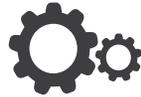


the crest



the

8

domains

of **WELLNESS**



UNIVERSITY
of GUELPH

THE FLIPSIDE OF BURNOUT

NEW research explores linking self-care to better veterinarians

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The Crest is the research, teaching and health care magazine of the University of Guelph's Ontario Veterinary College. It is published by OVC for alumni, friends and partners of the college to share our collective strengths in evidence-based discovery, veterinary expertise and educating the next generation of leaders in animal, human and environmental health.

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TAKE PART IN OUR READER SURVEY

The Crest is an important link in OVC's relationship with our alumni and friends. Please take part in our five-minute reader survey and give us your feedback on this issue.

WWW.OVC.UOGUELPH.CA/CRESTSURVEY

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From the Dean



For many years, *The Crest* has been an important connection to the alumni and friends of OVC.

I'm very happy to welcome you to a refreshed, expanded *Crest*, brimming with stories about the outstanding accomplishments of our OVC community in teaching, discovery and innovative health services. This year, we are extending *Crest's* circulation to reach more of our collaborators, partners and allies in our vision to continually push the boundaries of veterinary medicine, ultimately to Improve Life.

As you'll see in these pages, this issue includes discovery of *Echinococcus multilocularis*, a zoonotic disease recently identified in southern Ontario, adoption of creative digital classroom technology, celebration of the increasingly diverse One Health career opportunities pursued by our grads, as well as the exploration of critical areas of mental health wellness to benefit our profession.

Many of the stories we are sharing with you illustrate the strategic goals contained in our new OVC Strategic Plan, *Healthy Futures 2022* – enhancing the student experience, One Health leadership, instructional technology, the power of the people and our impact on societal change.

These stories not only underline the continuing vital role of veterinary medicine in our society, they provide a glimpse into the many ways we all contribute to this important work. As always, we welcome your thoughts and comments.



The Ontario Veterinary College Launches NEW Strategic Plan

The Ontario Veterinary College (OVC), with its rich history of excellence in innovation, education and service, is continually pushing the boundaries of veterinary medicine, including One Health. Our success has been made possible because of the foundation of discovery and excellence built by those who have come before us. This success continues today through the passion and skill of our exceptional students, staff and faculty. None of this would be possible without the humbling commitment of our many stakeholders and supporters.

Throughout 2017, staff, faculty, students and stakeholders from across the OVC Community contributed to building a Strategic Plan to guide the College through initiatives and opportunities in the next five years and beyond.

Healthy Futures OVC 2022 embraces five strategic areas:

Learning Pathways

Enhancing the Student Experience

Over the next five years, OVC will excel in preparing all our graduates for diverse career opportunities by expanding our experiential and collaborative educational offerings, allowing them the confidence and readiness to step into the corporate and public sectors, biomedical research, technology and entrepreneurship.

Innovation and Discovery

One Health Research Leadership

As part of the OVC *Healthy Futures* Strategic Plan, we will be recognized in the scientific community as a leader in One Health approaches to addressing critical local and global health issues. OVC will leverage our existing research strengths, specifically in areas of zoonotic disease, public

health, translational discovery and the human-animal bond, capitalizing on the synergies between these expanding research programs and our student learning pathways.

Vet Med Ed 2.0

A New World of Instructional Technology

We will develop and adopt state-of-the-art, sustainable facilities that are technologically optimized for learning, research and clinical care. Through updates to facilities, technology and infrastructure, and training faculty on incorporating these new technologies in their pedagogical approaches, OVC will modernize the student learning experience.

OVC Impact

Influencing Societal Change

OVC will establish new pathways to collect, translate and measure the impact of knowledge created at OVC, allowing us to enhance our reach and raise the profile of our people, programs and leading-edge research. Through the development and implementation of a variety of knowledge translation, mobilization, exchange, education and outreach strategies, we will increasingly be seen as a critical source for evidence-based information that informs the public, decision-making processes and government policy.

The Power of People

Enhancing Workplace Culture and Recruiting the Very Best

Our Strategic Plan identifies a supportive, inclusive, healthy workplace culture and improved recruitment of highly skilled specialists as critical to our college now and in the future. We are inspired and guided by the University of Guelph's strategic renewal framework that touches on aspects of our Power of People initiatives across nearly every one of its strategic themes.

Learn more about OVC *Healthy Futures 2022* on our website www.ovc.uoguelph.ca/strategic-planning.ca.



CAREER READINESS

How OVC's approach to graduate student training is better preparing the NEXT GEN to meet the needs of today's health environment

MPH student Mackenzie Wilson conducted research on maternal health focusing on the Batwa in Southwestern Uganda during her practicum.

The MPH program's 12 to 16-week practicum allows students to put into practice principles they have learned in the course portion of the degree, says Prof. Andrew Papadopoulos, Coordinator for OVC's MPH program. Most importantly, he finds it helps students better understand who they are as a professional and discover the workplace that suits them. "Through hands-on experience our graduates can leave the program with an understanding of the entirety of the public health system and where they can contribute in the future."

Each student has an individual and different experience within their placements. "Some gather and analyze data, some help develop programs or conduct evaluations," says Papadopoulos. "I think it checks a lot of boxes for the students and I believe it is one of the reasons why we have so many applicants to this program."

For Mark Reist, his MPH practicum with the Canadian Wildlife Health Cooperative (CWHC) included work on the Wildlife Health Tracker, an online tool to enhance wildlife surveillance in Canada.

"Overall, I thoroughly enjoyed how dynamic working with the CWHC was. Not only did I learn about wildlife surveillance working with the Wildlife Health Tracker, but I gained insight on effective health communication strategies through media posts, stakeholder communication, and designing infographics, as well as experience in survey design, and quantitative/qualitative research methods."

Likewise, Prof. Laura Favetta in OVC's Department of Biomedical Sciences has watched the applied aspect grow in popularity in the course-based MBS program in Reproductive Biotechnologies.

Initially developed more than seven years ago by Prof. Allan King, a Tier 1 Canada Research Chair in Animal Reproductive Biotechnology, the MBS program provides students with hands-on laboratory training with in vitro fertilization

Career-ready skills are important tools for any graduating student.

Practicums, in-house training and visits to career-related organizations not only provide students with practical skills, they can open the door to career opportunities and provide students the opportunity to see how knowledge learned in the classroom can be applied in a real-world setting.

For graduate students in the Master of Public Health (MPH) and the Master of Biomedical Science (MBS) Reproductive Biotechnologies programs at the Ontario Veterinary College (OVC), these hands-on training experiences are a critical piece of OVC's learner-centred curriculum.

(IVF) techniques as well as other lab-based experiential learning experiences.

“Allan established the first collaboration with industry/clinical partners. Students gained experiences and partners gained insight into the next generation of qualified graduates and potential future employees. That’s how it all started,” says Favetta, who is a PhD graduate from King’s lab and has been involved with the program from the very beginning. She joined OVC’s Biomedical Sciences department as assistant professor in September 2017 and now oversees the MBS program in Reproductive Biotechnologies.

“The MBS program provides students with the opportunity to venture out into the job industry and shadow individuals working in their day-to-day jobs, giving them inspiration for their future careers,” says Nina Kahlon, a 2016 graduate who now works as an embryologist at Mount Sinai Fertility in Toronto.

On top of the program’s six to eight weeks in-house training in IVF techniques at OVC’s reproductive technologies lab, the MBS program also includes a research component with Biomedical Sciences Profs. Jon LaMarre, Pavneesh Madan, Gabriela Mastromonaco and Jim Petrik, along with King and Favetta.

“Interest is growing in the program. We’re very fortunate to have new expertise, such as Tobi Oluwole who recently started her position at OVC as Coordinator of the MBS practicum,” Favetta notes. In addition to providing the in-house IVF training, Oluwole facilitates a multitude of administrative areas including logistics with industry partners.

Both Papadopoulos and Favetta note building relationships is critical to developing practicum and placement opportunities and both programs are helping to build community

connections, an added benefit to students, OVC and the University of Guelph.

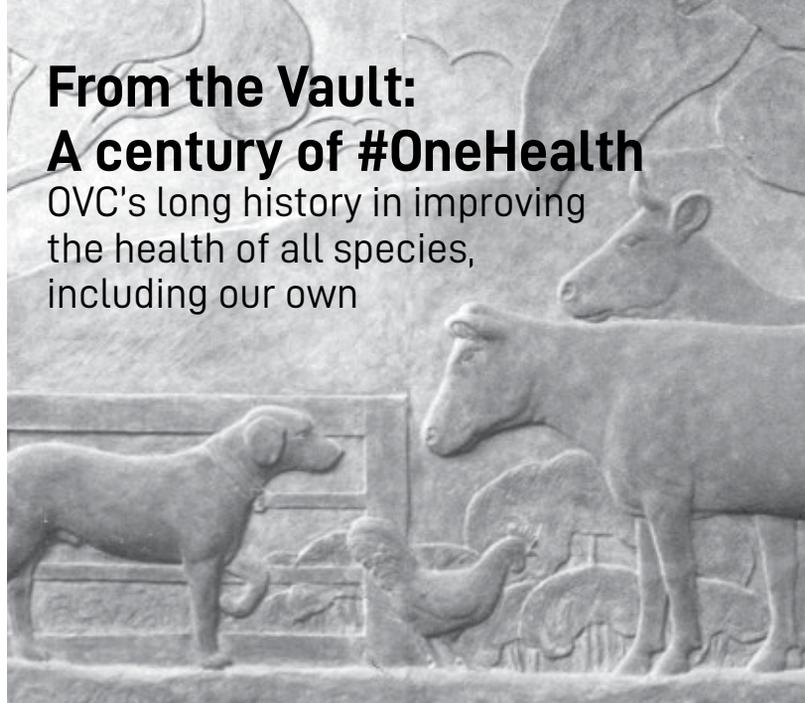
For the MBS program, an initial collaboration with One Fertility in Burlington has grown to include visits to Semex, a bovine genetics company, to learn about semen collection from bulls, and to Mount Sinai Hospital to learn more about human IVF. Students also have an opportunity for a ride-along field visit with Dr. Adam Haight, an OVC DVM 2005 graduate, to observe in vivo collection of female reproductive cells on large animal farms. The day in boots and overalls attracts students from across the biomedical sciences and animal bioscience programs, says Favetta.

Since the MPH program began in 2008, Papadopoulos has developed strong relationships with many local, provincial and federal agencies such as the Public Health Agency of Canada, Ontario Ministry of Health and Long-Term Care, University Health Network, and Wellington-Dufferin-Guelph Public Health. As the program grows so does this roster.

“Now we have some former students at these agencies. They like giving back and mentoring students,” says Papadopoulos. MPH alumni have gone on to careers including health information and policy analysts, health promotion specialists and epidemiologists with local, provincial and federal organizations.

“The more we get involved with the community, the stronger the relationships become. Almost always the agencies come back and say I can’t believe we were so close to this resource and didn’t realize you were here, opening the door for further collaborations,” says Papadopoulos. “Whether here in Guelph or elsewhere, as a community partner, we raise their capacity and they give us relevance in our curriculum and accelerate students’ job readiness.” 🐾

From the Vault: A century of #OneHealth OVC's long history in improving the health of all species, including our own

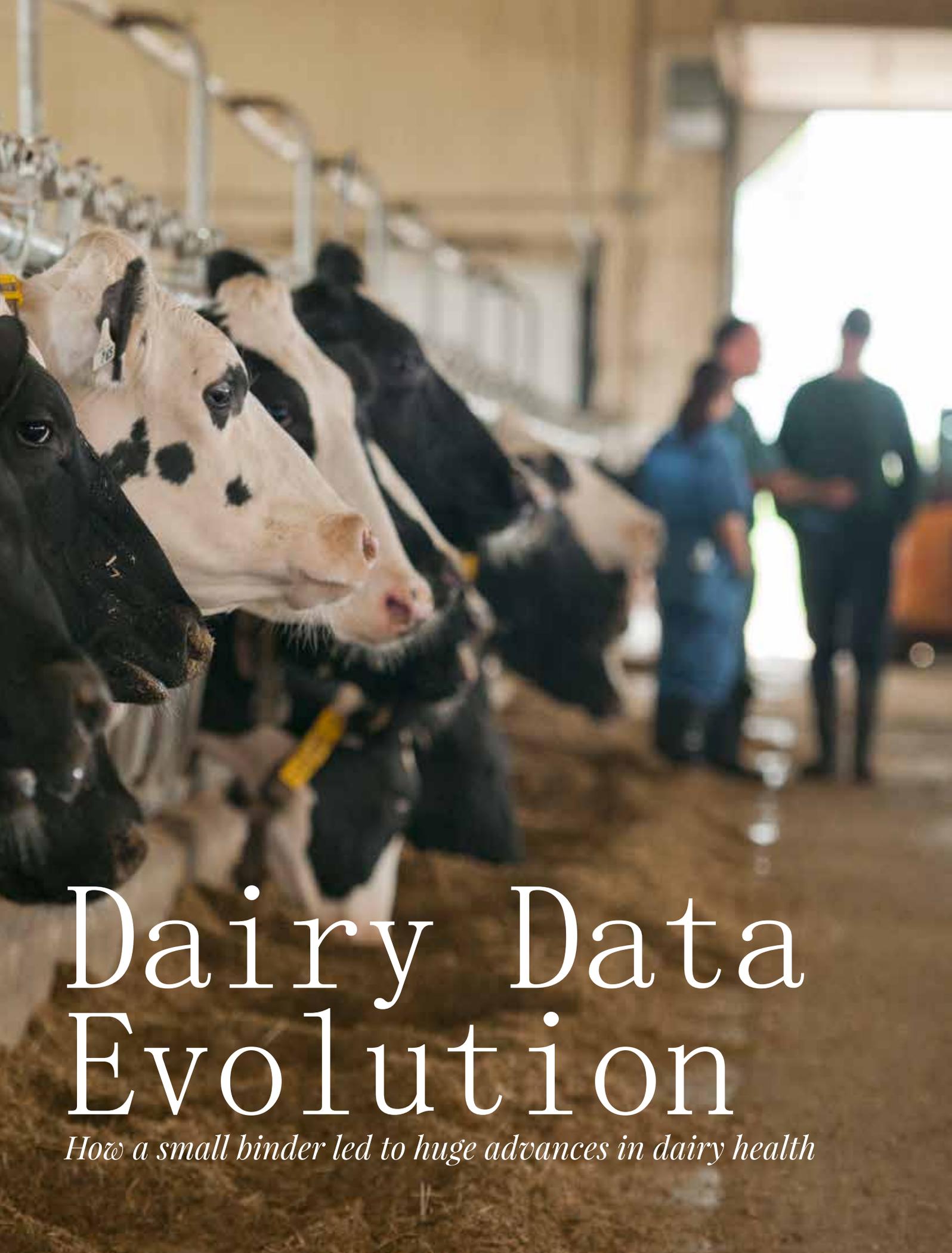


The 1920s reflected a seismic shift for OVC. In 1922, the OVC opened the doors to its new location in Guelph, following 60 years of life in downtown Toronto. With the increase in automobiles, urban horses declined substantially in the first two decades of the twentieth century. As a result, livestock distribution swung primarily to rural areas. The Ontario government, which took over the college in 1908, recognized this shift and decided a move to Guelph would build stronger connections with the Ontario Agricultural College and Ontario’s livestock industry.

The OVC’s new facilities and initiatives in Guelph owe much to the leadership of the college’s principal, Charles Duncan McGilvray. A visionary and activist, he served as the third principal of OVC from 1918-1945. One of his goals was to create a veterinary investigation extension service to connect OVC with the livestock industry and make it aware of disease conditions in the province. McGilvray’s experience as a veterinarian in Manitoba, where he served as Chief Veterinary Inspector of Manitoba from 1905-1918, motivated this advocacy. During his time as Chief Veterinary Inspector, glanders (a serious bacterial disease affecting horses) was identified and eradicated.

The services McGilvray envisioned came into practice shortly after OVC relocated to Guelph. Veterinarians and livestock owners who sent in samples and submitted animals had access to laboratory examinations and diagnostic services. Field investigations also began during this time. Importantly, OVC became closely involved in two major provincial disease control programs, one for *Brucella abortus*, the bacterium responsible for brucellosis and undulant fever in humans, and another for *Salmonella pullorum*, the cause of Pullorum disease, a fatal infection of young chickens in the province’s then-emerging poultry industry. In the following years, OVC researchers Ronald Gwatkin and James Glover continued this research. Both of these diseases were subsequently eradicated from Canadian livestock populations.

Photo above: Mural of farm life, donated by the Class of 1950, located in the McNabb Room. (C.A.V. Barker Collection, Archival Collections, University of Guelph Library).



Dairy Data Evolution

How a small binder led to huge advances in dairy health



Today's dairy farmers and veterinarians have access to unlimited data streams about the health of an individual animal or an entire herd— but that hasn't always been the case. In Ontario, before the 1960s, it was commonplace for dairy farmers to call on veterinary care only when an individual cow needed assistance — and there was little written documentation about each visit. But that all changed in the early 1960's, when two Ontario Veterinary College (OVC) faculty members, Drs. Jack Cote and Bob Curtis, began enrolling herds in a dairy herd health initiative. The program was designed to provide dairy farmers with regular wellness care for their herds. OVC Ruminant Field Services veterinarians would regularly visit herds for physical exams, reproduction checks and began to create written records for each cow, setting the foundation for what veterinarians now know about herd health.

John Benham, a Rockwood-area dairy farmer and childhood friend of Dr. Cote's was among the first 20 people to register his herd for the program. Having studied animal husbandry at the University of Guelph's Ontario Agri-

cultural College, Benham says he immediately saw the value in having regular access to veterinary services. Benham says Cote, other veterinarians and students within OVC's Doctor of Veterinary Medicine (DVM) program became regular fixtures in his barns. He views the relationship between the farmer and veterinarian as a mutually beneficial one and record-keeping meant any trained personnel could follow up where the last veterinarian left off.

"I understood the terms they used. I would ask questions, and they knew the research that was going on," says Benham.

As with other farmers who signed up for the program, Cote and Benham kept a small black binder in his barn, where veterinarians and DVM students documented important health details and other information about each cow. Benham's book — now part of the collection at the Barker Veterinary Museum at OVC — contains a page for every animal, with a section for each cow's lactation. The pages contain detailed handwritten notes about an animal's calving dates, breeding details and any other health events such as milk fever. Benham explains the sliding metal tabs on each binder sheet enabled a quick assessment of what stage each animal was at — postpartum, ready to be bred, or pregnant.

Professor Emeritus Dr. Ken Leslie remembers the book well. While he wasn't specifically assigned to Benham's herd, he recognizes his own handwriting among its pages. It was one of the benefits of these herd health books — any of the program's veterinarians could visit a herd and use the records. Leslie says while the data is rudimentary by today's standards, it formed the foundation for key evolutions in OVC's contribution to dairy health.

"This was the precursor of modern dairy health management programs," says Leslie. "It recognized that you can't do anything unless you have data. You might solve a problem once by luck, but



The OVC Farm Service. (C.A.V. Barker Collection, Archival Collections, University of Guelph Library.)

if you're going to have a definitive solution, you need to collect ongoing data.

In the years that followed, OVC dairy researchers Drs. Ian Dohoo (OVC 1976), Kerry Lissemore (OVC 1984) and David Kelton (OVC 1984) transferred that early data from the original on-farm binders and other sources to computerized records for the first epidemiological studies of health and disease determinants on a herd basis. In the 1980s and 1990s they used the information to assess the rate of milk fever, of pregnancy loss, and several other problems in each herd, providing linkages to data points that had never been linked before.

"Those became landmark publications in veterinary literature, as the first epidemiological analysis. These efforts all became possible because we had

the necessary information from these books," Leslie says.

And while today there are software programs and data collection systems that link an animal's health records, breeding records and milk production, it was new territory in the 80s and 90s. As OVC became a leader in dairy cow health, opportunities for veterinarians — such as the Dairy Health Management Certificate Program — evolved, establishing OVC as a critical hub of knowledge and continued learning.

"These programs have been immensely important in moving the concept of this book into the stratosphere," says Leslie. "For example, when

Cote's team introduced a new treatment for cows that had just calved, John Benham's records showed the treatment was successful, because we could look back through the herd health before and after."

In an early report from OVC's

Ruminant Field Services, Cote concluded that for farmers who took full advantage of the program, returns on investment were as high as 300 to 500 per cent. Benham is hesitant to put a number on his own experience.

"What a special experience for me to have contact with all of these top-class veterinarians doing the work in our herd," Benham says.

Today, the majority of cows wear a transponder to record individual health, activity and behaviour, but before that technology existed, OVC researchers made it a practice to record data relevant to herd health. Adds Leslie: "That in itself was progressive in its time, and our significant contributions to the dairy industry evolved out of those early innovations." 🐄

HEALTH NEWS: Pets & Ticks

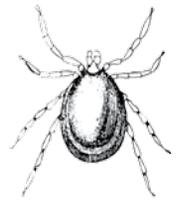
Real-time tick tracker helps protect people and pets

Warmer temperatures are finally arriving across Canada, bringing people and pets outdoors but also increasing tick activity.

In many parts of Canada, particular concerns turn to the blacklegged tick known to transmit *Borrelia burgdorferi*, the bacterium that causes Lyme disease in humans, dogs and horses.

Dogs are really good at picking up ticks because they frequent tick habitats, and as a result can be early markers that the tick population is changing. In 2016, OVC's Dr. Scott Weese, a leading researcher on transmission of infectious diseases from animals to humans, launched the Pet Tick Tracker. This is an online surveillance tool created to monitor changes in tick populations by encouraging the public to help track ticks found on dogs across the country.

The public could access the tick tracker through Weese's popular Worms and Germs website (wormsandgermsblog.com).



However, Weese believed it needed its own home, leading to the recently launched www.PetsandTicks.com website.

Created by Drs. Scott Weese, Katie Clow, post-doctoral fellow, and Michelle Evason, professor at the Atlantic Veterinary College, the PetsandTicks.com website brings together the Pet Tick Tracker with up-to-date, evidence-based information on ticks including identification of various species and the pathogens they may transmit. The retooled tick tracker has an easy online submission process with the option to send the tick to OVC for identification and there are plans for real-time plotting of tick tracker results on the map.

"We've also included a section devoted to research. As new research comes out within the realm of pets and ticks we'll have summaries and links," says Clow.

The site is designed with veterinarians and the general public in mind.

"It's important to remember that getting outside with your pets and exercising is good for you and your pet's health. However, we want people to understand the risks and take appropriate precautions," says Clow. "These days a tick check should be part of our mindset — we wash our hands before we eat, wear sunscreen and after going for a hike in the woods, we should do a tick check. It's one of the best things we can do to protect ourselves and our pets."

Today the University of Guelph continues to be a leader in dairy health by providing world-class research and innovative solutions for our dairy industry. Dairy at Guelph, a cross-faculty group created at U of G, works to improve networking and collaborations between researchers involved in any area relevant to dairy and end-users such as dairy producers, industry and government agencies. Learn more at www.dairyatguelph.ca, launching in 2018.





On the Forefront of Veterinary Medicine

Developing treatments, care plans and new diagnostic techniques through the use of 3-D print

From the clinic to the classroom, 3-D printing is changing the future of veterinary medicine. A collaborative network of staff and researchers at the University of Guelph (U of G) are studying the feasibility of 3-D printing and rapid prototyping of patient-specific implants for dogs, and 3-D printed models for surgical planning.

This group includes the Ontario Veterinary College's (OVC) veterinary radiologist Dr. Alex zur Linden, surgical oncologist Dr. Michelle Oblak, neurologist Dr. Fiona James and design engineer John Phillips from the U of G's Digital Haptic Lab in the College of Arts.

Zur Linden started working with Phillips a few years ago, when he needed help constructing a canine urinary bladder model that would serve as an affordable learning prototype and allow student veterinarians to gain hands-on experience in a new method to biopsy the bladder using an ultrasound-guided approach. Now three years later, Phillips and his team work with an expanded group of OVC clinicians to plan, design and print materials to help create individualized care plans for selected complex cases. This collaboration is expected to lead to improved care options and reduced risks associated with extensive surgery, such as length of time on the operating table.

"We use information collected from the patient including CT scans to develop a 3-D model," says Michelle Oblak. "John and his team build the anatomical model based on the scans, which provides a new method for us to plan the surgery, especially in the case of tumours that are in a difficult location. We can take the model apart and look at the tumour from all sides before we head into surgery."

Client communication is also improved, Oblak adds. "Being able to allow a pet owner to hold a model not only shows our level of expertise and planning, it also helps provide a real-life visual of their animals' procedure."

From livers, to bladders to skulls, the team is producing it all and it's only just the beginning. "At the heart of it all, I'm a problem-solver," says Phillips, who has also developed educational models for both veterinary and human medicine as well as a device that will be used by NASA to explore plant growth in space.

Since 3-D printing technology has become more accessible and available in recent years, OVC researchers say there are still a number of questions that must be examined to ensure safe use in medical applications, such as an implant or artificial limb. The team is currently conducting a feasibility study, where they are reviewing past cases to assess the safety and effectiveness of customized 3-D printed implants in a broad number of clinical scenarios to replace current treatments.

"The actual act of 3-D printing is the easy part. Anybody can print something," says zur Linden. "Like all care plans, it is the process of knowing how to identify appropriate cases, understanding which patient will be the most likely to benefit, ensuring patient safety and having the right team in place to carry out the plan – that's the challenging part."

Zur Linden is currently examining the sterility of a variety of materials that could be used to create 3-D implants, specifically in the case of skull tumour removal, based on the smoothness and roughness of the materials. Researchers say there is currently no published literature on bacterial biofilm growth on 3-D printed implants. The project aims to culture 3-D

printed materials in the laboratory and evaluate bacteria growth adhering to different implants, which could have an implication on the development of infection in the body postoperatively.

There are limited reported cases of a 3-D printed metal implant in human medicine. "We have the potential to provide a lot of insight," zur Linden says. From a teaching perspective, 3-D printing allows OVC to create useful, realistic models to improve students' psychomotor skills. "Giving students the opportunity to repeatedly practice a skill and receive timely feedback using models helps us increase their confidence and individualize the educational experience. It is much more interactive than a textbook," says zur Linden.

The consensus remains that 3-D printed implants will undoubtedly have a positive impact on the future of veterinary medicine.

While the topic is still very new, the team hopes their research will answer the many questions about how the technology may help move towards more customized treatments for patients.

"We have the potential to help in the areas of reconstructive medicine, cancer surgery and joint replacement. The possibilities really are limitless."

What are the 8 domains of WELLNESS?

THE FLIPSIDE OF BUR

NEW research explores linking self-care to better vete

The eight domains of wellness and the construct of emotional intelligence were used as the foundation for the new wellness curricular components at the Ontario Veterinary College. These domains include:

Emotional

Positive thinking, valuing and accepting oneself

Environmental

Good health by occupying pleasant, stimulating environments that support well-being

Financial

Satisfaction with current and future financial situations via active-decision making

Intellectual

Recognizing creative abilities and finding ways to expand knowledge and skills

Occupational

Personal satisfaction and enrichment from one's work

Physical

Recognizing beneficial lifestyle choices that make us feel and become healthier

Social

Developing a sense of connection, belonging and a well-developed support system

Meaning & Purpose

Exploring and understanding one's core ideals, values, principles and purpose in life

The tools and concepts that can help develop resilience within the veterinary profession needn't wait until veterinarians are working in the field. That's why the Ontario Veterinary College (OVC) is helping students develop these skills by placing wellness training directly into the Doctor of Veterinary Medicine (DVM) curriculum.

As part of the AWA2E group — a group of five researchers with the mission of Advancing Wellness and Resilience via Research and Education — OVC professors Andria Jones-Bitton, OVC 2000, and Colleen Best, OVC 2009, as well as PhD Candidate Jennifer Perret, OVC 2009, are conducting research to understand factors affecting the mental well-being of veterinarians. They are doing this with the goal of developing training and other support programs for both students within the DVM program and practicing veterinarians in the field.

A model of eight domains of wellness (emotional, environmental, financial, intellectual, occupational, physical, social, as well as meaning and purpose) and the construct of emotional intelligence were used as the foundation for the new wellness curricular components.

"Students need to recognize resilience is a skill they can learn and build upon," says Best. "By putting it in the formal DVM curriculum, we're saying it matters a lot to OVC."

In year one, students are introduced to 13 hours of new wellness-focused instruction, where several domains of wellness are discussed and then put into practice in practical labs. In year two, the Art of Veterinary Medicine course incorporates concepts of compassion, emotional intelligence and boundaries. Final year students are also able to select a one-week elective rotation spe-

cifically focused on wellness and resilience, which include self-awareness, mindfulness, mental health literacy, personal strengths and values, boundaries and assertiveness, developing healthy habits, mind-body techniques, financial planning, and nutrition.

Best recognizes there's no one-size-fits-all approach to mental wellness. She says feedback from students shows different approaches resonated with different students.

"Certain techniques will appeal to some but not others, so we encourage students to reflect on what they were exposed to and to create their own tool kit that will help them remember what helps when times are dark," she says.

"My favourite part of the rotation was the mind-body skills that we did. We saw through bio-feedback how our bodies respond to breathing techniques, and how it can calm us down and reduce anxiety," said

Shannon Finn, OVC 2018. "I did some of those breathing exercises on all my breaks during my veterinary licensing exam. It helped with focus, to calm me down and to ground me so I was ready for the next session."

The team has collected pre-training and post-training data to measure the short and long-term impacts on enhancing resilience. This research is supported by Zoetis Canada.

"Veterinary medicine is a rewarding profession, but it's also fraught with stresses and challenges," says Jones-Bitton. "By working to build resilience in our student veterinarians we hope to set them up for success in serving their patients and clients."

"I hope these students go out and seed wellness within the profession," says Best. "Some veterinary practices have wellness advocates. Once we can back up wellness recommendations with data, we hope more veterinarians will use that evidence to address and support their own self-care." 🐾

BURNOUT

in veterinarians

Studying the link between self-care and better veterinarians

When OVC researchers began a pilot project studying the state of mental wellness amongst veterinarians in 2015, they were able to confirm what they long-suspected: the veterinary profession is struggling when it comes to well-being and self-care. With support from OVC Pet Trust and Zoetis Canada, professors Andria Jones-Bitton and Colleen Best, and Jennifer Perret, PhD Candidate, looked at a number of negative indicators of mental health in relation to the veterinary field, including anxiety, depression, compassion fatigue and burnout.

"Compassion fatigue and burnout are multi-faceted constructs," says Best. "In some areas, almost half of the veterinary population surveyed in our study was in a 'concerning' category. But we also looked at resilience, which is the flipside of those negative indicators — it's what helps us recover from stress or strain, and to thrive. It promotes good wellbeing."

Best says the team's pilot project that looked at the mental health status of Ontario veterinarians followed by a more fulsome survey that went Canada-wide and is still being analyzed — will provide the first data investigating the state of mental health of veterinarians in Canada.

Now, they're embarking on a number of projects that investigate varying aspects and impacts of mental health and resilience in practicing veterinarians and veterinary students alike.

How does mental health and resiliency impact patient care?

Best says there's a growing body of human health care literature that links health care providers' poor mental wellness with negative experiences or impact on patients — but that same data doesn't yet exist for veterinary medicine.

To gain a fuller understanding of the lived experience of mental health and its impacts on veterinary patient care and client and veterinarian satisfaction, the team has embarked on a new field study conducted by Perret that is the first of its kind in the world. Perret, a veterinarian herself, is recruiting veterinarians to take part in this study. The research team will video record their appointments with clients from inside their clinics for up to three days.

After gaining a picture of the veterinarian's mental health using the same mental health indicators from the team's previous survey, researchers will analyze video-recorded appointments to look for connections with veterinary-client communication patterns. They'll also measure client satisfaction with each appointment and the veterinarian's perceived satisfaction with each appointment to see if there's an association between the mental health picture of a veterinarian and the satisfaction derived from each appointment.

"As a profession, we are fixers and helpers and healers," says Jones-Bitton. "This research is an opportunity to address mental wellness by affecting positive changes for our colleagues."

Alumni give back to help improve mental health in veterinary medicine

OVC 1967

OVC 1967 has established the Bob Curtis OVC '67 Wellness Travel Fund to help bring experts with experience and expertise in mental health and wellness to deliver educational activities to students, staff and faculty in the OVC community. In addition to supporting the veterinary profession, the fund established in honour of Dr. Bob Curtis (OVC 1961) thanks Dr. Bob and Connie Curtis for their friendship, guidance and support for the class during their years at OVC.

OVC 1980

The OVC 1980 Veterinary Mental Health Awareness Fund was established to recognize the class's 35th reunion in 2015 and to give back to the profession. Through this project, the class is equipping future veterinarians to recognize and cope with mental health issues such as depression, stress and burnout, as well as supporting wellness initiatives for DVM students at OVC, including invited speakers, enhanced peer-to-peer support and wellness resources.

OVC 1984

Recognizing the mental health challenges within the veterinary profession, OVC 1984 is focusing their 1984 Student Initiative Fund, in memory of their classmate Judy Taylor, on resources to support OVC students in these areas. The class fund will support wellness resources within the college, costs for invited speakers on the topic, and training opportunities for students to increase awareness of mental health issues and how to help those dealing with these issues.

To learn more about OVC Class projects email Amy Tremaine at tremaine@uoguelph.ca.



A \$713 million investment into animal and human health

OMAFRA-U of G agreement builds on agri-food research, innovation and leadership

A \$713 million investment over 10 years from the provincial government, announced earlier this year, renews a uniquely productive relationship between the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the University of Guelph and will strengthen Ontario's leadership in agri-food research and innovation, food safety and the protection of plant, animal and human health.

The renewed agreement includes important support for research and discovery under the ministry's pillars including: animal production systems, food for health, and emergency management.

Currently OMAFRA supports 50 plus research projects at the Ontario Veterinary College (OVC) to understand and improve: antibiotic use in dairy calves; detect and manage diseases such as avian influenza; critically important research into swine health issues; dynamic models to better understand disease control in equine populations; study of immune responses to parasite infections in sheep; investigation of innate immune responses to prevent bacterial pneumonia in cattle; and more. This new agreement will open the door for further discovery over the next decade.

For OVC, one of the cornerstones of this agreement is the Veterinary Capacity Program. VCP supports faculty and programs critical to the clinical training of Doctor of Veterinary Medicine (DVM) and OVC graduate students that will ensure Ontario has the expertise to manage current and emerging animal diseases and food safety issues.

VCP also supports a veterinary externship for fourth year

“The hands on and case-based learning experiences that the externship funded by VCP offered was invaluable to starting my career. This experience laid the ground work for my surgical skill and helped to build my confidence as a young veterinarian. Overall, it sparked my love for surgery and I have pursued additional surgical training and courses since graduation.

Melissa Wagner, OVC 2017

DVM students. An integral part of their training, this externship provides them with supervised hands-on clinical opportunities treating animals in rural veterinary practices. It is a defining experience as they move from the classroom to the clinic.

“Discovery, innovation, education and service are integral to everything we do at OVC,” says OVC dean Jeff Wichtel. “We’re grateful for this ongoing collaboration with OMAFRA and the U of G as we work together to support the vibrant agri-food sector.”

Each summer OVC student veterinarians share their externship experiences through the Externship Blog Project. Follow our 2018 Externship Blog Project at www.externship.ovc.uoguelph.ca. For more information on funded projects please visit www.uoguelph.ca/omafra_partnership.



CALLING ALL ALUMNI:

Join Joe Bodendistel and Don Cherry on the Challenge Cup

Did you play hockey with your DVM class? To celebrate the 100th veterinary student hockey tournament, Prof. Brad Hanna is constructing a large trophy that will bear the names of all the DVM students who played hockey for their class since the tournament began.

There are a lot of you! So far Hanna has 2,287 names totaling a whopping 27,000 characters that will be hand-stamped onto metal rings that will be silver plated and added to the base of

the existing Challenge Cup. But he knows he is still missing some names. If you played hockey for your DVM class, please contact him so your name can be added to the OVC Hockey Challenge Cup trophy. Don't miss out!



Contact Brad Hanna at bhanna@uoguelph.ca

Wondering if Don Cherry's name is really on the cup? Of course, it is, Donald R Cherry, OVC'45.

HEALTH NEWS: NEW ZOONOTIC DISEASE EMERGES IN SOUTHERN ONTARIO

Dogs, humans may be at risk from a new tapeworm

Dogs in southern Ontario are being exposed to a newly identified tapeworm that can infect humans and cause a potentially fatal disease.

Since 2012, six dogs in southern Ontario have been diagnosed with the larval stage of a small tapeworm called *Echinococcus multilocularis* (EM).

Until recently, EM was not legally reportable in Canada, making it almost impossible to track animal or human cases. But research findings from the Ontario Veterinary College have helped successfully push for the disease to become reportable in animals and people in Ontario.

This development has implications for tracking, diagnosing and spreading awareness of the disease.

Reports of the disease that EM causes, called alveolar echinococcosis, surprised University of Guelph PhD candidate, Jonathon Kotwa, and Profs. Andrew Peregrine and Claire Jardine from OVC's Department of Pathobiology, who have been studying the tapeworm in wild animal populations.

When left untreated, alveolar echinococcosis is potentially fatal in humans and dogs.

"We are working towards better awareness of this infection. EM can have serious physical health, mental health and economic impacts – we hope to limit this by describing the previously unknown distribution of this infection in Ontario," says Kotwa.

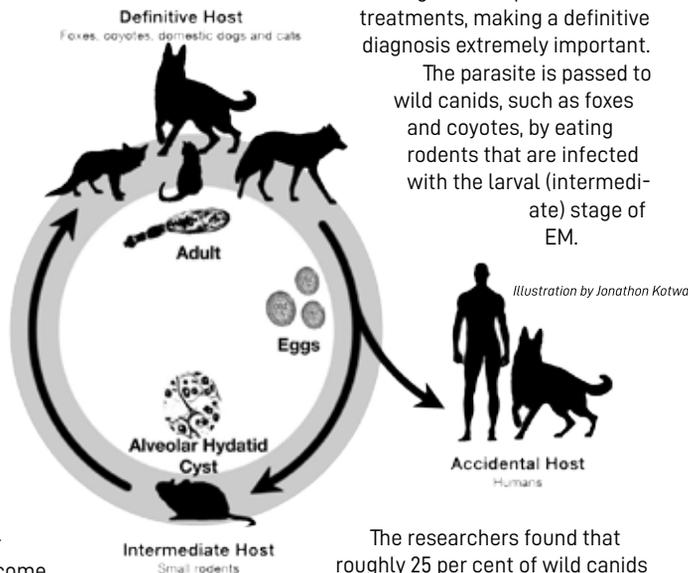
Adds Peregrine: "Awareness is key. We now know that EM is in southern Ontario so we can take the necessary steps to stop our dogs and ourselves from contracting the parasite."

Alveolar echinococcosis involves the liver, but can affect other organs as well.

The intermediate stage of the parasite grows slowly and often goes undetected for a lengthy period because the liver can function normally until it is extremely damaged.

In humans, signs and symptoms can take up to 15 years to develop. When imaging is conducted, the appearance can be confused with a tumour. These two diagnoses require different treatments, making a definitive diagnosis extremely important.

The parasite is passed to wild canids, such as foxes and coyotes, by eating rodents that are infected with the larval (intermediate) stage of EM.



The researchers found that roughly 25 per cent of wild canids tested from across southern Ontario were positive for EM; infected wild canids carry the adult tapeworms in their small intestine and shed eggs in their feces. Humans and dogs can potentially develop alveolar echinococcosis when these eggs are accidentally ingested.

Dogs can develop two different kinds of EM infections. Like foxes and coyotes, dogs can also become infected with the adult tapeworms and shed infective eggs in their feces – dogs that hunt rodents are at an increased risk of developing such an infection. While an infection with the adult stage is harmless to dogs, the eggs shed in their feces are a risk for humans developing alveolar echinococcosis. Furthermore, dogs that ingest large number of eggs may develop alveolar echinococcosis.

Researchers remind dog owners (and outdoor cat owners, although cats do not carry the parasite easily) to consistently wash their hands. Maintaining sanitary habits when dealing with your pets is the best way to deal with this disease.

To help raise awareness of the parasite and disease in Ontario the researchers have also developed a website about EM in Ontario www.emultiontario.com.

OVC ranks first in Canada and top seven worldwide for veterinary science

The Ontario Veterinary College (OVC) is once again celebrating a top ten worldwide placement amongst veterinary schools through the Quacquarelli Symonds (QS) university rankings.¹ The QS World University Rankings by Subject 2018 ranked OVC first in Canada, fourth in North America and seventh worldwide. OVC has consistently placed in the top 10 since QS first included veterinary science in their rankings in 2015. The QS ranking methodology focuses on key areas of academic reputation, research impact, and the desirability of graduates by employers.

"This ranking pays tribute to our exceptional faculty, staff and students and the teaching, service and research they do to improve the health of animals, people and the environment," says OVC dean Jeff Wichtel. The diversity of careers available to OVC graduates ensures a variety of opportunities in DVM, graduate and specialist programs in disciplines ranging from translational biomedical discovery to individual animal health and welfare to public health and animal population health.

OVC graduate and employer surveys one and five years out from the DVM program point to the high employability of a veterinary degree holder. Surveys consistently reveal 100 per cent employment within one year of graduation.

This research was conducted in collaboration with The Canadian Wildlife Health Cooperative and licensed hunters and trappers in southern Ontario. Other collaborators on the project include OVC Profs. David Pearl and Olaf Berke, Dr. Nicola Mercer (Wellington-Dufferin-Guelph Public Health), and Drs. Mats Isaksson and Eva Osterman-Lind of the National Veterinary Institute in Uppsala, Sweden.

1. Quacquarelli Symonds (QS) World Rankings 2018. <http://www.topuniversities.com>



Tech Driven Learning

*Utilizing technology to meet the needs
of today's student veterinarians*



If a picture is worth a thousand words, what is the value of on-demand videos as a teaching tool?

In the case of first-year Doctor of Veterinary Medicine (DVM) students at the Ontario Veterinary College (OVC), videos and photos via tablet technology are easing the learning process for anatomy.

Jeff Thomason, a professor in Biomedical Sciences at OVC, has long used videos while teaching the first-year veterinary anatomy course to illustrate body structures and dissection techniques. They've been invaluable. Students would watch the video, then refer to the textbook during dissection labs, under the guidance of Thomason, grad student teaching assistants and lab technicians, Roman Poterski and David Robinson.

Thomason has been looking for options to enhance video accessibility. "With tablet technology, it was obvious immediately there was good functionality at a low cost."

With the new approach, individualized experiential learning is further enhanced as students take the videos along as they work their way through each lab.

After an intro lecture for the day's lesson, students are split into groups for the lab portion of class. Each group, with a maximum of three or four students, has a tablet containing a set of videos, photos and diagrams for a particular species illustrating each body structure and the correct dissection techniques when using scalpels and probes.

The lab introduces students to the anatomy of two carnivores (the cat and dog), a ruminant (the sheep) and a non-ruminant or herbivore species (the pony), the tablets offer students the advantage of studying species side-by-side.

"When students are reviewing a body

region such as the thorax or chest area, which is similar between species, seeing the crossover from species-to-species is really quite easy," adds Thomason.

The tablets encourage much more hands-on learning, allowing students to work through each step during the lab at their own pace, adds Thomason. The course material – all 499 videos, photos and diagrams – is also available to students outside of class through an online portal so they can continue reviewing the modules outside of the lab.

The overall verdict is uniformly positive. Students value having the video beside them as they work through dissections and note the pluses – photos include spelling and detailed information on particular anatomical structures, they can pause and review videos as often as they like while completing dissections and it is easy to pop out of the video to look at still images of particular areas. It's a bit like having a portable Dr. Thomason, they note.

Video close captioning is helpful on a couple of fronts – spelling of specific terms is a benefit for recalling details and there aren't multiple tablets competing for sound, keeping the noise level low. It is also helpful in broadening accessibility of information for students who may have diverse learning needs.

"This is an excellent example of how technology can enhance student-centred learning, which is a high priority for the University of Guelph," says Dr. Kerry Lissemore, OVC Associate Dean, Academic, who manages curriculum development for the DVM program. "Successful use and implementation of these types of tools informs how and what we should explore when refining the delivery of the DVM curriculum to meet the needs of modern learners."



Access to videos and photos via tablet technology is easing the learning process for veterinary anatomy. Tablets give students much more hands-on learning during each anatomy lab. It allows each one to complete exercises and learn at their own pace.



OVC BY THE NUMBERS

NUMBER OF PATIENT VISITS TO THE OVC HEALTH SCIENCES CENTRE AND ANIMALS TREATED ON FARMS IN 2017

19,490 COMPANION ANIMALS

8,365 LARGE ANIMALS

474 DOCTOR OF VETERINARY MEDICINE STUDENTS

190 MASTERS STUDENTS

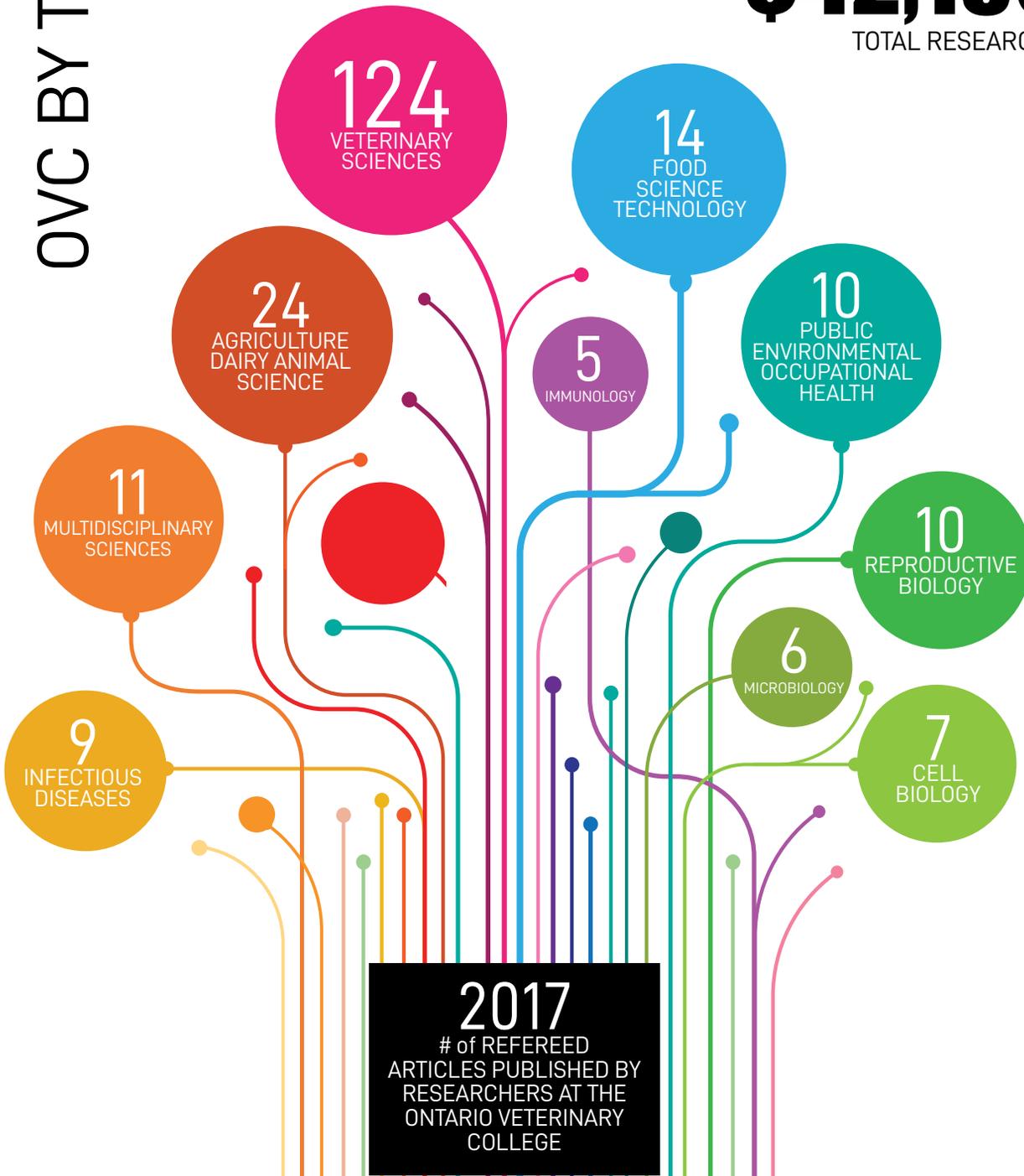
46 DOCTOR OF VETERINARY SCIENCE STUDENTS

119 PhD STUDENTS

115 FACULTY MEMBERS

\$42,130,409

TOTAL RESEARCH FUNDING IN 2017



2017
of REFEREED ARTICLES PUBLISHED BY RESEARCHERS AT THE ONTARIO VETERINARY COLLEGE



FEDERAL (NSERC, SSHRC, CIHR, Canada Council, Federal Departments, Charitable Organizations, Canada First Research Excellence Fund)

\$24,259,065

INTERNATIONAL (Business and Industry, Charitable Organizations)

\$1,776,785

INDUSTRY (Business and Industry, Charitable Organizations)

\$8,883,338

PROVINCIAL (Ontario Government Ministries)

\$1,572,270

OTHER (OVC Pet Trust, Equine Guelph, private donations and misc.)

\$5,638,951

New federal regulations coming into effect December 2018 will radically change the way certain antibiotics can be dispensed to livestock producers in Canada.

Under these new regulations there will be more veterinary oversight of antibiotic use. The Ontario Veterinary College (OVC) is working with industry and government partners to ensure veterinarians are prepared for the upcoming change.

Antimicrobial resistance (AMR), the ability of bacteria and other microorganisms to resist the effects of an antibiotic to which they were once sensitive, through the overuse of prescribed medications, is a major One Health issue around the world and poses significant potential health risks to humans, animals and the environment.

The changes in Canadian regulations around the role of veterinarians when it comes to dispensing prescription drugs for animal use has prompted the creation of a new Ontario Veterinary Leadership Collaborative on Antimicrobial Resistance to help with the challenges that come with such broad-based change. The collaborative includes leadership representation from OVC, the College of Veterinarians of Ontario, Ontario Ministry of Agriculture, Food and Rural Affairs, the Ontario Veterinary Medical Association and a liaison from the Canadian Veterinary Medical Association.

So far, national livestock associations and provincial and federal veterinary medical associations are working hard to keep their members informed about the new AMR regulations, says OVC dean Jeff Wichtel, “but since there are

significant differences between provinces in how antimicrobials are handled, many implementation processes are still in the design phase.”

Wichtel highlights that the changes are presenting interesting challenges in policy development, such as procedures for veterinarians to prescribe antimicrobials for species that are not

normally seen within the average veterinary practice, including bees, fish, and urban backyard chickens. Changes will also create difficulties for beef producers located in remote regions who may not have access to nearby veterinary care.

The

collaborative aims to share information on local, provincial and national AMR initiatives; identify opportunities to coordinate stewardship approaches to increase efficiency and effectiveness; facilitate partnerships to promote awareness and solutions; and advise other lead organizations or individuals as requested. The group will also promote communication and education around AMR and veterinary stewardship within the veterinary community and its key stakeholders.

“Since AMR protocols differ in each region across the country, training programs for veterinarians and livestock commodity groups will be provincially-based,” Wichtel says. “The programs will likely be phased in over the next six months, with the hope that educational materials can be funded through the Canadian Agriculture Partnership (CAP).”

VETERINARY LEADERSHIP TACKLES ANTIMICROBIAL CHALLENGE



Emily Denstedt at work with Gorilla Doctors in the Bwindi Impenetrable Forest

Vet Med and Community Health in Rwanda

With a Doctor of Veterinary Medicine degree and a passion for wildlife and ecosystem health, OVC 2014 graduate, Emily Denstedt, discovers diverse research and career opportunities in the area of One Health.

One Health has always been of interest for Emily Denstedt with wildlife and ecosystem health a particular passion. But even she probably didn't envision bringing the two together on another continent – working to enhance community health care and, by extension, wildlife health. She worked in various wildlife settings, with marine mammals and local wildlife, on her way to a degree in veterinary medicine from the Ontario Veterinary College in 2014.

While Denstedt knew she wanted the clinical skills veterinary medicine offers, "I wasn't always sure what direction I wanted to take my career in regard to helping wildlife and ecosystem health."

It turned out this encompassed both veterinary medicine and public health.



Table Forest assessing an arm injury on Buzinza, a female gorilla.

She followed her DVM training with a small animal rotating internship at OVC's Health Sciences Centre and further honed her skills with a mix of emergency and general practice before beginning the Master of Public Health (MPH) program at OVC in 2016.

An important piece of the five-semester MPH program is a practicum geared to the student's particular interests. From the beginning, Denstedt knew she wanted her practicum to bring together her passion for One Health and wildlife in some way. She found the perfect combination in Rwanda with a project focused on the rural area surrounding Volcanoes National Park and the Gorilla Doctors project.

The world-renowned Gorilla Doctors and Mountain Gorilla Veterinary Project is dedicated to saving the lives of critically-endangered mountain gorillas living in Africa. Dr. Mike Cranfield, OVC 1977, is co-director of Gorilla

Doctors and project director for the Mountain Gorilla Veterinary Project.

The close proximity of the forest and rural area means gorillas and people live virtually side-by-side, notes Denstedt. The health of both are tied intricately together. Improving the health of people and livestock that live or work close to the National Park and, by extension, helping to prevent the transmission of infectious disease to gorillas, is a large focus of the Mountain Gorilla Veterinary Project.

"There aren't many physicians in this rural area and many communities often lack basic necessities such as clean water, which significantly impacts the health of local people," says Denstedt. "The mountain gorillas are frequently in close proximity to people, which increases the risk of a sick person introducing a disease that could dramatically impact gorilla population numbers." Improving the health of the local community not only reduces the risk of pathogen transmission to gorillas, but it builds goodwill and trust, potentially motivating the community to partner in conservation efforts.

Community nurses are the backbone of health care in these rural areas. The nurses work in village health centres surrounding the park and deal with everything that comes their way, notes Denstedt. They rely heavily on continuing education to enhance their skills.

Another organization at work in Rwanda, Docs4GreatApes, founded by OVC 1981 grad Dr. Rick Quinn, is committed to improving the health of Great Ape populations and the communities that surround their habitat by offering continuing professional development (CPD) to nurses in the area.

Quinn, along with a group of Western University (UWO) faculty, found that frontline community nurses were interested in more continuing education opportunities in psychiatry, obstetrical emergencies, ophthalmology, and emergency care of the critically ill. A UWO MPH student administered a baseline survey to nurses at health

centres surrounding Volcanoes National Park last year to evaluate their current knowledge in ophthalmology and to ask what they felt were the best methods to teach continuing education.

Denstedt's MPH project tackled the next step. "Because this is a One Health project and underlying all of this is gorilla and wildlife conservation, we decided to start with nurses who work close to gorilla habitat and treat people who live closest to that environment."

Denstedt's task – teaching primary eye care to community nurses. In total, Denstedt taught the four-day course to 10 groups of nurses, 55 in total, at the Gorilla Doctors headquarters.

Was it odd being a veterinarian teaching about human eye health? For the most part human eyes are not that much different than a dog's eye and encounter the same kinds of problems,

including bacterial conjunctivitis, trauma, and tumours, notes Denstedt.

While Denstedt's work had a public health focus, her clinical training was often also requested to assist with the gorillas' care, including going into the Democratic Republic of Congo one

day to ultrasound a gorilla.

Denstedt finished her project at the end of summer 2017, but returned to Rwanda during the winter to work with the Gorilla Doctors in restructuring the Gorilla Conservation Employee Health Program for people whose jobs take them into the forest including the trackers, guides, researchers, and porters.

While she's not sure yet what's next, she knows for certain One Health will remain an important piece of her future as a veterinarian.

"I think the MPH program and the experiences that I've had in Rwanda opened my eyes to the novel career paths that are available for veterinarians," she says. "There are so many areas in public health where we will need veterinarians, especially in the face of the things our planet will experience in the coming years. It's important to have veterinarians involved in a lot of big issues that are coming our way." 🐼

There are so many areas in public health where we will need veterinarians, especially in the face of the things our planet will experience in the coming years.



Honorary Doctorate Spring 2018



Emmanuelle Gattuso

Whether it's supporting a cause that's close to her heart in the arts, culture or health, Emmanuelle Gattuso's philanthropy is a catalyst for progress and innovation. Gattuso was recognized with an Honorary Doctorate at the University of Guelph's June 2018 Convocation. It's the love Gattuso has for her pets that motivated her, through her philanthropic foundation, *La Fondation Emmanuelle Gattuso*, to lead the way for OVC Pet Trust's *Friends Together for Longer* Campaign at the Ontario Veterinary College with a \$2.5-million gift to construct the *James Slight Advanced Surgical Complex*, a part of new surgery and anesthesia facilities within the OVC Health Sciences Centre.

Ontario Veter
 Class of
 Honorary Cla

Eric Alder	Olivia Allen	Rebecca Ang	Justine Antunes	Arianne Archee	Michael Astin	Sarah Baert	Joanna Berman	Sarah Brodie
Natalie Davis	Sam Deelen	Randi Delavigne	David Dukoff	Stephen Elgersma	Ellen Everson	Sarah Ferguson	Shannon Finn	Caitlin Forbes
Kathryn Hotke	Lily Hu	Kaitlyn Imamura	Kristen Janke					
Derek Laporte	Tara Larkin	Kaila Lawton	Roxanna Lelewski	Christie Limbrick	Hailey MacDonald			
Rachel McEwen	Bradley McLaughlin	Brenna Minscalco	Domonique Monaghan	Victoria Mrotz				
Julia Nguyen	Anastasia Novy	Sarah Ort	Aaron Percival					
Rachel Posadowski	Megan Pounder	Katelyn Pugliese						
Jennifer Reynen-Yurkiv	Brittany Robertson	Sebastian Ruskowski	Timothy Ryan	Jan Ryerse				
	Ariana Spina	Rita Stemeroff	Chantal Stoop	Natalie Swieton	Courtney Tait	Laura Teminski	Melanie Thompson	Be Van





Primary College

of 2018



Class Presidents



Graduate Students

DOCTOR OF PHILOSOPHY
BIOMEDICAL SCIENCES
 Beryl Yik Ting Chung

PATHOBIOLOGY
 Jegarubee Bavananthasivam
 Russell Simon Fraser
 Ryan Andrew Horricks
 Iman Mehdizadeh Gohari
 Lisa Angela Santry
 Laurence Tessier
 Abbie Victoria Viscardi
 Megan R. Whaley

POPULATION MEDICINE
 Stephanie Lesia Hughes
 Catalina Medrano Galarza

DOCTOR OF VETERINARY SCIENCE
CLINICAL STUDIES
 Moran Tal

MASTER OF PUBLIC HEALTH
 Rachel Victoria Ackford
 Amreen Babujee
 Karanpreet Bath
 Courtney Victoria Bell
 Robert Joseph D'Addazio
 Kaitlyn Dawn Dawkins
 Bhumika Deb
 Emily Denstedt
 Stephanie Lynne Duench
 Paige Lauren Dunley
 Reisha Lydia Fernandes
 Alexandra Caitlin Hall
 Adele Heagle
 Jessica Elaine Helwig
 Kelsey Elissa Houston
 Rachelle Lauren Janicki
 Umma Kulsum
 Jessica Mammone
 Nicole Kathleen Jean Pachal
 Alyson Melahna Tomblor Raschkowan
 Mark Reist
 Mackenzie Marcella Jean Wilson
 Vanessa Audrey Ymele Leki

MASTER OF SCIENCE
BIOMEDICAL SCIENCES
 Charlotte Alexandra Mitz

PATHOBIOLOGY
 Jake Stanley Astill

POPULATION MEDICINE
 Kathryn Joann Churchill
 Heidi Elizabeth Eccles
 Stephanie Masina
 Kenlyn Joy Ramsey
 Courtney Marie Rogerson

GRADUATE DIPLOMA
PATHOBIOLOGY
 Alyssa Valerie Goldstein



AWESOME CAREERS

GRAD ONE YEAR OUT



You never know what will lead you to your dream job...

Laura Omeljaniuk was planning a career in companion animal practice when she started her clinical fourth year at the Ontario Veterinary College. That all changed when she signed up for a public health rotation. She thought public health might be a later step in her veterinary career—but as it turns out it was the perfect first step. When a position opened at the Canadian Food Inspection Agency (CFIA) office in Hamilton, the OVC 2017 graduate followed up, joining the agency that July.

The job itself provides Laura with the diversity she is looking for. "I spend half of my time in the field depending on the day and time of year," she says. The territory covered by the CFIA Hamilton office includes poultry and equine farms, agricultural exporters, border crossing and brings a myriad of public inquiries. Disease outbreaks is another area of oversight, but Omeljaniuk hasn't had to manage any outbreaks, yet.

"The range of responsibilities is amazing; there is something different every day and I really love it," she adds.

Laura says the communication and critical thinking skills training she received in OVC's Doctor of Veterinary Medicine program are proving to be invaluable to everyday success in her new role.

"I really rely on clear communications in this work," says Omeljaniuk. "It is the number one skillset I use each day."

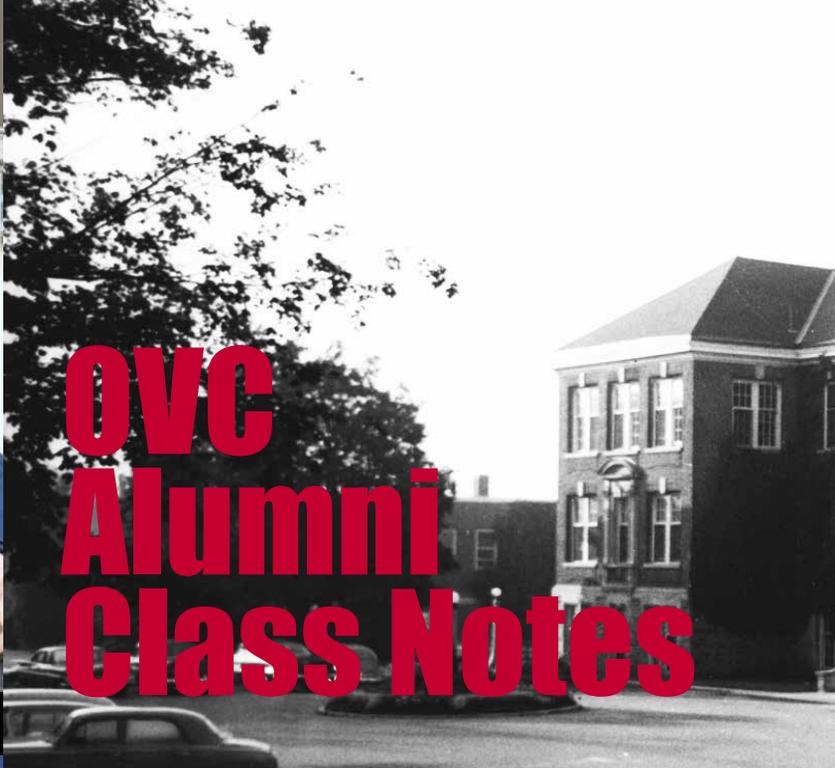
Critical thinking is a close second. "In school we are told 'we're here to teach you how to find the answers, not to teach you what all the answers are,'" Omeljaniuk explains, adding, "critical thinking teaches you how to analyze the question, search out what is most and least important and where you can look for the answer."

Also valuable to Laura was the resiliency training she received in OVC's new fourth year rotation elective. She says the wellness rotation was an important refresher before graduation and highly values and continues to use the strategies she learned within it.

Her advice to new grads - trust yourself. "You may not think you are ready for a particular situation, but the training we get at OVC is excellent and you are prepared. Your confidence is definitely going to grow over time."

She also urges grads to be kind to themselves and take the time they need to find that first position.

For Omeljaniuk, the path was worth it. "I couldn't have asked for a better job, it is my dream job and a really good fit for me."



AWARDS & ACCOMPLISHMENTS

50s

Dr. Bernard Brennan, OVC DVM 1951, received the **150th Anniversary Medal** from the Canadian Senate. The medals celebrate the achievements of Canadians who have made significant contributions, and commemorate the first sitting of the Canadian Senate.

60s

Dr. Anne Croy, OVC DVM 1969, was elected **Fellow of the Royal Society of Canada**. Croy was a member of OVC's Biomedical Sciences Department from 1985 to 2004.

OVC alumnus and former faculty member, **Dr. Ted Valli**, OVC DVM 1962, was inducted as a **Distinguished Member of the American College of Veterinary Pathologists** in November 2017.

70s

Dr. Joseph Ansong-Danquah, OVC DVM 1977, received the **2017**

Volunteer of the Year from **Veterinarians Without Borders**.

OVC 1977 DVM grad **Dr. Mike Cranfield** was recognized with an **Honorary Doctorate at June 2017 Convocation**. Cranfield is co-director of Gorilla Doctors at the Karen C. Drayer Wildlife Health Centre in Davis, California, and project director for the Mountain Gorilla Veterinary Project.

Dr. Cate Dewey, OVC DVM 1979, concluded her tenure as **Chair of OVC's Department of Population Medicine**.

Dr. Ken Leslie, OVC DVM 1974 and University of Guelph Professor Emeritus, is among an inaugural group of 18 dairy researchers inducted into the **Journal of Dairy Science Club 100**, recognizing individuals who have authored or co-authored 100 or more papers in the *Journal of Dairy Science*.

80s

Dr. Nancy Caven, OVC DVM 1980 received the **2018 Golden Life Membership Award** from the **Ontario Veterinary**

Medical Association. **Dr. Jim Fairles**, OVC DVM 1980, was elected **president of the Canadian Association of Swine Veterinarians**.

OVC's Population Medicine professor and Dairy Farmers of Ontario Dairy Cattle Health Research Chair **Dr. David Kelton**, OVC DVM 1984, was recognized with the 2017 American Association of Bovine Practitioners Award of Excellence.

Dr. Peter Ryan, OVC MSc 1984, PhD 1989, has been named **Interim Dean of Mississippi State University's (MSU) Graduate School**.

OVC Population Medicine professor **Dr. Jan Sargeant**, OVC DVM 1986 and founding Director of the Centre for Public Health and Zoonosis at the U of G, was inducted as a **Fellow with the Canadian Academy of Health Sciences** in September 2017.

90s

Dr. Matthew Croskery, OVC DVM 1998, received the **Award of**



If you have news or an update you would like to share please contact: Amy Tremaine, Alumni Advancement Manager, OVC phone (519) 824-4120 x 56679 or email tremaina@uoguelph.ca.

50s

Dr. Douglas C. Maplesden, OVC DVM 1950, and former Dean of OVC, passed away in July 2017. Maplesden served as the seventh dean of the OVC from 1980 until 1984.

Dr. Russ Willoughby, OVC DVM 1957, a former OVC faculty member and former Chair in the Clinical Studies department, passed away on April 17, 2018. He also established and was the first Director of the Equine Research Centre from 1986 to 1990.

Dr. Donal (Don) McKeown, OVC DVM 1958 and a former faculty member in OVC's Clinical Studies and Population Medicine departments, passed away on January 16, 2018.

60s

Dr. Brent Hoff, OVC DVM 1969 and DVSc 1983, long-time clinical pathologist and toxicologist with the Animal Health Laboratory and Laboratory Services, passed away on June 29, 2017.

OVC Community

Dr. Harold Chapman, former OVC Professor, passed away on May 21, 2017.

Merit from the Ontario Veterinary Medical Association.

Dr. Mark de Wolde, OVC DVM 1993, received the **Award of Merit** from the Ontario Veterinary Medical Association.

Dr. Todd Duffield, OVC DVM 1990, was appointed **Chair of Population Medicine** at OVC in September 2017.

Dr. Andrew Hoffman, OVC DVSc 1991, was named the **Gilbert S. Kahn Dean of Veterinary Medicine** at the University of Pennsylvania, effective Aug. 1, 2018.

Population Medicine professor **Dr. Stephen LeBlanc**, OVC DVM 1997 was awarded the **2017 Canadian Veterinary Medical Association (CVMA) Merck Veterinary Award** for his work in farm animal health and production.

Dr. Shayan Sharif, was appointed **Chair of Pathobiology** at OVC in early 2018. He completed his PhD in Pathobiology in 1999. He leads the U of G's Poultry Health Research Network.

00s

Dr. Melissa MacKinnon, OVC 2008, and current PhD student in Population Medicine (Epidemiology field), is the 2018 recipient of the **D.F. Forster Magisteriate Medal** related to her OVC MSc 2017 degree.

10s

Dr. Michelle DaCosta, OVC DVM 2015 received the **Rising Star Award** from the Ontario Veterinary Medical Association.

Dr. Jamie Rothenburger, OVC PhD 2018, is the 2018 recipient of the **D.F. Forster Doctoral Medal** and the **2018 Governor General's Gold Medal**.

OVC Community

Dr. Dorothee Bienzele, Department of Pathobiology, is the **new president-elect of the American College of Veterinary Pathologists (ACVP)**.

Pathobiology professor **Bonnie Mallard** received one of six

Governor General's Award for Innovation in 2017 for the High Immune Response (HIR™) technology which uses animal genetics and immunity to breed healthier cattle naturally and safely.

Dr. James Raeside will receive a **Lifetime Achievement Award** from **The International Equine Reproduction Symposium** this July. Established in 2017, presented for the first time in 2018, it honours individuals who have made significant contributions to the discipline of Equine Reproduction through research or clinical practice.

OVC Biomedical Sciences professor and former University of Guelph president **Dr. Alastair Summerlee** was named **University Professor Emeritus** at the Convocation ceremonies in February 2018.

Dr. Laurent Viel, OVC PhD 1983, Department of Clinical Studies, was named **University Professor Emeritus** at the June 2017 Convocation ceremonies.

Retiring Faculty

Dr. Paula Menzies, OVC DVM 1978, Department of Population Medicine, is recognized worldwide as an expert in small ruminant health management. She has a profound record of research funding, publications in refereed journals, as well as numerous invited publications, book chapters, and producer manuals.

Dr. Éva Nagy, a virologist in the Department of Pathobiology, focuses her research on animal viral diseases, especially avian viruses and the development of viral vaccines. In 2017, she was recognized as a trailblazer in the Science, Technology, Engineering and Math category of the YMCA-YWCA of Guelph Women of Distinction Awards.

Dr. Alastair Summerlee, joined OVC's Biomedical Sciences department in 1988. He was named as U of G's seventh president in 2003. He was recognized as an honorary alumnus of OVC in 2012 acknowledging

his many contributions to the veterinary profession.

Dr. Patricia Turner, OVC DVM 1992, Department of Pathobiology, has dedicated her career to advancing animal health and welfare. A faculty member at OVC since 2002, she received the Canadian Veterinary Medical Association's Humane Award in 2014.

New Faculty

Dr. Sarah Abood joined the **Health Sciences Centre Clinical Nutrition Service**.

Dr. Marie-Soleil Dubois, appointed **assistant professor**, Large Animal Emergency Medicine and Surgery, Department of Clinical Studies.

Prof. Laura Favetta, OVC PhD 2014, was appointed **assistant professor**, Department of Biomedical Sciences.

Dr. Sam Hocker, appointed **assistant professor**, Oncologist, Animal Cancer Centre, Health Sciences Centre.

Dr. Roman Husnik, appointed **assistant professor**, Small Animal Internal Medicine, Department of Clinical Studies.

Dr. Jibran Khokhar, appointed **assistant professor**, Department of Biomedical Sciences.

Dr. David Renaud, OVC DVM 2014, joined the Ruminant Field Service and appointed **assistant professor** in Department of Population Medicine.

Dr. Charlotte Winder, OVC DVM 2008, appointed **assistant professor** in the Department of Population Medicine.

New to HSC

Dr. Sara Gardhouse, OVC 2012, joined the **Health Sciences Centre Avian and Exotic Medicine Service**.



OVC Campus Renewal

This 320-foot-long space located within the OVC Health Sciences Centre was once the location of two teaching classrooms that were originally built in 1959 and in use until 2017. The space is currently under reconstruction - made possible by donations to OVC Pet Trust's *Friends Together for Longer* campaign.

Once complete this area will house NEW anesthesia induction and recovery rooms, two endoscopy and eight surgical suites, operating room — including the

first minimally invasive unit at a veterinary teaching hospital in Canada, changing spaces, a centralized nurses station and storage and service rooms.

Other additions and updates to OVC's campus include the creation of a new building to house Enhanced Clinical Learning spaces, which has been made possible by a \$23 million investment from the Ministry of Advanced Education and Skills Development. The University of Guelph (U of G) also received \$30 million

from the federal and provincial governments to improve research and innovation facilities. Among the initiatives across campus is a biosafety level 2 production animal research isolation unit located on the OVC campus. The U of G currently has the only facility in Ontario for housing production animals for infectious disease research.

These projects are scheduled to be complete in early 2019.

OVC ALUMNI ADVANCEMENT MANAGER

Amy Tremaine joined Alumni Affairs and Development in October 2018 as the Alumni Advancement Manager for the Ontario Veterinary College. A double alumna from the University of Guelph, with a BA and MA, Amy is also a life-long animal lover and equestrian since the age of five. Most recently Amy worked with the Juvenile Diabetes Research Foundation, coordinating Peer-to-Peer Fundraising and Community Engagement initiatives for the Peel-Halton Region.

COMING EVENTS

Watch the OVC website for more information on these events:

Fall 2018

OVC Professional Welcome Ceremony for the Class of 2022

October 2018

OVC Alumni Association Continuing Education Symposium

January 19 - 23, 2019

OVC Alumni Reception at the Veterinary Meeting and Expo (VMX) - Orlando, Florida

January 31 - February 2, 2019

OVC Alumni Reception at Ontario Veterinary Medical Association Conference Westin Harbour Castle Toronto, ON

For more information or to register for an event, please contact Amy Tremaine, Alumni Advancement Manager, at tremaina@uoguelph.ca or 519-824-4120 Ext. 56679.

The University of Guelph, and by extension OVC, is a registered charity. Your contribution can support the area of your choice or OVC's highest priority at the time. Visit our giving page at uoguelph.ca/give. Tax receipts are provided.

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