

SJDAWC NEWS

NUMBER 40, 2022 FALL EDITION

SIR JAMES DUNN ANIMAL WELFARE CENTRE *at the Atlantic Veterinary College*



PROMOTING ANIMAL WELFARE THROUGH RESEARCH, SERVICE, AND EDUCATION



UNIVERSITY
of Prince Edward
ISLAND



ANIMAL WELFARE SCHOLAR RECEIVES ATLANTIC VETERINARY COLLEGE AWARD



Dr. Marina von Keyserlingk

Dr. Marina (Nina) von Keyserlingk, professor of animal welfare, University of British Columbia, was named the R. G. Thomson lecturer this year. Dr. von Keyserlingk has close ties to the Sir James Dunn Animal Welfare Centre (SJDAWC), as she directly supervised Dr. Kathryn (Katy) Proudfoot, now director of the SJDAWC, during her master of science and doctor of philosophy degrees.

In her presentation entitled “Working in animal welfare: A journey from farm girl to scientist,” Dr. von Keyserlingk described the non-traditional journey she took from growing up on a beef ranch in British Columbia to now being a global leader in animal welfare research.

Dr. von Keyserlingk’s research focuses mainly on improving the welfare of dairy cattle, using experimental methods as well as social sciences. She encouraged veterinarians and veterinary students to have the courage to take the road less travelled in their future careers.



Dr. Katy Proudfoot

DIRECTOR'S CORNER

We have had a very interesting fall in Atlantic Canada. The colours on the trees look a little bit different this year, due to post-tropical storm Fiona, which moved through the region at the end of September.

At the SJDAWC, we have been busy promoting the welfare of animals through several student awards and outreach events. In October, we held our 17th annual Animal Welfare in Practice symposium, which focused on the welfare of reptiles and amphibians. Presenters from the United Kingdom and the Atlantic Veterinary College (AVC) provided a wealth of knowledge about the role of the veterinarian in improving the welfare of “herps” (the colloquial term for reptiles and amphibians).

Congratulations to the students who won awards related to animal welfare this fall, including awards for poster presentations, as well as the 2022 Christofor Award in Animal Welfare and the Dr. Tom A. W. Taylor Scholarship. These incredible students will one day be leaders in the field of veterinary medicine.

We welcome your feedback. Please contact us at animalwelfare@upei.ca to receive the newsletter (in full colour) by email and to be added to our email list for occasional upcoming events.

To learn how you can support the Centre, please go to upei.ca/awc or write to:

The Sir James Dunn Animal Welfare Centre
Atlantic Veterinary College
University of Prince Edward Island
550 University Avenue
Charlottetown, PEI, Canada C1A 4P3

All donations are tax deductible.

ANIMAL WELFARE IN PRACTICE SYMPOSIUM

The 17th annual symposium, which highlighted research on the welfare of reptiles and amphibians, was presented virtually on October 28 and 29, 2022. The symposium was funded by the SJDAWC in partnership with the Animal Welfare Foundation of Canada.

DR. ANNA WILKINSON

Dr. Anna Wilkinson, professor of cognition, University of Lincoln, United Kingdom (UK), started off the symposium on October 28 by giving a presentation entitled “Cold-blooded care: Understanding the needs of captive reptiles.” Dr. Wilkinson explained that most people do not think of reptiles as intelligent, compared with other animals like apes and dogs. This perception may result in potentially poor environments for reptiles that do not meet their needs.



Dr. Wilkinson reviewed several recent experimental studies showing that reptiles, such as tortoises and bearded dragons, are much smarter than we think. She explained that experimental tests can be used to determine how reptiles are feeling. For example, Dr. Wilkinson and colleagues found that neck extension in tortoises and tongue flicks in bearded dragons may be used to assess anxiety in these animals.

The environment can also affect the welfare of reptiles, Dr. Wilkinson explained. For example, she and colleagues found that snakes will choose to spend their time in more enriched environments compared with more barren environments. Interestingly, the snakes raised in the more enriched environments showed signs of higher intellect. Dr. Wilkinson ended by suggesting that providing better care for reptiles can enhance the human-reptile bond as well as improve overall welfare.

On Saturday, October 29, Dr. Wilkinson started off the morning with a talk entitled “Cold-blooded cognition.” Due to reptiles’ cognitive abilities, she said, it is important to provide them with complex housing that allows them to express their species-specific behaviours. The environment should also cater to the individual, as bold reptiles may like some variability in their enclosure while shy animals prefer consistency. Like dogs, reptiles can be trained to perform certain tasks, such as getting in a carrier for a trip to the veterinarian. Using food rewards can also help make visits to the veterinarian and other activities more pleasant for our reptile friends.

DR. JON BIELBY

Dr. Jon Bielby, reader in animal behaviour, Liverpool John Moores University, UK, gave a presentation entitled “Pathogens, pet-trade, and policy: Reptile and amphibian welfare in the UK.” Dr. Bielby began by discussing common diseases that can result in large-scale mortality of amphibians around the world. He then explained how the pet trade works, and his own research aimed to describe what reptiles and amphibians are being sold across the UK. His preliminary work has shown that more than 3,000 animals were sold on one website in one year. Dr. Bielby calls for more research to understand and mitigate the animal welfare issues with this active pet trade in the UK and around the globe.



DR. SHANNON MARTINSON

The remainder of the symposium focused on clinical applications of reptile and amphibian welfare through presentations



from AVC faculty. To start off, Dr. Shannon Martinson, Department of Pathology and Microbiology, reviewed how factors such as housing, hygiene, nutrition, and humidity can all be risk factors for diseases in reptiles and amphibians. For example, she presented cases where reptiles developed injuries from their housing, such as thermal injuries from inappropriate lighting and heating sources in their enclosures.

DR. LARA CUSACK

Dr. Lara Cusack, Department of Companion Animals and Zoo, Exotic, and Wildlife Service, then discussed methods for assessing the welfare of reptiles and amphibians in veterinary clinics. She reminded veterinarians that it is important to keep up with the literature on this species, as we are learning more each day. For example, even in the last few years, research has determined that some forms of euthanasia, such as freezing amphibians, are no longer appropriate.



Dr. Cusack suggested that veterinarians must play “detective” to understand what may be causing physical and mental health problems in their reptile and amphibian patients. Veterinarians are encouraged to include the following in each exam: 1) a detailed history, including pictures of the enclosures, if possible; 2) a distant exam, looking for what is normal and abnormal in the animal; 3) a hands-on exam; 4) diagnostics; and 5) a welfare assessment using all the information collected during the exam.



The symposium ended with a presentation from Paige Mitchell, AVC Class of 2025, about resources for veterinary students on learning more about how to approach reptiles and amphibian cases.

Find more information about the symposium on our webpage:
<https://awc.upei.ca/animal-welfare-in-practice/>

HIGHLIGHTS FROM THE SJDAWC

BRIANNA FORBES WINS FIRST PRIZE FOR TOP POSTER

Congratulations to Brianna Forbes, AVC Class of 2025, for winning first prize for the top poster at the 2022 AVC Summer Research and Leadership Program poster presentation. Brianna was one of two 2022 SJDAWC Veterinary Summer Research Award recipients.

Brianna conducted research under the supervision of Dr. Katy Proudfoot for a project entitled “Assessing the impact of a hiding space on the behaviour and stress response of newborn dairy calves.” This project branched off SDJAWC graduate student Hannah Spitzer’s master’s project. Hannah also acted as Brianna’s graduate student mentor. Throughout the summer, Brianna had the opportunity to analyze videos of newborn dairy calves to get a comprehensive view of their behaviour.

“Being able to learn from Dr. Proudfoot and her experiences in dairy calf welfare was such a fantastic opportunity,” said Brianna. “Another highlight was attending the National Veterinary Scholar Symposium in Minnesota alongside other students from AVC. Through that experience, I was able to have stimulating conversations on my research and animal welfare.”

“If you are passionate about animal welfare, I would highly recommend you apply for the SJDAWC Veterinary Summer Research Award.”

Brianna Forbes, AVC Class of 2025

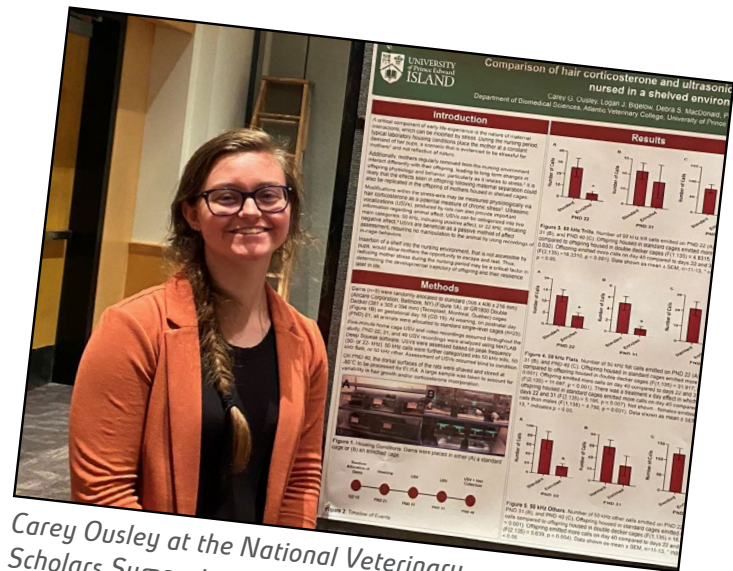


L-R: Dr. John VanLeeuwen, Interim AVC Dean; Brianna Forbes; Dr. Larry Hammell, Associate Dean, AVC Graduate Studies & Research.

CAREY OUSLEY FOUND SUMMER RESEARCH REWARDING

Carey Ousley was also a recipient of a 2022 SJDAWC Veterinary Summer Research Award. She had the incredible opportunity to work with Dr. Paul Bernard, assistant professor, Biomedical Sciences, and his graduate student Logan Bigelow on a project entitled “Comparison of hair corticosterone and ultrasonic vocalizations in offspring nursed in a shelved environment.” The purpose of the study was to better understand how to minimize chronic stress responses of rat offspring through environmental modifications.

Carey recommends that other students apply for a SJDAWC Veterinary Summer Research Award because it offers a different aspect of veterinary medicine, teaches different skills that can be used throughout the field, and overall is a fun learning experience.



Carey Ousley at the National Veterinary Scholars Symposium in August 2022.

“I found it rewarding to work in a lab that is working towards improving the living conditions and overall welfare of lab animals.”

Carey Ousley, AVC Class of 2025

To find out how to apply for a 2023 SJDAWC Veterinary Summer Research Award, please visit our website at <https://awc.upei.ca/summer-research/>

RACHEL MOORE VISITS PRIMATE RESEARCH CENTRE

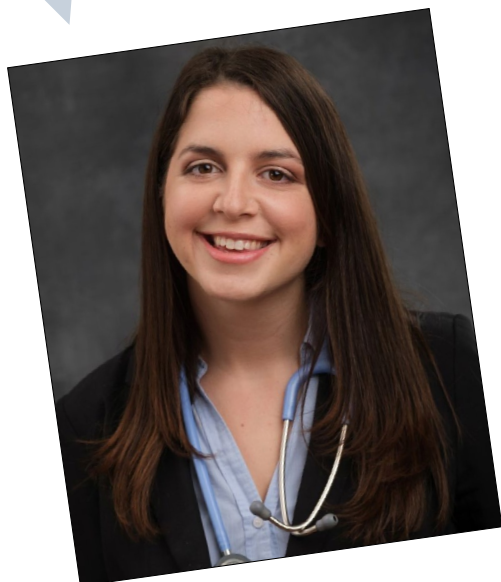
In June, Rachel Moore, AVC Class of 2023, spent three weeks at the Oregon National Primate Research Center at Oregon Health Science University.

Rachel has a passion for animal welfare in the field of laboratory animal medicine, so she was grateful to be able to work with veterinarians and staff whose priority is the health, well-being, and welfare of animals in biomedical research.

During the visit, Rachel was able to apply skills she gained from her classes at AVC to many interesting medical and surgical cases during her visit. She learned more about enrichment, positive reinforcement training, and outdoor housing. This opportunity was partially funded through a travel award granted through the SJDAWC.

“I am immensely grateful for the generous support of the Sir James Dunn Animal Welfare Centre in helping fund this invaluable experience.”

Rachel Moore, Class of 2023



Rachel Moore

NEW GRADUATE STUDENT AT THE SJDAWC

Dr. Jennifer Vernick is currently working on a master's project, with supervisors Dr. Karen Overall and Dr. Katy Proudfoot, that is looking at the development of problem behaviours in rescue kittens. The project involves several components, including laboratory testing, behavioural assessments, and owner-completed surveys. Over this past summer, she worked with a team to complete the laboratory and behavioural testing.

Over the next 18 months, questionnaires will be regularly sent to their adoptive owners. The expectation is to use the information collected to determine risk factors for the development of problematic behaviours in rescue kittens. The hope is to find ways to address the risk factors, so kittens can be better set up for success.



Geraldine and Dr. Jennifer Vernick

“The behavioural testing was a lot of fun. We got to see all the kittens grow up over the month span that we tested each one. I was living the dream – my job truly was playing with kittens.”

Dr. Jennifer Vernick, master's student

Information about all our graduate students can be found on our website at <https://awc.upei.ca/graduate-student/>

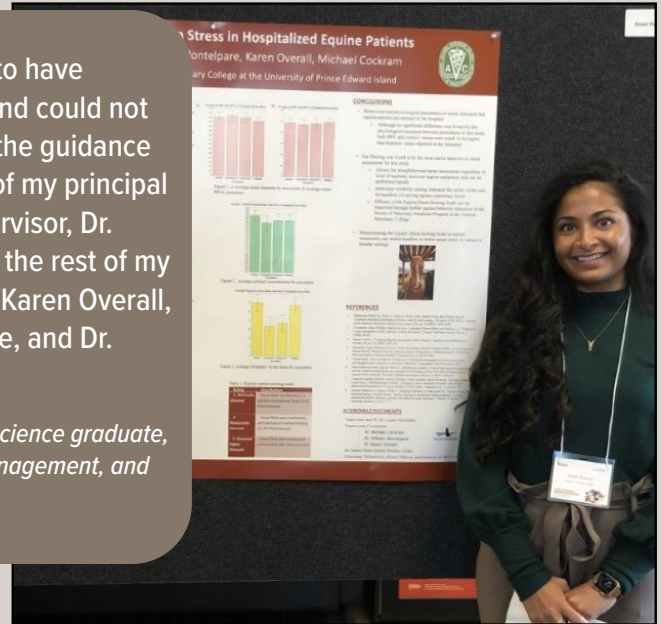
SJDAWC-FUNDED PROJECT WINS POSTER AWARD

Congratulations to Anam Hamza (MSC'21), AVC Class of 2024, who won Best Clinical Sciences Poster Presentation at the Calgary International Equine Symposium, held September 8–9, 2022. The poster presentations were undertaken by master's and doctoral students, allowing them the chance to win \$1,000.

Anam presented her master's research from her SJDAWC-funded project entitled "Recognition of stress levels in hospitalized equine patients during various veterinary procedures."

"I am very honoured to have received this award and could not have done it without the guidance and encouragement of my principal investigator and supervisor, Dr. Laurie McDuffee, and the rest of my thesis committee, Dr. Karen Overall, Dr. William Montelpare, and Dr. Michael Cockram."

Anam Hamza, master of science graduate, Department of Health Management, and AVC Class of 2024



Anam Hamza

SJDAWC PROJECT SPOTLIGHTED ON UPEI PROGRES



L-R: Abbygale Lewis-Fox and Keira Page

Does hoof hardness impact the shape and form of the hooves of Sable Island horses? This question was asked by a pair of students in the 2022 UPEI Promoting Girls in Research in Engineering and Sustainability (ProGRES) summer program. ProGRES is powered and coordinated by Dr. Amy Hsiao, engineer and professor, UPEI Faculty of Sustainable Design Engineering. Through introducing high school students to various facets of sustainable engineering, including but not limited to wind energy, electric vehicles, and modern farming practices, female students are encouraged to pursue engineering in their education and careers.

A SJDAWC-funded project led by Dr. Martha Mellish was part of this year's ProGRES program. The project examined the hardness of the hooves of Sable Island horses, which was evaluated by Keira Page, a grade 11 high school student, and Abbygale Lewis-Fox, a fourth-year sustainable design engineering student, using a hardness tester.

Wild horses, like those on Sable Island, do not have regular hoof care such as trimming and shoeing seen in domestic horses. Their hooves need to be adequate so that they can seek out grazing and water sources. Future research correlating abnormalities of the shape of the hooves with hardness measurements will continue as part of the evaluation of factors that influence the welfare of these horses.

AWARDS

2022 CHRISTOFOR AWARD IN ANIMAL WELFARE



Nima Morady

Nima Morady, AVC Class of 2023, received the 2022 Christofor Award in Animal Welfare for his long-standing interest in improving the welfare of animals.

Animal welfare has always been an important part of Nima's love for veterinary medicine. Prior to his veterinary degree, he volunteered at shelters and took part in a veterinary mission to Ghana with Veterinarians Without Borders.

When he first began at AVC, he joined the Animal Welfare Club in 2019 as class representative. In 2021, Nima became president.

Once he graduates as a veterinarian, he wants to spend his career educating others on bettering their knowledge regarding animal husbandry and welfare.

PROUDFOOT RECEIVES AWARD

Congratulations to Dr. Kathryn (Katy) Proudfoot, associate professor, Department of Health Management, and director, Sir James Dunn Animal Welfare Centre, on being named the 2022 recipient of the American Dairy Science Association (ADSA) Foundation's Scholar Award in Dairy Production.

The ADSA Foundation Scholarship Award in Dairy Production recognizes a young scholar who is selected based on their exemplary research and/or educational leadership, as well as their potential to identify critical issues affecting the future of the dairy industry. Dr. Proudfoot was presented with the ADSA Foundation Scholar Award in Dairy Production during the awards ceremony at the ADSA's annual meeting in Kansas City, Missouri, on June 21.



Dr. Katy Proudfoot and Dr. Maurice Eastridge

2022 DR. TOM A. W. TAYLOR SCHOLARSHIP

The 2022 Dr. Tom A. W. Taylor Scholarship was awarded to Anam Hamza, AVC Class of 2024. Established in memory of Dr. Tom A. W. Taylor, this award is given to a student who is well rounded and academically proficient and has demonstrated initiative and interest in research activities. Once she graduates, Anam plans to do an internship in equine practice.



Anam Hamza

SUPPORTER SPOTLIGHT

High "Five" to our Supporters!

We gratefully acknowledge the sustained financial support of **The Christofor** and **The Sir James Dunn Foundations**, without which the SJDABC would not exist.

We also thank the following organizations and individuals who have supported the SJDABC in the last year:

- Pegasus Family Foundation, an advised fund of Silicon Valley Community Foundation
- Atlantic Veterinary College
- In memory of clients' companion animals: Fairview Animal Hospital

- Universities Federation of Animal Welfare, UK
- Victoria City Kennel Club
- Glenn Lorange
- Stephen and Tina McCarthy
- Derek Mathers
- Holly and Les Burrige
- Janet Mah and Kevin Kane
- Maria Rodriguez
- Eva MacNeill
- Jamie Hartlen
- Bernard Family (Tignish, PEI)
- Anonymous



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