lifespan as possible. This is a good thing not only for individuals but for entire societies as they grapple with how to prepare for rapidly aging populations. Researchers are also paying more attention to the social, psychological, and environmental determinants of health and how these influence the aging process. Their findings can guide public policy for the benefit of everyone – addressing everything from air pollution (which has been linked to Alzheimer's – see page 10) to the provision of more robust community services.

Because Johnson's anti-aging protocol and supplements are available for purchase, his motives have been questioned: Is he a walking experiment or a walking advertisement? But the language he uses suggests another motive: a fear of aging itself. He talks about "neutralizing" aging, about being "in a fight for our lives, with ourselves." He's worn t-shirts emblazoned with the slogan "Don't Die." He invites us to become "the next era of human."

And that could be where his approach is lacking. Western cultures in particular tend to venerate youth while dreading and disparaging old age. Yet research has shown that our attitudes towards aging – including our own aging – can be powerful determinants of our health and longevity (see page 20).

Beyond medical interventions and lifestyle choices, it would seem one of the most effective things we can do to promote healthy aging – as individuals and as a society – is the simplest: to accept aging as a natural part of the life cycle, and to have more respect for our future selves.

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ABOUT THE MAGAZINE

The University of British Columbia Magazine is published two times a year in print by the UBC Alumni Association and distributed free of charge to UBC alumni and friends. Opinions expressed in the magazine do not necessarily reflect the views of the Alumni Association or the University.

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Volume 81, Number 2

Printed in Canada by Mitchell Press
Canadian Publications
Mail Agreement #40063528

Return undeliverable

Canadian addresses to:

Records Department
UBC Development Office
Suite 500 – 5950 University Boulevard
Vancouver, BC, Canada V6T 1Z3

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THE GLOBE AND MAIL

CONTENTS

6 An aging world

Are we prepared?

10 Born to age

How life experience affects the aging process.

14 Home, smart home

The novel devices supporting aging in place.

20 The last “acceptable” prejudice

Why ageism is bad for our health.

23 Age-friendly universities

UBCO welcomes older learners and collaborators.

26 Alzheimer’s resilience

Why do some people have the pathology but not the symptoms?

30 The social prescription

When community support is the best medicine.

32 A new chapter in women’s health

Menopause research is long overdue.

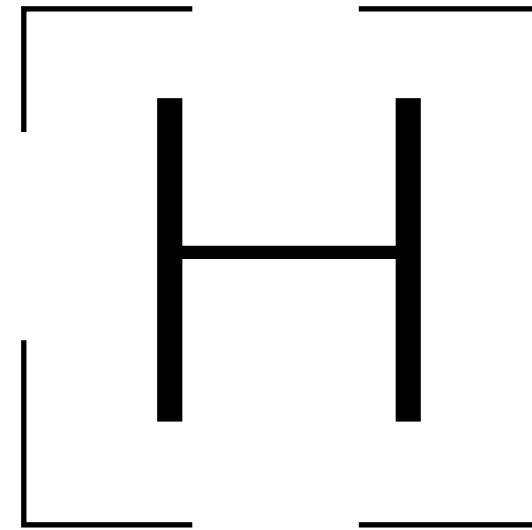
Healthy Aging

By mid-century, it’s projected that about one quarter of Canadians will be at least 65 years old. More people living longer is a triumph of modern times, but those extra years need to come with good health, independence, and wellbeing. Find out how science and innovation are redefining what it means to grow old.

An Aging World

Aging populations are a societal achievement, says a UBC sociologist, but sustaining them requires new ways of living, working, and caring.

BY RICHARD LITTLEMORE



HERE'S THE GOOD NEWS: It's highly likely that most of us will live much longer than previous generations. And here's the complication: During all those bonus years, we're going to be "elderly," a state of being that is loosely defined and poorly understood. Given that a daunting percentage of us are all about to be elderly at the same time, it's also a state for which our society is surprisingly unprepared.

That's the news as filtered through the long lens of UBC emeritus professor of sociology Anne Martin-Matthews. Dr. Martin-Matthews has been an avid student of the sociology of aging since pursuing her MA and PhD at McMaster University. In Hamilton she discovered the inspirational Dr. Victor Marshall, who in 1971 co-founded the Canadian Association of Gerontology. She also happened to be rooming with an elderly widow to whom she grew close. The pieces fit to spark her interest and form the foundation of a long career in the field, of which she is now a respected elder.

For example, while scientific director of the Institute of Aging of the Canadian Institutes of Health Research, Dr. Martin-Matthews led the strategic development of

the Canadian Longitudinal Study on Aging (CLSA). Launched in 2010, the study is following over 50,000 participants aged 45 to 85 at recruitment for 20 years. The data collected, says the CLSA, is "allowing researchers to answer critical questions on the biological, medical, psychological, social, lifestyle and economic aspects of aging, disability and disease."

Now 74, Dr. Martin-Matthews finds herself in the midst of the population she has been studying her whole career: "I have become what I have been teaching." It is, she says, a moment of great professional fascination, and she quotes the Oregon State University gerontologist Jon Hendricks, who wrote in a 2008 paper, "Those of us who study aging have the unique opportunity to live their subject matter," adding that "personal experience can make us far better scholars than can scholarship alone."

But even up close the subject is elusive, says Dr. Martin-Matthews, beginning with the word "elderly," which she calls "an ultimately meaningless term, homogenizing an entire population that can span 30 to 40 years or more." The statistics are on her side. In 1900, the average life expectancy in the world was 32, and in Canada about 50. Yet the United Nations reported in the *UN Decade of Healthy Ageing (2021-2030)* that people who turned 60 at the start of the decade could expect to live another 22 years. And that's a global average. For an increasing number of citizens in privileged democracies, it could be another 30 or 40 years. In their 2016 book, *The 100-Year Life*, London Business School professors Lynda Gratton and Andrew J. Scott estimate that babies who were born in 2011 have a one in three chance of living to 100 if they are female and a one in four chance if male. As Dr. Martin-Matthews says, "It becomes a substantial proportion of your lifespan."

On an individual basis, the additional years sound positive. But as the Baby Boom bulges into that elderly demographic – and as birthrates decline sharply in developed countries – the fact of population aging comes with significant social implications. Globally, the number of people over 60 is expected to comprise 22 per cent of the world population by 2050, up to 2.1 billion from 1.4 billion today. And well over 400 million of them will be over 80. Without an equal or larger population of younger people to work, pay taxes, and provide care for those elders, there could be an insupportable strain not just on the social safety net, but on the global economy.

Stats Canada projects the number of people over 65 in this country could climb to more than 11 million over the next 25 years under a medium-growth scenario – almost one quarter of our population.

Dr. Martin-Matthews says there is a looming crisis in the funding of Canadian healthcare and a lack of preparation for population aging at the societal level. Cancer is one example – a disease that increases in prevalence with age and is expensive to treat. On this topic, she refers to the journalism and advocacy of *Globe and Mail* health columnist André Picard, who wrote in 2023, "The Baby Boom started more than six decades ago. That the incidence of

cancer would grow has been widely known for years. At some point, we have to stop pretending that the aging of the population, and the shift in care that needs to accompany it, are a surprise. We have to be aggressively proactive, not pitifully reactive.”

Of course, the very fact of an aging population attests to the progress already made in pursuit of healthy aging, both from technological advancement and from improvements in preventative care. Even while the healthcare system – and many researchers – continue to focus on treatment and cures for sickness and disease, there has been increased attention on the gains that can be made from lifestyle choices and from tracking the social determinants of health.

Dr. Martin-Matthews says there are definitely solutions, as modelled in countries such as Denmark and Finland, which are making progress in the creative provision of home care. In Denmark, for example, homecare workers traditionally offer home visits twice a year to everyone over 75. Even if some people do not need a visit, this population-based approach allows care providers to identify broad issues and to actually reduce health expenses by heading off unanticipated problems.

But, Dr. Martin-Matthews says, the potential responses are tough in Canada. Unlike Australia, New Zealand, or most countries in Europe, healthcare delivery in Canada is divided up among 13 provincial and territorial jurisdictions. This contributes to an environment full of research and innovative ideas, but often little capacity to turn them into active policy solutions. For a deeper explanation of that failing, Dr. Martin-Matthews invokes the former federal minister of health Monique Bégin, who co-wrote a 2009 article in the *Canadian Medical Association Journal*, saying: “When it comes to moving healthcare practices forward efficiently, Canada is a country of perpetual pilot projects. We seldom move proven projects into stable, funded programs, and we rarely transfer the outcomes of pilot projects across jurisdictions.”

On the larger question, though, of whether an aging population constitutes a crisis or an opportunity – even “a societal achievement” – Dr. Martin-Matthews says, “An age-friendly society is better for people of all ages.” Aside from setting a more humane example for the whole population, she points out that accommodations or protections that serve older people are also there to benefit everyone else. On the mobility front, for example, she says that better accessibility on public transit



DR. ANNE MARTIN-MATTHEWS, OC

Emeritus professor in the Department of Sociology and former AVP of Health at UBC; former scientific director of the Institute of Aging of the Canadian Institutes of Health Research (CIHR).



RESEARCH FOCUS

Topics within the sociology of aging, including health and social care services; aging and life course; and intersections of formal and informal care, especially involving the nexus of public and private spheres.



SIDE SERVINGS

In recognition of her career-long commitment to mentoring trainees in aging research, the CIHR created the Anne Martin-Matthews Doctoral Research Prize of Excellence in Research on Aging in 2012. It is awarded every year to a top-ranked doctoral student in aging in Canada.

helps everyone who can’t or doesn’t want to drive; curb cuts on sidewalks for older people or wheelchair users benefit parents with baby buggies; and longer lights at intersections allow the old *and* the young a better chance of making it to safety before the light turns red.

On the prospect of aging itself, Dr. Martin-Matthews is an optimist, at the ready with reasons for facing later life with less trepidation. For example, she points out the common view that dementia cases are increasing, which is true in hard numbers precisely because the number of older people is increasing. But, she says, there has actually been a decline in the proportion of older people with dementia worldwide.

This trend is most pronounced in wealthy countries: Harvard University research has shown that over the past 30 years, the likelihood of dementia in people of European ancestry living in the United States and Europe has declined an average of 13 per cent every decade, likely thanks to improved healthcare and nutrition.

There are also age-related issues like retirement. While some people are eager to leave the workforce early (and want their retirement benefits assured), others are happy in their jobs and don’t want to be pushed out the door. Dr. Martin-Matthews points out that the move against mandatory retirement came not from employers who wanted to keep workers at their tasks, nor from governments or pension funds trying to delay payment, but from workers who wanted to stay in their jobs. Specifically, a group of UBC professors fought their case all the way to the Supreme Court of Canada, which ruled in 1990 that the university’s mandatory retirement policy was unconstitutional. However, the court also ruled that the policy was a reasonable limit to the Charter of Rights and Freedoms, and it stayed in place until 2010, when BC finally prohibited age discrimination in employment. Today, an increasing number of healthy people in the growing older demographic can continue making a contribution, rather than being forced into inactivity.

Globally, researchers and policy-makers are also seeing a silver lining in the workforce participation of a healthy older cohort. A recent research paper for the International Monetary Fund suggests: “Healthier aging could... boost labor supply by extending working lives and enhancing older workers’ productivity, offering a bright spot amid the rise of the silver economy.” For example, the IMF reports, “Data



Photo: Martin Dee

from a sample of 41 advanced and emerging market economies indicate that, on average, a person who was 70 in 2022 had the same cognitive ability as a 53-year-old in 2000.” That change has led to a 20 per cent increased likelihood that individuals will stay in the labour market, with an average six-hour weekly increase in time worked and a 30 per cent rise in labour earnings.

Dr. Martin-Matthews herself took retirement last year, but, she says, “It’s mostly a change of my financial relationship with the university.” That is, like other people of a certain age who aren’t keen to give up jobs they love, she is still working on initiatives of interest to her – still eager to contribute – but no longer being paid as before. Dr. Martin-Matthews is okay with that transition, which she says is not so much a retirement as a “reirement.” She gets to adjust her pace but still

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~ DR. ANNE MARTIN-MATTHEWS**

embrace a hard-earned opportunity to live out the details of her academic study, and take advantage of a new and more intimately informed perspective.

In that regard, Dr. Martin-Matthews says she has always been fond of a quote attributed to the philosopher Søren Kierkegaard: “Life can only be understood backwards; but it must be lived forwards.” Now, though, she gets to edit Kierkegaard, at least to the extent that she can look back critically and more knowledgeably on her own research to see what she might not have seen before, and to use her personal experiences to help identify gaps in theory and practice – ultimately, “to understand our aging.”

BORN TO AGE

We can't stop the clock, but our life experiences influence how fast it ticks – and how long we stay healthy.

BY CHRIS CANNON
ILLUSTRATION BY SEBA CESTARO

FOR MOST OF human history, aging was an inevitable and inscrutable process – a slow unravelling that began after reaching adulthood and ended, if you were lucky, somewhere north of your 40s. And while today's generations can expect to live a good deal longer, those extra years are not necessarily healthy ones.

This growing mismatch between the number of candles on the cake and the number of days we feel well has sparked a shift in how scientists think about aging.

"A lot of people use 'aging' as a bad term, but it doesn't have to be," says Dr. Michael Kobor, UBC professor of medical genetics and director of the Edwin S.H. Leong Centre for Healthy Aging at UBC. "It's not about being able to live to 95 and possibly spending the last five years in declining health and dependent on healthcare services. It's really about closing that gap between the lifespan and the healthspan to enjoy those last few years as much as possible."

Dr. Kobor is a specialist in the relatively new field of social epigenetics, studying how life experiences, environmental factors, and behaviours shape the way our genes are expressed over time. If our DNA is the script, epigenetics is the director, deciding which lines get read and which stay silent. At the centre of this work are "epigenetic clocks" – innovative tools that measure biological age based on DNA methylation, a kind of molecular tag that accumulates over time. These clocks offer a new way to determine age, estimating not how old you are in years, but the actual rate at which your body is changing.

"You might have just turned 40, but because you live such a healthy lifestyle, your epigenetic age might be 35," explains Dr. Kobor. "That's generally a good thing. But if your epigenetic age is 50 and your chronological age is 40, that would suggest that perhaps your cells are showing signs of age earlier than expected."

The study of epigenetics is breaking new ground in how we approach age-related conditions such as Alzheimer's and dementia – not as issues to address as they occur, but as lifelong accumulations of environmental factors (such as social status and air quality) and habits (such as diet, drinking, and smoking). One of Dr. Kobor's former post-doctoral researchers, Dr. Anke Huels, recently published a study on Alzheimer's patients that found negative epigenetic changes as a result of air pollution. "That's consistent with what we know from epidemiology," says Dr. Kobor. "If you live in areas with high levels of air pollution, it accelerates dementia. Her work suggests there is an epigenetic association as well."

Many of the epigenetic changes that shape our health trajectories begin in the womb and continue throughout life. This means earlier interventions – from prenatal care to income support – may be as important for healthy aging as late-in-life medical treatments, helping us not to live forever, but to live well.

"Part of how the Leong Centre distinguishes itself is that we take a life-course perspective on healthy aging," says Dr. Kobor. "Epigenetics is a great example of this general paradigm, in that it's a continuum of lasting

changes in the expression of your genes. These changes can happen in the womb and for the rest of our lives, shaping the way we age. There's some really fascinating work coming out that spans that arc between early-life environments and lifelong health."

While there are actions individuals can take to slow down epigenetic aging, there is far greater potential in using the research to influence public policy, bringing about societal changes that increase the healthspan for everyone. "There's this idea of social determinants of healthy aging if you look across the spectrum of societies," Dr. Kobor explains. "People in marginalized communities often age more quickly – not because of poor choices but because of inequities like poverty, discrimination, food insecurity, and environmental exposures. It's not helpful to tell someone who has to work multiple low-wage jobs to get by to 'just eat better or exercise more.' Real improvements come from policy changes that support people in meeting their basic needs, which then makes healthy choices possible."

With members from nine faculties and 25 departments, the Leong Centre extends far beyond epigenetics, embracing a holistic approach to explore the complex processes and factors involved in aging. By looking at aging as a whole rather than isolating individual diseases or contexts, the centre aims to achieve broader, more transformative impact.

Dr. Kobor's team, along with several other multidisciplinary investigators from the Leong Centre, is currently working with the Canadian Longitudinal Study on Aging, which has collected DNA samples from more than 26,000 Canadians. By linking these biological markers with lifestyle and environmental data, they're beginning to paint a clearer picture of how factors like housing, income, and community shape the pace of aging.

But it's long-term work. To study changes in individuals and populations across lifespans takes generations of accumulating and analyzing data – and translating those findings into policy or interventions is its own challenge, subject to the whims of funding and political will.

Over time, these avenues of research may shift how we define healthcare, helping us understand aging not just as a medical issue, but as a social and structural one. "If we can make it clear that the environments we create – through policy, through community supports – influence aging from before birth and across the life course," Dr. Kobor says, "then maybe we can build a society that's healthier and more equitable, helping us close the gap between the years we live and the years we thrive."

The development of the Edwin S.H. Leong Centre for Healthy Aging was supported by a 2018 gift from the Tai Hung Fai Charitable Foundation. The vision of the donor, Dr. Edwin S.H. Leong (BSc'73, LLD'19) is to enhance the quality of living for older adults in communities around the world. Dr. Leong is also an Honorary Campaign Chair with FORWARD, the campaign for UBC.



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HOME, SMART HOME

The novel devices helping older adults to age in place.

BY JARED DOWNING
PHOTOGRAPHY BY KAI JACOBSON

ACTOR BETTE DAVIS once said, “Getting old ain’t for sissies.”

That adage applies to a growing number of older Canadians for whom simple tasks like walking, shopping, reading, and even remembering to take their pills can become Herculean feats.

It also applies to their children, spouses, friends, and others struggling to care for the people they love in their golden years.

But what if instead of being confined to a nursing home or wheelchair, an older adult with mobility issues could strap on an AI-powered robot suit and go about their day?

It’s not as far-fetched as it sounds: Engineers and clinicians at UBC are helping develop robotic exoskeleton technology that allows people to stay mobile. It’s just one of a brand-new generation of cutting-edge devices that are transforming our relationship with Father Time.

“This is happening now. This is not futuristic,” says Dr. Janice Eng, a professor in the UBC Department of Physical Therapy.

As co-director for the Centre for Aging SMART at Vancouver Coastal Health, Dr. Eng works with engineers and clinicians to develop tech-based solutions that help people maintain their health and independence as they age.

“We’re trying to keep people in their own homes longer, with a higher quality of life,” she says.

For most of us, independence is a top priority as we age. Ninety-six per cent of Canadians over 45 want to age in place, according to a recent survey by the research firm Ipsos. Nine in 10 respondents said they would prefer having an in-home caregiver to moving into an assisted-living facility. Only six per cent, however, reported both having planned for a caregiver and having the economic means to employ them.

But the solutions Dr. Eng and her colleagues are developing are meant to make aging in place achievable for anyone. These include clothes lined with biometric sensors that gather long-term data to track the onset of illnesses such as Parkinson’s disease and diabetes.

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For example, Dr. Eng is collaborating with UBC professor of engineering Peyman Servati on a smart glove that can monitor grip strength and hand dexterity. It could help track things like the onset of motor-function loss or the recovery process for stroke patients. They are working with Dr. Servati’s local startup, Texavie Technologies, to advance the glove’s development and bring it to market.

Other devices assist with basic day-to-day tasks, such as a pill dispenser that helps people take their medications on time. One project uses Wi-Fi routers to monitor what people are doing in their homes.

“If you can imagine that your mom is living in the next city, but you had some reassurance that she’s doing okay – that she’s got breakfast, and she’s gone for a walk, now she’s back, she hasn’t fallen – that could really mean a lot for you, as a caregiver,” Dr. Eng says.

Many of these technologies are surprisingly far along. The aforementioned robotic exoskeletons are already in use in hospitals. The technology was originally developed by the military to help soldiers lift heavy objects; they use the same stabilization technology in Segway scooters to keep the wearer from falling over. The exoskeletons can help people with partial paralysis stay on their feet – and even see permanent healing.

“We’ve found that even when they remove the device, they are actually able to have better mobility and better walking,” Dr. Eng says. The robotic exoskeletons aren’t cheap – they cost around \$80,000 right now, but advances in 3D printing are making them more affordable.

The end goal is to allow anyone to have access to the quality of care at hospitals and assisted-living facilities without leaving their own homes, Dr. Eng says. Unfortunately, a given device’s transition from the hospital to a home setting takes longer than one might think.

“The technology and engineering is one thing, but you also have to design for the human factor,” explains Dr. Calvin Kuo, a professor of biomedical engineering at UBC.

Along with Dr. Eng, Dr. Kuo co-leads Care Anywhere, a graduate program sponsored by the Centre for Aging SMART that provides students from various disciplines with hands-on experience applying smart biosensors to promote healthy aging and transform healthcare.

Dr. Kuo knows better than anyone that no design, however ingenious, survives first contact with a user. He uses the example of fall detectors. The technology has come a long way since the heyday of Life Call (with the iconic “Help, I’ve fallen and I can’t get up!” TV ads from the late 1980s). The next generation of fall detectors will use accelerometers in bracelets, pendants, or even one’s smart watch or phone to detect when someone has taken a tumble and automatically call for help.

“The challenge is not so much that the fall detectors work or don’t work. The challenge is how people use it,” Dr. Kuo explains.

“The historical fall detector is a pendant, like a necklace, and it works if you’re wearing it as a pendant, but not everyone does. There are a lot of people who will stick that thing in their pocket and just walk around with it. Same thing with their watch or phone. The fall detection inherently is not bad. The problem is that people are wearing these sensors willy-nilly.”

But Dr. Kuo doesn’t blame the users; he believes it’s up to him and his colleagues to make devices work for people, not vice versa. “That’s step number one: to understand that there’s a lot we can’t control, out in the real world,” he says. “And that’s going to influence how we design a lot of our technologies.”

The problem is worse for older adults with dementia and other neurocognitive decline – and therein lies an entirely different challenge. Physical problems have proven to be the easiest to address, but devices that address mental decline are far more nascent. There have been breakthroughs. For example, one method uses machine learning to track changes in how fast people type on their phones and catch signs of dementia. But these aren’t direct measures of brain activity.



“There are a few wearable technologies that are essentially brain wave measurements, like electroencephalography (EEG), but they’re not very common. I think that is one big gap, at least in the healthy aging space,” says Dr. Kuo.

But there is one major breakthrough that has supercharged basically every aspect of healthy aging tech: artificial intelligence. The robotic exoskeletons use machine learning to track and predict people’s movement patterns. The biometric sensor-laden clothes and accessories use AI algorithms to track

What if, instead of being confined to a nursing home or wheelchair, an older adult with mobility issues could strap on an AI-powered robot suit and go about their day? It’s not as far-fetched as it sounds. Engineers and clinicians at UBC are helping develop robotic exoskeleton technology that allows people to stay mobile.

One application of the “smart glove” is to track, capture, and wirelessly transmit the hand and finger movements of stroke survivors during remotely conducted rehabilitation exercises. It incorporates a sophisticated network of highly sensitive sensor yarns and pressure sensors that are woven into a comfortable stretchy fabric, enabling it to detect even the smallest movements.



subtle trends in someone’s blood pressure, heart rate, dexterity, and sleep.

“Pretty much all the applications we’ve discussed are using AI,” Dr. Eng explains. But when it comes to developing technology for older people, the greatest asset is the younger ones. UBC’s Care Anywhere program, which

finding solutions to all of these problems,” Dr. Eng says – problems that almost all of us and those we love will face at some point.

Dr. Kuo tells of a recent episode in which his mother-in-law fell and sustained a fracture. He and his wife were on hand, and she was fine in the end, but it could have gone far worse. “If we hadn’t been there, what would have happened? Who would have taken care of her?” he asks. “We saw for ourselves this big need right now for shifting healthcare to the home. For making home healthcare at the quality of Vancouver General Hospital.”

We are closer than ever to achieving that vision, he says.

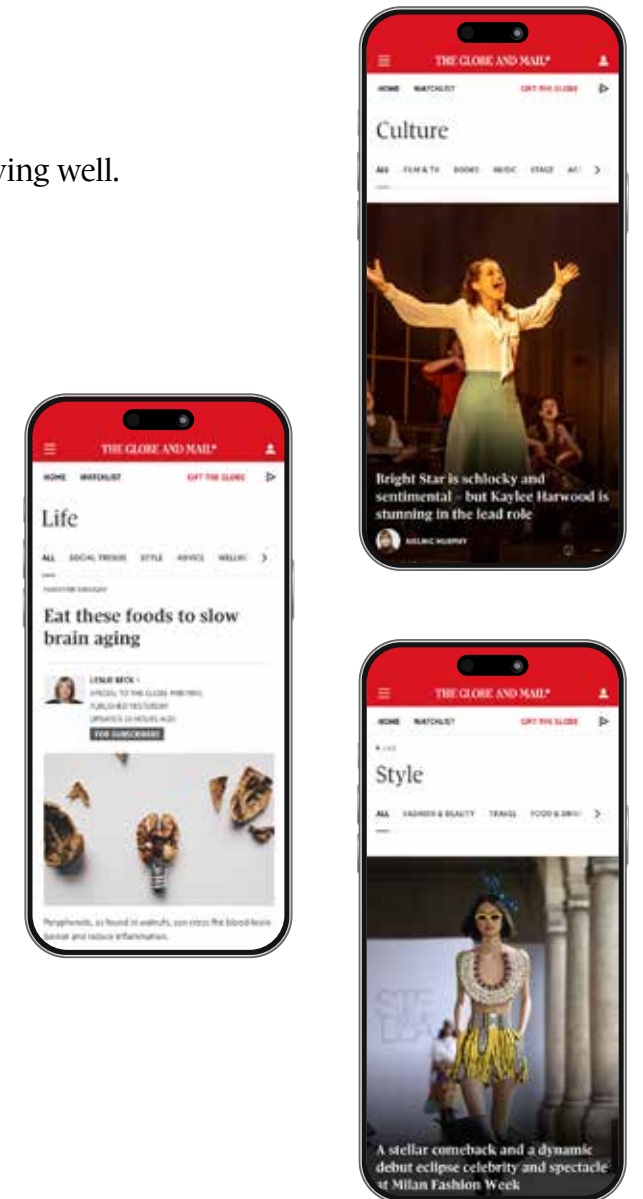
The robotic exoskeletons use machine learning to track and predict people’s movement patterns. The biometric sensor-laden clothes and accessories use AI algorithms to track subtle trends in someone’s blood pressure, heart rate, dexterity, and sleep.

Dr. Eng helped launch, doesn’t usually produce fully realized inventions. Rather, it equips students from a variety of disciplines to go out in the world and develop innovations that redefine what it means to grow old.

“Our goal is to increase the capacity of students who are going to come out with this training and step into hospital positions, industry positions, and academic roles. Hopefully our program is one small step toward

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THE LAST “ACCEPTABLE” PREJUDICE

Ageism is getting old.
It's time to ditch the stereotypes.

BY **BRUCE GRIERSON**
ILLUSTRATION BY **SEBA CESTARO**

Even as data about ageism and its ill effects roll in, there remains the widespread view that dissing old age is just, well, telling it like it is. Anything else is just denial.

A FEW YEARS ago, Dr. Judy Segal, a UBC emeritus professor of English, was visiting the Vancouver Aquarium with her then four-year-old granddaughter. At the ticket desk she encountered something that gave her pause. There were two price categories for children – under and over four years old. Yet there weren't two categories for adults – under and over age 65. There was just “adult” and “senior.” Once you become a senior, you were apparently no longer an adult. Dr. Segal found this dispiriting but not surprising. A world expert in the rhetoric of health and medicine, she has seen the subtle verbal diminishment of older people – from trivializing to exclusion to outright erasure – in more ways than she can count. This example was just “one of the thousand cuts of ageism.” Dr. Segal ordered her tickets: “One child under four; one adult over 65.” The next day, she wrote to the aquarium's administration to suggest a revision to price categories. There is a theory in philosophy that things become what we name them. The language we use shapes the thoughts we think shapes the language we use – and round and round

we go. As social pressures ratchet up inter-generational tensions, we see it reflected in the way we talk about older people as a group. We speak of the “grey tsunami” that's going to swamp the healthcare system, the “curse” of dementia, the greed of selfish Boomers who torched the planet, stalled social justice, and are now clinging to their jobs, leaving twentysomethings to moulder in the unemployment lines.

Ageism is hate speech that has slipped past the gatekeepers, discrimination that has seeped into the groundwater. The World Health Organization reports it's more pervasive than racism or sexism, but you'd never know it. Ageism can be experienced by people of any age (think how often children are dismissed for being “too young”), but is experienced most profoundly by those past midlife. “Ageism is the last ‘acceptable’ prejudice,” says Julia Henderson (PhD'18), an assistant professor in UBC's Department of Occupational Science and Occupational Therapy who, for her doctoral thesis, examined representations of older people in North American theatre. (Spoiler alert: overall, not a pretty picture. Although Dr. Henderson focused on plays that pushed back against stereotypes, the *raison d'être* for older characters in a play's plot is often just... being old. They tend to function as the source of jokes or a narrative device – like the redshirts on *Star Trek*, they're probably going to die, thereby setting up the real story.) Ageism is the *lingua franca* of self-deprecating humour for anyone even approaching middle age. “I actually keep a collection of ageist greeting cards,” says Dr. Henderson. “It's incredible what you see. If they were about race or gender instead, people would be outraged – they'd be picketing the store.”

Something else that makes ageism different: It's the only prejudice we hold against ourselves – our future selves, that is. Typically, when we're young and encounter attacks against “our group” – be it gender, race, body type – we develop strategies, psychological antibodies, so we can better slough off such opinions going forward. Ageism is different. Young people tend not to identify with older people and their concerns, until one day the circles converge; the young, now old, find themselves undefended against the very stereotypes they absorbed and perpetrated. And they sink to their own low estimation of themselves.

Exactly why ageism is so profound and pervasive is a bit beyond the scope of this

conversation, but a prevailing theory is that contempt toward older people is rooted in fear. Robert N. Butler, the pioneering geriatrician who coined the term “ageism” and devoted his career to improving the life and health of elders, likened today's prejudice against them to the scorn and revulsion people felt toward lepers in the Middle Ages: “We're terrified we will end up as they are.” Old age, like leprosy, is something you'd really rather not “catch.”

But (ironically) it may be ageism, and not aging, that we need to be wary of. Twenty years ago, the Yale psychologist and epidemiologist Becca Levy conducted a now-famous study on residents of a small town in Ohio. She was curious as to whether our attitudes about aging might affect the way we actually (physiologically) age. She asked them if they saw growing old as something to fear or something to embrace (or something in between). Twenty-three years later, Levy and her team revisited the town, found as many of the original subjects as they could, and matched their survey answers with health and mortality data.

It turned out that the subjects with the most negative views of aging died 7.5 years sooner than those with the most positive views. It was a staggering result, elevating mindset to one of the most powerful influencers of lifespan we know of. If the finding was replicated by subsequent research, it would mean attitude matters more than gender. Or loneliness. Or socioeconomic status. Or smoking. Or exercise.

And it wasn't just lifespan that was affected by mindset. Levy's group found striking differences in other health metrics – including balance, handwriting, memory, and even hearing.

Recently, a team of UBC psychologists revisited the mindset research, but with a more dynamic element to the questioning. Over a four-year period, investigators asked a randomized group of subjects to describe the extent to which they agreed with statements like “Things keep getting worse as I get older,” “I am as happy now as I was when I was younger,” and “The older I get, the more useless I feel.” Four years later, the researchers found that those whose attitudes had trended positively showed measurable improvements in health and wellbeing. “Our findings suggest that interventions to increase aging satisfaction might improve the health and wellbeing of our rapidly growing older adult population,” said Julia Nakamura (MA'22), a UBC graduate student in psychology who was the first author of the paper.



THE AGE-FRIENDLY UNIVERSITY

UBC Okanagan welcomes older learners and collaborators.

It's no secret that folks in their Second Act flock to the Okanagan Valley, a sunny pocket of British Columbia, to do youth-extending things – such as exploiting the dazzling outdoor recreational options. But an increasingly common complement to these physical pursuits is exploring the educational opportunities.

Older residents come out in droves for pretty much every outreach lecture that UBC's Okanagan campus hosts, slaking their thirst for lifelong learning. So it's no surprise that UBCO has seized a leading role in the age-friendly university movement, becoming, in 2022, the eighth university in Canada to join the Age-Friendly University Network.

What makes a university “age-friendly”? Ten principles define the concept. They include things like attracting older people onto campuses – either to study or participate in research – and opening up cultural and wellness resources to the entire community. The principles boil down to supporting area residents writing new chapters for themselves in midlife, either personally or professionally. “One of the areas we're strongest in is intergenerational learning,” says Jennifer Jakobi, a professor in the university's School of Health and Exercise Sciences and co-lead of the Aging in Place research cluster. Many UBCO programs cultivate working relationships between students and older learners. “The one I like best is what I call ‘speed dating,’” says Dr. Jakobi. “Older adults sit at tables, and students rotate through. Each new pair shares questions and answers. There's a lot of laughter as each side learns things they didn't expect.”

One of the richest projects Dr. Jakobi oversees is a cross-generational collaboration in virtual reality design. Undergraduate and graduate students teamed up with older learners to create two virtual-reality games. In both cases, seniors hatched the idea for the game and then students went away and engineered it. The students took the finished games to an independent-living facility, where residents gave them a test spin to provide feedback. They donned VR headsets and were whisked into a simulation of Abu Simbel, Egypt, where they virtually toured the famous temples. In the second game, they became figure skaters, leaving mobility challenges behind to glide and float freely across the ice.

By the end of the project, whatever intergenerational friction there may have been at the start had dissolved. “One student admitted they'd actually been a bit wary of older people,” Dr. Jakobi says. “Now they seek them out in the checkout lines at the grocery store.”

The rewards of such experiments are manifold, and they go both ways. “When I was a PhD student conducting research on older adults, they would sometimes ask, ‘What's in it for me?’” Dr. Jakobi recalls. “And it's true that the discoveries my generation of scientists makes won't immediately impact most of the older adults who are participating in our programs; the impact of scientific findings is often on the next generation. But what an age-friendly university does is enable older adults to become part of the learning community, to appreciate the depth and nuance of their contribution to research and learning. And the students, as they move on in their academic careers, bring more empathy to their research and life approach. They see their participants as individuals who are both providing value and receiving it.”

Even as data about ageism and its ill effects roll in, there remains the widespread view that dising old age is just, well, telling it like it is. Anything else is just denial. “Let’s be honest, growing older is psychologically punishing,” the British journalist Ian Leslie wrote in his Substack newsletter recently. “How could it not be? It involves getting a little bit weaker, stupider and uglier every year.”

Actually, not every culture feels that way – or not to this degree. While ageism is indeed a global phenomenon, other countries aren’t as ageist as Western democracies.

“Western culture has a medicalized view of aging, so many people assume that once things start going wrong with our physical health that our quality of life will sharply decline,” says Lillian Hung, a professor in UBC’s School of Nursing. “But that’s not actually what older people are reporting.” Recently Dr. Hung oversaw an international collaboration on cultural perspectives called the *Cultural Aging Project*. It examined the experience of aging across seven countries. Participants answered survey questions available in three languages. The suite of questions (e.g., Have you ever felt left out? Do you have spiritual support? How do you cope with stress?) boiled down to “How satisfied are you with your life?”

The answer, in sum: Very, thanks for asking. Latino cultures reported being most satisfied. It wasn’t that respondents had fewer aches and pains and health problems – it was more that they accepted them as part of the deal of this phase of life, outweighed by the compensations of memories and family and spiritual richness. “It’s kind of inevitable that there’s some physical decline, but it’s really about learning how to cope well, and building resilience,” says Dr. Hung. Of the countries tested, Canada scored lowest on life satisfaction, but it still scored highly: 86 per cent reported their life was “very good.”

“Older people are happy with their life, even with its challenges,” says Dr. Hung. Clearly, there’s a perceptual gulf between what many young

people assume it’s like to grow old and what older people actually experience. “Maybe what we’re learning is: Don’t form your assumptions from second-hand information – but actually talk to older people.”

To that end, she developed a new UBC nursing course, *Diverse Perspectives on Aging*, now taught by her former grad student Paulina Santaella Tafolla (MHL’23). It involves students collaborating with an older person in their life. Every week the pair spends 30 to 60 minutes together.

There’s a perceptual gulf between what many young people assume it’s like to grow old and what older people actually experience.

The student poses questions such as: What brings you happiness? How do you face challenges? By the end of it, the students’ ageism has been pretty much wiped out. “They come to realize that aging is a natural process,” says Dr. Hung. A takeaway of cross-cultural studies is that they offer proof that “aging” is at least in part a social construct. That ageism is malleable. “Personally,” says Dr. Hung, laughing, “it gives me hope.”

Without doubt, a major reframing is in order for how we think about aging in this culture.

In one of her many other roles at UBC, Dr. Henderson, the OT prof, runs the Elders CREATE Lab – which promotes innovative ways to elevate older creators. One recent project – a collaboration with Western Gold Theatre (one of just two professional theatre companies in Canada devoted to supporting artists aged 55+) was called “Reclaiming the Senior Moment.” It’s a series of Instagram videos challenging stereotypes; instead of depicting a “senior moment” as a pantomime of forgetfulness or incompetence, the vignettes show seniors creating moments of inspiration, wisdom, or connection.

“There’s a close relationship between ageism and ableism,” Dr. Henderson says, so she helps design theatre productions with creative accommodations that reduce barriers to entry for older actors. “If there are more older bodies on the stages of the world, and more thoughtful, non-ageist stories being told, this works to counter ageism on a cultural level.”

Taken together, these kinds of interventions will, one hopes, shake the zeitgeist. And take the pressure off Boomers feeling like they have to be

enthusiastic personal ambassadors for the brand of the older human. “I’ve sometimes found myself trying to demonstrate to my grandchildren that I am absolutely the most fun person they have ever met,” says Judy Segal. “It can be exhausting.”

But the rhetorician in her ponders how old age can best be reframed in public discourse and representation – how people might be persuaded to see it as a stage in life that is different from youth or middle age, but not implicitly to be dreaded. “People, when they are young, must come to understand themselves as continuous with the people they will be when they are old,” she says, “because everyone is damaged by ageism.”

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UNRAVELLING THE MYSTERY BEHIND ALZHEIMER'S RESILIENCE

Why do some people exhibit the same brain pathology as patients with Alzheimer's disease, but experience no symptoms? Finding the answer could revolutionize treatment.

BY KERRY BLACKADAR, BA'07, MJ'10
PHOTOGRAPHY BY PAUL H. JOSEPH

IF YOU WERE to shrink down to the size of a single cell and peer inside the brain of a person with Alzheimer’s disease, you would find a labyrinth of protein clumps and sticky, thread-like structures. Known as amyloid plaques and neurofibrillary (or tau) tangles, these abnormal accumulations of protein fragments in the brain are the hallmarks of Alzheimer’s disease. Over time, they interfere with the brain’s ability to function by hampering communication between neurons, ultimately triggering the telltale signs of the disease, like memory loss.

Mysteriously, the brains of some seemingly healthy older individuals – those with no signs of dementia – can also be riddled with plaques and tangles. These individuals, for all intents and purposes, are “resilient” to Alzheimer’s. Today, UBC scientists are on a bold mission to understand this resilience at a deeper level, with the hope that what they uncover could hold the key to revolutionizing treatment for the devastating disease.

“If we can get to the bottom of why a person with no symptoms of cognitive decline has the same brain pathology as someone with Alzheimer’s, then we could look to mimic or harness that resiliency and find new therapeutics,” says UBC’s Dr. Haakon Nygaard, the Fipke Professor in Alzheimer’s Research and director of the UBC Hospital Clinic for Alzheimer Disease and Related Disorders.

To help unravel the mystery behind Alzheimer’s resilience, Dr. Nygaard is collaborating with UBC scientists who are embracing some of the world’s latest advances in stem cell technology, 3D bio-printing, next-generation neuroimaging, and single-cell transcriptomics. Their journey starts with growing “mini-brains” in a petri dish.

FROM BLOOD CELLS TO 3D “MINI-BRAINS”

Inside the Djavad Mowafaghian Centre for Brain Health at UBC, Dr. Nygaard carefully adjusts one of the settings on a 3D bioprinter – one of only a few printers of its kind in the world being used to advance Alzheimer’s research. A low hum fills the room as a robotic arm moves into place and begins printing layers of brain cells into a petri dish.

“Brain cells respond very differently in a 3D versus 2D environment,” says Dr. Nygaard. “With 3D bioprinting, and our other advanced 3D models, we’re essentially trying to replicate how brain cells actually function and interact with one another in the human body.”

Similar to 3D printing, whereby a digital design is built layer upon layer, with a 3D bioprinter, a replica of living human tissues is printed in thin layers using biomaterial. In the case of Dr. Nygaard’s lab, stem cells, derived from the blood of Alzheimer’s patients, are first reprogrammed into brain cells. Then, using the bioprinter or other tissue engineering methods, three-dimensional tissue models resembling areas of the patient’s brain are generated, including microscopic, ball-like structures known as “neurospheres.”

“These 3D human brain cell models are allowing us to gain greater insights into the basic cellular mechanisms that cause the brain to degenerate in Alzheimer’s,” says Dr. Nygaard. Already, as part of a pioneering research project with UBC’s Dr. Brian MacVicar, professor of psychiatry and Canada Research Chair in Neuroscience, the 3D neurosphere model has been used to examine the role that oxidative stress (the imbalance of free radicals and antioxidants) plays in the death of brain cells of Alzheimer’s patients.

Using state-of-the-art neuroimaging techniques, Dr. MacVicar, a world leader in neuroinflammation, and his team are able to offer an unparalleled visualization of the cellular processes taking place

in infinitesimal spaces, some only 100 micrometres (one millionth of a metre) wide. So far, using the 3D model, they’ve shown that microglia – the immune cells of the brain – offer protection from the damage caused by oxidative stress triggered by the presence of amyloid.

“Here we can see how the neurons interact with the microglia,” says Dr. MacVicar, pointing to a rotating fluorescent image of a neurosphere. “By studying these individual interactions between the cell types, we can shed new light on how Alzheimer’s starts.” And, thanks to a close collaboration with UBC’s Dr. Freda Miller, professor in the Department of Medical Genetics and a leading stem cell expert, the research team has been able to gain even greater insights – isolating single cells to examine genetic factors at play.

“By looking at gene expression profiles in the individual brain cells, we’re on the path to addressing questions in Alzheimer’s research that would not have been possible only a short time ago,” says Dr. Miller. That includes addressing the question of Alzheimer’s resiliency.

According to Dr. Miller, who brings a unique perspective to the research collaboration as a developmental neurobiologist studying how stem cells build the brain, resiliency is a particularly important research frontier in Alzheimer’s. “Traditionally, the world has asked: Why do people get dementia? But we’re flipping that on its head and asking an equally important question: Why do some people not get dementia?”



▼ (Previous page) Dr. Haakon Nygaard peers inside the 3D bioprinter at the Djavad Mowafaghian Centre for Brain Health.

(Top) A UBC post-doctoral fellow studies Alzheimer’s resilience in the lab.

(Bottom) Dr. Nygaard (left) and Dr. MacVicar (right).

COULD RESILIENCY BE THE MISSING LINK TO UNDERSTANDING ALZHEIMER’S?

While no one knows exactly how many people are actually “resilient” to Alzheimer’s disease, Dr. Nygaard estimates about 20 to 30 per cent of older adults have similar levels of amyloid in their brains to that of someone with Alzheimer’s, yet exhibit no signs of dementia.

“By studying those who have escaped or delayed developing dementia, our hope is to understand what’s driving that protection,” he says. In the coming years, the team will build on their latest work, generating 3D “mini-brains” of people with Alzheimer’s resiliency – applying the same powerful neuroimaging and genetic analysis techniques.

“Once we understand the cellular and genetic mechanisms at the root of resiliency, the hope is to harness that resilience to guide the discovery of new treatments or even repurpose existing drugs that could one day stop – or even reverse – progression of Alzheimer’s disease,” says Dr. MacVicar.

According to Dr. Nygaard, the time to find new treatments for Alzheimer’s patients is now. “As a physician, if your patient gets a bacterial infection, you can give them antibiotics. If your patient breaks their leg, you can fix it. But if your patient is diagnosed with Alzheimer’s, there’s still relatively little we can offer them. There is no cure,” says Dr. Nygaard, who works directly with Alzheimer’s patients and families as a neurologist.

Over the years, he has watched his patients being slowly robbed of their identities, memory by memory. And he’s watched families robbed of their loved ones, one day at a time. “We still don’t have a treatment that can stop the progression of Alzheimer’s, and that really haunts me,” he says. “But it also keeps me motivated.” At the end of the day, it’s the many patients and their families who are the driving force behind Dr. Nygaard’s research – as well as that of his collaborators.

“Imagine if we could give even 10 more good years to people who are in the early stages of Alzheimer’s,” says Dr. Miller, who strongly believes the lessons they learn about Alzheimer’s resiliency could one day be applied to other neurodegenerative diseases, including Parkinson’s. “The potential of this research is enormous.”

This article was originally published in Pathways, a publication of UBC Medicine.

This Alzheimer’s research at UBC is supported by Ken McArthur, BCom’61, the Aune Foundation, and other donors who have collectively donated more than \$12 million and whose generosity is bringing hope to millions of Canadians.

THE SOCIAL PRESCRIPTION

How social interventions could help us live healthily for longer.

BY CHRIS CANNON
ILLUSTRATION BY GRACIA LAM

HOW DO WE care for an aging population without overwhelming the hospitals, clinics, and providers already stretched to their limits? Is medical intervention the only option – treat the illness, manage the decline, hope for the best?

In the United Kingdom, “social prescribing” has long served as a complement to medical intervention in the aging community, a concept recently imported to Canada that focuses not just on prescriptions, but on people. “Social prescribing is a way of connecting the health system with community services,” says Dr. Grace Park, clinical professor in UBC’s Faculty of Medicine and past medical director for Home and Community Care at Fraser Health. “It provides a pathway for the healthcare provider to refer their patients for non-medical issues.”

Some factors of age decline aren’t visible in a clinical chart, but have a profound effect on health and wellbeing. Addressing needs like transportation, food security, housing, and social isolation can mean the difference between older adults staying independent and needing institutional care. “It could be something unrelated to their health concerns, but often does end up having an impact on their health,” adds Dr. Park. “It could be they can’t afford rent anymore. Or they can’t get to the grocery stores, or they have issues with isolation and loneliness, and they have nobody to call if they have problems.”

This holistic approach to age-related care started in British Columbia as a pilot program in 2019, with funding from the Ministry of Health through United Way BC. Fraser Health served as a demonstration site, launching social prescribing programs at 10 community organizations with the help of newly created roles called “community connectors.”

“The connectors will speak to the older adult and find out what’s going on in their lives, what the biggest issues are,” says Dr. Park. Since the program began, nearly 3,000 referrals have been made in Fraser Health alone, and more than 100 community connector positions have now been funded across the province. And because the system is integrated with electronic medical

records, referrals can come from family doctors, emergency departments, and even hospital pre-op clinics – anywhere a practitioner identifies unmet social needs for older adults.

“We recently had a program at Peace Arch Hospital in White Rock,” Dr. Park says. “Patients that were coming in for elective surgery – mostly hip and knee replacements – were assessed for surgical optimization, including social prescribing. The surgeons were

as possible. So we’re doing upstream preventative work, and doing it in a holistic way by addressing the social determinants of health.”

The rewards extend beyond the health of the individual; social prescribing is an important support system for caregivers, helping to prevent the burnout that comes with constant attention to a loved one’s needs. And as Canada moves closer to the UK model, where social pre-

Some factors of age decline aren’t visible in a clinical chart, but have a profound effect on health and wellbeing. Addressing needs like transportation, food security, housing, and social isolation can mean the difference between older adults staying independent and needing institutional care.

really surprised this program was in place. They felt that the volunteers from the community organizations were angels, driving people to doctor’s appointments, bringing them food, picking up their meds.”

Some patients may only need a one-time referral – help with finding a new apartment, a culturally appropriate exercise program, or a hot meal. Others, especially those who are frail or isolated, may receive ongoing follow-up, with community connectors or volunteers calling regularly, making home visits, or connecting them to additional health authority services like home support and personal care.

By addressing the root causes of vulnerability earlier, the system can help people live independently for longer. “What we want to do is get in there before they’ve gotten to that point where they need extra care from the health authority,” Dr. Park says, “and really support them so that they can remain as active and healthy

as possible. So we’re doing upstream preventative work, and doing it in a holistic way by addressing the social determinants of health.”

scriptions are applied to all ages as part of their comprehensive Universal Personalized Care program, the economic incentives will keep pace with the benefits to individuals. According to the Canadian Institute for Social Prescribing (CISP), every dollar invested in social prescribing programs already brings a return of up to \$4.43 through improved wellbeing and reduced costs to the healthcare system.

“I think increasingly it is going to become part of general practice and hopefully part of healthcare in general,” says Dr. Park. “We want to have it as integrated as possible, so it becomes a normal part of practice when we’re dealing with medical issues, addressing some of the deficits patients might have in their social determinants of health, and making those connections in the community.”

A New Chapter in Women's Health

Despite its profound impacts, menopause remains one of the least understood stages of life. A UBC prof is helping to shed light on a subject long overlooked and improve support for women in midlife.

BY **RACHEL GLASSMAN, BA'18, MA'20**
ILLUSTRATION BY **GRACIA LAM**

PSYCHOLOGIST LORI BROTTTO (BSc'97, MA'99, PhD'03) dates her interest in researching menopause to an unlikely turning point: the creation of Viagra in 1999. At the time, Dr. Brotto was a graduate student studying sexual behaviour in rats, but the new "blockbuster" drug attuned her to cultural attitudes about gender – like studies showing that sexual problems in women were twice as prevalent as in men, yet with no equivalent medical treatments.

"Women's health research in general lags decades behind men's health research," Dr. Brotto says. "It was only by the year 2000 that women were routinely included in clinical trials."

Major knowledge gaps persist to this day. Dr. Brotto points out that although roughly half the population spends about one-third of life in post-menopause, relatively little research is devoted to understanding its basic mechanics, let alone the nuances. Some studies suggest that long-term consequences of menopause could include an increased risk of osteoporosis and heart disease, but we know staggeringly little about the effects over time. The paucity of data is even more dire for gender-diverse, intersex, and trans people who are experiencing menopause.

Without adequate scientific knowledge, we're left with a fog of misinformation and insidious stereotypes about menopause, forcing many to navigate symptoms from night sweats to mental health challenges with scant support. "Most women who go to a primary care doctor with menopause symptoms will be dismissed or told it's a normal phase of life," Dr. Brotto says. "It is a normal phase of life – but that doesn't mean you have to suffer in silence." Better clinical care and quality of life in menopause is possible, but first we need robust data.

Dr. Brotto and her colleagues are leading the way. As a professor in the UBC Department of Obstetrics and Gynaecology and director of the Women's Health Research Institute, Dr. Brotto helped lead a landmark study, the *Health and Economics Research on Midlife Women in British Columbia* (HER-BC) report. The first-of-its-kind study examined the impacts of menopause on 2,133 participants across the province. The findings paint a much-needed picture of the impacts of menopause on quality of life, and begin to chart a path forward for improved health outcomes both during and after menopause.

Dr. Brotto and her team found that 90 per cent of HER-BC participants experienced at least one menopause symptom

that was significantly bothersome for them, like hot flashes, sleeplessness, or depression. While these symptoms are incredibly common, many participants reported feeling surprised and underinformed as they entered midlife, hungry for basic information. “Nobody prepares you for it,” one participant told the HER-BC team.

These symptoms aren’t just uncomfortable. The stigma and the lack of support during menopause affect anything from a person’s social life to their socioeconomic stability and career success. Women aged 40 to 60 make up nearly half of all women workers in the province, and a striking one-third of HER-BC participants reported that menopause symptoms impacted their jobs in some way. Many missed days of work or cut back on their hours, while nearly one in 10 reported “having to turn down a promotion or career advancement in the last half year due to menopause symptoms.”

And workplace attitudes towards aging present major equity concerns, with several HER-BC participants reporting being fired for reasons related to their menopause. As a result of these findings, HER-BC put forward a call to action, warning of workplace discrimination and recommending that the BC Human Rights Clinic ensure that employers are not violating the rights of workers experiencing menopause symptoms – a form of discrimination that is all too common given persistent stereotypes of aging women as irritable or incompetent.

Dr. Brotto’s work makes clear that those cultural narratives have a direct impact not only on how women think about menopause, but also on their physical experiences of symptoms. As a psychologist, she knows that “the brain and the body are not disconnected. Our beliefs, our outlook, our cultural values – they all impact our physiology.” The good news? Debunking stereotypes through research can transform people’s experiences of aging. “A little bit of data shared with the public can have such a profound impact,” Dr. Brotto says.

The ripple effects of that data are already being felt. As a result of the HER-BC study, Dr. Brotto says that the UBC Faculty of Medicine will introduce a new curriculum unit for medical students to learn about menopause for the first time, one of the few medical schools in Canada to do so.

Beyond campus, too, Dr. Brotto’s next projects seek to shape the future of menopause knowledge. She’s working with an interdisciplinary team to build a Research



DR. LORI BROTTO

Professor in the Department of Obstetrics and Gynaecology and Director of the UBC Sexual Health Laboratory; Executive Director of the Women’s Health Research Institute; Canada Research Chair in Women’s Sexual Health.



RESEARCH FOCUS

Developing safe and accessible treatments for prevalent sexual concerns in women and using digital health technologies to broaden access to those treatments.



PUBLIC OUTREACH

Her book, *Better Sex Through Mindfulness* (2018), was featured in *The New York Times*. She has also appeared in notable documentaries, including Netflix’s *The Principles of Pleasure* and CBC Gem’s *The Big Sex Talk*.

Agenda for Menopause and Midlife Women’s Health, charting research priorities and providing clinical recommendations. The results downstream will be new publications of life-changing knowledge, not least among them further research into the intersections of menopause and gender diversity, and menopause and race.

As wider change gains momentum slowly but surely, what can people entering midlife do to set themselves up for a healthy and happy transition through menopause? Accessing science-backed information is key, Dr. Brotto says. She recommends gynecologist Dr. Jen Gunter’s book *The Menopause Manifesto* (2021) and the free online speaker series from the BC Women’s Hospital’s Complex Menopause Clinic. Robust information allows people to demand to be taken seriously: “If you have any concern about whether your health experience might be part of menopause and you get dismissed, seek a second opinion,” Dr. Brotto says. “Advocate for yourself.”

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INSIDE

FEATURES

- 44 20 years of UBC Okanagan
- 48 ICORD: Where science meets humanity
- 54 This scientist's side hustle is creating crosswords for *The New York Times*

DEPARTMENTS

- 38 Changemakers
- 40 My Town
- 43 Rewind
- 52 The Scoop
- 55 Crossword
- 58 In Memoriam
- 60 The Last Word



«
T-birds mascot Thunder inspired the entrance-tunnel to a tent full of performances and activities at Homecoming in September.

THE GIFT OF GOATS

Community builder lays down a path to education for Ugandan children.

BY RACHEL GLASSMAN, BA'18, MA'20

PATIENCE SPINOZA OKUKU feels that his life in Canada has its roots in the generosity of strangers. After growing up in Northern Uganda, Patience received the Donald Wehrung International Student Award to attend UBC Okanagan. “Getting that scholarship made me feel that I owed the world.” Throughout his time as a student, he says, “I wanted to remember the communities that had raised me.” Those communities live in a region grappling with civil war and its enduring effects. Patience recalls experiencing Uganda’s conflict as a young child: At times, when the fighting came close, his family was told to flee their house because it was safer to sleep outdoors. “I’ve slept in the bush,” Patience says. “For me, looking back, that’s where I really come from. That’s my story.” Amid the relative ease of daily life in Canada, he says, “it’s very easy for someone to forget where they’re coming from.” Patience honours his home through The Spinoza Foundation, a volunteer-run organization he founded as a UBCO student to support the people of Northern Uganda. By visiting villages and interviewing communities about their needs and goals, Patience learned that young people living with HIV face an intersectional web of challenges, with some families keeping children with HIV home from school, even as their siblings attend, due to stigma and poverty.



These conversations formed the basis of The Spinoza Foundation’s mission. Patience decided to offer support in two ways: scholarships for children living with HIV, and donations of goats to local families. Goats, Patience explains, are the ideal livestock for families in the area because they are uniquely resilient to disease and climate – and they multiply quickly. A donation of one goat (costing a donor about \$50) transforms into 10 goats before long. These offspring, in turn, support the foundation’s mission to sustain education, as families can sell their goats to pay for school fees. As a completely volunteer-run organization, the foundation makes the most of every dollar donated. But while he believes in maximizing impact, Patience says that what truly sets the foundation apart is its belief in working with the community not as saviours but as peers: “We emphasize their agency in this process.” After graduating from UBCO, Patience went on to a Master of Philosophy degree in development studies at Cambridge University, and describes building community as both his passion and his career. This year, he aims to donate 1,000 goats through The Spinoza Foundation – a goal he describes as simultaneously simple and audacious. “It’s not like we’ve solved all the problems in this world,” he says. “But we have made the lives of a few hundred people better.”

Patience Spinoza Okuku, BM'19

<<

Social entrepreneur

<<

Next challenge: Establishing The Spinoza Foundation Farm, where goats will be raised for donation to ensure the long-term sustainability of the Uganda Goat Livelihood project.



April Houweling, BSc'19

<<

Bioacoustician

<<

Next challenge: Implementing an algorithm she created to mitigate threats to endangered killer whales in real-time.

SYMPHONY OF THE SEA

A marine biologist invites us to listen to the underwater world of Howe Sound.

BY KATELY NIKIFORUK, BSC'20

“WE WERE STANDING in it, and you could feel them all over your feet,” says April Houweling, describing the spring day in 2023 when a mass of writhing herring appeared near the shoreline of Lions Bay on BC’s Howe Sound. Neighbours had gleefully alerted April to the presence of the fish, prompting her to run to the water and wade straight in. And that was the moment, surrounded by a salty spray and gleaming scales, that she decided on a mission: to deploy a microphone under the sea. A scientist, scuba diver, and surfer, April visits the ocean near her home most days. For decades, Átl'ka7tsem/Howe Sound was plagued by toxic runoff from an old mine that devastated its ecosystem. A major remediation was initiated in 2001, and the waters are seeing new signs of life. April sensed the shift when she saw the herring in Lion’s Bay that spring day, after

years of absence. Soon enough, seagulls swooped down and sea lions showed up. Then the orcas and humpbacks arrived. Lions Bay residents were seeing whales in their briny backyard for the first time in living memory. April wants her community to hear them, too. A year ago, she and fiancé Tom Fruin co-founded the community-based organization Howe Sound Revival, which aims to document the resurgence of life. This involves the launch of an underwater microphone, called a hydrophone, through partnerships with BC Whales and the BC Hydrophone Network. Other collaborators include The Audain Foundation and Ocean Film Festival. As a bioacoustician, April specializes in sounds made and heard by sea creatures. She’s eavesdropped on the crackles of sea urchins, the low frequency groans and knocks of fish, and the roars of harbour seals beneath the waves. Her specialty is the calls and songs of whales, and the noise pollution from boat traffic that muffles them. While April has a freshly minted Master of Science degree from SFU, her career in marine biology began at UBC. She studied seaweed there as an undergraduate, before moving on to cetaceans like dolphins, humpbacks, and orcas – from the tiny island of Niue near New Zealand, to the tiny island of Saturna in BC. Over the years, she has listened to countless soundbites recorded by hydrophones. If others could hear the ocean too, thinks April, they will be more invested in the wellbeing of its inhabitants. She relates to what David Attenborough once said: “No one will protect what they don’t care about; and no one will care about what they have never experienced.” Once the hydrophone is anchored off the shore next year, citizen scientists will aid in the validation of marine fauna sounds to support research and conservation. And their reward, beyond the data, is the music. If the sound of the ocean is stored within a single seashell washed up at low tide, imagine the symphonies soaked up by a hydrophone. Wouldn’t we ask for an encore?

MY TOWN

Insider travel tips from alumni around the world.



Dr. Amy Dawson on Signal Hill in St. John's, accompanied by her dog Watson. Photo courtesy of Amy.

St. John's, Canada

Dr. Amy Dawson (MSc'16, MD'23) is a resident physician based in St. John's, the capital city of Newfoundland and Labrador. She has been living in Canada's eastern-most province for the past two years, following her graduation from UBC's Doctor of Medicine program.

WHAT THREE WORDS BEST DESCRIBE ST. JOHN'S?

Colourful. Historic. Charming.

HOW DID YOU COME TO LIVE IN ST. JOHN'S?

I came to St. John's after matching to the General Surgery program at Memorial University. It was a great opportunity to train in a strong program with a tight-knit medical community. Since moving here, I've enjoyed getting

to know both the city and the people who make it such a unique place to live.

WHAT DO YOU LIKE MOST ABOUT LIVING THERE?

The sense of community, the stunning coastal views, and the unique culture that blends tradition with a laid-back, friendly atmosphere. Plus, having nature so close by – whether it's hiking Signal Hill, spotting whales, or just watching the powerful waves of the North Atlantic – makes everyday life here feel special.

DESCRIBE YOUR FAVOURITE NEIGHBOURHOOD.

We have loved living in Rabbittown. It is a vibrant and character-filled neighbourhood that's close to downtown but still retains a distinct charm. There are lots of amazing small coffee shops and bakeries within walking distance.

IF YOU COULD CHANGE ONE THING ABOUT ST. JOHN'S, WHAT WOULD IT BE?

Public transit could definitely be improved. The bus system is limited, with long wait times and routes that don't always connect efficiently. For a city with narrow streets

and a growing population, having more reliable and frequent public transportation would make a big difference, especially for students, seniors, and those without cars.

WHAT MIGHT SURPRISE A VISITOR ABOUT ST. JOHN'S?

The world-class dining scene. St. John's has an incredible food culture, with top-tier restaurants that rival those in much larger cities. From fresh seafood to creative takes on traditional Newfoundland cuisine, the quality and innovation are impressive. Some restaurants have gained national recognition, but even the smaller spots serve up amazing dishes. It's not just about fish and chips, though those are excellent too!

WHAT ARE YOUR FAVOURITE HIDDEN GEMS OR ACTIVITIES THAT ONLY LOCALS KNOW ABOUT?

St. John's Farmer's Market: More than just a place to grab fresh produce, this market is a community hub. Locals come for the diverse food vendors, unique handmade goods, and a great weekend atmosphere. The Grand Concourse walking trails: A hidden gem for

BEST TIME OF YEAR TO VISIT

July to September.

BEST PLACE TO STAY

The JAG or Alt Hotel. There are also lots of nice short-term rentals close to downtown.

BEST VIEW

Signal Hill has stunning city views, but venturing beyond St. John's rewards you with even more breathtaking coastal landscapes.

BEST CULTURAL EXPERIENCE

Enjoy live music at a pub or brewery, or if you're lucky, experience an authentic Newfoundland shed party with locals.

BEST STREET FOOD

Tinker's Ice Cream Shop in Petty Harbour.

COOLEST STREET

Harbour Drive is definitely the coldest in the winter. Duckworth Street has some cool shops and restaurants.

LATEST TREND

Complaining about the weather.

MARKS OUT OF 10 FOR TRANSIT

4/10.

nature lovers, this extensive network of trails winds through the city, connecting parks, ponds, and green spaces. The East Coast Trail: Some lesser-known sections of this trail lead to hidden waterfalls and secluded ocean views.

HOW EASY IS IT TO MEET NEW PEOPLE?

Very easy, especially through community groups. For example, choirs, running clubs, and community events are great ways to connect. The city's small size means you can easily find a community of friends that share many of the same interests as you.

WHAT ISSUES ARE PARTICULARLY IMPORTANT TO THE PEOPLE OF ST. JOHN'S?

Cost of living: Housing prices and rent have been rising rapidly. Weather-related infrastructure: Snow clearing of sidewalks and road conditions can be a challenge at times in winter. Out-migration: Many young people leave for work opportunities elsewhere, which impacts the local economy.

WHAT IS ONE LOCAL CUSTOM THAT EVERY VISITOR SHOULD KNOW ABOUT?
Being "Screeched In." It's a fun (and slightly ridiculous) tradition where visitors kiss a cod, take a shot of Screech rum, and recite a short oath to become an honorary Newfoundlander. It's a must-try experience!



Alumni volunteers host fun My Town Meetups in locations around the world. Check out our Meetups page to see if there's a gathering near you – or sign up to host one in your location.

alumni.ubc.ca/my-town-meetups



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REWIND

Beer and Politics

The drunken “radicals”
who shook up UBC
student elections.

BY RACHEL GLASSMAN, BA'18, MA'20

IN 1991, THE Radical Beer Faction (RBF) stormed onto the AMS student elections scene, promising to enliven campus politics with “a silly revolution.” The new group’s aim, its website said, was “to deal with student politics the way it should be dealt with. Drunk.”

At the time, students could run for AMS leadership in parties or slates, a system that science student Erik Jensen found absurd and polarizing. He rallied friends to form the RBF as a spoof slate. With tongues firmly in cheek, RBF candidates promised to throw “one big ugly mother of a free keg party” if they earned 10 per cent of the student vote.

In their glory days, the RBF actually earned much more, sweeping up to 31 per cent of the popular vote. Even if they didn’t win, their electoral antics were a staple, keeping campus laughing (and drinking) year after year. Hailed as an “electoral institution” by *The Ubyyssey*, the RBF ran a motley assortment of AMS candidates through the 1990s and early 2000s, both human and non-human (think fish and traffic cones). By the time the slate system ended in 2004, the anti-slate RBF had become, ironically, UBC’s longest-standing slate.

With slates banned, the RBF restructured as a club. “It’s never the end of the Radical Beer Faction,” Lana Rupp, RBF presidential candidate, told *The Ubyyssey* in 2004. The next generations of RBF members rallied against what they called “the war on fun,” protesting crackdowns on student parties and clamouring for a return to the golden age of campus beer gardens.

The slate’s connection to student elections was not completely severed either; one former RBF candidate continued to run independently in no fewer than three UBC Board of Governor elections for student representative during the early 2000s. That candidate was a fire hydrant. Why, you ask? At this point in the story, it’s best to suspend the need for logic.

The man behind the Hydrant, physics PhD student Darren Peets, told *The Ubyyssey*, “I had a pet fire



▲ Darren Peets emulating the Hydrant (reprinted with permission of *The Ubyyssey*).

(right) A persuasive campaign ad for the RBF.

hydrant.” Running it for office was “the sensible thing to do.” It was also sensible to campaign largely in puns, with the Hydrant boasting, “My ability to put out fires is legendary and I’m nearly immovable once I take a position.” (Former elections administrator Chris Anderson groaned to a campus reporter, “I don’t think I’ve ever heard so many puns in an election campaign in my life.”)

Peets eventually ran on his own, sans Hydrant, and won. By all accounts, he was a surprisingly rigorous official, with a knack for reading dusty bylaws and changing obscure but problematic rules. But even before the revelation of Peets as a legislative sage, the Hydrant itself performed astonishingly well in the polls, once coming just six votes shy of election to the Board of Governors. “This sent a rather strong message,” Peets wrote on his blog. “I’m not sure what that message was or to whom it was sent, but it was unmistakably strong.”

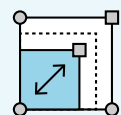
20 Years of UBC Okanagan

SINCE OPENING IN 2005, UBC Okanagan has expanded from a small regional campus into a globally-recognized institution, attracting students from around the world.

UBCO has developed cutting-edge research facilities, introduced innovative academic programs, and led sustainable initiatives addressing local and global challenges.

Beyond academics, UBCO has built a vibrant and inclusive campus community in partnership with the Okanagan Nation Alliance. This collaboration has helped shape a campus culture where Indigenous perspectives are woven into academic programs, research initiatives, and community engagement.

CAMPUS



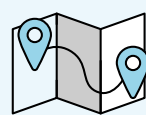
44 %

Increase in hectares
(2005-22)



360 %

Increase in
campus buildings
since 2005



200 +

Off-campus
satellite and
partner locations



\$302 M

Total income
(2024/25)



\$181 M

Funds raised from
2005-24

STUDENTS



10,406

Undergraduate
students



1,342

Graduate
students



240 %

Increase in student
population since
2005

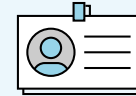


110

Countries
represented

74% domestic undergraduate
6% domestic graduate
15% international undergraduate
5% international graduate

FACULTY & STAFF



704 Faculty

1,389 Staff

1,292 Student employees

RECREATION



1,560 sq m gymnasium

7,140 sq m turf field

12 Heat varsity athletic teams

20 national and conference
medals won by Heat varsity
and club teams

ALUMNI AND COMMUNITY



29,240

Degrees
conferred



50 %

Proportion of
graduates who stay in
the Okanagan region



57 %

Central Okanagan
population increase
since 2005

RESEARCH



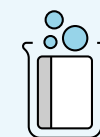
221 %

Increase in research
funding since 2015/16



313

Research
faculty



1,039

Funded research
projects (2024/25)



26 UBC-funded clusters of research excellence

6 research institutes

38 designated research chairs

TEACHING AND LEARNING

66

Undergraduate
programs

58

Graduate
programs

9

Faculties and
schools



566 seats, 2 study rooms, and 113 computer stations
in the Library

415 collaborative study spaces, 128 quiet study areas,
and 34 study rooms in the Commons

OKANAGAN VALLEY



2,000 hours of annual sunshine

30 beaches

5 of Canada's largest ski resorts within 3 hours

200 freshwater lakes

25C average high May–August

-4.7C average low December–March

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BKin+MM (2020) BKin (2017) BA Psychology (2018)

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A ramp with a gentle incline winds around the atrium at the Blusson Spinal Cord Centre, giving wheelchair users an alternative to the elevators. Photo: Martin Dee

A look inside ICORD, where science meets humanity

UBC researchers are reimagining recovery after spinal cord injury.

BY **THANDI FLETCHER**

AT THE FRONT of the room, an X-ray image of a spine filled the screen.

Dr. Brian Kwon, a surgeon-scientist at Vancouver General Hospital and professor in UBC's department of orthopaedics, explained to the audience that spinal cord injuries can look very different in different patients. Some have obvious fractures, while others can have injuries that are barely visible but just as devastating.

Rarely do we consider what it would mean if the image on the screen were ours, he added.

"You look at an X-ray like this and think, yes, it's terrible, but that happens to other people," said Dr. Kwon. "But sometimes the X-rays belong to one of our own."

This X-ray belongs to Dr. Fabio Rossi.

A professor of medical genetics at UBC, Dr. Rossi has spent decades studying how the body repairs itself, and why sometimes it can't. When a serious cycling accident in 2022 left him partially paralyzed, the research he once viewed through a microscope suddenly became personal.

When it was his turn to speak, Dr. Rossi said his experience on "the other side" of research – this time as a patient rather than a scientist – has given him new perspective.

"You realize it's not just about the research," he said. "It's about people."

Their reflections came during a June event at the Blusson Spinal Cord Centre at Vancouver General Hospital, where Drs. Kwon and Rossi addressed a gathering of researchers, students, and community partners.

The event, hosted by the International Collaboration on Repair Discoveries (ICORD) – which is supported by UBC's Faculty of Medicine and Vancouver Coastal Health Research Institute – preceded a special lab and clinic tour for UBC President and Vice-Chancellor Dr. Benoit-Antoine Bacon, Canada's "Man in Motion" Rick Hansen, and the Blusson family, whose support helped make the centre possible, among other senior leaders at UBC.

As Dr. Kwon, who is also the director of ICORD and the Tier 1 Canada Research Chair in Spinal Cord Injury, explained, ICORD's mission is both simple and ambitious: to make spinal cord injury preventable, livable, and ultimately curable. The tour demonstrated that mission in action.

CREATING A COMMUNITY

On the main floor of the building, Dr. Andrea Bundon, associate professor in the UBC School of Kinesiology and principal investigator at ICORD, led the group through the Yuel Family Physical Activity Research Centre (PARC), an accessible gym where people with spinal cord injuries come to exercise using adapted equipment, much of which is designed on site.

"Exercise supports circulation, bone health, and mental wellbeing," said Dr. Bundon. "But it's also about connection and creating a community where people can stay active and engaged for years, even decades, after their injury."

Linda Hunt, who has been coming to PARC since her injury more than 10 years ago, spoke about how the space has become an anchor in her daily life.

"When I come here, I don't have to explain anything to anybody," she said. "Everybody gets it."

DESIGNED FOR EVERYONE

From the gym, the group followed a gently curving ramp, called the George Gaffney Infinity Ramp, that winds around the atrium to the second floor's Brenda & David McLean Integrated Spine Health Clinic. The ramp itself is a design statement – about 200 metres long with a five per cent incline and level platforms every 10 metres. Coloured glass panels along its edge filter light across the space, creating a sense of movement as you climb. The ramp's gradual incline also allows visitors who use wheelchairs to reach the third level without having to take the elevators, if they prefer.

Designed by Musson Cattell Mackey Partnership Architects in consultation with ICORD researchers, the entire Blusson Spinal Cord Centre was built to be universally accessible. Every detail was planned to reduce the need for accessibility signage or special accommodation. For example, elevators, washrooms, and doorways were all designed to be usable by everyone, without exception.

INTEGRATING PATIENT CARE AND DISCOVERY

Once in the clinic, the group was met by clinician-scientist Dr. Kate Anderson and her team in the urology diagnostics room, the busiest area of the clinic.

As a urologist, Dr. Anderson and her team provide urodynamics testing, an often overlooked but critical part of spinal cord injury care that helps support bladder health. She explained how people with spinal cord injury often face serious bladder storage and emptying problems. Urodynamics helps prevent upper urinary tract damage, which can be life-threatening, and guides long-term bladder management strategies like catheterization.

"When you ask thousands of patients what they want most, bladder health consistently comes first," she said.

A significant benefit of an integrated clinic where a diverse range of specialists share the space is that it allows for "hallway conversations" that often lead to new research ideas, said Dr. Anderson.

For example, she and her team are currently working on developing implantable devices that can detect changes in bladder pressure and stimulate nerves to restore function. They demonstrated two experimental devices – a tiny bladder-pressure sensor and a nerve stimulator – that could eventually work together to automatically relieve bladder pressure before it causes harm.

"These are the kinds of innovations that could make a profound difference in daily life for people living with spinal cord injury," she said.

SCIENCE THAT STARTS WITH PATIENTS

In the rehabilitation gym on the third floor, Dr. Michael Berger, a clinician-scientist specializing in spinal cord rehabilitation, described what he calls his "reverse translation" approach – a process that starts with the everyday challenges patients describe in clinic.

"They tell us what's not working for them, and we take those problems

back to the lab to find solutions," he said. "It's about taking what we learn from lived experience and using it to push the science forward."

Dr. Berger introduced one of his patients, Dan, who recently underwent nerve transfer surgery after breaking his neck in 2016. Nerve transfer surgery uses healthy nerves above the site of injury to restore movement below it, allowing signals from the brain to reroute through intact pathways.

Holding his hand open and closing it again, Dan demonstrated how his function has improved since the procedure.

"Now I can open my hand and just grab," he said. "It may not be perfect, but it gives me back independence."

WHERE PREVENTION BEGINS

The final stop on the tour was the Orthopaedic and Injury Biomechanics Lab, where researchers study how to make activities like cycling and mountain biking safer.

Biomedical engineers here simulate real-world crashes to understand how the body and protective equipment respond to impact, with the goal of designing helmets that can better prevent the types of injuries that lead to paralysis.

Dr. Kwon explained that prevention is a vital part of ICORD's mission, just as important as recovery.

"We want to understand how these injuries happen in the first place so we can stop them from happening at all," he said.

DRIVEN BY PURPOSE

As the visit drew to a close, Dr. Kwon spoke about the importance of ICORD's work.

"If you were with me on the ward yesterday, comforting the mother of a young man who's now paralyzed with a thoracic spinal cord injury, you would know that the work here matters," he said. "It's why we push, why we stay up late analyzing data, why we're here at six in the morning starting experiments, why we engage so passionately with our community."

"We know there's so much still to do, and we can't do it alone."

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alumni UBC 2025 Achievement Awards

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UBC alumni are committed to an exceptional UBC and a better world. This November, at the annual *alumni UBC Achievement Awards*, presented by Boyden, we honoured nine inspiring members of the UBC community who, through their extraordinary endeavours, have demonstrated this vision.

Congratulations to This Year's Recipients



ALUMNI AWARD OF DISTINCTION

Dr. Michael Audain
*OC, OBC, BA'62, BSW'63,
MSW'65, LLD'14*

Dr. Michael Audain, chairman of Polygon Homes, is a business leader with a lifelong commitment to affordable housing and the arts. He was instrumental in boosting social housing in BC and is the founder of the Audain Foundation, enriching communities through support of the visual arts.



YOUNG ALUMNI AWARD

Dr. Zongjie (Daniel) Wang
MASc'16

Dr. Zongjie (Daniel) Wang developed a groundbreaking microfluidic technology that enables the non-invasive collection of cancer-fighting cells for use in immunotherapy. Dr. Wang heads an initiative focused on understanding inflammation at the molecular level and inspires future scientists through outreach and education.



ENTREPRENEURSHIP AWARD

Rian Gauvreau
MBA'11

Rian Gauvreau co-founded Clio in 2008, a cloud-based legal practice platform used by over 150,000 professionals across 90 countries. An advocate and philanthropist, he fostered a progressive workplace culture that earned Clio top employer honours and directed \$20 million in support for global pro-bono legal work through Clio Gives.



RESEARCH AND INNOVATION AWARD

Dr. Poul Sorensen
OBC, BSc'80, MD'84, PhD'90

Dr. Poul Sorensen's research has revolutionized cancer diagnostics and treatment. His discovery of a type of gene fusion involved in the development of cancer led to therapies now used to treat over 25 types of the disease. Dr. Sorensen's visionary leadership continues to narrow the gap between scientific discovery and lifesaving applications.



GLOBAL CITIZENSHIP AWARD

Dr. Shelina Babul
BSc'91, PhD'01

Dr. Shelina Babul is an expert on concussion and its prevention. She created the Concussion Awareness Training Tool, an online resource used globally to minimize the risk of head injury. She has influenced national policy in Canada, and works to support underserved communities worldwide and promote global standards in concussion care.



FACULTY COMMUNITY SERVICE AWARD

Dr. Lori Daniels
MSc'94

Forestry professor Dr. Lori Daniels is an expert in wildfire resilience and co-founder of the Centre for Wildfire Coexistence. She works with Indigenous and rural communities to develop scientific, culturally informed solutions. Through her outreach, Dr. Daniels has promoted wildfire preparedness, influenced policies, and supported Indigenous stewardship.



VOLUNTEER LEADERSHIP AWARD

Dr. Anthony Yurkovich,
BSc(Agr)'51, MD'55 & Nancy Yurkovich, BSN'84, BCom'88

Dr. Anthony and Nancy Yurkovich are philanthropists and advocates who are dedicated to advancing healthcare and education. At UBC, they support research in sustainability and optimization of patient-clinician relationships. Their involvement in establishing the Rotary Hospice House in Richmond has transformed the city's healthcare landscape.



HONORARY ALUMNI AWARD

Tom Johnson

Tom Johnson coached UBC's swim team from 1990 to 2005 and helped elevate the program to international prominence. Mr. Johnson led the Thunderbirds to win 35 national and regional titles, and encouraged academic excellence in his students, helping them succeed in all areas of life.

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Achievement Awards
CALL FOR NOMINATIONS

Great achievements often go unspoken. Help us recognize those who deserve to be celebrated! Do you know a graduate, student, faculty member, or friend of UBC who deserves to be recognized as a leader, advocate, artist, or visionary? This is your chance to bring them into the limelight.

To nominate online, visit alumni.ubc.ca/nominate | NOMINATION DEADLINE: **Friday, February 13, 2026**

Raptors, Robots, and Royalty

1. WHICH OF THE FOLLOWING PUBLIC FIGURES DID NOT RECEIVE AN HONORARY DEGREE FROM UBC?

- a. Kim Cattrall
- b. Queen Elizabeth
- c. William Lyon Mackenzie King
- d. The 14th Dalai Lama

2. WHAT IS THE NAME OF UBCO HEAT'S FIERCE MASCOT?

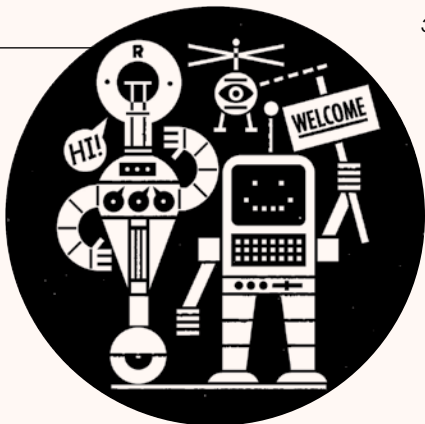
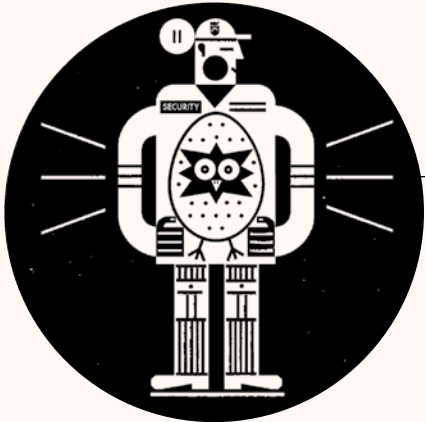
- a. Scorch
- b. Heatwave
- c. Sparky
- d. Pyro

3. ON SEPTEMBER 2, A TRIO OF ROBOTS ARRIVED AT THE UBC VANCOUVER CAMPUS TO HELP WELCOME STUDENTS. WHICH OF THE FOLLOWING CAMPUS LOCATIONS IS NOT A NAMESAKE FOR ONE OF THE ROBOTS?

- a. Kelowna
- b. Northern Way
- c. Point Grey
- d. Robson Square

4. UBC IS WESTERN CANADA'S MOST RESEARCH-INTENSIVE UNIVERSITY. WHAT PERCENTAGE OF INDUSTRY-FUNDED RESEARCH IN THE BC POSTSECONDARY SYSTEM TAKES PLACE AT UBC?

- a. 43%
- b. 60%
- c. 78%
- d. 90%



5. IN MAY, A UBCO STUDENT FOUND A BABY BIRD ON THE SIDEWALK AND CALLED SECURITY. NOW IN THE CARE OF RAPTOR RESCUE, NEWLY NAMED "PEANUT BUTTER" HAS BEEN IDENTIFIED AS AN:

- a. Osprey chick
- b. Eaglet
- c. Eyas (baby hawk)
- d. Owlet

6. IN 1987, UBC IT MANAGER JOHN DEMCO CREATED A NOW HIGHLY-USED DOMAIN NAME – TWO YEARS BEFORE THE WORLD WIDE WEB WAS CREATED BY TIM BERNERS-LEE. WHAT WAS THE DOMAIN NAME?

- a. .com
- b. .gov
- c. .ca
- d. .co

1 c). Surprisingly, the former PM never received an honorary degree from UBC. An honorary Doctor of Laws was conferred on Queen Elizabeth during her visit to Canada in 1957. Tenzin Gyatso, the 14th Dalai Lama, received his honorary degree in April 2004, and actress Kim Cattrall received hers in November 2018.

2 a). In 2013, after UBCO crowdsourced potential names, Scorch was loosed on the field. In the same year, UBCO was also granted full membership to Canada West Universities Athletic Association.

3 b). The robots were dubbed Kelly, Grey, and Robson. Kelly was responsible for answering student questions, while Grey and Robson gave out snacks.

4 d). Each year, UBC undertakes more than \$70 million in industry-sponsored research across over 1,000 projects.

5 b). Peanut Butter will return to campus when ready. Until then, you'll find a cute picture on the @ubcosecurity Instagram page.

6 c). At the time, a small group of volunteers oversaw the .ca registry, managing domain requests and applications by hand.

Illustrations: Raymond Beisinger

NEWS FLASH



VANCOUVER

UBC UNVEILS BEATY BIODIVERSITY CENTRE EXPANSION

Long recognized as one of the top biodiversity research institutions in the world, UBC is taking another major leap in its commitment to a brighter future. The \$45-million expansion opened this September, made possible by philanthropic support from the Ross and Trisha Beaty family and Gordon B. Shrum. This extension adds new research and meeting spaces to enhance UBC's ability to address biodiversity loss, as well as a new fossil storage room and a pollinator garden to support local biodiversity.

EMBARK ON A GUIDED TREE CLIMB

Ready for a true bird's-eye view? Cultivara Tree Tours has partnered with UBC Botanical Garden to offer Vancouver's first guided tree climbing. Equipped with modern ascension systems, tour groups propel themselves into the canopy alongside expert climbing arborists to learn about tree biology, urban forestry, and forest ecology from a new perspective. In alignment with the Botanical Garden's mission to foster environmental stewardship, each climb gives participants an opportunity to slow down and deepen their connection with nature.

FIRST-OF-ITS-KIND SMART FARM ANNOUNCED

The Centre of Excellence in Next Generation Networks (CENG) announced a collaboration with UBC Farm to advance Canadian agricultural innovation. The new UBC Smart Farm will provide five hectares of testing ground for agricultural technology solutions, combining real-world farming environments with advanced connectivity infrastructure. By partnering with CENG, UBC will empower Canadian startups and scale-ups to develop and deploy agri-tech solutions that promote sustainability, productivity, and climate resilience.

7 hours 27 minutes

The average sleep time in Canada, according to a UBC and UVic study, which found that an optimal amount of sleep may depend on the cultural norms of where you live.

17%

The reduction in travel emissions over a year, according to a UBC study into the effectiveness of income-based rebates for electric bicycles in BC.

47%

The increase in bottles recycled when people were offered a 0.01% chance at winning \$1,000 instead of 10 cents for returning their bottles, according to a study by UBC psychologists.

12,000

The number of Canadianisms in A Dictionary of Canadianisms on Historical Principles, after being updated for its third edition by UBC editors.



OKANAGAN

PROF LEADS GLOBAL TEAM TO TRANSLATE HISTORIC TEXT

Dr. Francisco Peña's project to translate, analyse, and digitise the *General e grand estoria* (GE), the largest universal history written in Medieval Europe, has received a grant of over \$2.1 million. At over 6,000 pages, the GE is a handwritten attempt to record all of human history, from the world's origins as narrated in the Bible to the time of the work's commission in the 1200s. Dr. Peña's international team of 55 scholars from eight countries mirrors the GE's religiously diverse authorship. They will prioritise making the GE accessible to the public, echoing the original authors' choice to write in the common language, rather than Latin.

UBCO AND NRC CREATE CANADIAN SUSTAINABILITY DATABASE

Led by Dr. Nathan Pelletier, the university teamed up with the National Research Council of Canada to create a database of reliable data to assess the sustainability of Canadian products and supply chains. Until now, Canadian companies, industry groups, and researchers have had to rely on proxy data from Europe or the US. Currently, the database contains data from the agri-food sector but will expand to cover other industries.

PROTECTING BC FROM WILDFIRES THROUGH INDIGENOUS STEWARDSHIP

UBCO has partnered with the First Nations' Emergency Services Society (FNESS) to develop new technologies supporting Indigenous fire stewardship. The team will develop and deploy fire-risk sensors in collaboration with local First Nations communities and use the data in AI predictive models to forecast wildfire risk. The partnership received a funding boost in August, with a \$2.3 million contribution from the federal government. The integration of holistic wildfire mitigation practices will contribute to the restoration of culturally prescribed fire practices and support the development of risk management frameworks centered on community needs.

This scientist’s side hustle is creating crosswords for *The New York Times*

Dean by day, cruciverbalist by night, Dr. Mark MacLachlan discusses the science behind the art of his hobby as a crossword creator.

BY ALEX WALLS

IF YOU'RE FEELING unaccomplished, stop reading. It's only going to get worse.

In his day-to-day life, Dr. Mark MacLachlan (BSc'95) is a professor of chemistry researching something called “supramolecular materials” (don't ask) and dean of science at UBC. His days are filled with unpronounceable chemicals and long meetings.

For the average reader, relaxing after work might involve scrolling through Instagram, reading a book, watching some junk television, say. Dean MacLachlan creates crosswords. For *The New York Times*, *LA Times*, and *The Wall Street Journal*, no less. And no, he doesn't watch *Love Island*.

The florally festooned dean (he wears an aloha shirt every day) first had a crossword accepted by *The LA Times* in 2016 and estimates he's created about 75 puzzles since – about one every two months.

It's not his first foray into competitive word play: As a child, he won a contest run by the local newspaper for free copy editing to find the most errors in the classifieds section, and in elementary



school he challenged his classmates to an anagram competition using the word “incubator.” Did he win? “I think I found more than a hundred words in the end.”

If you're in Vancouver, you may spot Mark in a café on a Saturday morning, filling out *The New York Times* crossword in the local newspaper, which he says is his “little addiction” and Alzheimer's test, “to make sure that I'm still with it.”

If you're flying into the city, you might see him creating them on the plane, when he has a good chunk of time to spare. On a flight to Toronto, he conceived what may have been his pièce de résistance: a chemistry-themed crossword featuring the noble gases.

Or perhaps it was the “musical turns of phrase” crossword created in a very special collaboration: with his son John MacLachlan, who started studying music at UBC this fall.

Mark created his first crosswords with pen and paper but these days uses a computer program, aided by crossword dictionaries stuffed with puzzle-friendly words. He starts by choosing a theme. Then he creates a grid to fit the theme entries and fills it with words, introducing black squares and making sure to maintain rotational symmetry. “Crosswords do have a certain science to them,” he says. “Creating them requires a mathematical, puzzle-inclined mind.”

The rules say that words can't be obscure (so no 16th-century Italian chamber pots), can't repeat, and should generally pass the “breakfast test” – that is, they are appropriate to use at the breakfast table in front of your family (although it's rumoured at least one NYT puzzle has been ass-themed).

The last step is to create the clues. All of this can take up to 80 hours for just one crossword, depending on the intricacy of the theme and the number of revisions required. Weekday crosswords earn US\$50-300 and the larger, more complex weekend puzzles can net as much as US\$2,250. “I certainly don't do it for the money,” says Mark.

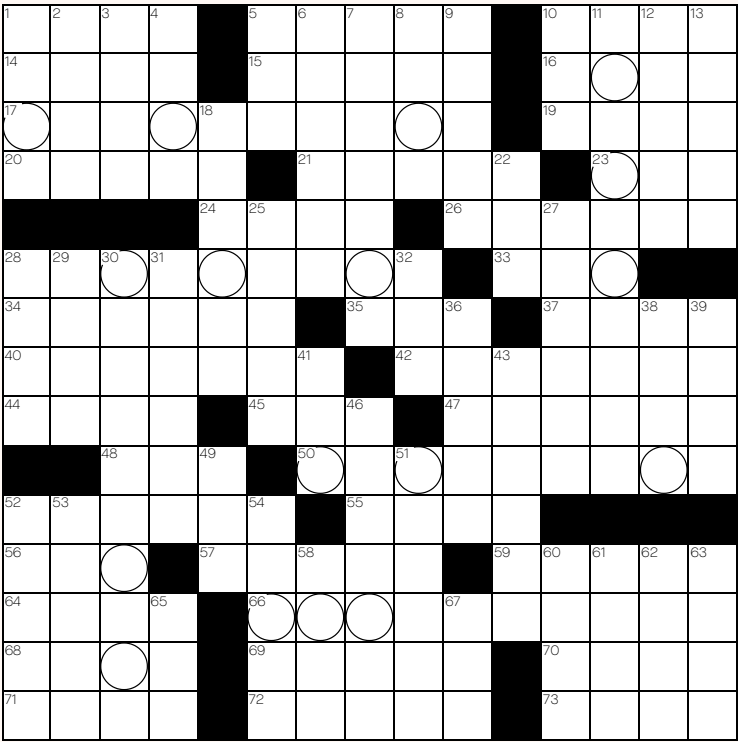
But his work has earned him fans. Provost and VP, Academic, Dr. Gage Averill blames one of Mark's trickier puzzles for tanking his average Thursday solve time. “Mark has a special knack for composing diabolically clever themed puzzles, precisely the kind that I find most satisfying to solve,” he says, “and I really appreciate his frequent sly music references.”

Another UBC fan is former dean of science Dr. Simon Peacock, with whom Mark has co-created a number of yet-to-be-published crosswords. “My favourite (and at the time, most frustrating) crossword puzzle constructed by Mark was titled ‘Aluminum Siding,’” he says, “and it required thinking outside the box, literally.” (Spoiler: All of the Across answers had an extra ‘AL’ that needed to be added to the words outside of the grid.)

Now that the winter term is in full swing, how is Mark managing to squeeze in his puzzly pursuits alongside his real job?

“I make some time in the evening and on weekends to construct new puzzles,” he says. “Actually, my worlds have collided this fall, because now UBC students and departments are asking me for custom crosswords or cruciverbalist advice!”

This article was originally published online and has been edited for length.



FULL SPEED AHEAD

A crossword created for *UBC Magazine* by Dr. Mark MacLachlan

- ACROSS**
- 1. Physicist's collection
 - 5. Unit of magnetic induction
 - 10. Copied
 - 14. Human rights attorney Clooney
 - 15. Cookies promoted in the “Wonder-filled” campaign
 - 16. *A Treatise of Human Nature* author David
 - 17. * Extra song on an album
 - 19. Machu Picchu inhabitant
 - 20. Symbol for standard deviation
 - 21. Classic sci-fi film starring Sigourney Weaver
 - 23. 21st, e.g.: Abbr.
 - 24. Part of a Louvre title
 - 26. Launderers
 - 28. * “That’s a possibility...”
 - 33. Coca-Cola product discontinued in 2020
 - 34. Prepared for feathers?
 - 35. NBC source of the “More cowbell!” meme
 - 37. Tofu bean
 - 40. Phone holders
 - 42. Exchange
 - 44. “Purple _____” (Hendrix classic)
 - 45. _____ gate (logic operator)
 - 47. Typical flashlight batteries
 - 48. First and third at UBC, e.g.
 - 50. * Source of historical information
 - 52. Stops
 - 55. Heading into overtime, perhaps
 - 56. Celestial sphere
 - 57. Polish applicator?
 - 59. Work persona on *Severance*
 - 64. Body part that might be threaded

- 66. Club that might go around Stanley Park, and a visual interpretation of the circled letters in the * answers
- 68. Beat decisively
- 69. Bed for a barbecue
- 70. Double speak?
- 71. Faculty wearing purple on Imagine Day at UBC
- 72. Boot out
- 73. Heading on a wine list
- 18. Hollywood’s _____ L. Jackson
- 22. _____ Bailey Stadium, home to the Vancouver Canadians
- 25. From the past
- 27. Mouths off to
- 28. Mosquito bite consequence
- 29. US Figure skater Lipinski
- 30. * Really into
- 31. Uses DoorDash, say
- 32. Wrap up
- 36. Philosopher John who wrote *An Essay Concerning Human Understanding*
- 38. River that divides China from North Korea
- 39. Church recess
- 41. Weep
- 43. Like citrus fruits
- 46. Mortgage safeguard
- 49. Put in stitches
- 51. UBC’s Research repository with a geometrical name
- 52. Deadly viper
- 53. There’s one in this clue
- 54. Chimichurri or bechamel
- 58. PlayStation rival
- 60. L.A. Dodger or N.Y. Met, e.g.
- 61. “Awesome!”
- 62. Like many modern TV broadcasts
- 63. They might be inflated
- 65. kg and mg, e.g.
- 67. High fashion inits.

👇

Win a UBC Bookstore gift card

Take a picture of your completed puzzle (or complete it online) and submit it at magazine.alumni.ubc.ca/full-speed-ahead to be entered into a draw for a UBC Bookstore \$250 gift card.

Contest closes December 31, 2025. Open to UBC alumni residing in Canada (excluding Quebec). Full contest rules at link. Answers will be published online in January.

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IN MEMORIAM

Obituaries are published in full on the magazine's website at magazine.alumni.ubc.ca/in-memoriam, with listings included in our spring and fall print issues. Please submit obituaries at magazine.alumni.ubc.ca/memoriam-submissions.

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Theresa van der Goes
Steven Kent

Coach Frank Smith

Legendary football coach Frank Smith has passed away at the age of 93. His name has long been synonymous with UBC football, and he was widely considered one of the most successful university coaches in Canadian history. Frank didn't have an easy start in life. Born in 1931, he grew up in tough Vancouver orphanages during the Depression era, but football became a fascination that would serve as both an outlet and a way to a better life.

During the 1950s he played in the CFL with Calgary, Winnipeg, Edmonton, and the BC Lions. When cut from the Lions in 1956, he transitioned into coaching, starting the football program at Notre Dame high school with the late Cal Murphy. Frank went on to coach 18 seasons at the high school, junior college, and university level before taking over as head coach of the UBC Thunderbirds in 1974.

Morale was at an all-time low, but Frank took the failing UBC football program and turned it around. Hard work, the desire to win, and the ability to spot and attract football talent helped him transform UBC into one of the most respected and successful programs in the country. Over the next 21 seasons, with trusty assistant Bob Laycoe by his side, Frank compiled a 126-94-4 win-loss-tie record overall and 17 winning seasons. He led UBC to a school-record eight Shrum Bowl victories over SFU, five Canada West Hardy Cup Trophy victories, and four CIAU Vanier Cup national championship appearances, winning UBC's first-ever in 1982 and another in 1986. He was named CIAU coach of the year in 1978 and 1987. His teams produced 47 CFL players, including Leo Groenwegen, Kevin Konar, and Vince Danielsen. Frank's son Casey took over at UBC in 1995 and would lead the Thunderbirds to another Vanier Cup in his third season. It was the last game Casey coached. He died from cancer in November of 1998.

Frank closed out the 1990s by serving six seasons as an assistant coach with Saskatchewan and BC in the CFL, before retiring from football in 2000. He was inducted into the UBC Sports Hall of Fame, the BC Sports Hall of



Fame, and most recently the Canadian Football Hall of Fame.

Frank and his wife Diane frequently attended games at UBC, cheering on the Thunderbirds. In 2024, UBC Athletics honoured Frank by officially naming the football academic centre the Coach Frank Smith Academic Centre.

Dwight Gregory (Greg) Powell, OC, BSc'68, MD'72, FRCPC

Dr. Greg Powell passed away on April 30, surrounded by his family. Best known for co-founding the Shock Trauma Air Rescue Service (STARS), Greg was an innovator and leader who redefined emergency care in Canada.

He was born on November 24, 1947, to Ruth and George Powell, and grew up in Edmonton, Alberta, attending Strathcona Composite High School. In 1968, Greg graduated from UBC with a Bachelor of Science, followed by a degree in medicine and FRCPC certification in Emergency Medicine. As a second-year med student, Greg experienced a locum with the Flying Doctor Service in Darwin, Australia. Immediately prior, he briefly visited Saigon and observed a MASH unit at the peak of the Vietnam War. There he saw war casualties arriving by helicopter, going straight from the field of battle to the operating room. This experience transformed Greg, inspiring his future work in critical care and air ambulance services.

In 1974, working at the Royal Victoria Hospital in Montréal, Greg met the love of his life, Linda Gordon. The couple married in 1977. In 1978, Greg accepted the appointment of Chief of Emergency Medicine at Foothills Hospital in Calgary. As the only trained emergency physician in the city at the time, he was instrumental in transforming the department. He also played a pivotal role in the founding of the Canadian Association of Emergency Physicians. Inspired by his Vietnam experience and having witnessed firsthand the gaps in critical medical care for rural areas, Greg combined his passions for medicine and aviation to co-found STARS in 1985.



With his wife Linda working with him by his side, Greg spent decades travelling across Canada to share the STARS mission. As survival rates improved across rural Alberta, STARS expanded to serve Saskatchewan, Manitoba, and eastern BC. To date, over 65,000 missions have been carried out.

Following his retirement in 2012, Greg continued to support STARS, participated on charitable and health related boards and he and Linda actively advocated for improved organ and tissue donation and transplantation. He received numerous distinctions, including the Order of Canada in 2006 and Queen Elizabeth II's Diamond Jubilee Medal in 2012. He was inducted into the Canadian Aviation Hall of Fame in 2018 and the Alberta Order of Excellence in 2021.

Greg leaves behind a legacy of care and visionary leadership that saved the lives of thousands and transformed the lives of countless more. He is survived by his beloved wife, Linda; children Adam, Nate, and Cailin; sisters Kathy and Louise; grandchildren Rosie, Sullivan and Charlie; and extended family. *(A full obituary submitted by Greg's family can be read online.)*

David Sweet, OC, DMD'78

On September 17, the widely admired odontologist Dr. David Sweet died of cancer.

Before retiring in 2020, David headed UBC's Bureau of Legal Dentistry (BOLD) lab, a unique centre of research excellence specializing in the application of forensic science methods to dental evidence. There, he worked on hundreds of murder cases and invented a technique for getting DNA out of teeth, making BOLD the top choice for police agencies across Canada to send teeth and bones for forensic analysis.

He joined UBC Dentistry in 1991 as a lecturer, transitioning to professor in 2006. From 2011 to 2014 he was associate dean. Throughout his years of service, David received numerous awards in recognition of his exceptional teaching abilities. His passion and commitment were also marked by his classmates and colleagues, who came together to create the Sweet Student Fund to help dental students who have a personal crisis while at school.

In 1992, operating out of the UBC Dentistry lab, David founded and sponsored the British Columbia Forensic Odontology Response Team, a 90-member core group of dentists, hygienists and certified dental assistants trained to respond to mass disasters in Canada and internationally. In 1998, he began providing



training for Canadian military forensic dentists at the lab.

In 2008, David was appointed an Officer of the Order of Canada. He received this recognition for enhancing Canada's reputation as a leader in forensic odontology – the science of victim identification using dental charts and analysis of teeth – and for his contributions as a teacher, researcher and consultant. His forensic odontology has been used in historical cases in Canada and across the globe.

He was further recognized in 2014 with the Canadian Forces Medallion of Distinguished Service, the highest award the military can confer on civilians. For many years, David provided Canada's military forensic dentists with detailed advice tailored to their specific missions, every time they deployed to the site of a mass disaster or armed conflict. In November 2022, following a 25-year consultancy role with the Royal Canadian Dental Corps, he officially retired. High-ranking officers presented him with meaningful gifts and letters at a mess dinner at CFB Esquimalt, where he was the guest of honour.

David Sweet's exceptional achievements and his desire to give back are a testament to his character as a beloved leader, colleague, and friend – at UBC and beyond.



CAMPUS SEEN

Stumpy

Hanging in the Beaty Biodiversity Museum is a natural timeline: Stumpy is an old tree section whose storied past at UBC was almost cut short. It was taken from a 775-year-old western redcedar, a species known by coastal First Nations peoples as the tree of life, that was likely felled in the 1950s. It became an arboreal teaching aid that for years was showcased in the Biological Sciences building, until renovation plans threatened its continued longevity. Fortunately, some of the building's occupants had a soft spot for Stumpy. Their scheme to save the tree section required thinning it down to a more manageable size – a behemoth task, considering it clocked in at 585kg and spanned two metres. Fortunately, the chief carver of Forestry's Sopron Gate, Les Jozsa, BSF'61, saved the day with a 1.4-metre-long chainsaw. A slimline Stumpy graced the Biological Science building for a few more years until being rehomed at the Beaty Biodiversity Museum, where it now stars in a new installation.

~ Ash Wahking, BFA'25



Photo: Marco Badami/The Florentine

THE LAST WORD

Kim Campbell,
PC, CC, OBC, KC
BA’69, LLB’83, LLD’00

“Seek wisdom, conquer fear, do justice.”

WHO WAS YOUR CHILDHOOD HERO?

Winston Churchill and Elizabeth I.

DESCRIBE THE PLACE YOU MOST LIKE TO SPEND TIME.

Home.

WHAT WAS THE LAST THING YOU READ?

The Viceroy’s Daughters by Anne de Courcy.

WHAT OR WHO MAKES YOU LAUGH OUT LOUD?

Dave Barry or any really good humour.

WHAT IS THE MOST IMPORTANT LESSON YOU EVER LEARNED?

The most valuable currency you will ever spend is Respect.

WHAT IS YOUR IDEA OF THE PERFECT DAY?

Being somewhere beautiful with someone I love.

WHAT IS YOUR MOST PRIZED POSSESSION?

My dog and needleworks by my mother.



CLAIM TO FAME

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UBC CONNECTION

She is an alum who was particularly active as a student, serving as freshman president of the AMS and becoming VP in her third year. Her campaign slogan was “Kim is Cuddlier.”

At law school, she was best known for writing and directing the annual Law Revue, with law school-themed parodies of famous songs.



RECENT WORKS

Campbell advocates for democracy from her home in Florence, Italy. She frequently speaks to student groups and is an instrumental member of the Club de Madrid, a pro-democracy alliance of former political leaders, which she helped found.

More Q&As with Kim Campbell at magazine.alumni.ubc.ca/kim-campbell

IF YOU RULED THE WORLD, WHAT’S THE FIRST THING YOU’D CHANGE?

Education.

APART FROM THE ESSENTIALS FOR LIFE, WHAT CAN’T YOU DO WITHOUT?

Art.

WHAT ITEM HAVE YOU OWNED FOR THE LONGEST?

My mother’s navy portrait.

WHOM DO YOU MOST ADMIRE (LIVING OR DEAD) AND WHY?

The women and people of colour who achieved in the face of great prejudice.

WHAT WOULD YOU LIKE YOUR EPITAPH TO SAY?

A tile in the mosaic of progress.

IF YOU COULD INVENT SOMETHING, WHAT WOULD IT BE?

A way to take CO2 from the atmosphere at scale.

IN WHICH ERA WOULD YOU MOST LIKE TO HAVE LIVED, AND WHY?

The one I am in.

WHAT ARE YOU AFRAID OF?

Ignorance and bigotry.

WHAT IS YOUR LATEST PURCHASE?

A new laptop.

NAME THE SKILL OR TALENT YOU WOULD MOST LIKE TO HAVE.

Any musical skill.

IF YOU COULD ONLY EVER LISTEN TO THREE PIECES OF MUSIC, WHAT WOULD THEY BE?

Brahms’s *Alto Rhapsody* sung by Marian Anderson; Bruch’s *Kol Nidrei* by any great cellist; the duet from Bizet’s *The Pearl Fishers* sung by Björling and Merrill.

WHAT IS YOUR PET PEEVE?

Lying.

WHAT IS THE SECRET TO A GOOD LIFE?

A sense of purpose and the ability to give and receive love.

DO YOU HAVE A PERSONAL MOTTO?

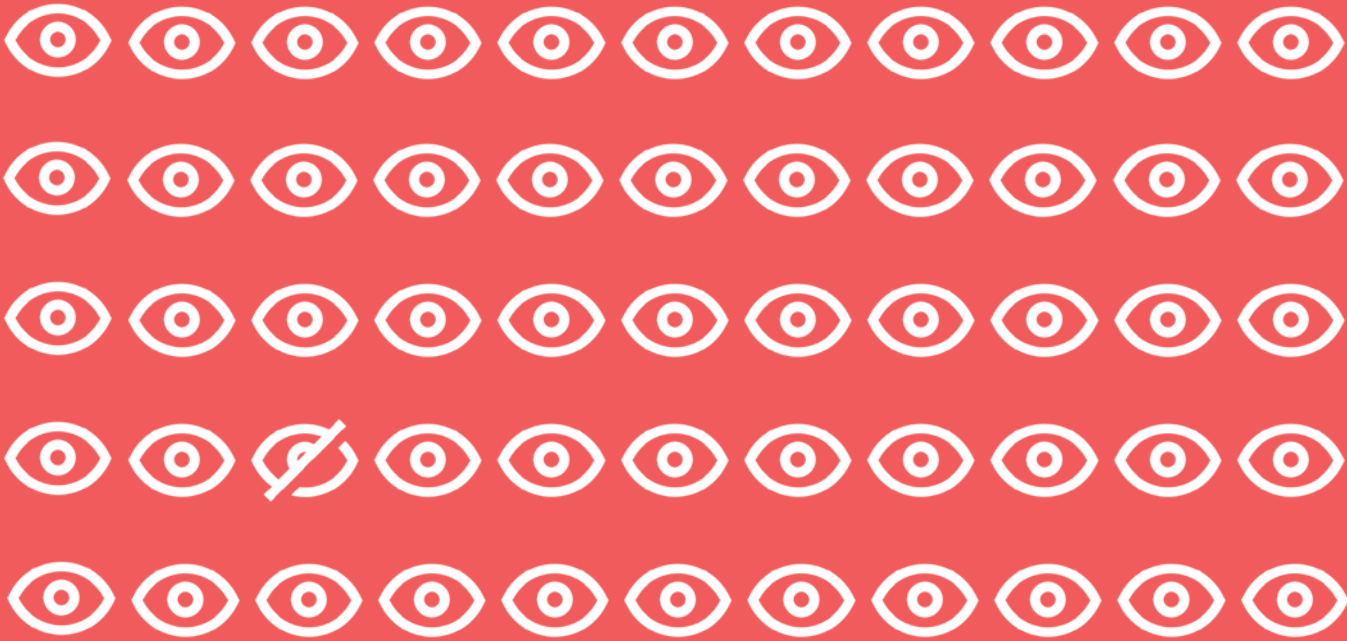
“Seek Wisdom, Conquer Fear, Do Justice.” It is on my coat of arms.

WHAT IS THE MOST IMPORTANT THING LEFT ON YOUR BUCKET LIST?

To continue to do things that make me marvel.

WHAT ARE YOUR UBC HIGHLIGHTS?

Too many to name. Mostly meeting wonderful people. Receiving the Great Trekker Award a few years ago was a highlight because I met some earlier Great Trekkers when I was an undergrad.



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FORWARD 

