UBC100: WHAT’S NEXT?
A day of exploring the future, featuring William Shatner.
See page 3 for details.
WHEN I WAS A STUDENT
Your tales from student life.

THE TALL AND THE SMALL
Two novel approaches to student housing.

FEATURE
OUT ON A LIMB
UBC’s Botanical Garden is preventing the extinction of rare and at-risk plants.

FEATURE
YESTERDAY’S TOMORROW
Artificial intelligence is changing life as we know it. Will it be for the better?

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Chris Friesen, BA’88, is heading a new approach for the integration of refugees into Canadian society.

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SETTING SIGHTS ON ALIEN OCEANS
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Q & A
THE LAST WORD WITH WILLIAM SHATNER
Q: Actor, director, author, singer. Is there anything else you’d like to try?
A: Holding my breath under water for four minutes.

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COVER IMAGE: The cover image is a vacation poster from the Exoplanet Travel Bureau. The poster and the bureau are fictional but the destination is real. Kepler-186f is the first Earth-sized planet discovered in the “Habitable Zone” around another star, where liquid water oceans could exist on the planet’s surface. Its star is much cooler and hence redder than our Sun. If plant life grows on Kepler-186f, photosynthetic there may have adapted to red “sunshine,” producing a colour palette that’s different from the garden greens of Earth. Kepler 186f is one of thousands of planets discovered in the last three decades. UBC astronomer Jaymie Matthews shares this story of cosmic discovery in his article “Setting sights on alien oceans” on page 12.

Image credit: Jet Propulsion Laboratory (NASA/Caltech)
As a kid, I was fascinated by the lives of elderly relatives who had been born in the 1800s. I’d ask them annoying questions: How long did it take you to walk to school? Wasn’t life boring before television? How many times did you squash your finger in the clothes wringer? Were there dinosaurs? (That last one earned me a cuff on the ear.)

Now I’m the one who’s dated. I still remember the emoji I felt in the late 1970s when my cousins received a game of Pong for Christmas, and the closest contender in my stocking was a pack of playing cards. In the 1980s it was the height of sophistication to own a Fision. One day in the mid-’80s I sat in front of a friend’s home computer (no one else I knew had one yet) while she urged me to type anything – ANYTHING! – into the strange phenomenon of a World Wide Web browser. I regarded early adopters of cell phone technology as anti-social poseurs, annoying everyone else with their expensive fads and their loud public conversations – but now the new millennium, I shrugged off those Luddite tendencies and purchased my own. It wasn’t smart, but it did look like something from Star Trek. (I’ve kept all my old cell phones. You never know – the one with the pull-up antenna might be worth something one day.)

As William Shatner observes on page 52, we live in the most exciting time in history. It’s especially exciting if you have a comparison: clear memories of a time before computers were ubiquitous, before the World Wide Web, and when change happened way more slowly than warp speed.

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Breathing easier through epigenetic research

Can the environment affect our genes? According to a trio of researchers at UBC it can, and it does. Their respective studies in respiratory disease epigenetics have helped make breathing easier through epigenetic research and experience of life.

**Fields and Emerging Complex Diseases**, and her team are looking for a type of genetic change in the body. "We've revealed a window into how these changes may be translated to health issues, even when there are no obvious symptoms."

From personalized prescriptions to DNA in space

Innovative. Paradigm-shifting. Out-of-this-world. All of these words can describe the research of Dr. Corey Nislow in pharmacogenomics—a research that is poised to launch us into the future.

Pharmacogenomics is a fast-evolving field that combines pharmacology with genomics to generate innovative new applications. Nislow, an associate professor in the Faculty of Pharmaceutical Sciences, is collaborating with Genome BC and the BC Pharmacy Association on a project—the first of its kind in North America—that has the potential to revolutionize healthcare delivery.

"By using genomics to predict more accurately an individual's response to a drug and its dosage, the project hopes to eventually usher in a new era of personalized medicine, in which pharmacists can use each person's genetic makeup to make medication use safer and more effective."

Following the sequencing of the first human genome in 2000, scientists have known that genetic information could be used by pharmacists. "To say it really simply, some of your genes will have variants... that will make you metabolize some drugs quicker than others, make you metabolize some drugs slower than others, or even prevent an individual from metabolizing a drug at all," says Nislow.

Yet, he says, "there hasn't been a healthcare profession that's stepped up and said we're gonna take this on."

This is where pharmacists, working with Nislow's team, are stepping up to the plate. Community pharmacists provide the perfect interface between patients and new prescription practices. And with major technological advances allowing genetic testing to be conducted on a large scale at a much lower cost, the ability to develop a pharmacogenomic approach to be conducted on a large scale at a much lower cost, the ability to develop a pharmacogenomic approach to revolutionize healthcare delivery.

To that end, his lab is working with faculties across campus and colleagues around the world to determine how the environment—including socio-economic status—plays a role in gene expression and affects conditions such as fetal alcohol syndrome, asthma and chronic obstructive pulmonary disease.

Other asthma-related epigenetics research includes Dr. Denise Daley's investigation of whether parents' smoking habits trigger changes in the body. "We're focusing on the mechanics of getting the genome from a pharmacy, bringing it to the lab and decoding it with a high enough accuracy and in a fast enough time frame that you could actually benefit from that information," says Nislow.

If phase one successfully demonstrates the feasibility of pharmacogenomics, phase two will see the expansion of the project into a wider base of community pharmacies, where pharmacists will begin to implement genetic information into patient drug therapy decisions. With more than 500 community pharmacies across the province, there is ultimately the potential for all BC residents to access the testing, regardless of where they live, and for pharmacies in BC to be at the forefront of gene changing innovation.

It's all part of a giant leap forward in delivering medicine in a way that is streamlined and individually tailored, helping to introduce drug therapy costs, many of which were once beyond the reach of the average person. "It's a formidable resume. And that's before you factor in his role with prominent cancer researchers in 1998. It has since become one of the world's most respected cancer research facilities. He is also CEO of the Prostate Centre's Translational Research Initiative for Accelerated Discovery and Development (PC-TRiADD), a national centre for excellence in research and commercialization.

Together, these programs have created a collaborative and fertile environment with a rigorous bench-to-bedside philosophy, focused on advancing clinical research discoveries into treatments with minimal delay. It is able to do so by combining strengths in cancer genomics with the research and development of new drugs treatments.

The most prevalent cancer in BC men and the second leading cause of cancer deaths. Gleave is the executive director and a leading researcher at the Vancouver Prostate Centre (VPC), a research hub hosted by UBC and the Vancouver Coastal Health Research Institute that he co-founded with prominent cancer researchers in 1998. It has since become one of the world's most respected cancer research facilities. He is also CEO of the Prostate Centre's Translational Research Initiative for Accelerated Discovery and Development (PC-TRiADD), a national centre for excellence in research and commercialization.
Researchers like Drs. Colin Collins and Yuhan Wang are teaming up to pave the way for personalized oncology. By sequencing the genomes of cancer tumors, Collins and Wang, in collaboration with, for instance, scientists at the VFC, are predicting the most effective anti-cancer therapies: targeting the specific molecular characteristics of the malignant growth. A breakthrough blood test developed at VFC by researchers led by Dr. Kim Choe is now allowing the geneticprofiling ofcancer inpatients that is already transforming the treatments they receive.

A recent breakthrough in drug development has revolutionary potential for treating castrate-resistant prostate cancers. The breakthrough was made possible through collaboration between leaders in seemingly disparate scientific domains. Dr. Paul Rennie is considered one of the most established world leaders in the biology of androgen receptors, key sites on cells where expressed hormones bind and cause prostate cancer. Dr. Artem Cherkasov has designed a drug that, rather than blocking the site where activity, or eventually completely bypass the need for the androgen receptor, is most importantly a discovery that could have life-altering impact.

Cherkasov and Rennie have designed a drug that, rather than blocking the site where activity, or eventually completely bypass the need for the androgen receptor, is most importantly a discovery that could have life-altering impact. It is a feat of collaboration between some of the most respected researchers in seemingly disparate scientific domains. Dr. Paul Rennie is considered one of the most established world leaders in the biology of androgen receptors, key sites on cells where expressed hormones bind and cause prostate cancer. Dr. Artem Cherkasov have designed a drug that, rather than blocking the site where activity, or eventually completely bypass the need for the androgen receptor.

This newfound drug has the potential to replace fossil-fuel materials, and is a wide and exciting range of applications: from soundproofing and insulation to advanced cosmetics and high-strength turbine blades, and even to bio-compatible scaffolds for 3D printing of human tissue.

These are just some of the many exciting projects being initiated by The FBP Institute researchers, including programs such as a new Master’s of Engineering in Green Bio-Products to train and educate the next generation of bioeconomy innovators. The BC forest is intimately woven into the fabric of our province and Olson is optimistic about its potential for many more years to come.

The research stories above, along with others, can be found on the website of UBC Research and International. To learn more about UBC research, please visit research.ubc.ca

Ancient medicine: an antidote for the post-antibiotic era?

UBC researchers have received wide national and international recognition. In 2010-2010 alone, four were inducted into the Order of Canada; seven were elected to the Royal Society of Canada and one to the Royal Society of London; five were elected to the Canadian Academy of Health Sciences, and two were inducted into the Canadian Medical Hall of Fame; two were elected to the American Association for the Advancement of Science; two more became Guggenheim fellows; one was elected to the American Academy of Arts and Sciences, and one received the Social Sciences and Humanities Research Council (SSHRC) Gold Medal, the highest award that SSHRC can bestow.

My list is by no means complete, but it may help you see why today’s UBC is regarded as such a research powerhouse. And it is in large part because of our global reputation as a major research-intensive university that we are attracting greater and greater numbers of international students.

One of my goals as incoming president in 1997 was to develop a strong international presence at UBC, and when I left in 2006 we were enrolling some 3,000 international students. By 2015, that number had doubled: last year our campuses in Kelowna and Vancouver attracted over 11,000 international graduate and undergraduate students from 139 different countries. Today one in five of our students is from another country. It’s hardly surprising, then, that this year the QS International Rankings ranked UBC as North America’s most international university, well ahead of such venerable institutions as MIT, Princeton, and Harvard.

In every respect, as we look back over UBC’s past decade, we can all take pride in the advances that UBC is making as an institution with an increasingly global presence. And I have not even included the research discoveries that UBC researchers have made in the recent past.

UBC’s Blueprint for Research, 2015-2025

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Fuel cells are the future by Lou Corsper-Bosshart

Last year’s recall of 10 million Volkswagen diesel vehicles highlights the challenges of reducing emissions from fossil-fuel powered cars. Fortunately, there’s an alternative and it bears zero emissions. The fuel cell is currently being developed by major automakers including Mercedes-Benz, Toyota, and Hyundai.

Mark Melia, director of UBC’s Clean Energy Research Centre (CERC), has been researching fuel cell technology for more than 15 years. When Mercedes-Benz rolls out its new fuel-cell cars in a few years, they’ll be Canadian technology. What are some of the benefits of fuel cells?

Fuel cells convert hydrogen and other fuels into electricity quietly, efficiently, and without pollution. A fuel-cell car produces zero emissions. You’d only see water coming out of the tailpipes. And it’s quickly refuelled, unlike battery-powered cars, which can take hours to recharge.

Fuel cells can be used to build a renewable, carbon-free energy system if you produce the hydrogen from renewable sources, such as hydroelectricity. The geopolitical impact could be profound. Continents without fossil-fuel sources such as oil or natural gas can generate the energy they need cleanly.

How far along is fuel-cell adoption?

Auto manufacturers are investing in fuel-cell cars, trucks, and other types of vehicles. Hyundai is already leasing fuel cells in Vancouver, while Toyota expects to begin delivery of hydrogen fuel-cell cars in California next year. Mercedes-Benz is expected to introduce its new generation of fuel cells in a few years. By 2017, fuel-cell cars are expected to approximate that of electric cars in their early adoption stage.

As well, refuelling networks are being laid out in places like South Korea, where there are no public hydrogen fuel stations, and in Japan, where 25 stations have opened and hundreds more are being planned. Germany recently opened its first hydrogen filling station on the autobahn. There are plans for the rollout of more than 50 stations across Europe over the next five years.

Fuel cells are already part of the power grid in some cities. New York is an example. You could also have small applications, such as cold storage, because fuel cells can be miniaturized. Tell us about your work on fuel cells.

My group at CERC is working on new techniques to ensure the durability and reliability of fuel cells as they move into mass manufacturing. We’ve collaborated with and helped design the commercial Ballard Power Systems, based in Burnaby, and with Germany’s Mercedes-Benz.

British Columbia is home to the world as the leader in this field, and so when Mercedes-Benz decided to open their own production facility for automotive fuel cells in 2012, they chose to come to BC.

Q&A courtesy of UBC Public Affairs.

Wearables will change the way we live by Lou Corsper-Bosshart

From smart bodysuits for space explorers, to ski goggles that track your speed and calories, to sleek jewellery that charges your smartphone, wearable technology is advancing so quickly that what used to be the stuff of sci-fi is quickly becoming part of everyday life.

Flexible Battery Energy Lab, led by electrical engineering professor Peyman Servati is the main research centre at UBC for the development of wearable technology. According to Servati, the wearable market is exploding with growth, projected to grow to $20 billion worldwide by 2020. In this Q&A, he talks about the technological challenges that must be overcome for the market to grow to its full potential.

What are wearables?

Wearables help better integrate our computers with our everyday lives. Examples of wearable devices include fitness monitors such as Fitbit, smart watches, smart shoes, which use embedded sensors to measure your heart rate, sweat, and other physiological responses. Some new wearables even have built-in solar and battery films to power the embedded electronics.

So wearables get lots of love from athletes and coaches, but how can the average person use them?

The biggest potential application of wearables is in healthcare. A patient who has Parkinson’s disease might wear a shirt or other types of wearable flexible electronics. This would allow doctors to track and report his vital signs such as pulse rate, blood pressure, sweat, and breathing patterns to a health care provider. This information could tell medical professionals how the patient is doing on a real-time basis.

A wearable device that detects tremors and sweating could be helpful for someone with Parkinson’s disease. Combining movement and sweat measurements could be particularly useful. Combining movement and sweat measurements could be particularly useful.

What type of wearable is best for people with chronic health issues?

Many people with chronic conditions need good monitoring so that their treatment becomes more personalized and more accurate. But we don’t know yet what form it should take. More work needs to be done. It could be a wristband. It could be a shirt. But they should be comfortable, non-irritating, and unobtrusive. They have to be able to store power efficiently, or be self-powered; that’s why my lab is looking for the best self-powered technologies.

Where does this research fit in?

We’re at the threshold of a new era of healthcare monitoring. The past few years have seen an explosion in the number of people who are monitoring their health data and their data is getting more personal.

What challenges does the lab face in developing wearables?

The main challenges are cost and battery life. The wearable technology has to be affordable, and it has to last for a long period of time. Many wearables are powered by a small battery, which means they have to be replaced frequently. As a result, the cost of the device can be high.

Another challenge is the development of flexible electronics. These are electronics that are flexible and can be bent or folded. They can be used in a variety of applications, such as clothing, and can be integrated into the fabric of the clothing.

What is the market for wearables?

The market for wearables is growing rapidly. According to a report by the International Data Corporation, the global wearable market is expected to grow from $10 billion in 2014 to $30 billion in 2018.

What is the future of wearables?

The future of wearable technology is bright. Wearables are becoming more advanced and are being used in a variety of applications. From health monitoring to fitness tracking to entertainment, wearables are changing the way we live.
Q: IF YOU COULD TRANSPORT YOURSELF TO THE FUTURE, WHAT WOULD YOU BE TEACHING OR RESEARCHING IN

Dr. David Morrissey, TRIUMF at UBC

Q: IF YOU COULD TRANSPORT YOURSELF TO THE FUTURE, WHAT WOULD YOU BE TEACHING OR RESEARCHING IN

Dr. Janette Bulkan, Faculty of Forestry

A: A century is a short period in the evolution of the basics of human culture. We will still be grappling with inequalities within and between societies, with human greed and the rapacious approach to our natural environment and planetary resources. We may have stabilized our human population growth but we will still be struggling to meet rising aspirations while striving to sustain renewable resources and bring less wasteful of non-renewable resources. So I would continue to teach the new generations how to analyze social phenomena, be cognizant and practiced in the functioning of the built environment: from architecture to geo-engineering, from public policy to natural resource management.

Kees Lokman, School of Architecture and Landscape Architecture

A: While the outcomes of the Paris Climate Conference are hopeful, climate change will have major impacts on global water and food security, energy transitions, environmental transformations and the way we build our cities in the future. Today, spatial practices are just beginning to scratch the surface in terms of the possibilities of design to address these global challenges. In 100 years, with growing understandings of ecology, urban metabolism and cross-scale linkages, we are teaching how to design socio-ecological systems that fully incorporate biophysical processes as well as by-products of urbanization (waste, emissions, nutrient runoff, etcetera) in order to create productive and regenerative urban landscapes across multiple scales. Rather than obtaining a degree from a single design discipline, students will enroll in trans-disciplinary programs that interweave every aspect essential to the functioning of the built environment: from architecture to geo-engineering, from public policy to natural resource management.

Dr. Jehanne Austin, Department of Medical Genetics, Faculty of Medicine

A: My work would be totally different. Genomics, integrated with biomedical ethics, will be taught at age-appropriate levels throughout the school system, so genomic literacy in the general population will be way higher than it is today. Everyone will be getting his or her own genome sequenced in early childhood. This genomic information will be used to allow for the correction or intervention of any genetic variations that would otherwise be immediately present life-threatening conditions. This intervention will happen only under tight control because society has learned from history and will have agreed that diversity in all its forms is incredibly valuable for the enrichment it brings to all aspects of life.

In the future that I like to imagine, psychiatric conditions are no longer stigmatized but are accepted and managed in the same way as other common, complex illnesses. In this new context, I would be studying the specific ways in which genetic variations that predispose people to psychiatric illnesses also increase their resilience, adaptability, and creativity. I would be developing strategies to help people living with psychiatric problems unlock the potential of the genetic variations that they carry, to help them achieve their full potential for happiness and fulfillment.

Dr. Heidi Tworek, Faculty of Arts

A: Historians are often wary of predicting the future. But I would be using the history of news to teach students how to understand the news that they read, see, or hear, regardless of the devices they are using. Our ways of producing and consuming news have changed dramatically in the past, but I am interested in the human element. Mark Twain supposedly once stated that “History does not repeat itself, but it does rhyme.” In one hundred years’ time, I would be researching what rhymed in the history of news and why.

Have new technologies changed news in similar ways to the Internet? Has citizen journalism changed power hierarchies in society? How have we managed the costs of producing news with ideals about news as a public good?

Beyond the specific content, I would still be teaching students the skills of history. I’d want them to learn how the past affects our present. But I would also want to teach them about empathy and the development of empathy: the past is often so different from our present. But we can learn from the past how to think into the mindset of others in the past and try to understand why they thought like they did. We can learn the skill of empathy from the past, but then apply it to the unfamiliar in the present. The future will need empathetic UBC graduates just as much as we do today.

Q&A courtesy of UBC Communications and Marketing/Margaret Doyle. Photography: Martin Dee

Dr. Elizabeth Croft, Professor and Associate Dean, Department of Mechanical Engineering, Faculty of Applied Science

A: In 100 years I imagine that bioinformatics will be a well-established area of study, with topics ranging from psychology, reproduction, self-reconfiguration and healing. For the capstone project, undergraduate students will design, grow and program their robots using code that runs on a biologically based computer programmed by wireless “thought protocols.” The project lab will be very, very different when the deadline approaches, as students focus on establishing a strong link to download their code.

Senior students with a management bent will be able to take courses in organizational management of human robot teams, and perhaps read case studies on Getting the Most Out Of Your Cyborg Workforce or When Robots Go Wrong: Re-motivating and Reprogramming. Arguments will break out in the research lab about whose robot (or algorithm) is “at fault” when one robot should never have talked to a customer, a patient’s confidant, in the first place. People are robots too.

Luckily for me, the topic of human-robot interaction will still be a hot one – same problems, different tools – but I’m not planning on establishing a strong link to download their code. It would be more appropriate to sit down with the students and have a discussion about what to expect of the robots, how do we share, operate safely, communicate, take turns, teach robots, and generally get along together will continue to be problems we solve. Certainly the efforts we make to establish the rules of engagement now will be foundational to our future relationships.

Elizabeth Croft - Professor and Associate Dean, Department of Mechanical Engineering, Faculty of Applied Science

See more Q&As with UBC profs here: ubc.ca/next100years

100 YEARS?
Dorothy believed “There’s no place like home.” Astronomers are looking to prove her wrong.

BY PROF. JAYMIE MATTHEWS, OC, UBC PHYSICS & ASTRONOMY
It’s no exaggeration to say that we know of thousands of worlds (exoplanets) beyond the Solar System. But this is only the tip of the iceberg. Currently, since our Milky Way Galaxy contains hundreds of billions of stars and it is one of hundreds of billions of galaxies in the Universe, it is an exaggeration to call it a sample of one of these planets. But planets like the one we call the Earth is the only planet of its kind. It’s a little droplet of dew on the thinest frosting of snow at the tip of an unimaginably large iceberg.

But compared to the handful of planets known to humanity for centuries, a sample of thousands is gold. We have领导班子s since more than four hundred years ago, so why did it take so long for this exoplanet? Jupiter is a planet that compares to the Earth. But the Earth is a different planet from the one and we see exoplanets from afar, orbiting so distant that our fastest space probes won’t reach the nearest of our solar neighbours for about a hundred million years. If we talk about something we find that it’s in the group of a population of stars. It is small and far that it may not be visible. But the force of a jet, the force of gravity.

Orbital motions are like dance moves. Two whirling dancers joined by their arms are like a star and a planet joined by gravity, where one partner is much heavier than the other. Both partners swing around a point between them, with the lighter one moving in a big arc, and the heavier one tracing a tiny loop. The Sun and Jupiter point on a path 1000 times closer to the centre of the Sun, which is 10,000 times more massive than even giant Jupiter. For the Sun and the Earth, the point is 320,000 times closer to the Sun. It’s no exaggeration to say that we know of thousands of worlds (exoplanets) beyond the Solar System.

How to measure something that isn’t there? They are not, too cold, but not just 185.9. But before we wait for Elon Musk’s approach to terraform, we must extend our search beyond the Solar System. The laws of Nature, the laws of physics and biochemistry.

Mars is outside the Zone. The habitable Zone, which is the range of distances from a sun where the surface of a planet could harbour liquid water oceans. The temperature must be between the boiling point and the freezing point of water. Not too hot, not too cold, but just right. Astronomers nickname it the Goldilocks Zone.

So why doesn’t life form on Mars? Too hot, too cold. Life might exist in oceans beneath the icy crusts of Jupiter’s moon Titan. But compared to the handful of planets known to humanity for centuries, a sample of thousands is gold. We have领导班子s since more than four hundred years ago, so why did it take so long for this exoplanet? Jupiter is a planet that compares to the Earth. But the Earth is a different planet from the one and we see exoplanets from afar, orbiting so distant that our fastest space probes won’t reach the nearest of our solar neighbours for about a hundred million years. If we talk about something we find that it’s in the group of a population of stars. It is small and far that it may not be visible. But the force of a jet, the force of gravity.

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41 minutes. That’s the length of its year! If you were on 55 Cancri e, you’d mark major milestones not with a calendar, but with a clock. (“Hey, honey. It’s 3:27 pm. Happy anniversary!”)

UBC is marking its Centennial. Looking back at the last century, I’m often asked to forecast the directions science and education will take at UBC in the next century.

To answer that, I don’t need a time machine to visit UBC’s 2116 graduating class. I see the future in this year’s graduating class. Consider Michelle Kunimoto, undergraduate Physics & Astronomy student. In her ASTR 449 course – where a student partners with a professor to conduct research, for credit and career experience – Michelle is looking for planets in Kepler satellite data.

Michelle is a Star Trek fan, but she’s not boldly going where no one has gone before. She’s boldly going where experts have been already, to find planets they may have missed.

Michelle sifted through 400 Kepler light curves (stellar brightness measurements v. time) where NASA’s team had found exoplanets or false alarms. She independently “rediscovered” the hundreds of planets already seen in the data, and the dozens of false alarms. She also found 23 additional signals. Reality checks narrowed this to four planets – one smaller than Mercury, two Earth-sized, and one slightly bigger than Neptune.

The last of these, known as KOI (Kepler Object of Interest) 408.05, is a “warm Neptune” in the Goldilocks Zone of its star. A planet of this size is unlikely to have oceans, even if its surface temperature is in the liquid water range. But giant planets in our Solar System have large moons. If KOI-408.05 has a large moon, then it could harbour oceans, and maybe life. Ever seen a movie called Avatar? The world Pandora – you know, the home of the big blue aliens with long tails and umny hair – was not actually a planet, but a large moon of a giant planet in its star’s Goldilocks Zone.

It’s great to have on your resume “B.Sc., UBC Honours Physics & Astronomy.” Imagine being able to include “Discovered four alien worlds, including a system that might harbour life.” That would have been a fantasy when I was a student. It’s a reality for Michelle Kunimoto and a thrilling prospect for other UBC students today.

In the land of Oz, Dorothy Gale clicks the heels of her ruby slippers and says to herself “There’s no place like home.” At UBC, Michelle Kunimoto clicks the keys of her grey computer and says to herself “I wonder if there’s a place like home” somewhere else in the Galaxy. She’s still looking. Stay tuned.
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The alumni UBC A-Card offers exceptional perks. Get yours today.

It’s yours.
In the civilian sphere, monitoring the impact of AI on our daily lives is the focus of AI4i, a Stanford University initiative that will review AI studies every five years over the next century. The standing committee will report on the “reflections and guidance on scientific, engineering, legal, ethical, economic, and societal fronts,” focusing on the broad impact of AI on systems such as education, transportation, and energy management in the context of a North American city.

UCB Computer Science professor and Canada Research Chair in Artificial Intelligence Alan Mackworth, an inaugural committee member at AI4i, is optimistic about the future. “I would certainly fall on the side of the benign and the benevolent,” he says. “I think we’ll learn how to control robots. A lot of this will come in the form of virtual robots — not physical robots, but software that’s really smart. We’ll develop personal assistants that will help us achieve our goals and keep us safe, and give us more time to be more creative.”

One form of helper-robot already finding a home in the public space is the Google’s self-driving car, which first hit the road in Nevada in 2012. But much like autonomous weapons systems, self-driving cars have yet to master the subtleties. Google cars have been ticketed for impeding traffic, have swerved to avoid a small piece of trash, and on one occasion side-swiped a bus when it misinterpreted the bus driver’s intent. To be fair, this was the only at-fault accident a Google car had over approximately one million miles — the equivalent of 75 years of human driving. Yet this accident is a necessary part of artificial learning. Even as raw computational power continues to grow, there is no substitute for experience. Like humans, artificial intelligence will need to learn through trial and error, which means the next stage of AI evolution will involve an element of machine learning rather than straight forward programming.

“You have to actually have embodiment,” says Elizabeth Croft, an ORi member of UBC’s Open Ethical Autonomous Weapons Systems – independent killer robots designed for the military – that showed an overwhelming number of those surveyed worldwide believe weapons should always be under the control of a human being.

In 2012, the University of Miami School of Law hosted the inaugural “We Robot” conference to discuss how current laws inadequately address the rapid development of robots in the military and civilian spheres. Born out of that conversation, ORi has matured into a Wikipedia for the design and implementation of future AI. Just one of a growing body of organizations drawing on a diverse field of disciplines — biology, psychology, philosophy, engineering, economics, game theory, cognitive science, and more — ORi is an international effort to navigate the tricky waters of this growing technology. Much of their mission involves conducting surveys to keep their fingers on the pulse of public opinion. In November, 2015, Moon represented ORi at the United Nations to present their findings on Lethal Autonomous Weapons Systems — independent killer robots designed for the military — that showed an overwhelming number of those surveyed worldwide believe weapons should always be under the control of a human being.

Place-life-and-death decisions in the hands of machines without human oversight is the nightmare scenario of dystopian science fiction, and the current hot-button topic among those on the cutting edge of the real thing. “Even if you could program in the laws of war, a robot following them would not be compliant,” says Peter Danielson, a professor at UBC’s W. Maurice Young Centre for Applied Ethics. “You could never really do because something like remorse is too complicated to be figured out by a robot.”

While the headlines belong to autonomous weapons and self-driving cars, the real artificial intelligence — the kind that will become a part of our daily lives — is already vacuuming our floors and assisting in the care of our elderly. This AI will increasingly serve as a stand-in for human interaction, and inevitably will be designed in our image. The hardware will be adapted for our homes — which are built for bipeds — and will help raise our children, requiring the facsimile of human company. “People like things that reflect them,” says Elizabeth Croft. “They like things that are responsive to them. They like things that meet their needs and seem to adapt to them. They appreciate something that fits them.”

This area of “humanoid robotics” will do more than mirror our own likenesses — it will require a new set of behaviours from us, and an understanding of the limits we place on that interaction. “What are their roles?” asks Croft. “What are their responsibilities? What are the rules of engagement?” Whether a human-service robot is actually self-aware is beside the point, at least for now. What we’re really talking about is how robots designed to mimic humanity will reflect those they serve, and this will be culturally rooted and culturally customized.

“If I were to build a care-robot company,” says AJung Moon, “then I’d definitely be hiring people from different cultures who really understand that particular care culture, who will be able to interpret what will work with that population. So even though the process itself may be the same, the behaviour of the robot will be customized in order for it to be successful.”

And it’s here that robot ethics takes a very personal turn. As well as the ethical principles designers should use, or the ethical principles built into the robots, the day may come when we have to consider how we treat the robot. “So how do we navigate through this field of designing a specific vehicle or piece of technology that a lot of people might end up owning?” asks Al Jung Moon. “If we were supposed to standardize a particular set of decision-making scenarios, how do we find the right balance between those people who say ‘Prioritize my life’ versus those who say ‘Prioritize the child’s life’?”

EXTENSIONS OF US

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The most important thing about the future of artificial intelligence is what it will say about us...

Survey conducted by UBC-based ORi. Full survey results and analysis can be found at www.openroboethics.org

Sample response from a survey on autonomous cars conducted by UBC-based ORi. Full survey results and analysis can be found at www.openroboethics.org
Our climate shifts, many families of plants will become at risk of extinction. UBC's 100-year-old Botanical Garden is part of the fight to prevent them vanishing from our planet.

BY CHRIS PETTY, MFA’85

Many new features have appeared at the garden. A canopy walkway - the Greenheart TreeWalk - was built in 2008, and allows visitors to walk at the height of the trees to see, literally, a bird’s-eye view of the forest. While it’s a dizzying experience for the acrophobes among us, it is an impressive view.

The Roseline Sturdy Amphitheatre and the Taylor Plaza are new outdoor venues for lectures, presentations, special events, or just a quiet spot to relax on a summer day surrounded by a profusion of native flowers.

The garden also offers extensive school field trip opportunities, a telephone hotline for local gardeners, online information, a horticultural training certificate program and a Sustainable Communities Field School.

One of the most exciting new developments (for botanical nerds, at least) is the smartphone app, “Vancouver Trees.” Developed by a team led by associate director of Horticulture and Collections Douglas Justice and research manager Daniel Mosquin, the app locates and describes commonly cultivated trees in Metro Vancouver, focusing on street plantings, but with some important collections on private lands as well. It features extensive photographs, deep descriptions of various species, and locator maps. It’s available at iPhone app stores, with an Android version to be released by the fall.

As our climate shifts, many families of plants will become at risk of extinction. UBC’s 100-year-old Botanical Garden is part of the fight to prevent them vanishing from our planet. The vast majority of the trees we see on our streets today are clones of the original plants (as grown from clipping or grafted onto healthy root stock), because this particular genus of tree is highly subject to disease and the importation of plants from Asia is now banned.

In Canada, as well as in the world, as the urban landscape changes, and as our climate shifts, the garden hopes to obtain some of these and begin a cultivation program. As a new, young project involves ornamental cherries in the Lower Mainland. These ornamentals, mostly imported from Asia, have been part of the west coast flora for many years. The garden hopes to use native plant species.

The garden, which is working to capitalize on its two main functions: to communicate with and educate the public; and to use the diversity of the collection to advance research. The garden is collaborating with other institutions to develop a catalog of flora in areas like this, collecting samples of seeds and living material for research and generation. As well, new species of magnolia have been discovered, and the garden hopes to use them.

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Many of these rare specimens are, in fact, diseased, and many are just old and unhealthy. Douglas Justice is working with the Vancouver Parks Board, the BCIT Biotechnology program and the Cherry Blossom Festival to collect and propagate samples of the plants with an eye to saving these trees for future planting. In some cases, there are only one or two individuals left from specific cultivars.

One of the big projects currently underway at the garden is to increase the area under irrigation and effectively double the collection area where cultivars of endangered species - such as cherries, magnolias and maples - can be grown and observed. Last summer the collection area was itself threatened because of the unusual drought in the Lower Mainland, putting many endangered species at risk.

The garden publishes a biennial Index Seminum - a list of seeds collected in the year – and offers these seeds for exchange with other gardens and scientific institutions. As well, the garden is part of the North American Plant Collections Consortium, which maintains collection standards and helps in the distribution of seeds for research. The Belgium-based Franklinia Foundation has supported the garden since 2002 to conduct collection and conservation research into at-risk trees including maples and magnolias in Vietnam and China. Working with Asian university partners, this work increases understanding of the biodiversity of the region, and helps illuminate concerns that might impact forest health. It is in this area that the drones come into play, accessing and collecting specimens from an otherwise inaccessible forest canopy.

Closer to home, the garden is involved with the Pink Mountain project to study the seasonal cycles of the magnolia collection to monitor the effects of climate change. Ultimately, facilities like the UBC Botanical Garden have evolved into essential depositories not only of knowledge, but of a vanishing part of our world. As our climate shifts, many families of plants will become first endangered, then rare, then extinct. Without these collections with their depth of research and knowledge there would be no chance of introducing old species into new environments, or of saving those on the brink of disaster. In this way, the projects undertaken by the garden make them a vital part of UBC’s research contribution to our world, and put it on the map as one of the best of its kind.

A drone flying above the Botanical Garden at any time comes to climate change, development, deforestation and other events that have a negative impact on their environment.
The Women’s Warrior Song — a powerful Aboriginal chant accompanied by the pounding of traditional hand drums — is often heard at public gatherings in Canada to mourn murdered and missing Aboriginal women. But the song is also celebratory, sung by First Nations men and women at cultural events.

On January 23, three women, led by Musqueam artist-actor Audrey Siegel wielding a scalp-shell rattle, sang the Women’s Warrior Song to herald in Jody Wilson-Raybould’s first official speech as Canada’s new Justice Minister and Attorney General. Wilson-Raybould is only the third woman to assume the mantle of Canada’s most senior legal office and the first Aboriginal person. As she builds the song’s duality, there were also underlying traces of sorrow.

More than a century of racism has burned into the memories of the more than 150,000 Aboriginal people who were part of the 350-strong audience at the Simon Fraser University lecture hall — a bitterness reflected in the fearful and sometimes angry questions posed to Wilson-Raybould following her talk.

A 1999 graduate of UBC’s Allard School of Law, Wilson-Raybould came to power during Canada’s 42nd general federal election, held on October 19. Nearly 10 years of rule under Stephen Harper’s Conservations had engendered what the New York Times called a “saddle darkening of Canadian life,” noted Wilson-Raybould, VP for the new federal ridings of Vancouver Granville. It was time for Canada to become, once again, a “ beacon of hope and optimism” — the flag bearer of foundational principles and values that the rest of the world could look up to, she told the audience.

But old foundations often need shoring up. On the cusp of the country’s 150th birthday, Canada’s foundation has been battered by decades of systematic discrimination towards First Peoples. Most insidiously, this includes the forcible removal of about 150,000 First Nations, Inuit and Métis children from their homes into residential schools, a form of cultural genocide that still reverberates today in social, health, economic, education and political spheres. That an Aboriginal woman should become Canada’s Justice Minister at this point in history, is well equipped to tackle the roots of these problems. Her experience will help shift indigenous
decisions requiring approaches that deal with civil society more generally,” says Borrows, Canada’s legal system as it pertains to Aboriginal justice. "The causes behind criminal behaviour are complex and require approaches that dealt with civil society more generally,” says Borrows, University of Victoria, is confident in his former student’s abilities to initiate and nurture change in Canada’s new Justice Minister, BEd’98.

Wilson-Raybould’s first official speech as Canada’s new Justice Minister and Attorney General. Wilson-Raybould is only the third woman to assume the mantle of Canada’s most senior legal office and the first Aboriginal person. As she builds the song’s duality, there were also underlying traces of sorrow.

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Wilson-Raybould’s other responsibilities include working to reduce the number of handguns and assault weapons on Canadian streets. She will also support the Minister of Public Safety and Emergency Preparedness, Ralph Goodale, repeal key elements of the Long Gun Registry Act, which broadly defined and banned a wide range of firearms, locking out millions of law-abiding firearms owners from participating in the Canadian firearms community.

Wilson-Raybould is facing challenging and groundbreaking legal decisions requiring adopt consensus-making skills, a comprehensive knowledge of the law and self-confidence— as well as thick skin. Such attributes cannot be cultivated simply within the midst of post-secondary education or even law school. They are seeded early in life and nurtured by culture. As a member of the We Wai Kai Nation, Wilson-Raybould is one of the Kwak’wala-speaking peoples. Her native name, Fuguładé, means “woman born of noble people” and was given to her during a potlatch, the basis of Aboriginal government, on Gifond Island in BC. Wilson-Raybould’s grandmother’s name was Fuguładé, the highest-ranking name in the clan. “My grandmother, Fuguładé, ensured that both my sister and I knew our culture, our values, the laws of our Big House and how to conduct oneself as a leader,” Wilson-Raybould said.

Some Aboriginal societies trace descent through the mother, with wealth, power and inheritance passing through the maternal line. This creates gender roles that are complementary rather than hierarchical, allowing women to take on powerful leadership positions. “In our system, I am Hiligaxste’,” Wilson-Raybould said. “One of my jobs is to lead the Hamat’sa, or the chiefs, into the Big House. The Big House has a hierarchy which this role can be defined as one who connects the chief’s path. We show them the way. Symbolically the power of the Hamat’sa is tamed, tempered then propelled.” That women are natural, as well as essential; leaders of men is a notion controversial even in modern society.

Wilson-Raybould’s father is Chief Bill Wilson, himself a UBC law school graduate (1973). Wilson achieved national fame when he and former Prime Minister Pierre Trudeau locked horns during a discussion of proposed amendments to the Constitution supporting Aboriginal rights at a First Ministers’ Conference in Ottawa. (Wilson and other native leaders eventually succeeded; a Constitutional amendment was passed and approved guaranteeing Aboriginal treaty rights.) The debate was also the first time that Wilson introduced his daughters, Jody and elder sister Kory, to the public. “I have two children of the Cut’ch’alakwis Gang longhouse on Vancouver Island, both of whom for some misguided reason say want to be a lawyer,” Wilson told Trudeau. “Both of whom want to be the Prime Minister. Both of whom, Prime Minister, are women.”

At the time, Wilson-Raybould was watching the exchange live on TV with her Grade 6 classmate. “I was really embarrassed to sit in my class and watch this, and everybody was looking at me,” she recalled. The comments also communicated love and support. She feels her father was public. “I think Ralph Goodale, I had fantastic kids who knew the value of sticking to decisions and working hard to achieve their goals.”

Wilson says that he is his former wife, Sandra (Sandy), who deserves much of the credit for how the siblings turned out. “She spent a lot of time on the road, fighting political battles on behalf of Canadian First Nations, meant that Wilson was seldom home.” “The reality is, Sandy raised Jody and Kory as a single mom,” she admits. (Kory Wilson also attended UBC Allard School of Law, graduating in 1999. A respected Aboriginal scholar, she is the current executive director of Indigenous Initiatives and Partnerships at the British Columbia Institute of Technology.)

Sandy is not of Aboriginal descent, still goes by her married surname Wilson, and resides on the Cape Mudge Reserve, part of the We Wai Kai Nation’s lands on northernQuadra Island in BC. She brought her husband off reserve, first living in the town of Comox on Vancouver Island. A teacher, Sandy ensured both youngsters received lots of “consistency, love and care,” while insisting they hone a solid work ethic. “They had to do their homework,” she said. “Homework was a priority, and the pair had to make the honour role before they could partake in theatre, swimming, or track and field, which both excelled at. Kory was quieter and studious, Jody the wild child who once shimmied up to the top bar of a swing set as a two-year-old. “Jody came into the world full of life,” Sandy recalls. One day, Mom and the girls were musing over what topic Jody should choose for her Grade 7 public-speaking assignment. As the family risk-taker, it wasn’t unusual for Jody to end up in the emergency room need stitches to close yet another gash. “Kory said, ‘Hiligaxste’ can be defined as one who corrects the leader of men but all Canadians.”

Some Aboriginal societies trace descent through the mother, with wealth, power and inheritance passing through the maternal line. This creates gender roles that are complementary rather than hierarchical, allowing women to take on powerful leadership positions.

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When Chris Friesen arrived in Kenya in 1990, the nation was navigating a bumpy road towards multi-party democracy. New political parties, such as the National Rescue Party, had been formed, and its members jailed. Violence gripped the country and many were dying in tribal conflicts.

A recent UBC grad, Friesen had been hired to oversee administration of the Kenyan office of the Winds of Charitable Trust, an education NGO that was partnered with the World University Service of Canada’s (WUSC) Student Refugee Program. The WUSC initiative helped promising young African students whose lives had been uprooted by conflict to escape their situation and attend a Canadian university or college as an refugee student. Tuition would be free and living expenses subsidized. Friesen’s responsibilities included organizing candidates’ academic records and dossiers and forwarding them to WUSC’s Ottawa office, which would coordinate a placement in Canada’s post-secondary institution.

If only it had been that easy.

Alongside the political turmoil, HIV/AIDS was ravaging the population. Although AIDS had been diagnosed among sex workers in the 1980s, Kenya was in a state of denial about the disease. It would be 1999 before the government declared it a national disaster. “It was the beginning of the AIDS pandemic in Kenya and very hush-hush,” says Friesen. “I saw, first hand, students dying of AIDS, unarrayed coffins and made arrangements to return the remains of victims to their home town.”

Students also faced the wrath of the Kenyan government. Some were rounded up and imprisoned without reason. Friesen would find himself at a Kenyan jail, negotiating with officials “to try to extradite our students.”

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How Friesen became a champion of the world’s most vulnerable is a root in early childhood and influenced the trajectory of his UBC undergraduate career. He became immersed in student politics, bent on changing the world – or at the very least work with refugees, resulting in the ongoing settlement of 1,800 Syrian refugees into BC, a Herculean task that has involved up to 80 full-time staff coordinating short- and long-term accommodations and arranging dental and medical care for families of up to 11 whose lives have been shattered by the brutal Syrian civil war. (At least another 1,500 or so Syrians will arrive in BC by the end of this year.)

During last year’s negotiations with the United Nations High Commissioner for Refugees, Canada agreed to take the poorest and most vulnerable among the estimated 47 million Syrians housed in refugee camps, rented apartments and even open fields throughout parts of the Middle East and Europe. So far, most of those who’ve arrived in Canada are families. Many are from Deera, the so-called cradle of the Syrian revolution. It was here, in March 2011, that students aged 10 to 15 painted anti-government graffiti on walls, triggering a violent crackdown by authorities. “Some are survivors of torture,” says Friesen. “We’ve seen everything imaginable: shrapnel, cancer, kidney dialysis, blindness, deafness, people in wheelchairs. They have very little English. The daunting challenge is to integrate these newcomers and future Canadian citizens into society.”

According to the Department of Immigration, Refugees and Citizenship, there are now more than 25,000 Syrian refugees who’ve arrived in Canada since last November under the Liberal government’s $750 million, six-year plan for refugee resettlement. Friesen is confident that the path to integration will be slow but steady. He says the Syrians, like the thousands of other refugees he has helped settle in his career, have a remarkable resilience. “They want to contribute to this country – their new home – they are so grateful for the opportunity that they have been provided.”

The support from ordinary Canadians has been key in helping Syrians start to feel they have safe haven in a nation that is so different from their own. Canadian generosity was also very important to Friesen and his staff during the seven-day work weeks they spent settling the refugees over a period of several months. “What kept myself and my team going was the enormous positive support from the public,” he says. “We went from 800 or 900 volunteers to close to 6,000.”

The challenge of settling refugees, and helping them find employment, housing, dental and medical care as well as counselling to overcome post-traumatic stress disorder (PTSD), will be eased considerably by the imminent opening of the 24,000 square-foot Welcome Street at Commercial and East Broadway on a parcel of land leased from the city.

While the project has caused Friesen many “grey hairs,” it has been “a labour of mostly love.”

The programs offered will be myriad and include first-stage housing units for newly arrived refugees, ESL classes, a legal clinic, youth drop-in, child care and a Vancouver City Savings Credit Union (Vancity) kiosk, among other services. The grand opening is June 25. “It is a very hallowed site,” Friesen says. “It is our first facility of its kind in the world,” says Friesen. “We are taking what a refugee or immigrant would need in their first few months in Canada and putting it under one roof to provide enhanced front-end support. It is the creation of a new international model for the integration of refugees.”

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The new facility has been a long time coming. The current Welcome House has been in operation since 1989 at the same yellow-brick, three-story building on downtown Drake Street. It is the first port of call for all government-assisted refugees after stepping off a plane at Vancouver International Airport. Smelling vaguely of mould, with overhated offices, low ceilings, flickering neon lighting and laminate flooring, the Drake Street facility has been Friesen’s workplace since he was first hired as the director of Settlement Services in 1992, a position that “brought together so much passion and so many interests” after his two-year stint in Kenya.

Such passions and interests were nurtured in a family where helping others was second nature. Friesen’s dad, Harvey, whose Mennonite relatives fled Russia to escape religious persecution, and his mother, Nancy Friesen, were active in the United Church in their home in Ladner, BC, 25 kilometres south of Vancouver. The Friesens were part of a group that sponsored a family from Vietnam following the Viet Cong’s capture of Saigon in 1975. Friesen came to know the family, part of an estimated 800,000 so-called “boat people” who fled the South Vietnamese nation in overcrowded vessels.

“The impact of war coming to a small town like Ladner – a very homogeneous farming and fishing community – it was an extraordinary experience,” Friesen says.

Following graduation from high school, university was anathema to Friesen and he worked odd jobs, once as a sweeping-car porter for Via Rail Canada. When he finally arrived at UBC as a mature student, he

GIMME SHELTER

The Canadian government says it plans to welcome 56,000 refugees by the end of the year. Chris Friesen, 58, is at the forefront of a new approach for their successful integration.

BY ROBERTA STALEY

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undertook a double major in history and political science (1988), focusing on international development. It was here he met his future wife, Manuela, a UBC international relations graduate (1987) and TOEFL English prep teacher who moved to Kenya with Friesen to teach English.

Not one to be stuck reading textbooks, Friesen joined UBC’s local WUSC committee. He was inspired by history professor Dr. John Conway, whom he considers a mentor. Conway was faculty rep of WUSC and involved in international refugee issues. WUSC, says Friesen, “was right up my alley.” One of the main initiatives that Friesen promoted with WUSC was the creation of the Student Refugee Program. It could be funded, Friesen thought, by boosting student fees at UBC by 50 cents a year. A referendum was held and WUSC members promoted the cause by plastering the campus with posters pointing out that Nobel Laureate Albert Einstein was a refugee, having fled Germany’s Nazi regime in 1933. Shockingly, the referendum didn’t pass. Friesen demanded a recount. As it turns out, the referendum had indeed passed – by 22 votes. The program endures today and the current fee of $2.61 supports four new refugee students every year. This past March, students passed another referendum to increase the annual fee to $5.22, allowing double the number of refugees to attend university. The impetus for the increase came from students’ concerns over the ongoing Syrian refugee crisis. Conway says.

Conway, who at 86 is now professor emeritus in UBC’s History Department and still stays in touch with his former student, describes Friesen as “generous, very hard working, with great sympathy for those in need.” He had these same characteristics when he first joined WUSC. Conway says – traits that helped create long-lasting change at UBC. “It has been 35 years since Chris Friesen initiated this idea,” says Conway. “Thirty-five of supporting refugees students’ board and lodging, pocket money, new clothing, books and so forth.”

Friesen’s determination and drive to help desperate refugees is something that the rest of UBC could aspire to, says Dr. Dan Hiebert, a professor in the Department of Geography who researches international migration, Canadian immigration policy and national security as it relates to human rights. Hiebert has been involved in informal talks with UBC at the senior administrative level, encouraging the university to undertake a coordinated response to the Syrian refugee crisis by supporting the new programming at the ISSofBC Welcome Centre. Many services at the centre will require highly skilled staff, which could be provided in part by UBC’s panoply of expertise from the faculties and departments of dentistry, medicine, social work, law and business. Hiebert says. Psychiatric services, for example, will likely be in high demand. While the Vancouver Association for the Survivors of Torture (VAST) has counsellors, Hiebert expects they will be “enormously stressed” trying to meet all the needs. “No one really knows the extent of the PTSD among the Syrian population, but it’s expected to be significant.”

It’s not just the services and staff that will be stretched. Two other key challenges are housing and language acquisition. The average level of education among the first 17,000 Syrian refugees into Canada is below Grade 5 and Hiebert says the literacy rate is unexpectedly high. “It’s incredibly difficult to learn a new language when you’ve never learned the grammatical structure of your own,” he says.

Greater Vancouver’s housing problems, meanwhile, have become notorious in the past several years. Rental units are not only scarce but expensive – certainly beyond the BC Ministry of Social Development and Social Innovation’s shelter assistance rates, which were set in 2002. Hiebert says. For example, the maximum shelter allowance for a family of five is $752 a month. (The federal government’s assistance to refugees is based on existing provincial rates.) Such financial challenges are exacerbated by Ottawa’s plan, announced in early March, to force privately sponsored Syrian refugees to repay the cost of their airfare to fly to Canada. Hiebert adds. Ottawa normally requires refugees to pay the cost of their travel to Canada but waived that requirement for the government-sponsored Syrian refugees.

The integration challenges facing Syrian refugees are indeed, as Friesen says, daunting. Yet they pale in comparison to what the Syrians have already endured. So long as British Columbians continue to commit time, services or things like rent subsidies, Friesen is confident that the many hurdles will be overcome. “The principles and values of being a Canadian resonated as a result of this bold humanitarian endeavour,” he says. Friesen is calling upon Canadians to take an even bolder stance. The government says it plans to welcome nearly 55,000 refugees by the end of 2016, not only Syrians but people from Colombia, Ethiopia and the Democratic Republic of Congo. This, however, is a drop in the bucket compared to the 1.4 million refugees worldwide. Canada should not only provide safe haven to some of these displaced people, says Friesen, but also devise concrete solutions with other countries to address the dire regional security issues that are worsening the refugee disaster.

For the most part, Canada is a land of refugees and immigrants; if we, individually, didn’t come here from another country, our recent forebears did. Our collective lineage is drawn from all four corners of the globe, yet these differences are our strength, with many patterns and colours woven into a cultural mosaic that has created one of the most tolerant and generous nations in the world. There are few times in history when the world has been burdened by such a vast number of homeless, diutiful and desperate people. For Friesen, it is only Canadian to open our arms to many more of them. “My generation was defined by our experience as children with the Vietnamese boat people. Today’s generation will be influenced by Canada’s leadership in responding to the Syrian crisis.”

Chris Friesen
THE CLASS OF

1916

Adelaide Irene Menzies (née Vermilyea) was a member of UBC’s first class, which graduated 100 years ago this May. She kept a scrapbook about her classmates for many years after graduation, she collected old newspaper clippings, now in the hands of UBC Archives and is the source of much of the information below.

There were 40 members in the class, and 27 were women. Nine male students enlisted for service overseas in WWI before graduation and were granted degrees “without examination.” Charles Duncan and Thomas Shearman lost their lives, as did Edward Berry, who was a Rhodes Scholar but wouldn’t live long enough to realize his potential. He died in Oxford on January 28, 1920, of heart disease resulting from the effects of being posted at Louvain (1917). The other members of the class to serve in WWI were Ernest Le Messurier, Sherwood Lett, who was awarded a Military Cross, William Maxwell, Burrows Sewell, Percy Southcott, and William Wilson. Maxwell, Southcott and Wilson went on to become teachers. (Wilson became known as “Mr. King Edward,” after the high school where he had teacher. He had also been a student, and he also lectured in UBC’s Faculty of Education). Le Messurier became a cartoonist, and Southcott a draughtsman. Le Messurier was a noteworthy military career and was awarded the CBE in 1945. He was the first president of the Alma Mater Society and later served on UBC’s Board of Governors and Senate, and as Chancellor. He was called to the bar in 1922 and became Chief Justice of the Supreme Court of BC in 1955. Upon his death in 1964, his friend Prime Minister Lester Pearson said, “I know no Canadian who has served his country in war and peace with greater distinction and more unselfishly.” After graduation, other members of the class to have served during the war include Harold (Otto) Walsh, Hugh Munro, James Gallaway, Claude Thompson and Ed Mulhern. Mulhern taught for a while as a dentist. Walsh earned a B.A.Sc. (Electrical) in 1915 and received an MBE in 1914 for his work in aviation navigation radio aids during WWI. Munro was a member of C.M.S. (Sorbonne School), and later first president of the UBC Alumni Association. Thompson was a lawyer with pioneer BC law firm Landr and Caterlen, before moving to California. Nearly all members of the class graduated with a degree in Arts. Science was included under Arts that time. The faculty was renamed Arts and Science in 1922. Clara Elmore Cairns was the exception; he took a double course in Arts and Applied Science and went on to become a prominent Canadian geologist, spending 35 years with the Geological Survey of Canada and contributing to the development of BC’s mineral resources. Jessie Anderson was the first student to graduate from UBC. Her entry in the UBC annual 1916 mentions her interest in acting and involvement in the Players Club. But, like many other members of her class, she went on to become a teacher. Also joining the teaching profession, for varying lengths of time, were Ella Cameron (head of the Victoria High School mathematics department), Florence Chapin, Nancy Dick, Marjorie Dunton, Belo Elliott, Laura Lane (head of commerce at St. Ignatius High School), Jean Macleod, Isabel MacMillan (a home economics teacher at Kitsilano High School), Grace Miller, Jean Robinson, Edna Taylor, Irene Vermilyea, and Chinese (Ushi) Uchida, who was one of the first Japanese-Canadians to graduate from a Canadian university.

In 1919 Uchida started a night school for Japanese immigrants. It proved popular but closed during WWII, when Japanese citizens were expelled from their homes around Vancouver and sent to internment camps. An article published in the Hundred Mile Herald at the time of her retirement from teaching in 1961 said she helped other Japanese people who had been expelled from the area. Uchida retired from teaching in 1961 said she helped other Japanese people who had been expelled from the area. Uchida retired from teaching in 1961, believed she was the last to leave. She taught Japanese children at Taylor camp in the Cariboo. The Herald described her as “a very person with an unusually inexhaustible supply of energy.” Henry Gibson taught, but later worked in advertising in New York. Muriel Carruthers taught and later became head of the Schools Department at Vancouver Public Library. She was involved in producing the Alumni Bulletin, an early alumni publication of the 1920s. Finishing top of the class was Lennox Mills. He was a Rhodes Scholar, eventually becoming a professor of political science at the University of Minnesota and a Guggenheim Fellow. Roland Miller took an MA in economics at the University of California and by 1927 was a lecturer in economics at the University of Oregon. Gladys Schiessinger taught briefly in BC but spent most of her life in the US where she earned a PhD and eventually became senior curator of psycholog. At one point in time, she was awarded a Guggenheim Fellowship. Wilfred Strohmiller was a member of the BC Company of Western University overseas Battalion. An article that ran the following day in the News Advertiser reported that the procession had been viewed by thousands. “Outside the hotel great crowds assembled, lining the route from the court house to the hotel entrance. So great was the throng around the hotel that the provincial police had to be called to the court house entrance. Cameras were to be seen at work on all sides, there being no less than three moving picture machines in use and scores of other photographers, professional and amateur, occupied every vantage point.”


After graduating, the Class of 1916 held regular reunions. The last one mentioned in Menzies’ scrapbook is Oct 30th, 1971 (that 50th anniversary) with six members attending. This picture was taken at that reunion.

(4) William Wilson, Isabel McGillan, Sherwood Lett (class president), Irene Menzies (née Vermilyea, class secretary), and Harry Logan (a member of UBC’s original faculty and honorary class president).
and Commanding Officer of the COTC.

Gordon Shrum was head of Physics at UBC. As a condensed model, the article speaks of his physical and educational journey, involving his role as head of the Physics Department, his education at UBC, and his career.

When I was a Student

JOSEPH PERDUE, BA '47, MA '48

In 1952 I graduated in Electrical Engineering, one of the last groups of veterans from WWII to come through. We were given a chance to speak my mind and then to remain in the military for a time to gain experience.

We asked alumni to send in their memories of UBC, and here are just a few of the submissions. In many cases they have been edited for length. The full versions, along with other stories sent in that unfortunately we don't have room to include here, are available to read on the magazine's website: readmagazine.ubc.ca

We bought a pair of cheap barber scissors and combs and hair and it was now all grey. My eyesight was fading and my hands were shaking, and the cutting tool we took. I spent happy years at UBC and made lifelong friends.

The university also helped us to get summer jobs by providing us with addresses of companies looking for summer students. I went to the Yukon for three summers and in 1952 took a summer job in South St. Wooten for Sorely Power & Light Co. I met my wife there and we were married in December 1951. After my graduation we moved to Toronto, where we still live. Thanks to my education at UBC, I enjoyed a successful career until my retirement at age 68.

Twelve of us made it to the beach, although some of the party insisted that 24 started out. The beach was empty and quiet, not a soul around. It suited our purpose very well. We settled down amongst the driftwood for a peaceful drinking and singing session. Initially it was quiet, but soon the volume increased and our singing could be heard at least a mile away. We were happy and somewhat drunk, and we forgot about all our real-life problems and the loneliness felt.

The sound of police sirens blended nicely with our singing at the beginning, but soon our singing could not compete. Police cars were coming from all directions, half a dozen of them, and they stopped, sirens still whirring, on the road beside us. Car doors were open and at least a dozen cops started to walk briskly toward our 10 (or now silent) group.

We had no idea why they had stopped. Some of us thought maybe they wanted to join us. They sure did not have to make such a big noise waking everybody up on their way to join our party! We opened a few more bottles of beer before they reached our group and, to show our friendship and appreciation, they held out and waved the police away to join us. (In Hungary every policeman was a good hollering session after a night of partying. One night, we invited the opportunity to have a beer if it pleased.)

The leader started to make a long speech, most of which went over our head. He said something about not being allowed to drink on the beach and that we should not sing within the boundaries of Vancouver. We were surprised that he was a nice guy and that we looked ignorant and harmless. Because of this we would not be chucked or spend the night in jail. We were told to surrender all unopened bottles of beer for breath. Our respect for Vancouver’s finest changed instantly: they will have our own party with our beer. We thought. Our English was not good enough to start an argument we might not win, so all the unopened bottles were handed over to the last of the beating.

We decided to go down to the home I had come from in Hungary. We turned on drinking, and they looked more and more unfriendly, in spite of the fact that they kept offering us unopened bottles of beer. Their negative attitude was truly puzzling.

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I found myself spending more and more time at the shelves near the west door; these held the course catalogs of other universities. I loved UBC, but I had a real itch to travel and promised myself that I would go to a place where I didn’t know anyone. I decided on the University of Toronto.

The Friday after I arrived in Toronto, I was seated with two of my new classmates when a third classmate approached with another female student. “Hi guys,” she said, then turned to her companion. “This is Deirdre from my residence, who’s doing her master’s in English.” What was going through Deirdre’s mind when she looked at me? “Hi Deirdre.”

I decided to venture to UBC summer young Saskatchewan teachers and BEd’78 MARGARET LOUISE STINSON, an edible fishcakes. The menu might occur; one instance resulted in a large pyramid of menu and peanut butter under a flume hood. I showered in the basement, where every Tuesday to do laundry, buy food and watch the Ti-A Team. The rest of the week I was in the lab working or studying. This less-than-ideal situation took transform good things, and I have more than four years of university. I didn’t think I would have made it through four years of university.

JASON BOSHER, BSc’85, BA’93, DipEd
This is a 2014 photo of me standing in front of a lab in the Geology building. The significance of this photo is that I surveyed in Lynwood during my time at UBC. There was my SkyTrain and I had to commute by bus. I spent four hours a day on the bus, thus neglecting any study time I always had to stand. (Upon arriving at home, I didn’t receive much of a student loan. Fortunately, I received a work study grant.)

CHARLES CARTER, BA’79, DipEd Rained some days when I trekked back to B-Lot, and I viewed to get a coveted C-Lot sticker somewhere. On some of these dark and stormy nights, I would digest my thoughts in the belly of Sedgewick library. At one of the many group tables, enclosed private smokers would puff away in relative peace and quiet, perhaps reflecting upon a Hemmingway elephant, a bored Salinger shrugged, or a Chaucerian tour de force from romance. But this covert sanctuary slowly gave way to a new facade of shame and anxiety for the needs. It was on a wintery Wednesday night, the CIT (our chrome) swallowed me up. Here I played Pong, Pacman, and football on beer bats. And from the one television on the wall over the bar, Howie Meeker analyzed the Canucks’ great playing days of Hockey Night in Canada while mostly blue cigarette smoke drifted cancerously past the screen and mingled with the field odor of Old Spice women. The CIT was our dark cave, men, with the sounds of Trooper, Genesis, or The Guess Who helping us to pound back the suspy angst of not finishing another T-cup Football Game and Chariot Races. As UBC Nursing Undergraduate Student President at the time, I ensured our Nursing ‘mark’ and week was known on campus. Kris Gustavson (nee Choy), BA’86, M.N.Sc.

Heather Cole, MA’93
I hope every student has a mother who loves them as much as mine loved me. After four years of hard work, good times and meeting lifelong friends, I was graduating. My mom was walking down the stairs at the bookstore, where I had to pick up my cap and gown. Her feet got caught in the pebbled surface of the stairs and she fell, scraping up her leg. A bunch of people rushed over to help, including the safety officer on the construction site for the new building near the main part in hand. Everyone was asking if she was okay and the first words out of her mouth were: “Where can I get a new pair of panty hose?” My daughter is graduating this afternoon!” Bliss the ladies from the bookstore — new party hose were purchased, some bandages applied and my mom was ready to see her kid — the first in our family — graduate from university.

HEATHER HASTIE, BSc’78, BA’79
My grandmother (Eleanor Wright, nie Butler) was actually one of the first women to go to UBC in the 1920s. She loved music, but I’m not sure that she actually graduated. She was 70 by the time she was born, and she lost her sight due to macular degeneration by the time I was five, so I had always known her as an arm-sighted person. After a year as an exchange student between high school and university, I ended up going to UBC. My first trip back home to Vancouver Island was at Thanksgiving, and my grandmother was very interested to hear about all my new experiences. She started asking me questions: was the Math Building still covered in ivy? Was it going all red right now? Had I been down to the beach and looked across to the island? Then her questions expanded to whether I had been up Seymour Mountain, and I did. I like the view from the 2nd pump! I was blown away because I had never considered this aspect of her before — that she had been a fully-sighted person for most of her life, and she had sighted memories that we could share. My grandmother had a tenacious spirit that was reflected in everything she did. From being one of the first women to go to university (and drive and own a car in that era) to being heavily involved in the Girl Guides program and setting up the program in Japan after WWII, to living to be almost 101 in her own house by herself even though she had lost her sight 25 years ago. She was an amazing lady and a feminist long before that term gained meaning, and I’m sure UBC had an impact on the way she lived her life.
Out of breath and with arms flailing in the air, I zipped into the library. Professor Glen Peterson gave the class a 14-page take-home lecture. (“Oops, we forgot to add this to the syllabus.”) I crammed it all into my bag. I didn’t care about this class anymore. I needed to get over my wall. I had to get my life back in order. I was going to focus on my future. I wanted to move forward.

We never talk about the races. But I do remember the feeling of storming over the wall every single time! It was a huge relief for my heart and my mind. I am so grateful I practiced the cycling circuit along Main Mall, even crashing once from a loose handlebar. I couldn’t bear the thought of being a handicap to a team, so I never continued to do so. As a student I could cycle reasonably well (running or swimming were options), but I never believed I could make it up the wall. I cannot lift my arms above my head and lift my feet without being lifted by my coach’s shoulders. I have a neuromuscular disorder that has weakened the muscles in my body, and will not improve. I was at UBC for six years, and each spring I watched Storm the Wall but never participated. I was a UBC student for 26 years, and each spring I watched Storm the Wall but never participated. I have a neuromuscular disorder that has weakened the muscles in my body, and will continue to do so. As a student I could cycle reasonably well (running or swimming were not options), but I never believed I could make it up the wall. I cannot lift my arms above my shoulders, much less pull myself up a tow rope behind a boat. I was a mental hurdle as much as a physical one. I couldn’t bear the thought of being a handicap to a team, so I never reached out to them. As much as I wanted to, I didn’t participate just because I didn’t believe I could.

When the time came, I was ready for what may come. I don’t remember our times, or how many heats we were in, or much about the races. But I do remember the feeling of storming over the wall every single time! It was a huge relief for my heart and my mind. I am so grateful to Amanda, Erin, Graham, and Oliver. With their help I not only hurdled the barriers I saw before me, I was remade that I had no reason for doubt in the first place. Thank you for helping me overcome that wall within me. I was at UBC for six years, and each spring I watched Storm the Wall but never participated. I have a neuromuscular disorder that has weakened the muscles in my body, and will continue to do so. As a student I could cycle reasonably well (running or swimming were not options), but I never believed I could make it up the wall. I cannot lift my arms above my shoulders, much less pull myself up a tow rope behind a boat. I was a mental hurdle as much as a physical one. I couldn’t bear the thought of being a handicap to a team, so I never reached out to them. As much as I wanted to, I didn’t participate just because I didn’t believe I could.

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Congratulations UBC on your 100th Anniversary from the alumni at Perseus Winery!

Named for a hero’s constellation, Perseus Winery is Penticton’s in-town winery and First on the Bench. Come enjoy our many award-winning wines!

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Embrace the mix of tradition and modernity in Taiwan’s culture with local art consultant Susan Lahey, MA’94.

Explore Cuba’s scenic countryside and historic cities with sustainable agriculture expert Wendy Holm, MSc’74.

Observe the “Big Five” and learn about the Serengeti’s modern conservation challenges on safari in Tanzania with researcher Greg Sharam, MSc’97, PhD’05.

Indulge your curiosity as we take you to unique places you’ve always dreamed about. With UBC experts and knowledgeable local hosts, you’ll connect with others and enhance your knowledge of the cultures, cuisines, and landscapes you’re exploring.

Book your 2016/17 travel or join our mailing list to learn about future opportunities.

The Merry Wives of Windsor
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Othello
Pericles
June 3 to September 24 • Vanier Park
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The wildlife is thriving; the landscapes are stunning.

Questions about the alumni UBC Travel Club?
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For all booking inquiries, please contact Worldwide Quest 1 800 387 1483 | travel@worldwidequest.com

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WITNESS THE GREAT MIGRATION

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THE TALL AND THE SMALL

TWO NOVEL APPROACHES TO STUDENT HOUSING

STUDENT HOUSING ON UBC’S VANCOUVER CAMPUS

$1,000
Average monthly rent on Vancouver campus (range is $633 to approx $1,600 across the system)

6,300
# of students on housing waitlist at peak in summer 2015

$500m
Amount UBC is investing in campus housing for 4,300 new beds (2010 to 2020)

11,050
# of residence beds at start of 2016-17 academic year

12,500
Proposed # of student residence beds by 2020

13
Current # of residences, including Acadia Park Family Housing

GROWTH IN NEXT TWO YEARS:
2016
Orchard Commons: 1,049 beds (1st year students)
2017
Brock Commons, Phase 1: 404 beds (upper year/graduate students)
2017
Brock Commons, Phase 2: 355 beds (1st year students)
2019
Gage South: 650 beds (upper year/graduate students)

THE NANO

140 square feet of student living

By Alison Huggins

Roughly the size of a parking space, yet with all the basic amenities of a full-size apartment, the Nano is a micro suite intended to help address the demand for affordable student housing on UBC’s Vancouver campus. In an innovative pilot program, 70 such suites are being included in the planned 650-bed Gage South Student Residence. When the building is completed in 2019, the Nano suites will rent for around $700 per month.

Although tiny, the self-contained Nano has a full bathroom, kitchen, storage space and a study/sleeping space with a work desk that transforms into a bed. It’s a bit smaller than a single traditional dorm room, but, unlike a dorm room, there’s no “sharesies” – it’s 140 square feet of independent living. UBC sought input from students and worked closely with the architecture firm DIALOG throughout the design process.

While the Nano may not be for everyone, it was well received by students who toured the full-scale mock-up on display earlier this year at the AMS Nest, says Andrew Parr, managing director of Student Housing and Hospitality Services. “What we’ve seen from the survey results is a huge level of acceptance among students to live in an environment like that, for that price.”

With apartment vacancy rates throughout the Lower Mainland at less than one per cent, finding an affordable rental in Vancouver – let alone one close to campus – is a significant challenge. Apartments in the same price range as campus accommodation are about a 45-minute commute away, says Parr. UBC already has the largest on-campus residence in Canada and, unless the current housing situation in Vancouver changes, the demand for student housing on the Vancouver campus is likely to remain high.

The Nano project is part of UBC’s ongoing commitment to meet the demand. The university’s investment of $500 million dollars over 10 years will result in a total growth of 4,300 new beds. “I know there’s no other university in Canada that’s investing in housing like we are,” says Parr, who believes this commitment illustrates how UBC is listening to students’ demands and working to meet them, not only through its investment in housing, but also through the types of housing on offer.

For a virtual walk-through of the Nano suite, visit www.vancouver.housing.ubc.ca/rooms/nano/
BROCK COMMONS
STUDENT RESIDENCE

WILL BE THE WORLD’S
TALLEST WOODEN BUILDING

What, Where, When
• 18-storey wood and concrete hi-rise (174 feet/53 metres)
• 272 studios and 33 four-bedroom units (404 students)
• Site: Walter Gage Road, between Brock Hall and Gage Residence
• Completion: Summer 2017 (Budget: $51.5M)

Design & Structure
• The innovative design capitalizes on advances in wood technology and manufacturing.
• Hybrid structural system: one-storey concrete podium, two concrete cores, and 17 storeys of mass timber. Vertical loads are carried by the timber structure, while the two concrete cores provide lateral stability.
• A key mandate for the project is to demonstrate an economical structural system using wood and concrete that is comparable in cost to that of traditional concrete and steel structures.

Safety
• The design of the structure will be the first in BC to meet the new seismic design requirements under Canada’s National Building Code.
• At three times the current height limit permitted by the building code for wood buildings, the structure required a Site Specific Regulation (SSR) from the BC Building Safety & Standards Branch. This process included peer reviews involving panels of leading structural engineers, fire safety experts, scientists, UBC building authorities, and firefighters.

Sustainability
• Wood is a sustainable and versatile building material that stores, rather than emits, carbon dioxide. Carbon stored in the mass timber structure, plus avoided greenhouse gas emissions from construction processes using steel and concrete, will result in a total estimated carbon benefit of 5,653 tonnes of CO2, which is equivalent to taking 490 cars off the road for a year.
• The building will connect to the UBC district energy system and is projected to achieve up to 25 per cent energy savings over a typical building of the same size.
• The project is aiming for (at minimum) a LEED Gold certification (rating system for environmentally-friendly design and energy use).

Source: Acton Ostry (architects)
What was the last thing you read?

My grandkids.

What would you like your epitaph to say?

These stupid questions.

Who was your childhood hero?

Alexander the Great – for his statesmanship, and because he has yet to inspire a cult following, you have to acknowledge that Captain James T. Kirk of the Starship Enterprise is part of our cultural DNA.

Originated by William Shatner in 1966, the playfully shrewd Captain Kirk is the actor’s most iconic role to date, but Shatner’s expansive acting resume also includes a mid-80s stint playing no-nonsense street cop T.J. Hoker in the TV show of the same name, and his Emmy–winning role as eccentric lawyer Denny Crane on The Practice and Boston Legal. Non-fiction credits include one-man show Shatner’s World and Shatner’s Raw Nerve, an intensely up-close-and-personal celebrity interview series.

Shatner’s pursuits are not limited to the stage and screen. He has also found success writing books (more than 30 of them), recording music (speaking the lyrics rather than singing them in his trademark style), and riding and breeding champion horses (American Saddlers in particular). His 2008 autobiography, Up Till Now, was a New York Times best-seller, as is Leonard, his latest book recounting his friendship with Leonard Nimoy. His popular album Has Been (Heads I Won, Tails I Lost) won his Milwaukee Ballet’s Common Threads, a dance presentation set to several numbers from the record. Shatner is also a philanthropist, once selling his own kidney stone to raise funds for Habitat for Humanity, and spearheading for many years the annual Hollywood Charity Horseshow, which raises money for programs to support handicapped children – often through therapeutic interaction with animals. Shatner’s diverse and fruitful repertoire is perhaps down to his willingness to take on new challenges and boldly go where he hasn’t gone before. He is continually learning. Unlike those who suppress curiosity in favour of security, Shatner embraces it and stresses the importance of living a life driven by curiosity.

At alumni UBC’s Centennial close event UBC’s What’s Next? (see page 2), William Shatner will talk about what it means to live with a spirit of curiosity and will share stories about the fascinating places his curiosity has led him, and the possibilities that await us if we follow our own.

Follow Shatner on Twitter @WilliamShatner

What is your latest purchase?

A really nice car.

If you could invent something, what would it be?

A device that takes all the greenhouse gases out of the atmosphere.

What is your most cherished possession?

My soul.

What is the most important lesson you ever learned?

Nobody knows anything.

What is the atmosphere.

What’s your idea of the perfect day?

Sun, sea, snow, equines and family.

What is your latest purchase?

A device that takes all the greenhouse gases out of the atmosphere.

What is the most important lesson you ever learned?

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A device that takes all the greenhouse gases out of the atmosphere.

What is the most important lesson you ever learned?

Nobody knows anything.
At UBC we embrace our past and look forward to the future. Former student Cecil Green donated Cecil Green Park House (1912) to provide a unique venue for the wider community, including alumni. Now the university and alumni UBC have come together to create a new home for our 300,000 alumni and visitors to connect with each other and the campus. The Robert H. Lee Alumni Centre is a gathering place, physically and virtually, for continued learning, for entrepreneurship and for mentoring the next generation of students and alumni. Step by step we are building on past and present innovations. The UBC Centennial celebrates thinking that moves us all towards a better future.

SEE WHAT’S NEXT AT
UBC100.CA