

Queen's

ALUMNI REVIEW

Issue 1, 2018

The magazine of
Queen's University
Kingston, Ontario

queensu.ca/alumnireview

An illustration of a person with long blue hair, wearing a white shirt and a dark vest, holding a large, multi-colored umbrella (red, orange, yellow, green, blue). The person is standing in a rainstorm, with large, stylized raindrops falling around them. The background is a dark teal color with various geometric shapes and patterns, suggesting a rainy atmosphere. The overall style is modern and artistic.

The water issue

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Clean water

A critical mass for cutting-edge water research: learn about the interdisciplinary approach of the Beaty Water Research Centre.

ON THE COVER

Award-winning conceptual illustrator Eric Chow adds a tricolour splash to our rainy day cover.
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CAMPUS NEWS

Working with water

Swimmers and scientists, astronauts and artists: meet a few people who work with (or in) water.

MICHAEL P. HALL

On water, the arts, and football

Working at this magazine is really special. With every issue, not only do I get to talk to fascinating people, I also am able to explore new (to me) parts of campus. For this issue, I visited the Coastal Engineering Lab and the Freshwater Fisheries Conservation Lab. I'm looking forward to seeing the new Innovation and Wellness Centre (home of the Beaty Water Research Centre) when it opens this spring. And my colleague Alison Migneault travelled to Houston in December to NASA's Neutral Buoyancy Lab to talk to Drew Feustel, PhD'95, about his upcoming space mission.



BERNARD CLARK

Editor Andrea Gunn at the aquaponics plant room in the Freshwater Fisheries Conservation Lab

I've done something new this time by pairing a piece of poetry (by Professor Armand Garnet Ruffo) with a painting (by Kingston artist Beth ten Hove).

Professor Ruffo is one of the inaugural recipients of the 2017 Mayor's Arts Awards from the City of Kingston. Two other faculty members were honoured: Matt Rogalsky, of the Dan School of Drama and Music, and the late David Kemp, co-founder of the Artist in Community Education program in the Faculty of

Education. You can learn more about the awards at cityofkingston.ca/city-hall/kingston-awards/mayors-arts-awards.

In our online issue, you can read more perspectives on water, including a Q&A with Kim Sturgess, Sc'77, DSc'16, founder of Alberta WaterSMART.

Andrea Gunn
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P.S. The members of the 1968 Vanier Cup-winning Gaels football team are having a 50th reunion in September, but they're missing a couple of key players – and a team manager! Glen Penwarden, Lorne McConnery, and Bob Hills, the guys say the reunion wouldn't be the same without you. Please get in touch with Ron Brooks and Bob Climie, who are organizing the reunion: romeolimac@sympatico.ca.

The magazine of Queen's University since 1927



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Queen's University is situated on traditional Anishinaabe and Haudenosaunee Territory.

letters

TO THE EDITOR

Remembering Grant Sampson

Grant Sampson, Professor Emeritus (English Language and Literature), died Oct. 7.

While I never took any classes with Grant Sampson, he made a difference in my life. I was a Mech. Eng. student (Science '72, "promoted" to Science '73 due to extracurricular artistic activities!) who took an interest in music and other arts and ended up on the Performing Arts Committee chaired by Dr. Sampson. I remember meetings that were always a pleasure, with sophisticated snacks and classical music in the background, and where I got to participate in real decisions on which artists would be brought to campus. Grant also organized a couple of trips to the NAC in Ottawa to see Emil Gilels and Netherlands Dance Theatre, which helped open my perspectives.

Though I did finish the engineering degree, by graduation I had become ready to pursue a career in modern dance, which took me to London, England, and New York City. And when I had created a body of choreographic work, I contacted my alma mater and there was Grant again! He



UHKF

brought my duet repertory Double Dancing, with partner Judith Garay, to perform at the Grand Theatre in the mid-'80s and, a few years later, brought The Anthony Morgan Dance Company for a show. I remember satisfying audiences and good connections with old friends and family in Canada.

Thank you, Grant. I am sure that, wherever you are, there is fine music and art.

Anthony Morgan, Sc'73

Professor of Dance (retired), Florida State University



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The water-conscious university

BY PRINCIPAL DANIEL WOOLF



BERNARD CLARK

With the possible exception of air, it's tough to think of anything more important to human existence than water. We're largely made of it and drink it. We also play and bathe in it. Living things don't grow without it. Many of our modern basic conveniences depend on its ready availability. Yet it is not equally available throughout our world, and many peoples struggle to obtain an adequate supply. Plenty of things can go wrong with our water supply, ranging from sheer scarcity to contamination. And I'll admit that, as my wife Julie and I prepare to move house this spring to a rural community outside Kingston (complete with a nearby river, a well, and a septic field), we've both started thinking about water quality and availability in different ways.

Queen's researchers and students in a number of disciplines – from civil engineering to policy studies, from biology to law – are actively engaged in working with that humble little H₂O molecule. Our Beaty Water Research Centre, profiled in this

issue, brings many of them together to tackle the big questions surrounding water – access, conservation, infrastructure, remediation – in innovative and cross-disciplinary ways. The centre's new, expanded facilities in the Innovation and Wellness Centre, opening this spring, have been made possible by a generous donation from Ross J. Beaty to support collaborative research and education around freshwater resources. I'm excited to think about the transformational work that will come out of the Beaty Water Research Centre in the years to come.

Queen's is water-conscious in other ways. Over recent years, we've taken measures to respect the planet's water supply, from banning the sale of bottled water on campus, fixing up older water fountains, and making reusable water-bottle refill stations available, to updating plumbing fixtures and refrigeration and cooling systems to maximize water conservation.

As 2018 gets under way, we have a lot of good news to report, including our second Rhodes Scholar within two years, a number of faculty or alumni named to the Order of Canada, and faculty named as fellows of the Royal Society of Canada and the Institute of Electrical and Electronics Engineers.

Finally, on a personal note, many of you will be aware that I will be stepping down from the principalship in June 2019 at the conclusion of my current, second five-year term, in keeping with recent tradition, and also reflecting my wish to return to life as a full-time history professor for a few years. This time a year from now, the identity of our 21st principal and vice-chancellor will be known. I'll have plenty of time for further reflection on the past decade, and adieu, but for the next 17 months it's still full steam ahead (and there's another, metaphorical, use of water!). The senior leadership of the university will be working hard to continue to enhance Queen's reputation in research and teaching. I will be spending a good deal of my own time on a select number of initiatives that I'd like to see completed or well advanced by the time my successor arrives, including (to name just a few) further work on making the university a more inclusive and diverse community, mitigating the risks of excessive drinking (both to health and to town-gown relations), reinvigorating and renewing our presence in the realm of public policy debates, and hiring a record number of new professors. Stay tuned, and *Cha ghèill!* ■

Karen Rudie named IEEE Fellow

Karen Rudie, a professor in the Department of Electrical and Computer Engineering and cross-appointed to the School of Computing, has been named as a fellow of the Institute of Electrical and Electronics Engineers (IEEE) for her "contributions to the supervisory control theory of discrete event systems."

As a result, Dr. Rudie joins a very small group of women to receive the honour. As of 2017, there were fewer than 400 women listed among some 10,000 IEEE Fellows worldwide.

"I'm a member of the IEEE Control Systems Society," says Dr. Rudie. "There are only 26 IEEE Control Systems Society Fellows in the world who are women, and I'm the only one from Canada."

New fellows are nominated by their professional peers. IEEE Fellowship signifies collegial approval and

validation of a researcher's complete body of work.

"Professor Rudie is the world's authority on decentralized control of discrete-event systems," writes IEEE Control Systems Society President Edwin Chong. "The IEEE Control Systems Society is proud of her contributions and happily celebrates her elevation to the rank of IEEE Fellow. The number of IEEE members being elevated to the rank of fellow is fewer than one in a thousand."

Dr. Rudie will be recognized at an awards ceremony in Miami in December.

The IEEE is a professional association for advancing technology for humanity. Through its 400,000-plus members in 160 countries, the association is an authority on a wide variety of areas including aerospace



GARRETT ELLIOTT

systems, computers and telecommunications, biomedical engineering, electric power, and consumer electronics. Dedicated to the advancement of technology, the IEEE publishes about 30 per cent of the world's literature in the electrical and electronics engineering and computer science fields and has developed more than 1,300 active industry standards.

Call for Nominations

UNIVERSITY COUNCIL

In 1882, an amendment to Queen's Royal Charter declared the University Council duly constituted. It generally meets once a year to discuss any matters relating to the well-being and prosperity of the university and provides advice to the university. Members of the Council are elected by and from among the graduates of the university. Each alumnus may nominate TEN fellow alumni for election to the Council for a four-year term (September 2018 – September 2022). A candidate must be nominated in writing by at least TWO alumni.

GUIDELINES

University Council seeks members who have been actively engaged in the Queen's community as students and/or alumni; who have a variety of skill sets arising from professional, volunteer, and life experiences; and who are both willing and able to fully engage and participate in Council's deliberations. In order to help us achieve the goal of reflecting the diversity of Canadian society, alumni are encouraged to consider individuals from equity seeking groups such as women, racialized group members, Indigenous peoples, persons with a disability, and persons who identify in the LGBTQ+ community when nominating a candidate.



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VOTING PROCESS

An online election will be held from 28 May 2018 until 11 June 2018. Alumni will be alerted to this election via email. To ensure you will receive communications about this election, please update your contact information and confirm your communication preferences by contacting the Alumni Relations office by email: records@queensu.ca or by phone: 1-800-267-7837.

NOMINATION FORM available at queensu.ca/secretariat/elections/university-council

Nominations open 26 March 2018 at 9 am EST and close 9 April 2018 at 4 pm EST



BERNARD CLARK

Richard Bathurst, Anne Croy, Robert Morrison, Karen Yeates, and Katherine McKittrick

New Rhodes Scholar

Iain Sander, Sc'17, has been selected as a 2018 Rhodes Scholar. Mr. Sander is the university's 58th Rhodes Scholar. He will begin his studies at Oxford University this fall. He graduated with first-class honours in Chemical Engineering and received the Medal in Chemical Engineering and the Society for Chemical Industry Merit Award. At Oxford, he plans to study orthopaedic biomechanics to help improve the health, lives, and independence of individuals with disabilities.

This is the second straight Rhodes Scholar for Queen's after Claire Gummo, a Political Studies and Gender Studies student, received the prestigious scholarship in 2017.

The Rhodes Scholarships are considered the oldest and most prestigious international scholarships for outstanding scholars from any academic field of study. Funded by the estate of Cecil J. Rhodes (the Rhodes Trusts), 11 Rhodes Scholars are selected each year from across Canada to outstanding students who demonstrate a strong propensity to emerge as "leaders for the world's future."

IN MEMORIAM

Gerald Hodge, Professor Emeritus (Urban and Regional Planning), died Nov. 18.

Gerald Tulchinsky, Professor Emeritus (History), died Dec. 13.

Bill Morley, former curator of Special Collections, died Dec. 19.

Dan Usher, Professor Emeritus (Economics), died Dec. 27.

Freddy Moller, retired professor (Biochemistry), died Dec. 28.

John Roder, former professor (Microbiology and Immunology), died Jan. 6.

If you have memories of these individuals you'd like to share, email review@queensu.ca.

New RSC Fellows

In September, three Queen's professors were elected to the Royal Society of Canada (RSC), one of the highest honours for Canadian academics in the arts, humanities, social sciences, and natural sciences.

Richard Bathurst (Civil Engineering) has made contributions to the advancement and understanding of modern civil engineering geosynthetic reinforced earth retaining structures and slopes. Cross-appointed to the Royal Military College of Canada, his work demonstrates a multi-disciplinary approach to the design, analysis, and sustainability of these structures. His contributions also include themes related to earthquake geotechnical engineering, probabilistic design, full-scale model earth structure testing, materials testing, soil-structure interaction, transparent surrogate granular soils, and granular particle mechanics.

Anne Croy (Biomedical and Molecular Sciences) is a world leader in reproductive sciences where she has made key contributions with her descriptions of uterine Natural Killer (uNK) cells recruited to the uterus in early pregnancy. Dr. Croy showed the key angiogenic actions of uNK on vessels supplying the placenta and deduced major pathways by which this is accomplished. Most complications of human pregnancy are linked with incomplete remodeling of vessels called spiral arteries – a process initiated by the uNK cell.

Robert Morrison (English) is a leading scholar of British Romantic literature, and the world's foremost authority on the 19th-century English essayist and opium addict Thomas De Quincey (1785-1859). The author of several scholarly editions of De Quincey's writings and the definitive *The English Opium-Eater: A Biography of Thomas De Quincey* (2009), Dr. Morrison is widely credited with bringing De Quincey off the margins and into a position of literary and cultural prominence.

The RSC also named **Karen Yeates** (Medicine) and **Katherine McKittrick** (Gender Studies) to the College of New Scholars, Artists, and Scientists. Members of the college are research leaders who, at an early stage in their career, have demonstrated a high level of achievement.

Dr. Yeates' implementation science research program brings health-care expertise to Tanzania and other nations using mobile phone technology. She is recognized as a leader in the field of mobile health research and has been praised internationally for her contributions to disease screening and prevention.

Dr. McKittrick's scholarly work looks at the links among the theories of race, liberation, and creative texts in relation to the fields of geography, cultural studies, black studies, and gender studies. Her most recent book is *Sylvia Wynter: On Being Human as Praxis* (Duke University, 2015).

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Innovation in cancer research

Caitlin Miron honoured for her work in the discovery of a DNA 'superglue' with the potential to stop the spread of cancer cells



Caitlin Miron received the Mitacs PhD Award for Outstanding Innovation from Navdeep Bains, federal Minister of Innovation, Science and Economic Development, and Jim Banting, Assistant Vice-Principal of Partnerships and Innovation at Queen's.

In November, Chemistry PhD student Caitlin Miron received the Mitacs PhD Award for Outstanding Innovation. Ms. Miron discovered a DNA binder that could potentially “switch off” aspects of cancer cell development. The Mitacs award is given to a PhD student who has made a significant achievement in research and development innovation during Mitacs-funded research. Ms. Miron’s award is one of seven given annually by Mitacs, a national, not-for-profit organization that works with 60 universities, thousands of companies, and government to support industrial and social innovation in Canada.

Ms. Miron’s research focused on identifying and studying a family of chemical compounds that can bind to a specific form of DNA architecture implicated in the progression of diseases such as cancer and HIV. Preliminary results show

the compounds can stabilize the DNA and, like other DNA binders previously studied in the field, may have the potential to stop cancer development or metastasis. As such, this research may be useful in anti-cancer therapeutic agents, either alone or combined with other treatments.

“You can think about transiently single-stranded DNA as the chain of a necklace. The cellular machinery that reads and processes your DNA are like beads that move freely along that chain until they come to a knot. That knot is an unusual DNA architecture known as a guanine quadruplex. There are mechanisms by which the cell can unravel this knot, but if we can get there first and superglue it together, then the knot becomes a physical barrier, blocking the cell machinery from accessing the section of DNA beyond the knot. In the context of this metaphor, what we’ve found is essentially an excellent form of superglue,” says Ms. Miron. “This becomes relevant for anti-cancer applications because these quadruplexes, or knots, often form before sequences of DNA called oncogenes – sections that, if processed, will produce proteins that promote the development of various aspects of cancer. If we can block the beads – which are the cell machinery – from accessing that region of DNA, then we can potentially stop various aspects of cancer development or metastasis. At this point, we have relatively promising preliminary results in cancer cell growth inhibition with our binders.”

Ms. Miron completed her undergraduate degree in biochemistry at Queen’s in 2013. In her second year of undergraduate studies, she began volunteering in the lab of Anne Petitjean, who specializes in supramolecular and biological chemistry. Ms. Miron continues her work with Dr. Petitjean for her PhD research and, like most graduate students, now helps to supervise undergraduate students herself.

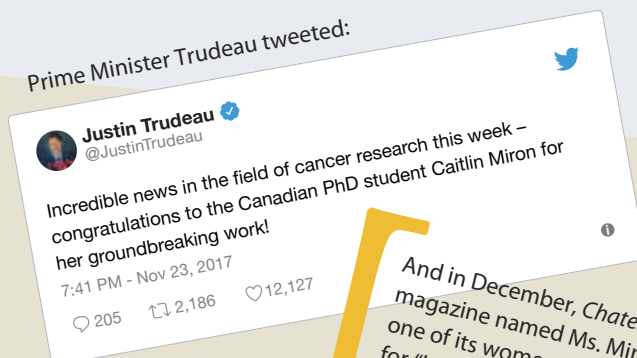
In 2015 and 2016, funding through NSERC and Mitacs Globalink programs allowed Ms. Miron to do research internships at the lab of Jean-Louis

Mergny at the European Institute of Chemistry and Biology (EICB) in Bordeaux. "Using the Mergny team's screening platform, I identified a promising DNA binder from a library of compounds made in our lab at Queen's. After a year of making second-generation derivatives of this binder to modify its properties, I had the opportunity to take them back to this very interdisciplinary environment [at EICB]. I was able to take these compounds from expert to expert and learn all their different techniques." The experience, Ms. Miron also notes, has allowed her to implement many of those experimental techniques in the research facilities at Queen's.

The findings of Ms. Miron, Dr. Petitjean, and Dr. Mergny are expected to be published this year. This work, an excellent example of how fundamental research drives innovation, has the potential to be licensed for further development by pharmaceutical companies in the future. ■

The discovery – and the Mitacs award – captured attention across Canada.

Prime Minister Trudeau tweeted:



And in December, *Chatelaine* magazine named Ms. Miron one of its women of the year for "being well on her way to curing cancer." The researcher was one of 33 Canadian women, including author Margaret Atwood and musician Lido Pimienta, who, said the magazine, "rocked 2017."



Caitlin Miron, Anne Petitjean, and three of the undergraduate students working in the Petitjean Lab: Isaiah Hasham, Yushi Liang, and Devni Elamaldeniya.

BERNARD CLARK





Clean water

BY ANDREA GUNN

What would it take to make clean, potable water available to everyone? Who should be involved in assessing the long-term damage of an oil spill in a river? What don't we yet know about effects of contaminants in our drinking water?

And where do the big issues in water research best fit? In Civil Engineering? Chemistry? Epidemiology? Environmental Studies?

Yes.

All of the above, and more. That's where the Beaty Water Research Centre comes in.



In 2010, the original Water Research Group evolved from the desire for increased collaboration among researchers and students from both Queen's and RMC. Geof Hall, an adjunct professor in both Civil Engineering and Environmental Studies recalls, "During discussions with other faculty members, we realized there were common research interests. We all thought, 'Why don't we collaborate and build something bigger?' And it snowballed from there. We have had groups come together from Biology and Engineering to develop large research grant proposals addressing some really big questions."

One of those big questions discussed was related to the effects of oil spills in freshwater systems. Ana da Silva leads a project that examines the issue. "We know a lot about oil spills in oceans, but very little about oil spills in rivers," she says. "It's a very confined environment." With the potential of oil pipelines crossing rivers across Canada, Queen's researchers wanted to take an objective look at the possible outcomes of an oil spill. With Kevin Mumford (Civil Engineering), Stephen Brown (Chemistry, Environmental Studies), Peter Hodson (Environmental Studies), and Allison Rutter (Analytical Services Unit), Dr. da Silva received an NSERC Strategic Project grant to study the problem. The multidisciplinary team and their graduate students address the issue from different viewpoints, using facilities at the Queen's Coastal Engineering Lab and in the Department of Biology. "Our goal is to assess, if there is an oil spill in a river, what is the kind of damage that can occur, especially to fish species like trout and salmon, which deposit their eggs on the river bottom.

"With this type of project," says Dr. da Silva, "we can give students a broader perspective, and prepare them to deal with these types of problems in the work world, whether they go on to work in industry or government or academia."

A critical mass

The Water Research Group was formalized, in 2012, into the Water Research Centre, an interdisciplinary centre dedicated to furthering research on water governance and sustainability and the protection of water resources, among other topics. It had 22 core faculty members, representing the Queen's departments of Civil Engineering, Chemical Engineering, Geography and Planning, Environmental Studies, Biomedical and Molecular Studies, Chemistry, and Biology, and departments at Royal Military College.

In 2017, Queen's University received a \$5-million donation from Ross J. Beatty to support collaborative research and education around freshwater resources. "Interdisciplinary teams such as the water research centre at Queen's are the way of the future," said Mr. Beatty at the time of the gift announcement. "I hope that through my gift, these collaborative activities will grow and thrive, providing researchers with the support they need to give our future generations a world they deserve."

With the opening of the Beatty Water Research Centre this spring in the Innovation and Wellness Centre, the possibilities of research collaboration will expand exponentially. The brand-new 10,000 square-foot laboratory space is a big change from the small space they leave behind in Ellis Hall. The laboratory will be designated a biohazard level 2 facility, featuring environmental chambers, walk-in fume hoods, meta-genomics tools, and other equipment to get things started. Additional instrumentation will be added as people come together on new

projects, identify the resources they need, and secure funding for collaborative projects.


"This will be a facility with the critical mass of people, instrumentation, and research space needed for cutting-edge water research," says Pascale Champagne,

the Canada Research Chair in Bioresources Engineering and the centre's director. The facility will be the regional hub for water research while still connecting students and faculty to water facilities elsewhere. Faculty members from Queen's and RMC who have their own labs off-site, as well as industry partners and researchers from other institutions, will also be able to access the facility and its resources.

Collision space

Just as important as the expanded laboratory space in the new facility is what is called "collision space" – rooms for researchers, students, visiting scholars, and industry partners from different disciplines to brainstorm together and come up with new solutions to water problems. "Some of the most creative collaborations have evolved, in my experience," says Dr. Champagne, "through these types of informal discussions. The exchange of ideas over lunch or in the laboratory can lead to 'Eureka' moments and new ways to tackle a problem. It's important to have this space, where the research is actually happening, where ideas can ferment and evolve."

"The support they need to give our future generations a world they deserve."



The purpose of the Beaty Water Research Centre is to foster an environment that encourages collaborative research spanning traditional water-related disciplines as well as non-traditional and emerging disciplines.

Through its key pillars of **research, education, and outreach**, the centre will foster and support activities in water **governance**, water **use**, water **resources**, and water **quality**.

Emerging issues

With their combined expertise, the members of the Beaty Water Research Centre are perfectly situated to address growing issues in clean water in a variety of ways. For Geof Hall, the manager of the centre, one of the most interesting is a class of contaminants referred to as “emerging compounds of concern.”

“This includes pharmaceuticals that get flushed down the toilet,” he says, “both from people discarding their pills and from the metabolites that pass through the body. It all goes into receiving environments – lakes, rivers, groundwater – where it accumulates, and then we drink it. Some of these compounds are found in shampoo, toothpaste, and artificial sweeteners. Some are easily broken down in water; others are very resistant.

“We need to support further research into optimal treatment methods and technologies, along with understanding the long-term effects of exposure to these accumulated compounds in the receiving environments. What does that do over a lifetime? Maybe this is something that will never be known, but those are the kinds of questions that are emerging.”

So how best to tackle this issue?

Some of the compounds may turn out to be harmless, but this first needs to be established. Understanding the long-term effects of minute levels of these compounds on human health brings in microbiology and epidemiology. If it is determined that the compounds need to be removed from the water, this can be addressed in a number of ways, starting with wastewater treatment. “From the engineering side,” says Dr. Hall, “we can examine whether conventional treatment could work. Are there technologies that can be added to a conventional wastewater treatment plant? Or, from a biology perspective, you may want to treat the water naturally, through a constructed wetland. Then you would need to understand what it’s doing to the aquatic ecosystems, so *that* brings in environmental studies and toxicology.

“If the emerging contaminants of concern can’t be dealt with on the wastewater treatment side, then research on the removal of these contaminants from drinking water needs to be pursued. Is there a way to treat potable water to remove the compounds before people consume it? That all involves engineering, biology, and health sciences.”

Collaboration as knowledge transfer

The collaborations are not just happening among faculty members. New ideas are always being developed to leverage the work done at the centre and take it to new audiences. In Civil Engineering, for instance, Kevin Mumford is partnering with Art the Science, a not-for-profit organization. Art the Science is facilitating an artist residency this March in Dr. Mumford’s lab that presents environmental engineering research in a new visual medium. An artist will work alongside students on a project investigating, among other issues, contaminants in soil and groundwater. “Collaborations like this are important,” says Dr. Mumford, “because the results of science and engineering need to be communicated. It’s exciting to think about that communication happening over multiple channels, not just through journal articles and conferences, but through art.”

Outreach is a critical component of the centre’s mandate. “It is important,” says Dr. Champagne, “that research and knowledge, no matter how leading-edge, is relevant and transferable to society.” Outreach activities often include both

graduate students and faculty members connecting with the Kingston area community. The Great Lake Water Festival, held every summer at Lake Ontario Park, teaches grade four students about water conservation and stewardship. The Engineer-

ing Summer Academy (through the Faculty of Engineering and Applied Science) immerses high school students in water-related, environmental engineering field activities. For the general public, the centre is planning a speaker series on water research, utilizing the expertise of its own faculty as well as visiting scholars.

Connecting future leaders

The 2013 Water Symposium brought together graduate students at Queen’s and RMC to discuss their research. This grew, the following year, into the first WATIF (Water Initiative for the Future) conference, created by graduate students for their peers. The conference builds communication and collaboration among peers across a variety of disciplines, building the potential for future partnerships as they move forward in their careers. First offered as a national conference in 2014, it attracted international attendance in 2016. The third WATIF interdisciplinary conference will be held at Queen’s later this year.

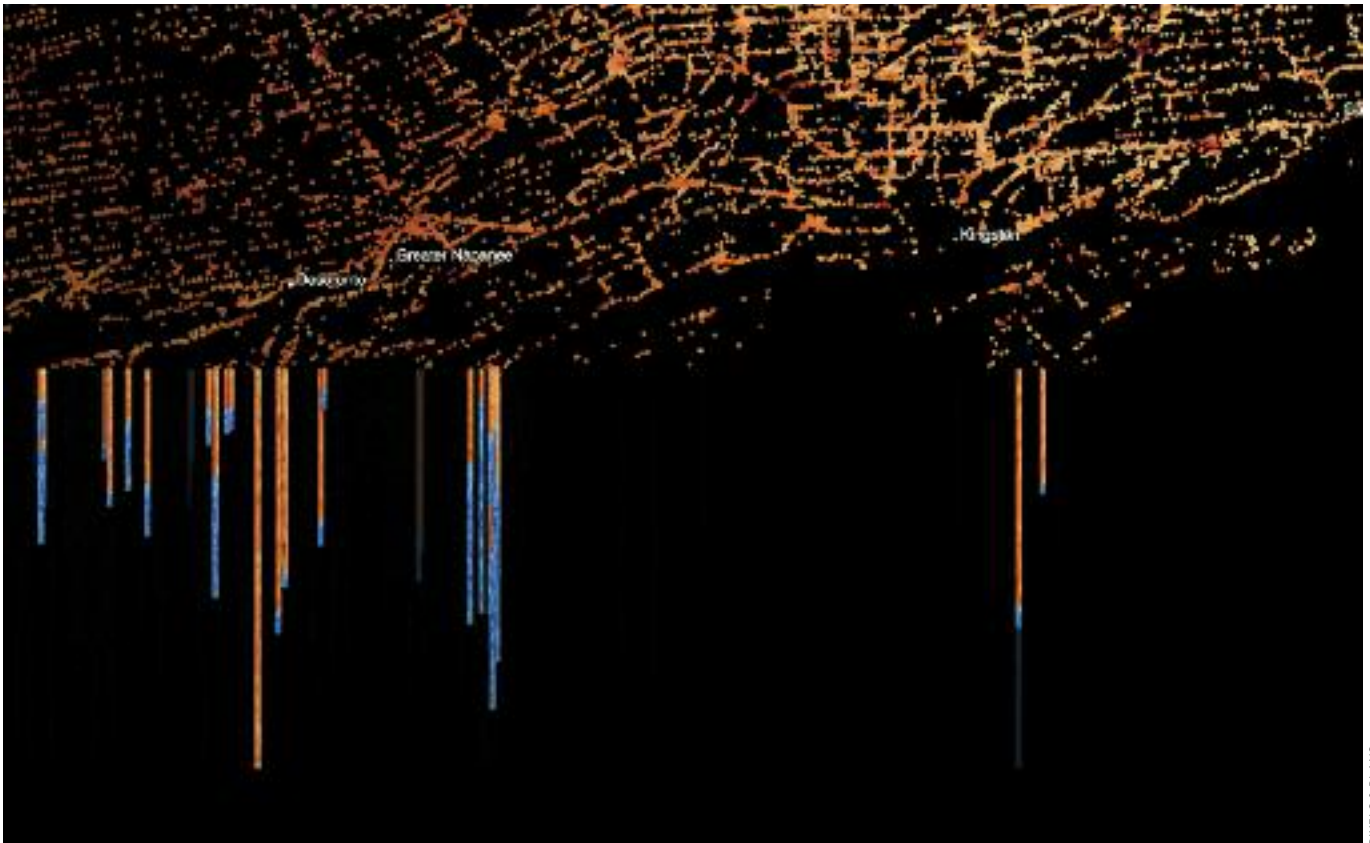
“It is important that research and knowledge is relevant and transferable to society.”

New educational opportunities

New formal programs are also in the works. The first is a Water and Human Health graduate diploma, an online program designed to give recent graduates and professionals enhanced training on the impacts of water on health. “We have a number of students who want to go on to work in development agencies,” says Dr. Hall. “Others will be pursuing careers in environmental and

engineering consulting and would benefit from a greater knowledge of human-water interactions.”

So, as well as connecting people from different faculties and with different skill sets, the centre’s programs encourage a cross-disciplinary approach for individual students. “We’re seeing students who can look across the boundaries of traditional disciplines in search of new ways to solve problems. Quite frankly, that’s the future.” ■



PIXELS & PLANS

Depth to Water

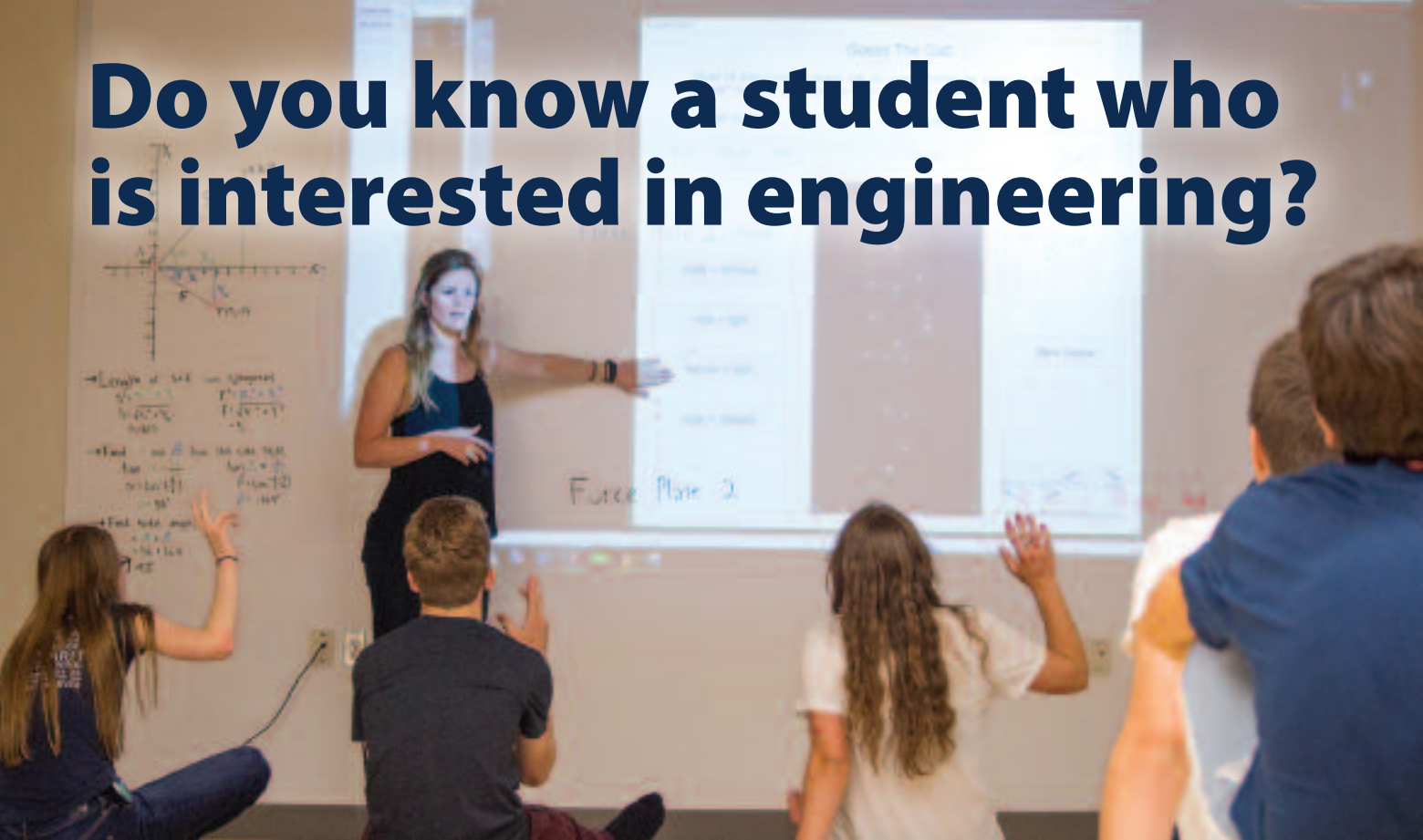
Depth to Water is a code-based artwork that uses 367,089 private well water data points to map the geography of Ontario. It also displays the depth at which water was found for each well at a 100-meter scale, revealing a slice-view of the aquifer. Above, a section of the artwork shows the wells in the Kingston-Napanee region.

Artists’ statement

Thousands of points form recognizable territories, thereby connecting the viewer to familiar places. As regions pass across the screen, each dot transforms into a single unearthing of water. *Depth to Water* places emphasis on groundwater as one continuous subterranean resource, no longer assigned to a temporal scale and summed up by a myriad of water discoveries. While most residents rely on municipal water sources (as evidenced by a lack of data points near larger cities), a sub-set depend on groundwater wells. When wells are depicted as a perforated sheet transitioning over a watercolour canvas, the extent and scope of our groundwater use is revealed. As Benjamin Franklin said: “When the well is dry, we know the worth of water.”

Julia Krolik, MSc’14 (Pathology), and Owen Fernley, Sc’01 (Geological Engineering) of Pixels & Plans created *Depth to Water* for the 17th Canadian National Conference on Drinking Water. The work is currently exhibited in several places, including Art the Science’s Polyfield Gallery. You can view the full work at artthescience.com/polyfield-gallery/depth-to-water.

Do you know a student who is interested in engineering?



Students who are currently in grades 7 through 12 can gain an introduction to the Queen's Engineering experience with **Connections: Queen's Summer Engineering Academy (QSEA)**, and **QSEA Jr.**

With both residence and day options available, the QSEA program is an engineering-focused educational summer program that exposes your student to engineering design.

The Academy runs in July and August, and offers three concurrent programs per week, with each exploring interesting components and disciplines of engineering.

Students can attend a one-week session, or to get a complete picture, they can sign up for as many weeks as they wish.

QSEA and QSEA Jr. present students with a broad engineering overview, using lab facilities and thought provoking projects to inform and engage students. The team-based design projects involve collaboration, leadership, communication, creativity, and critical thinking. These are based on the same concepts and methodologies Queen's Engineering students study.




For more information, check out our website:
engineering.queensu.ca/qsea



Leading the way...

In November, Erin Lee, Sc'19 (Mechanical Engineering), was one of 360 varsity student-athletes recognized as Queen's Academic All-Stars. Academic All-Stars earn at least a 3.5 grade-point average over the past academic year while competing in their varsity club or team.

A swimmer wearing a white swim cap and black goggles with yellow accents is shown from the chest up, splashing water. She is wearing a black swimsuit. The background is a dark, textured water surface with many small droplets of water suspended in the air around her.

Erin was also named one of four recipients of the Nixon Academic Leadership Award, given to athletes who exemplify achievement in academics, community service, and fair play in their sport. The awards are named in honour of Gord and Janet Nixon, two extraordinary benefactors to Queen's Athletics & Recreation.

... and making a splash

2016-17 Nixon Academic Leadership Awards

Erin Lee (Swimming) Sam Dobbin (Triathlon)
Emily Gervais (Hockey) Ejaz Causer (Football)

Erin holds a number of Gaels swimming records, both individual and relay. Swimming, she says, is a great "de-stresser," giving her balance between her studies and work. (She works part-time in the biomechanics lab of Dr. Michael Rainbow.) Erin hopes to go on to do graduate work in biomechanics.



Erin isn't the only swimmer in the family, though. Her brother Steven, Sc'18 (Mathematical Engineering), also holds a number of Gaels swimming records. Like his sister, he serves on the Varsity Leadership Council, which focuses on community outreach and leadership development. Steven plans a career as an actuary after graduation.

Erin and Steven's parents, Hui, MD'89, and Anne (Fogerty) Lee, MD'90, were also on the Queen's swimming team. In fact, that's how they met!



Return to space

According to Drew Feustel, floating in space is very much like floating in a swimming pool... especially if you wear a spacesuit in the pool.



This March, NASA astronaut Drew Feustel, PhD'95 (Geological Sciences), DSc'16, embarks on a mission, with Expedition 55, to the International Space Station. Once there, Dr. Feustel will take command of Expedition 56. During his six-month tour on the ISS, he and his colleagues will conduct about 250 research investigations and technology demonstrations not possible on Earth.

As part of his preparation for this mission, Dr. Feustel underwent extensive training in the pool of NASA's Neutral Buoyancy Lab at the Sonny Carter Training Facility near Houston, Texas. The enormous pool, which houses full-sized exact replicas of ISS modules, is used to train for Extravehicular Activities (EVAs), also known as spacewalks. Working under water simulates the weightless environment of space, helping astronauts prepare for their work at the ISS. For every hour of EVA planned on a mission, astronauts will train for up to 10 hours under water.

Dr. Feustel is a veteran of two spaceflights. In 2009, he served on STS-125, the fifth and final mission to service the Hubble Space Telescope aboard the space shuttle Atlantis. He made his first trip to the space station in 2011 as a member of the STS-134 crew on space shuttle Endeavour's final mission.

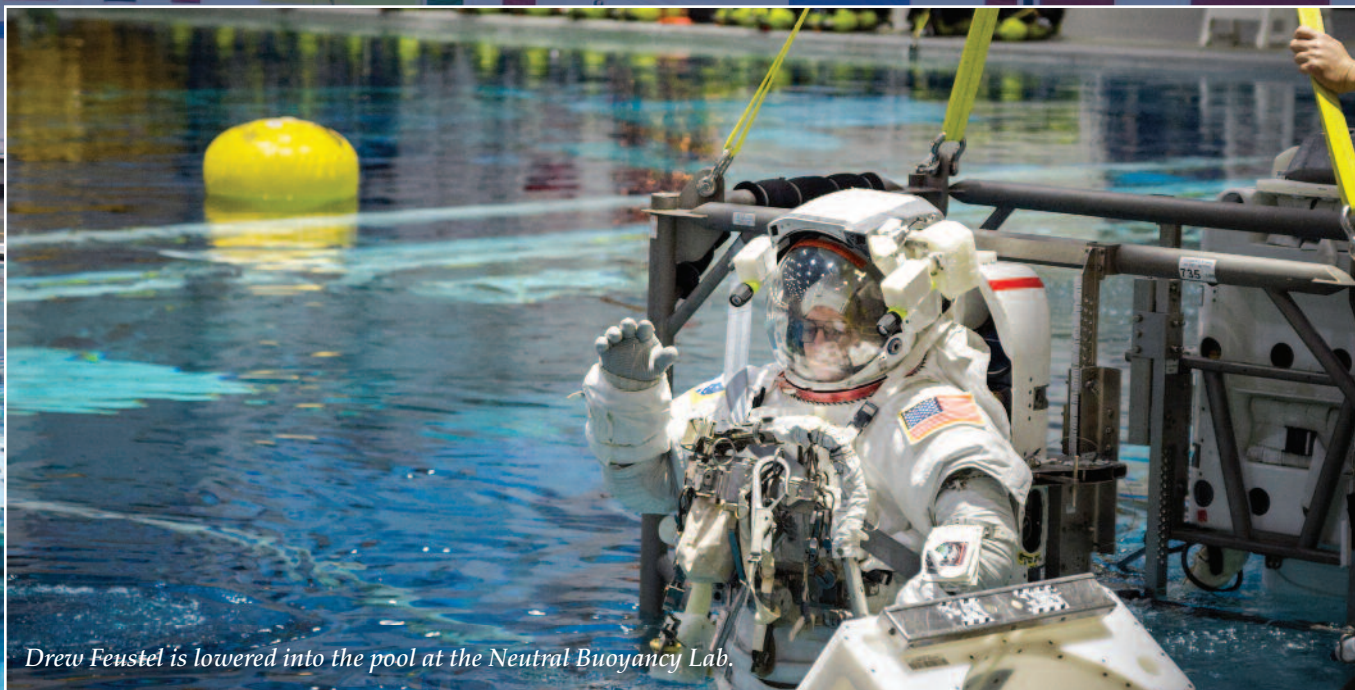
We sat down with Dr. Feustel during his training at the Neutral Buoyancy Lab.

What is his favourite memory so far of space?

"One of them was on the Hubble mission, flying over Texas in a spacesuit on an EVA and being able to look across the country and see Michigan – my home state – and Ontario. That view is burned into my head."

What does he miss most about home when he is in space?

"Showers, pizza," he laughs, "and the smell of the Earth."



Drew Feustel is lowered into the pool at the Neutral Buoyancy Lab.

On April 6, Queen's will take part in a live video chat with Dr. Feustel and his crew. See the *Review* website for details.

Follow Drew Feustel on Twitter and Instagram: @Astro_Feustel

Protect The Island

Across the midsummer sun
an aluminum boat.
Suddenly aware.
I watch it approach
measure distance
in the blink of an eye.

Lifted from a solitude of loons.
I stand.
Protect the island.
It's a lifesaver.
You can't take it with you.
It's a breath of fresh air.

Six vacationers land,
slurring themselves.
Whisky walk.
I approach. My lungs full and tense.
They call: Where are the fish?
I reply: In the north channel, but they're belly-up.
The rain is vinegar.

Cursing
they say they will write Washington
and Ottawa
and it won't be love letters.
They salute
pile into the boat and shove off.
At the shore trees bow
in the recent wind
offering the greatest applause.

Armand Garnet Ruffo's poem "Protect The Island" was originally published in his 1994 book *Opening In The Sky*. An Anishinaabe scholar, filmmaker, and writer, Mr. Ruffo is the Queen's National Scholar in Indigenous Literature. He is an associate professor in the Department of English, cross-appointed to the Department of Languages, Literatures and Cultures. In December, he was honoured at the City of Kingston's inaugural Mayor's Arts Awards. The awards celebrate high artistic achievement, recognizing extraordinary contributions in and to the arts. Mr. Ruffo is the author of four books of poetry and two works of non-fiction, the most recent of which is *Introduction to Indigenous Literary Criticism in Canada*. His book *Norval Morrisseau: Man Changing into Thunderbird*, the first book-length biography of the painter, was shortlisted for the 2015 Governor General's Literary Award for Creative Non-Fiction. A new edition of the book was released in January.



Beth ten Hove, "Ain't no valley low enough." Acrylic on canvas.

"I live and work on a lake that calls my name every day, inviting me into her deep knowing of light and shadow, movement and stillness. My response to her call is in itself 'water play,' as I mix my paint generously with water directly on the surface of the canvas. My canvas lies flat on the table in my studio, like the lake on a calm day, quietly waiting for the dance to begin. I am fascinated by how water alters pigment and responds to the movement of my hands; and in the apparent stillness there is always movement."

Beth ten Hove is a Kingston artist. See more of her work at bethtenhoveart.com.

Testing the waters

Graduate students Laura Segura, Saeid Ahadi, and Christopher Gamboa Monge work on the meandering channel at the Coastal Engineering Lab. By injecting food dye into the channel water, they can track the flow of contaminants in a river. They are part of Ana da Silva's lab in Civil Engineering, as are Kerri Bascom and Kenneth Lockwood, seen at left.

Queen's first coastal engineering research facility was built in 1968 under the supervision of Arthur Brebner, then head of Civil Engineering. A fourth-year undergraduate course and two graduate courses in coastal engineering were started that year.

Today, the Queen's Coastal Engineering Lab is the largest university hydraulics laboratory in Canada. Located on West Campus, it houses three 45m-long wave flumes, a large wave basin, three river simulator flumes, a rotating fluids table, a landslide flume, and two other water channels. The facility is used for fundamental and applied research, physical modelling for industry and government partners, and teaching in a broad range of water areas, from river engineering to water supply systems and landslides.





Creating energy

In 2016, Dr. da Silva partnered with colleague James Li of Ryerson University on a project for Ontario Power Generation to test a new turbine for the Ranney Falls Generation Station, which produces hydroelectricity. To address the increasing demand for electric energy, OPG wanted to add a turbine to the site that could double the station's capacity, from 10 to 20 megawatts. However, adding a new water intake, which directs water from a dam to a turbine, can create a potentially damaging vortex formation.

"We built a large scale [1:25] model of the dam," says Dr. da Silva. "We observed the vortex generation and studied different solutions to eliminate, or minimize, these vortices."

OPG is now installing the new turbine and intake at the Ranney Falls station, based on the work of Drs. da Silva and Li, which included both physical modelling and computer simulations. The model dam remains at the Coastal Engineering Lab, where it is used for undergraduate and graduate student research projects.

... and mitigating disaster

Andy Take, a geotechnical engineer and landslide researcher in the Department of Civil Engineering, oversees the landslide flume at the Coastal Engineering Lab. The flume is used to simulate landslides, the waves they generate, and the damage they can cause.

Dr. Take also works with fellow civil engineering professor Ryan Mulligan on the mechanics of landslide-propagated tsunamis. Dr. Mulligan, a coastal engineer who studies the behaviour of waves, also works on ways to help engineers design for coastal areas as hurricanes become more frequent and intense.

In the online *Review*, watch videos of the wave basin and landslide flume at the Coastal Engineering Lab.

Fish food

The decline of many wild fish populations is a big problem, both in Canada and around in the world. Wild fish populations are no longer able to keep up with the demand for fish for human consumption. Aquaculture, the farming of fish for human consumption, has become an important way to fill this gap. But aquaculture, as it turns out, has some serious environmental problems when it takes place in open net pens in natural water bodies. One of the big problems is that nitrogen-rich waste created by the dense fish population flows out of the pens and reduces the quality of the surrounding water for other aquatic life.

But nitrogen-rich water is perfect for growing produce hydroponically, without soil. Aquaponics systems (a form of inland aquaculture) grow both fish and plants in the same recirculating water system. In the Freshwater Fisheries Conservation Lab at Queen's, Bruce Tufts and his students are working to improve aquaponics technology to make systems that work well in a Canadian climate. Ideally, inland aquaculture systems could be adopted in Northern parts of Canada in areas where conservation of wild fish populations and the paucity of fresh produce are a real concern.

Tilapia, a freshwater fish, has grown in popularity in recent years as a food fish. Much of the cultivated tilapia currently available in Canada comes from South America. Growing more fish locally through aquaponics would significantly cut down the carbon footprint required to get food onto Canadian tables. And as a bonus, one can grow a variety of healthy produce at the same time, even in the dead of winter.

Tilapia thrive in an aquaponics system. At the Queen's lab, wastewater from large tanks of tilapia is filtered and then run through pipes into the next room, where rows of healthy kale, Swiss chard, lettuce, and basil grow. After passing through the plant trays, the water is pumped out again and reheated to a balmy 30 degrees, before going back into the fish tanks.

In another room at the lab, walleye swim in water that's a tad cooler, about 20 degrees. Without the variations in water temperature that exist in Ontario's lakes, these fish will grow to market size in about a year, instead of the normal three to four years in the wild. Walleye, also known as pickerel, is one of the most popular food fish harvested from freshwater lakes and rivers in Canada. A number of factors, including excess harvest and environmental conditions that affect fish habitat, have placed strains on many wild walleye populations.

Here in the lab, both fish and plants grow in optimal conditions. The fish aren't harmed by pollution or predators; the plants are safe from frost, disease, and insect damage. Some of Dr. Tufts' students examine the way that water chemistry affects different types of produce. Others are looking at the best types of feed for the fish: they've discovered that tilapia will grow well on feed that incorporates a significant amount of algae, which is both easy and cheap to produce.

The aquaponics research in the Freshwater Fisheries Conservation Lab at Queen's and a number of other research and educational projects in the Department of Biology were made possible by The Greenberg Family Fund in Conservation of Freshwater Fisheries.

■ AG



Graduate student Connor Elliott and Professor Bruce Tufts measure the oxygen levels and temperature in a tilapia tank at the Freshwater Fisheries Conservation Lab.

Road salt is bad for the environment, so why do we keep using it?

BY JAMIE SUMMERS AND ROBIN VALLEAU

Marshes, streams, and lakes lie alongside many of the roads and highways that zigzag across North America. Plants and animals inhabit these water bodies and can be exposed to many of the substances we put on those roads, including road salt.

Rock salt helps keep roads safe when winter storms hit, reducing winter road accidents. But it can also have serious, negative effects on aquatic ecosystems.

At high concentrations, salt can be fatal to some aquatic animals. Salt can also change the way the water mixes and lead to the formation of salty pockets near the bottom of lakes, creating biological dead zones.

When the weather takes a wintry turn, many cities and municipalities in North America rely on salt to de-ice their roads. This rock salt is similar to table salt, made up of sodium and chloride, but coarser. It dissolves quickly on the road, leaving the chloride to enter nearby waters through runoff and leaching. In fact, almost all chloride ions from the road salt eventually find their way into waterways downstream.

At low concentrations, chloride is relatively benign but as concentrations rise, it can be toxic to aquatic wildlife, including the plankton and fish that inhabit inland lakes. These ecological changes affect water quality.

In salt water

One study of North American lakes found that as little as one per cent of the land area within 500 metres of the lake had to be paved (or otherwise impervious) for there to be an increased risk of becoming saltier over the long term.

Basically, a little development can lead to a lot of salt entering a water body. About 27 per cent of large lakes in the United States are at least one per cent developed along their shores.

A recent study suggests that salt concentrations in many U.S. lakes will fall outside the bounds necessary for healthy aquatic plants, animals, and micro-organisms – and for good-tasting drinking water – by 2050.

Canada will likely face the same issues. Depending on the severity of the winter, approximately 5 million tonnes of road salt are applied annually to Canadian roads. Many municipalities in southern Ontario use more than 100,000 tonnes per year.

Road salt applications in Canada began in the 1950s. To fully understand how these increasing chloride concentrations have affected lake ecosystems, we must look back in time. But there's little long-term data about these lakes for us to look at.

Instead, we examine past environmental conditions by coring into the lake bottoms and using the information preserved in the lake sediments.

A window into the past

Clay, silt, sand, pollen, chemicals, and other substances from the surrounding environment accumulate slowly – and continuously – in layers at the bottom of lakes. That sediment provides a natural archive of past conditions. For example, a layer with a lot of charcoal may indicate increased forest fires in the region.

Scientists use the information preserved in this archive to understand how environmental conditions have changed over long periods of time – from years to centuries.

The Muskoka region of central Ontario – known for its lakes, rivers, and cottages – has been applying road salt since the 1950s. The remains of algae and microscopic animals (called zooplankton) contained within the region’s lake sediments show us that changes have occurred in these lakes, coinciding with the onset of road salt applications in the region.

There are more salt-tolerant zooplankton species now than there were before road salt was widely used. The effect of that shift isn’t fully understood. But we do know that when things change at the lower levels of the food web, the effects may be felt through the whole ecosystem.

Consider, for example, a fish that has become adapted to eating one type of zooplankton. If all of a sudden the zooplankton is replaced by another type – perhaps one that is larger – that fish may run into trouble.

Chloride can be toxic to zooplankton. At lower concentrations it can have sub-lethal effects – weakening individuals and raising rates of egg mortality. Fish are generally more tolerant to increasing salt concentrations, but the longer they are exposed to high chloride levels, the more toxic it is. Many young fish feed on plankton and if they lose their food source, they will not thrive.

Brine alternatives

Some communities in North America are looking for environmentally safe alternatives to road salt.

Beet wastewater (left over from sugar beet processing), cheese brine, pickle juice, and potato juice are some of the unconventional de-icers being tested.

The carbohydrates or sugars in beet wastewater make it more effective at lower temperatures than

salt water or brine alone, lowering the melting point of the ice to below -20 C from -10 C – and reducing the amount of chloride applied to the road.

But there are downsides. Some communities dislike the smell of the beet wastewater, which people have likened to soy sauce, molasses, or stale coffee. It also adds sugar to aquatic ecosystems, which may encourage bacterial growth.

Instead of using salt and salt additives, some engineers are experimenting with roads that clear themselves of snow and ice. Early tests have suggested that solar panels could replace asphalt to melt ice and eliminate the need for road salt by heating water in pipes embedded in the road.

Others are looking for more effective ways to use rock salt – and reduce the amount that enters water ecosystems. A significant portion of rock salt bounces off the road when it’s applied, so trucks tend to apply more than necessary. Wetting the pavement and applying brine solutions help the salt adhere to the road, meaning cities and municipalities can cut back on how much they use.

Scientists are also helping to figure out how much salt our lakes can handle, which species are at risk, and which lakes are most sensitive to road salt exposure, to find a way to keep humans safe on the road and plants and animals safe in our lakes, streams, and wetlands. ■

Jamie Summers is a post-doctoral fellow in the Department of Biology. Robin Valteau is a master's student in the Department of Biology. This article originally appeared in The Conversation. Queen's University is a founding partner of The Conversation Canada, an online news platform for academics. You can read more articles by Queen's researchers at theconversation.com.



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QUEEN'S UNIVERSITY ARCHIVES ICE STORM '98 FONDS: KINGSTON WHIG-STANDARD PHOTO

Force of nature Twenty years ago, a massive ice storm hit eastern Ontario and southern Quebec. In Kingston, downed trees and power lines, laden with ice, caused havoc across the city. Queen's University lost power at seven of its 12 residences and classes were cancelled for six days. Approximately 150 of the 600 mature trees on campus property were destroyed.

If you have memories of the 1998 ice storm you'd like to share, email review@queensu.ca.

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Unless otherwise indicated, dates in these notes refer to 2017.

Up to 1959

Honours



Nicholas Rizzo, Meds'58, was named Italian-Canadian Citizen of the Year by the Order Sons of Italy in Hamilton, Ont. A gala was held in his honour in November. Nicholas, who retired from family practice in 2014, spent his professional career serving the Hamilton community. Ninety per cent of his patients were Italian immigrants; he became proficient in many Italian dialects. His calm demeanour and caring personality made him one of the most sought-after doctors in the area. He also served as medical director of St. Joseph's Hospital and a professor at McMaster's Department of Family Medicine. He is very proud that his granddaughter LeeAnn Sverko, Artsci'18, will also graduate from Queen's this spring – 60 years after Nicholas's own graduation.

Notes

Arthur-William Landry, Arts'50, of Grande-Anse, N.B., celebrated his 100th birthday on Dec. 2. He served in the army from 1942 to 1945. He married Antoinette Charlesbois in 1944 and the couple had five children. One of Arthur-William's great interests is ornithology; he was the founding president of his local bird-watching club.



While **Murray M. Fraser**, Meds'46, didn't make it to Homecoming 2017, he had a mini-reunion of his own in October, with **Jack Noakes**, also Meds'46. Murray was visiting his daughter Wendelin in Calgary, who sent us this photo of the two long-time friends and classmates. The



class of Meds'46 actually graduated in 1945, having gone through an accelerated year-round program instituted during the war years. Murray went on to a career in pediatric and neonatal surgery, Jack, a career in urology.



Bob Park, Sc'48½, recently celebrated his 90th birthday. Among his birthday presents was a new Queen's tam, given to him by Shelby Nicholson, Sc'17, and his wife, Jessica Van Dusen (Queen's Marketing). Bob has been a mentor to Shelby, a Sc'48½ bursary recipient, since they met four years ago. Shelby and Jessica visited Bob and his wife, Thea, in Arizona this past winter.

Deaths



James Bleaney, BSc'51, died Oct. 13, aged 89. Predeceased by his wife, Evelyn, Jim is survived by his children Douglas, Sc'78 (Cathy), Gordon, Sc'81 (Cathy), Ted (Wendy), Scott, Glen, and Tracey (Mike); eight grandchildren; and five great-grandchildren. A proud graduate of the civil engineering program at Queen's, Jim enjoyed a long and successful career as director of public works for the City of North York. In retirement, he enjoyed reading, playing tournament bridge,

golfing, and travelling to far-off corners of the world. He was a dedicated husband and family man.

Harry Lynn Brien, BSc'52, died Sept. 4 at home in Ridgetown, Ont. He worked for 34 years for Atlas Steels in both Welland, Ont., and Tracy, Que. After retiring from the company, Harry farmed near his hometown. He was an avid pilot of small aircraft, often commuting to work from Ridgetown to Welland. Harry is survived by Ann, his wife of 63 years, children Jane and Richard, and five grandchildren.

Stephen Chwastiak, BSc'55, died Oct. 6 in Charlotte, N.C. After studying mining engineering at Queen's, Steve went on to earn his doctorate in materials science at MIT. He worked as a materials research scientist in Cleveland, Ohio, and later in Charlotte. He held a number of patents and had several scientific articles published. Steve is survived by his wife, Sue, children Ben and Katie, three grandchildren, and extended family.

Walter Dankowich, BSc'48, died peacefully on May 20 in Oakville, Ont., surrounded by family. He is survived by Nadia, his wife of 65 years, children Don (Juliana), Stephen, Andrew (Joanne), and Paul, and three grandsons. Walter studied chemical engineering at Queen's and had a rewarding 35-year career with Gulf Oil. He liked attending Queen's Golden Gaels' football games at Varsity Stadium in Toronto with colleagues from his university days. He thoroughly enjoyed his retirement, spending winters in Florida. Walter is remembered for his love of family, generosity, volunteerism with the Ukrainian Orthodox church, joy of fishing, and general kindness to all.



Janet Greenlees, BA'49, died Nov. 12 in Rutland, VT. Janet studied biology, chemistry, and math at Queen's and became a science teacher after graduation. She was a free spirit in her own quiet way. She loved to

travel and she explored the world with friends. She had family ties to Kingston and enjoyed spending summers at her cottage nearby. In 1978, she moved to Chester, Vt., to care for her father, Lloyd Greenlees, MA 1920. In Chester, she volunteered at the public library and taught children to ski at the local ski resort. She also loved music and played the viola. She always had a canine companion at her side. Janet had an annuity with Queen's that will benefit the Allen S. West Memorial Fund. Professor West was a longtime member of the biology department.

Douglas Hanna, BSc'44, died Nov. 8. Doug was the first in his family to graduate from university. After completing his degree in chemical engineering, he worked for Canadian Hanson & Van Winkle Ltd. in the electroplating business, first as chief chemist and then moving into sales and senior executive positions. Doug regaled his children with stories of life at Queen's. Although his children attended other universities, the grandchildren heard the same stories of how great his experience at Queen's had been. Doug was thrilled when five of his nine grandchildren attended Queen's in a variety of disciplines – science, geology, medicine, and law. Two grandchildren-in-law also are Queen's grads. Doug attended many Science '44 reunions and stayed close friends with several classmates, including some who attended Doug's 90th birthday celebration in 2011. Queen's Engineering provided a young man raised on a farm the opportunity to acquire knowledge and skills that set him on a successful business career and provided him a rich social life and lifelong friendships. Doug is survived by Marilyn, his best friend and wife of 70 years, children Beverley, Edward, Louise, and David, and extended family. To celebrate Doug's memory, his family is asking that gifts be made to the Faculty of Engineering and Applied Science Dean's Excellence Fund: givetoqueens.ca/douglashanna.

Robert Haughton, BSc'46, died Nov. 12 in Ottawa. He is survived by his children Roberta, Ed'72, Anne, Arts'73, Ed'74, Maureen, and James, and their families. After studying



electrical engineering at Queen's, Bob joined Bell Canada in 1946 and retired in Ottawa in 1983 as assistant director, telecom standards, following a decade of involvement with the International Telecommunications Union, an agency of the United Nations based in Geneva. He shared his telecommunications expertise with stakeholders worldwide. In 1990, with the support of Bell Canada, Bob initiated a course, "Telecommunications Engineering," at Carleton University in Ottawa featuring a unique teaching alliance with a number of telecom industry leaders, government regulatory agencies, and university professors.



Lois Jane (Macpherson) Hope, BA'46 (member of Arts'47), died Oct. 22. Predeceased by her husband of 52 years, Jack, she is survived by her children Daphne, Andrew, and Melissa, and her granddaughter Kristyn Hope, Artsci'09. Jane followed in the footsteps of her father, Kenneth Macpherson, BSc 1914, and his three sisters, who were also Queen's grads. Jane was a proud Queen's alumna; she kept her connections with fellow graduates all her life and she saved her Queen's tam. She also shared a special "Golden Gael" bond with her granddaughter, Kristyn. Lois is seen here with Kristyn (now Dr. Hope) at her graduation.

1960s

Correction:

In our last issue, we ran a photo of a reunion of members of Sc'69 (Civil) and misidentified one of the alumni.

Norm Huggins was incorrectly identified as Mark Huggins. Norm's father, Mark Huggins, taught at

Queen's from 1939 to 1943. That's Norm second from the left in the back row.



Notes

The new edition of *Gael Force: A history of football at Queen's, 1882 – 2016* is now available. **Merv Daub**, Com'66, has added 20 more years of football history since *Gael Force* was first published in 1996. We'll have more information on the new edition in a future issue.

Deaths

Douglas Campbell, BA'68, BEd'69 (MLS, Western), died Aug. 1. A proud Queen's man, Doug was delighted when his children also graduated from Queen's. Doug is survived by his wife, Gwen, and children Alison, Artsci'93, and Ian, PHE'96.

Kenneth Michael Haapanen, BSc'62, died Nov. 2. He is survived by Doris, his wife of 58 years, children Christine and Cynthia, and two grandchildren.

1970s

Honours

In December, **Peg Herbert**, Arts'72 (MEd, PhD, University of Ottawa), received the Governor General's Meritorious Service Cross Award. Peg is the founder and executive director of Help Lesotho, an organization dedicated to rebuilding a country devastated by HIV/AIDS. She created a model of support that combines education, grief counselling, and gender equity programs to help youth and grandmothers – those most often left in charge of their households – become community leaders and role models for positive social change.

Notes

Diane Dawber, Artsci'74, MEd'84, after the death of Christopher in 2012, moved in 2016 to the east side

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Featuring



Go Ahead



of Sydenham Lake. She lives there with her new partner, author Bernard Gates. Diane has a new book out, the product of 15 years' work: *The Nutrient Scent Test*.

Molly Hurd, Artsci'74, has recently retired after 20 years at the Halifax Independent School. She was head teacher of the school for 15 of those years. Molly also taught in northern Quebec, Eskasoni, Nigeria, Britain, and Tanzania as well as in Ontario and Nova Scotia. She recently published a book based on her experiences: *Best School in the World: How students, teachers and parents have created a model that can transform Canada's public schools*. Molly's husband, **Lars Osberg**, Arts'68, also has a book coming out later this year:

The Age of Increasing Inequality. Lars is an economics professor at Dalhousie University.

In October, **Tony Thompson**, Artsci'77, MDiv'81, was granted a doctorate of divinity *honoris causa* by St. Andrew's College, Saskatoon. The Rev. Dr. Thompson currently serves Wesley United Church in Prince Albert, Sask. He will retire this July, having served the United Church of Canada in five pastoral charges over a period of 37 years.

1980s

Honours

Susan Snelling, Artsci'86, and her partner, Barb Erskine, were recognized



as "Green leaders" by Forests Ontario for their commitment to tree planting. The couple, who live on Manitoulin Island, participated in the 50 Million Tree Program, a partnership between Forests Ontario and the Government of Ontario that aims to plant 50 million trees across the province by 2025. Susan and Barb added to that goal: they had almost 5,000 Red Pine and Norway Spruce trees planted on six acres of their property. "The trees planted by Barb and Susan will create a new forest, providing multiple values and adding to the overall forest cover in the region," said Rob Keen, CEO of Forests Ontario. "Healthy, diverse, and contiguous forests are essential to mitigate and adapt as we continue to see the effects of climate change." "Barb and Susan should be commended for their tremendous contribution to the environment," said Kathryn McGarry, Minister of Natural Resources and Forestry. "Stewardship is a crucial component of keeping our communities healthy."

Job news

Jeff Adams, Artsci'88, PhD'91 (Physics), Ed'92, is now associate vice-president and associate dean for undergraduate education at Penn State University. Jeff and his wife, Monique (Hamelinck), are making the move from Lancaster, Pa., to State College with their three younger children. Their eldest, Nick, is already there, studying architectural engineering at Penn State. Jeff can be reached at JZA184@psu.edu.

Michael Kehler, Artsci'84, Ed'85 (PhD, Michigan State), has left Western University after 17 years at the Faculty of Education. He has taken up a funded chair position as research professor in masculinities

The following alumni and faculty members were named to the Order of Canada on Jan. 1.

COMPANION

Thomas Cromwell, CC, Mus'73, Law'76, Senior Counsel, Borden Ladner Gervais LLP – "For his illustrious service as a Supreme Court justice, and for his leadership in improving access to justice for all Canadians."

OFFICER

Paul Armstrong, OC, Arts'63, Meds'66, Adjunct Professor, Queen's School of Medicine; Distinguished Professor, Department of Medicine (Cardiology), University of Alberta – "For his contributions to the advancement of cardiology, notably for his pioneering research in acute cardiac care, and for his leadership in health-care institutions."

Elizabeth Eisenhauer, OC, Meds'76, Professor Emerita, Queen's Department of Oncology; past director, IND program, Canadian Cancer Trials Group – "For her extensive research contributions and leadership within the field of clinical cancer care in Canada."

Mary Law, OC, OT'73, John and Margaret Lillie Chair in Childhood Disability Research, McMaster University – "For her transformative work in the field of occupational therapy, which has set the standard for research and shaped clinical practice in Canada."

Kerry Rowe, OC, Professor and Canada Research Chair, Geotechnical and Geoenvironmental Engineering, Queen's Department of Civil Engineering; former

Vice-Principal (Research) – "For his seminal contributions to the field of geoenvironmental engineering, notably for his pioneering research in waste barrier systems."

David Sinclair, Arts'69, PhD'72, Distinguished Research Professor, Carleton University – "For his exceptional contributions to the field of experimental subatomic physics and for his leadership as a founding director of the Sudbury Neutrino Observatory project."

MEMBER

Marie Delorme, CM, MBA'00, CEO, The Imagination Group – "For her entrepreneurial leadership and for her commitment to promoting opportunities for women and Indigenous peoples in Canada."

Jocelyn Downie, CM, Artsci'84, MA'85, Professor of Law, Dalhousie University – "For her contributions to Canadian health law and policy, notably through her efforts to promote high-quality end-of-life care."

Kathleen Pritchard, CM, Arts'69, Meds'71, Senior Scientist, Sunnybrook Health Sciences Centre; Member, Queen's Board of Trustees and University Council – "For her contributions to the treatment of breast cancer in women, notably as a leader of influential national and international clinical trials."

Jean Weihs, CM, Arts'51, Professor and librarian – "For her national and international contributions to library sciences, notably to the standardization of the non-book cataloguing system." ■

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From research to practice

The stark truth about breast cancer.

As a proud Queen's graduate, for years I have said – to anyone who would listen – that life sciences research in the Queen's community is competitive globally. Putting that faith into action, Induran Ventures has established a company in Kingston called SignPost to focus – exclusively – on the creation of diagnostic tests.

Under the watchful eye of my chairman, Paul Lucas, and the guidance of our partner Barry Markowsky, I have been monitoring research developments globally in specific areas of epigenomic research.

There is no accurate screening test for breast cancer – yet. As many as 31% of breast cancer cases may be over diagnosed, according to *The New England Journal of Medicine* (Nov. 22, 2012).

In our efforts to get to the forefront of the research, we have received assistance from pathologists, oncologists, surgeons, epidemiologists, and biophysicists at Queen's.

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Peter Blaney

Artsci'74, MPA'77, MBA'84
 CEO, Induran Ventures Inc.
 CEO, SignPost Cancer Dx Inc.
info@signpostcancerdx.com

Induran
 ventures inc.



Paul Lucas

Chairman, Induran Ventures Inc.
 BSc Queens University '72
 Past CEO GSK Canada



Barry Markowsky

Partner, Induran Ventures Inc.
 MSc, MBA University of Toronto
 Past VP GSK Canada

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studies in education at the Werklund School of Education, University of Calgary. He is excitedly embracing the new adventure for his family including his partner, Christena, and their teenagers, Claire (16) and Matthew (14). While all is new, they are happily settling in with some sailing at the Glenmore Sail Club. In his spare time Michael secretly drags a stuffed dino around his neighborhood to relive the days of old in the streets of Kingston! He is exploring his new city and the surrounding climes and welcomes Queen's friends to join him anytime. If you are in the area, contact him at michael.kehler@ucalgary.ca.

Family news



With three generations of family at Queen's – **Marie Valcour**, NSc'56, **Peter van der Velden**, Artsci'84, MSc'87, **Mitty**

Turnbull, Artsci'85, and **Tyler van der Velden** and **Miggs van der Velden**, both Com'19 – this family thought it fitting to install a Queen's moose as its mascot at the cottage. Mitty writes, "Our deal: when you are a guest of our cottage and have graduated/attended Queen's and you understand what Queen's great spirit is all about, you can sign your name and your graduation year on our moose. It continues to fill up as we have numerous guests from far and wide." Below, members of Com'19 with the Queen's moose.



Notes

Steve Fairbairn, Ed'82, (MEd, University of Lethbridge), has retired from the teaching profession after a long and winding path that has stretched from Ontario to Vancouver Island and

the Rocky Mountains of the East Kootenay. Over the course of his working life, Steve used his skills to work for Museums Canada as well as teaching in the juvenile justice system, the Ontario public school system, a B.C. First Nations school, and the B.C. public school system. He spent a few summers donating his skills through the Project Overseas program of the Canadian Teachers' Federation, as well as with other NGOs, working to improve the quality of teaching in other parts of the world. The next part of his life will be dedicated to his wife and grown children as well as running and skiing.



Jane Johnston, Artsci/PHE'88, and her family live in Victoria, B.C. Jane has recently picked up rowing again and is at the Gorge Rowing Club. She

transitioned from teaching to real estate in 2006. She finds it similar to teaching in that it's all about people and counselling them during major life decisions. This year, Jane was the recipient of the MLS President's Award, the RE/MAX Lifetime Achievement Award, the RE/MAX Chairman's Award and the MLS Gold Medal Award. Queen's friends visiting Victoria are welcome to give her a call at 250-744-0775.



Michelle (Dittrich) May, Artsci'90, Ed'91, sent in this update from Malaysia: "During my third year, I lived with six housemates at 330 Albert St. The following year we moved out to separate houses, and after graduating I lost contact with my Albert St. friends (the days before computers and social media). Fast-forward 26 years, married (to a Queen's grad, Brian May, Sc'89), three kids (one currently studying at Queen's and another one hoping to be there fall of 2018) and six countries later, I'm

sitting in the theatre of my kids' current high school, ISKL (International School Kuala Lumpur). And who walks across the stage but the school's new principal, Jeff Farrington, Artsci'90, Ed'94, one of my Albert Street housemates! Talk about a small world. Three years later, we are partnered on the same Global Action Program trip (a mandatory part of the curriculum for all grade 9, 10, and 11 students) and we are trekking the Helambu region of Nepal together and working alongside the villagers of Chisapani to help build an earthquake-proof community centre and helping set up a makeshift eye clinic." Here are Jeff and Michelle on their Nepal trip.

1990s

Honours

Lynda (Caine) Brown, Ed'94, was a recipient of a Governor General's History Award for Excellence in Teaching. Lynda and her colleague Marc Mailhot, of Montgomery Village Public School in Orangeville, Ont., received their awards from Governor General Julie Payette in November. Lynda and Marc developed Grand-Pals, a cross-curricular, experiential, and service-based project for their grade 5 class, in which the students conduct research with seniors in their community.

Job news



Jocelyn Bell, Artsci'97, is now the editor/publisher of *The United Church Observer*. She was previously the managing editor

for the magazine, which is North America's oldest continuously published magazine. Dating back to 1829, the *Observer* focuses on issues of faith, justice, and ethical living.

Brian Demsey, Artsci/PHE'93, is an investment specialist at Scotiabank in Kamloops, B.C. In his free time, he coaches junior boys' basketball and enjoys skiing with his family.

Leanne O'Leary, Law'95, has been appointed as managing partner of the St. John's, N.L., office of Cox &

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Palmer. Leanne is a partner in the firm's litigation group. She can be reached at loleary@coxandpalmer.com.

Notes

Monica Buchanan, Artsci'90, recently earned her PhD in psychology from Saybrook University in Oakland, Calif.

Chloe Whitehorn, Artsci'98, opens her latest play, "Mourning After the Night Before," at Toronto's New Ideas Festival, March 23 to 25 at the Alumnae Theatre. Learn more: chloewhitehorn.com.

2000s

Births



Christine Kostiuk, Artsci'05, Law'08, and **Isaac Cristoveanu**, Artsci'05, welcomed their daughter Emily

Mackenzie Cristoveanu on Feb. 6, 2017, in Ottawa. Big brother Alexander is thrilled to have a baby sister.

Commitments

Brendan Ross, Com'00, and Alicia Simmonds were married in August in Waterton Lakes National Park, Alberta. Queen's alumni in attendance included Alicia's mother, Carol Morrison Simmonds, Artsci'80, and aunts Patricia (Morrison) Kisman, Arts'69, Janice (Morrison) Pearson, Arts/PHE'76, and Barbara (Morrison) MacDonald, NSc'78.

Jobs

Scott Beckett, MBA'04, recently moved to Sydney, Australia. He is a maintenance and engineering manager for Orora (snbeckett@live.ca).



Mark Haines-Lacey, MBA'03, is now working with Canadian cymbal designer and manufacturer SABIAN as the company's director of North

American sales. Mark can be reached at markhl@sabian.com and would love to connect with old classmates during his travels through North America.

Astrid Henninger, Artsci'06, started a new job in January: she is the brand marketing director for Canadian jewellery designer Jenny Bird (jenny-bird.ca).



Simon Ka-ho Li, Artsci'04, MA'08 (History), is now director of education at the Hong Kong Holocaust and Tolerance Centre, the principal organization in Asia devoted to Holocaust education. Simon is also the Asia-based educator for the Anne Frank House in Amsterdam. He is seen here at a recent event in Taiwan. Simon was invited by Taipei's AMA Museum to give a public lecture and training workshops on Anne Frank, the Holocaust, and peace education for local educators. *The Review will take a closer look at Simon's work in a future issue.*

Mark Ryan, Ed'06, sent us this update: "After graduating, I went to Hong Kong to work at the prestigious Yew Chung International School. I left the school in 2009 to start my own television show, 'Mark Up Your English,' on Hong Kong's most famous TV channel, TVB. [Watch 'Mark Up Your English' on Youtube: bit.ly/2AXC87G.] I left the show and Hong Kong in 2015 and returned to a life of international teaching. I am now working at the highest ranked IB school in the UAE – Raha International School."

Notes



Former *Queen's Journal* editor and *Queen's Alumni Review* editorial intern **Omar El Akkad**, Artsci'04, recently visited campus to talk with students

in Professor Carolyn Smart's creative writing class. Omar also read at Kingston bookshop Novel Idea from his debut novel *American War*. Omar, who spent 10 years working as a *Globe and Mail* reporter, now lives in Portland, Ore., with his wife and daughter. His novel has won widespread critical acclaim, was a finalist for the 2017 Rogers Writers' Trust Fiction Prize, and has been translated into a dozen languages. *The New York Times* named it one of the 100 notable books of 2017. Here, Omar is seen after his reading with Carolyn Smart and former *Review* editor Ken Cuthbertson, Artsci'74, Law'83.

2010s

Births



Leah (Macnamara), PHE'13, and **Justin Brooks**, Sc'12, welcomed Blake William on Aug. 7.

Commitments



Laura Van Dyk and **Stephen Hogan**, both MSc'14 (Physiotherapy), were married Aug. 26 at the Elm Hurst Inn & Spa in Ingersoll, Ont.



Emily (Watkin), Artsci'14, and **Ryan Pitre**, Sc'13, MAsc'15, were married

The Queen's University Alumni Association presents the Alumni Awards Gala

Saturday, April 7, 2018
Ban Righ Hall, Queen's Campus

ALUMNI HUMANITARIAN AWARD

Eric Windeler
Com'82, LLD'15

HERBERT J. HAMILTON VOLUNTEER SERVICE AWARD

Sue Bates
Artsci'91

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Elamin Abdelmehmoud
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in Kingston on Aug. 19 with many Queen's alumni in attendance. Just three months after the wedding, Ryan and Emily moved to Munich for Ryan's work at Liliium, a start-up company for an all-electric vertical take-off and landing jet. Emily, who has been working in advertising in Toronto and Ottawa, is excited to be looking for new opportunities in Munich.

Honours



In December, **Raymond Wonder Alorse**, MPA'12 (and PhD candidate, Political Studies), received a Canada 150 Anniversary medal for Nepean, Ont. The award was created to recognize individuals who have made a difference in their community. Ray

is the founder of Canpreneurs, an online community of innovators across Canada. He is also the co-founder of YouthSkillsConnect, which empowers young professionals of Ghanaian heritage. Here's Ray receiving his medal from Nepean MP Chandra Arya.

Job news

Nelson Alisappi, Artsci'14, was recently hired as a health policy analyst with the Assembly of First Nations to help address the disparities in health care of many Indigenous Peoples and communities.



Reza Bafandeh, MBA'16, is now V-P of supply chain for SPUD.ca in Vancouver. SPUD.ca provides local and organic food delivery services

with operations in Vancouver, Victoria, Edmonton, and Calgary.

Matthew Ponsford, Artsci'10 (LLM, McGill; JD, Ottawa), of the Bars of Ontario and Alberta, recently accepted

the position of senior legal counsel with SiriusXM Canada, reporting to the senior vice-president and general counsel. Matthew advises the company and CEO regarding legal compliance, policy, and other matters. Matthew recently published an article in the *Supreme Court Law Review*, (2018) 82 SCLR (2d) 237.

Gergely Sipos, MBA'13, is now finance and operations director at GE Healthcare in Toronto.

Michael Yuille, Artsci'13 (MSW, Boston University), is the clinical director for HCRC treatment programs located at Lemuel Shattuck Hospital in Boston.

Notes

Jacob Dicker, Artsci'11, MA'12, was recently appointed as the pipe major of the Ottawa Police Services Pipe Band, a Grade 1 competitive pipe band (one of only about 30 with this designation in the world). At 29, Jacob is also one of the youngest people to be entrusted with leading a band of this calibre. Jacob began with the band in 2012. As pipe major,



he is responsible for the musical direction of the ensemble; he is also one of the band's senior administrators. The band performs at dozens of community events every year as well as competitions such as the North American Pipe Band Championships and the World Pipe Band Championships in Scotland. Jacob also competes in solo professional contests such as the Argyllshire Gathering in Oban, Scotland. Jacob is a program officer at the J.W. McConnell Family Foundation. The foundation develops and applies innovative approaches to social, cultural, economic, and environmental challenges to foster a more inclusive, sustainable, and resilient Canada.



Pawel Kudzia, Sc'13, MASc'15, has been working at Harvard University's Biodesign Lab for the past two years, designing soft robotic exoskeletons to restore mobility to people who have had a stroke.

Pawel's interest in biomechanics developed at Queen's. He is now at Simon Fraser University in Vancouver where he will study human agility for his PhD dissertation.

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Los Angeles

The Southern California Branch and Mary Ann Turcke, Sc'88, President, NFL Digital Media and NFL Network, host a gathering with Kevin Deluzio, Sc'88, Dean, Engineering and Applied Science, at the NFL Network Studios at Studio City on March 6.

San Francisco

The Northern California Branch welcomes Dean Kevin Deluzio (Engineering and Applied Science) on March 8.

Hong Kong

Join Principal Woolf on March 21 as the Dunin-Deshpande Queen's Innovation Centre's alumni network launches its Hong Kong node.

Singapore

Join us on March 26 for a reception and panel discussion on innovation

and preparing Queen's students for the world.

Montreal

Professor Sharryn Aiken (Law) is the guest speaker at a special dinner event on May 15.

Germany

The annual gathering will be held in Muenster (Western Germany), Sept. 28-30, hosted by Elisabeth and Eiwin Scholl.

Calgary

Jacklyn Lewis, Artsci'11, begins her two-year term as branch president beginning in April.
calgary_branch@tricolour.queensu.ca

Ottawa

Thanks to Jenn Pelley, MPA'09, for her leadership of the Ottawa Branch over the past two years. Jenn is moving on to a new international opportunity. ■

Congratulations to our Branch Award recipient



Agnes Benidickson Award

OTTAWA BRANCH

May 16, 2018

Kathleen Macmillan, Artsci'78

The Ottawa Branch presents the 2018 Agnes Benidickson Award to Kathleen Macmillan, Artsci'78, for her commitment to Queen's, her leadership in volunteerism and philanthropy, and her contributions to Canadian trade policy.

Thank you Kathleen for all that you do for Queen's and your community.

Learn more about the Alumni Association Branch Awards, visit queensu.ca/alumni



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An absolute honour



STEPHEN WILD

It has been another busy travel season for me in support of the Queen's University Alumni Association, attending branch events in Calgary, Toronto, and Ottawa as well as right here in Kingston. I am always inspired by the dedication of our alumni volunteers and the fantastic work they are doing in support of Queen's, from recognizing outstanding achievement to raising money for student bursaries to connecting alumni and students in support of internationalization.

The 12th QUAA Alumni Awards Gala will be held on April 7. This is such a special evening that provides an opportunity to celebrate some of our outstanding alumni and students. On that weekend, alumni will gather for our annual Alumni Volunteer Summit. While many of the attendees volunteer specifically for the QUAA, we welcome any alumni interested in the opportunity for volunteer professional development. I encourage you to attend both of these wonderful events.

The annual general meeting of the alumni association also takes place at AVS, and at that time we will welcome a new QUAA president – Jeremy Mosher, Artsci'08. Jeremy previously served as

the Calgary branch president. He currently serves as the executive V-P of volunteer recruitment and recognition with the QUAA board of directors. He is a dedicated leader and committed Queen's volunteer. I invite you to join me in welcoming Jeremy to his new role.

With this transition, my time volunteering with the QUAA comes to an end. I have been involved with the alumni association for more than 20 years, in varying roles and in various places, from Scotland to the Bahamas to the Turks and Caicos, and of course in Kingston. It has been both the highlight of that time and an absolute honour and privilege to serve as the 55th volunteer QUAA president these past two years. I have greatly enjoyed meeting so many of you at both QUAA and university events. I am grateful to my fellow volunteer QUAA board members, past and present, for their hard work and support. It has also been an immense pleasure to work with our branch leaders worldwide and all of our association volunteers. My thanks go out to the amazing Alumni Relations & Annual Giving staff, in particular Nikki Remillard. The association is very fortunate to have such incredible staff partners. Thank you all for making my time in this role such a joy. And thank you to all fellow alumni who have been in touch or said hello at various events. Queen's is the special place that it is in part because of our tremendous alumni network and our willingness to help the university and each other. I hope that all of us will continue to support our alma mater in any capacity, to ensure that the Queen's spirit and tradition of excellence continues.

Sue Bates, Artsci'91
Volunteer President,
Queen's University Alumni Association
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Gene Dagnone, Meds'68, is the author of *A Call to Listen: The Emergency Department Visit*. Emergency medicine is carried out in a fast-moving, ever-changing environment. The art of listening is important in the practice of any medicine, but doubly so in the emergency department. Every piece of information, every personal experience, every second opinion, and every voice in the room may mean the difference between immediate and delayed action, sometimes even life and death. The tales recounted here illustrate how the tiniest detail can unlock a medical mystery, calm a child, comfort a loved one, or save a life. Dr. Dagnone is professor emeritus of Emergency Medicine at Queen's.

Raili (Parviainen) Garth, Arts'63, and her sister, Kaarina Brooks, have written a cookbook based on the vegetable-based recipes of the Martha Organization of Finland. During the turbulent war years, 1939–1945, Finnish women on the home front struggled to conjure up nutritious meals out of the scant resources available. *Rooting for Food* gives the reader a sampling of the recipes they used. A chronology of the war in pictures from the Finnish Army's Photography Archives and interesting facts on the events of the war give the recipes a historical context. Excerpts from letters, biographies, and memoirs add a unique look into life in Finland during those difficult times.

The Waking Comes Late is the newest book of poetry from **Steven Heighton**, Artsci'85, MA'86 (English). The winner of the 2016 Governor General's Award for Poetry, the volume contains a collection of laments and celebrations that reflect on our struggle to believe in the future of a world that continues to disappoint us. The poet challenges the boundaries of sleep and even death in these meditations on what lies just beneath the surface of contemporary life. These are poems that trouble over the idea of failure even as they continually recommit to the present moment. This is fierce music performed in a minor key.

Cammie McAtee, MA'96 (Art History), and Fredie Floré are the editors of *The Politics of Furniture: Identity, Diplomacy and Persuasion in Post-war Interiors*. In many parts of the world, modern furniture elements have served as material expressions of power in the post-war era. They were often meant to express an international and, in some respects, apolitical modern language, but when placed in a sensitive setting or a meaningful architectural context, they were highly capable of negotiating or manipulating ideological messages. The agency of modern furniture was often less overt than that of political slogans or statements, but, as the chapters in this book reveal, it had the potential of becoming a persuasive and malleable ally in very diverse politically charged arenas, including embassies, governmental ministries, libraries, museums, and even prisons. Cammie McAtee is an architectural/design historian and curator.

Jean Snook, MA'77 (German), has a new work of translation out. *Evelyn Grill's "The Antwerp Testament"* is the saga of a family living in the shadow of the Holocaust and poisoned by long-kept secrets. Dr. Snook says, "A friend sent me the German original [*Das Antwerpener Testament*] in 2011, and I suddenly realized I knew the main character! That doesn't often happen to a translator." That main character was based on Joachim Storck, with whom Dr. Snook studied at the University of Mannheim in the 1970s and who became a lifelong friend. Dr. Snook, in addition to translating the *roman à clef* from German to English, also wrote an afterward to *The Antwerp Testament* that enlightens the reader to the struggles experienced by the novel's real-life inspirations, long after the novel's story draws to a close. Dr. Snook is a professor of German at Memorial University. Her translation of Gert Jonke's *The Distant Sound* won the 2009 inaugural Austrian Cultural Forum Translation Prize as well as the 2011 Helen and Kurt Wolff Translator's Prize.





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