



Centre for Veterinary Epidemiological Research
Annual General Meeting
09 December 2024, 10:00am - 12:00 pm

Attendees:

Dr. Caroline Ritter	Dr. Javier Sanchez
Dr. Henrik Stryhn	Dr. Beibei Jia
Dr. Katy Proudfoot	Dr. Ian Dohoo
Dr. Larry Hammell	Dr. John VanLeeuwen
Dr. J McLure	Dr. Krishna Thakur
Dr. Jason Stull	Dr. Abdelmonem Mohamed
Dr. Ibrahim Elsohaby	Thitiwich Changtes
W. Campbell McKinnon (Recorder)	

Welcome:

The CVER Director, J. Sanchez, welcomed attendees.

1 Approvals

1.1 Agenda and Minutes

The agenda was unanimously approved, as were the minutes from the previous AGM (21 March, 2022).

1.2 Business arising from the minutes/last meeting

- Section 2.1 of the minutes mentions the Dairy Research Chair position. John VanLeeuwen explained there has been a transition of staffing in research services and the position that will assist us with funding is now being filled. A discussion will be held when the process of the new research services position is completed. Several combinations of funding sources are being considered.
- Section 2.3 mentions CVER's Twitter account. It has now been replaced by LinkedIn.

2 Director's Report

A general CVER update for the past year was provided in the Director's report. The discussion focused on specific points from the report, in part identified in the agenda.

2.1 Mission statement

CVER's vision and mission statement require some revision to incorporate CVER's growth and determine the direction and goals over the next 5 years.

2.2 Research Assistant Epi

The Research Assistant Epi position has been vacant for 3 years. There have been talks to move the Epi tech position over to a Research Assistant position. This position will allow for greater efficiency, advanced skills and the ability to work deeper, within the core epi group. It would be beneficial to have a 3-year commitment of funding. 87% of this position will be covered, however we will need to find the remaining 13%. CVER is hopeful that this position will be filled by summer 2025.

2.3 New Faculties

Jason Stull was appointed in March 2024 tenure track for One Health and Infection Prevention. This position is broken up into three categories: teaching, research related to one health infection/prevention and infection prevention/control for the VTH. John VanLeeuwen and Jason Stull met with the medical school in the summer of 2024. Dean has met more recently. They are interested in sharing Dr. Stull's position. John will work on getting updates this week. Sabbaticals and retirements were discussed; however, they will need further discussion to ensure CVER's continued growth.

2.4 Graduate Students

A total of 9 graduate students and 3 postdoctoral fellows started between 2022-24 within the Health Management department. CVER continues to receive visiting scholars and CVER faculty are engaging with the research programs for graduate students from other centres, faculties and institutions.

2.5 Epi on the Island

Two summer courses were held in 2023- Health Economics (University of Alberta and Calgary) and Risk Assessment (delivered by AVC). In 2024 Qualitative Research was delivered by AVC and UBC and the course on Microbiome and Resistome data was delivered by Texas' A & M University and University of Minnesota with support of 2 other USA instructors. For 2025, there will need to be further discussion.

2.6 ISVEE

Successful representation of CVER at ISVEE in Sydney Australia. Four graduate students and six current CVER members delivered seven oral and five poster presentations. Next ISVEE 18 meeting to be held in Cape Town, South Africa.

2.7 CVER and UPEI

CVER is not formally involved in discussions with the medical school for potential involvement of CVER in their epidemiology program.

2.8 CAHSS

Murray Gilles and Marianne Parent are interested in connecting with CVER. Discussions need to be continued for future seminars.

2.9 Other Communication

CVER has switched from Twitter to LinkedIn under the direction of Caroline Ritter and is seeing lots of activity with close to 400 followers.

The CVER Coffee Socials have been key for graduate students and faculty members to get to know each other and to discuss and learn epidemiological aspects of projects. Beibei Jia has agreed to lead these social activities and the CVER team has decided by a show of hands that Wednesday going forward into the new year is a good option to host them.

CVER seminars- Ian Gardner gave a seminar in 2023 and then in 2024, a seminar on AI was delivered.

Journal Club in 2023-24 was led by Thitiwich Changtes and now Ahsan Raquib is leading the club into the 2025 new year.

3 CVER Elections

3.1 CVER Director

Caroline Ritter has been unanimously agreed upon to step into the role of CVER Director.

3.2 CVER Steering Committee

Jason Stull was nominated and accepted the opportunity to sit on the Steering Committee as Caroline's replacement.

3.3 CVER Operation (proposed changes)

Biannual report 2023-2024- Meeting is late, however Marva Sweeney-Nixon agreed to have it by December 2025.

It was confirmed with CVER members that one AGM per year is sufficient. Javier Sanchez suggested spring of 2026 before Caroline Ritter's sabbatical.

There is a movement by members for more of an active role by the steering committee. They are looking to have them involved and helping with communications and the socials- supporting CVER's new director.

4 Updates on Centres, Groups, and Projects

4.1 Sir James Dunn AWC- Presented by Katy Proudfoot

Katy Proudfoot presented an update for SJDAWC. From the \$300,000 they receive from trustees and generous donors, \$150,000 per year is put into the annual research grant competition for AVC faculty. CVER helps with the adjudicating process by reading the grants and providing feedback on statistics and analysis. In 2024, SJDAWC awarded Bronwyn Crane funding for pain in breeding exams for bulls, Martha Mellish received funding for her project on Donkey welfare in Kenya and SSJDAWC's

homeless animals service project has been taken over by Adam Ogilvie. The centre financially supports one VetSRA student per year and they provide funding for students to the AVMA Animal Welfare Assessment Contest while also funding student travel for 4th year rotations, providing Christofor and Tom A. Student awards. For outreach this past year, CVER and SJDAWC overlapped working on the Annual Animal Welfare in Practice Symposium. Caroline Ritter was asked to help collaborate on the topic of the human dimension of animal welfare: the intersection between animal care and the community, this past September 2024. The annual 3-part webinar series took place in the winter of 2024 and the bi-Annual newsletter can be found on their website. Next proposal is in 2025, and Katy Proudfoot is available to chat about new ways to collaborate.

4.2 One Health & Infection Prevention- Presented by Jason Stull

Jason Stull spoke about the accomplishments since his start date in March of 2024. They included co-authoring 3 peer-reviewed publications submitted with AVC clinical faculty (all of which are in the revision stage) and three book chapters that are published. He is currently working with Javier Sanchez on a CIHR grant focusing on HAPI Occupational Zoonotic Risks, and an AVC internal grant to which he is PI titled: Technologies to assess infection control. He is the recipient of the 2025 Asa Mays DVM, Excellence in Canine Health Research Award from AKC Canine Health Foundation. There have been some informal discussions with UPEI College of Medicine for a joint appointment. These have taken place internally within Health Management and possibly with the Dean. This would bring opportunities including, but not limited to, leveraging CVER, creating opportunities for research, and assisting current courses. Next steps are to figure out what One Health looks like at UPEI. There has also been discussion for the development of a UPEI MPH or similar degree.

4.3 Social Epidemiology- Presented by Caroline Ritter

Caroline Ritter has two new students this year, Aiman Khattak working on Vet mental health funded by the AVC & SSHRC and Tunmise Faith Ehigbor, who is working on AMU on dairy farms also funded by AVC and Dairy research Cluster 4. She is supervising 6 other current students consisting of 3 PhD, 1 MSc and two PsyD. A couple highlights over the last year include a published invited review of Quantitative research in dairy science: a narrative review paper with a goal of making quantitative research available to a broader audience and the submission of her CRC renewal application topic: Antimicrobial stewardship on dairy farms, in Oct 2024. The Canadian Antimicrobial Resistance Network- Training Platform is a CIHR funded grant that Caroline Ritter, as an executive member, is working with PI- Herman Barkema. This platform focusses on trainees such as vet students and postdocs and comes with travel awards, scholarships, workshops and events over the next 6 years. There are 120 co-applicants over 25 institutions across Canada. Caroline Ritter's tenure application was successful.

4.4 Statistical Methods- Presented by Henrik Stryhn

Henrik Stryhn reported that two students he was directly working with, Marianne Parent and Mohamed Afifi, have both completed their PhD's. Currently Henrik is co-supervising Junshi/ Paul Dong, working on Bayesian latent variable modelling during their ongoing MSc. Other AVC graduate student projects over the last year include multivariate modelling of antimicrobial resistance and microbiome data with Mariana Fonseca, Ana Soffia Jaramillo and Svenja Kopper; and multi-level modelling with many students but most recently Sitang Arkanit, and spatial modelling with Sumit Jyoti. He has been involved with many projects and other faculty members over the last year

including modelling of reviewer evaluations, Bayesian source attribution models, clinical trial/longitudinal data analysis, time series analysis of effects of an intervention, and statistical reporting guidelines (journal animal) which is useful for a more detailed set of guidelines on reporting statistics.

4.5 Risk Analysis/ AMR- Presented by Javier Sanchez

Javier Sanchez discussed involvement in expert panel/advisory boards over this last year. Concerning risk analysis, collaboration took place with F. Dorea on a FAO strategic framework for early warning of animal health threats and was presented at ISVEE. He was also involved in the expert group of disease modelling with the Public Health Agency of Canada (PHAC) and in a working group for HPAI led by the University of Toronto with weekly and biweekly meetings concentrating more heavily on the human side. Regarding AMR, Javier led chapter 5 of the report Canadian Academy of Health Sciences: AMR and AMU in food producing animals and worked with UBC as an advisory board member on Reimagining Resistance: A transdisciplinary approach to AMR. In terms of risk analysis /disease modelling projects, the CIHR grant running from Nov 2024-March 2026 titled Modelling avian influenza has received 75K CAD. This will provide support for a MSc student and a postdoc will be hired. York University put forward Javier as an applicant for the LOI – CIHR Centre for Research on Pandemic Preparedness and Health Emergencies which has been submitted for \$1.5 million for two years. Current AMR proposals consist of a Columbia AMR and One Health in which the full proposal has been submitted for 3 years and \$1.5 million, 2 LOI's submitted for calf health with DFC and Beef Council, and working with NSERC, Mitacs, and our own funding for 4 years at \$1.5 million. Some AMR research projects that were discussed with the CVER group have a MSc Student Lauren McNeil, working on retrospective analysis CIPARS data, a PhD student Thitiwich Changtes, working on Dairy Beef and an honors student working with Gen AI/Machine Learning- quantify AMU from vet clinics. Also in progress is the Transmission of AMR genes- development of a spatial/multilevel source attribution model. COHTPEZ- Training in Emerging Zoonotic Diseases is working with Jane Parmley and others and will provide scholarships and internships with an upcoming conference in March to take place in Calgary. Two LOI's have been submitted for an exchange program and training in Epi with the Lead institution Norwegian University Life Sciences. Publications over the last year are 12 published, 4 have been submitted and 7 are ready to go.

4.6 Shellfish Health- Presented by Beibei Jia

Beibei Jia brought to the CVER group research initiatives in 2024. The shellfish group Beibei Jia, Larry Hammell, Krishna Thakur, along with Javier Sanchez, Jeff Davidson, and Sonja Saksida have been in discussions with other groups about the outbreak of MSX that is occurring in our region. Their activities started with a roundtable with industry organized by the provincial government. They submitted two proposals, one in October and one in November. There were 4 meetings they were involved in. Goal is to help the situation and provide as much information as they can. Beibei discussed the educational modules for exchange students between AVC and Thailand's vet schools. For the AVC fall semester of 2024, there were two rotations. One was Fish Health that hosted students from Kasetsart University and AVC and the second was Eco Heath which had students from four Canadian vet schools (Calgary was absent) and Mahidol University. Feedback on the rotations has been excellent. Winter semester 2025 will have a similar design, however, it will be carried out at Kasetsart University where our DVM students from AVC will join them.

4.7 Fish Health- Presented by Krishna Thakur

Krishna Thakur presented his work over the last couple of years in two sections, the first being lobster studies (OFI Phase II, One Ocean Health and others). Svenja Kopper, his PhD student has completed her studies working on Epidemiological and genomic determinants of epizootic shell disease in lobsters in Canada and most recently Sitang Arkanit has joined us from Thailand and is looking at pattern of juvenile lobster distribution, comparative microbiome of healthy and diseased lobsters and shrimp and the comparison of lobster survival in two different tank systems. In the salmon studies, Rasaan Ojasanya completed his MSc while working on Bacterial identification and antibiotic resistance trends in farmed salmon. Two other studies that were in progress have slowed down due to students withdrawing for personal reasons. These were *Risk factors for mortality associated with mechanical and bath sea lice treatments* and *Risk factors for infectious salmon anemia virus in Atlantic Canada*. Krishna is hopeful to see some completed analysis from the latter. Other salmon studies that are currently in motion have 3 PhD students, a MSc student and a post-doctoral fellow. These students are assessing gaps in the understanding and management of the risks of infectious salmon anemia virus in Atlantic Canada (funded by AFF grant), Use of publicly available data to inform health management of farmed salmon (funded partly by NSERC grant) and a comparative review of clinical trials for antibiotic and vaccines among common cultured finfish species. Larry Hammell presented an update on the status of the Fish-iTrends sea lice data management system. There have been many farms involved since the start date in 2009 as it was a major initiative for industry to collect sea lice information. Today Fish iTrends has about 1.4 million fish records and it is sponsored by three associations, ACFFA, NAIA and AANS for a total of \$75,000 per year. These funds do not cover the full costs of running the program. Insufficient funding has been an ongoing issue and the industry is not interested in expanding their contribution (of data or funds). Currently, there are discussions of discontinuing it after the contract runs out in spring of 2025.

4.8 ERAAAD- Presented by Larry Hammell

Larry mentioned that a WOA Collaborating Centre requires work to maintain the status through reporting to WOA (and interacting with CFIA), but does not provide any tangible advantage to research or teaching roles of its participants. ERAAAD was first proposed to OIE in 2009, at which time we joined with NVI to create a single Collaborating Centre shared across both institutions. Then in 2019, we were split into ERAAAD Americas and ERAAAD Europe although both groups are interested in international interactions (not limiting to Americas or Europe). Until May of this year, there were only four aquatic collaborating centres including NVI and AVC, CEFAS, and CASA- two government (NVI, CEFAS) and two academic (AVC, CASA), creating an imbalance in contributions to WOA activities. It is more cost effective for WOA to invite NVI or CEFAS to an international meeting since they are often closer (e.g. to Paris where many of the activities are held, but it is also less expensive to travel from Northern Europe to Africa and Asia). In addition, NVI and CEFAS have internal funding as government organizations dedicated to running their centres while AVC (and similarly CASA) must fund everything. AVC receives no support from CFIA, other government agencies, or the university, to run the Collaborating Centre. There have been discussions over the years about discontinuing the centre based on the fact that it confers no advantage concerning funding opportunities (e.g. no national or international research funding sources identify WOA Collaborating Centres as a priority for their competitions). At this time WOA is asking for a 5-year summary of activities and a future strategic plan. Larry is drafting a summary and requesting CFIA (i.e. CVO) involvement in developing a strategy that could contribute opportunities, including funding, to be more effective in our international interactions. It was proposed that Krishna (lead) and Beibei (second) continue the WOA Collaborating Centre and seek external funding opportunities.

4.9 Dairy Health- Presented by J McClure- Shawn McKenna

J McClure let the CVER group know we are in the second round of funding for Canadian Dairy Network of Antimicrobial Stewardship (July 2023 to Dec 2027 -4.5 years). They are continuing the surveillance program in conjunction with CIPARS and have enough funding for surveillance of 3 provinces. This grant has continued surveillance in Atlantic Canada but only up until 2025. It has been said that they have funding guaranteed for the other 3 provinces going forward. New things being done beyond surveillance are looking at specific bovine pathogens for pneumonia, mastitis and ETEC. A large component of this is stewardship. A team of researchers are working to develop, validate and implement protocols for the identification of cases of neonatal calf diarrhea and respiratory disease in calves that require antimicrobial therapy; an Antimicrobial use benchmarking web-based tool and to create an antimicrobial stewardship education program that will reduce AMU and improve AMS in the Canadian dairy industry. Graduate students are involved with two of these projects. A side project in progress that was noted is a smart phone algorithm in which Murray Gilles, a part time grad student and CAHSS member, is currently collecting data for farms in NB to assist dairy producer's AMU decisions for calf scours. Other projects mentioned that are still ongoing are Bovine Leukemia Virus BLV and Proviral load with Simon Bourassi who should be finishing up in the summer and a project on calf management practices and genetic potential on production and longevity of cows when they enter the milking herd with Elizah McFarland. There is also a project with the University of Calgary on Salmonella Dublin that involves Canada wide screening of BTM to estimate the prevalence of S.Dublin and also monitoring other disease from these samples. Emily John is working on occurrence of two chronic diseases MVV and CL in PEI sheep flocks and is looking to expand her research. Yoko Nakamae, Aimie Doyle and Yvonne Elce are working on a clinical trial of presurgical skin preparation for hock arthroscopic surgeries in horses. Discussion was opened for the need for someone to take over the lab upon J's retirement in 2027.

4.10 Smallholder Dairy Research Group (SDRG)– Presented by John VanLeeuwen

The SDRG dairy research, teaching and service program currently has 20 faculty collaborators/ supervisors along with current and former grad students and undergrad students. The Queen Elizabeth II Diamond Jubilee Scholarships are in Phase 3- a 4 year program with .75 million funding. This is supporting Essau Serem with his PhD in Epidemiology focusing on the costs and benefits of zero-grazing with respect to disease and productivity. Two undergrad students will be going to Kenya in the summer to help him with that project. Also supported through the scholarship is Glory Karimi who is a part of the Epi 1 grad course and being supervised by Jennifer Taylor. She is exploring the impacts of school nutrition training programs with a nutrition intern joining her in the summer of 2025. The budget will allow for two more grad students to begin next year. Six grad students have gone through the program and are working on publications. To this date there have been six articles published/accepted. The Farmers helping farmers partner funded project responsible for sending senior students to go to Kenya has finished. They have signed a new project, funding 7.1 million in Kenya/ Ethiopia that is One Health focused on different diseases and species. There will be a project evaluation, and it will help fund some of the students going to Kenya as a part of the rotation. Vets Without Borders has a 7 year, 9-million-dollar training project to help send students to 6 countries that we are collaborating on. Ian Dahoo is leading the ILRI KAP AMU/AMR tool in Kenya for construct validity evaluation. This project started this past year and there are 10 additional researchers involved now from Canada, Europe, Australia and Kenya.

5. Javier Sanchez shared a save the date CAVEPM- Calgary 2025, Translating Epidemiology: Facing Challenges in the Modern World, June 9-10

Adjournment

Meeting was adjourned at 12:15pm