Veterinærinstituttet
Norwegian Veterinary Institute

Norges miljø- og biovitenskapelige universitet

Veterinært epidemiologisymposium 11.05.2017

Fellesauditoriet, Adamstuen

Program

Tid	Tittel	Innleder	Arbeidssted
09:00	Welcome and keynote speaker. *Moderator: Eystein Skjerve (NMBU)* Keynote speaker: The Dynamics of Animal Agricultural Systems: The whole is not only more than, but very different from, the sum of its parts	Yrjö T. Gröhn	Cornell University
09:45	Kaffe- og fruktpause		
	Disease outbreaks and modelling *Moderator: Clare Phythian (NMBU)*		
10:00	Mathematical modelling of the transmission of intramammary infections caused by *Corynebacterium*	Amira Rachah	NMBU, Prodmed
10:15	Social and economic constraints of cattle production in Zambia	Chisoni Mumba	NMBU, Matinf
10:30	Social determinants of anthrax in rural Zambia	Doreen Sitali	NMBU, Matinf
10:45	Ecological Niche Modeling for Filoviruses: A risk map for Ebola and Marburg virus disease outbreaks in Uganda	Luke Nyakarahuka	NMBU, Matinf
11:00	Skrantesyke – resultater av overvåkingen 2016	Petter Hopp	VI
11:15	CWD og bakgrunnen for nedslakting av "Nordfjellastammen"	Eystein Skjerve	NMBU, Matinf
11:30	Lunsj i atriet utenfor Fellesauditoriet		
	Læring, legemiddelbruk, storfe *Moderator: Malin Jonsson (VI)*		
12:15	Guest speaker: Students in academia are different. Who do we talk to?	Solve Sæbø	NMBU, KBM
13:00	Omsetning av utvalgte intramammarier og rapportering i Veterinært legemiddelregister	Jo Bruheim og Hanna Marie Nes Sleveland	NMBU, studenter
13:15	Veterinært legemiddelregister i epidemiologi: bruk og begrensninger	Kari Grave	VI
13:30	Vinterdysenteri: konsekvenser for melkeproduksjonen	Ingrid Toftaker	NMBU, Prodmed
13:45	Automatiske melkesystemer – presentasjon av prosjekt og datakilder	Olav Reksen	NMBU, Prodmed
14:00	Kaffepause		

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Sykdomskontroll i sjøen

Moderator: Trude Marie Lyngstad (VI)

14:15	Kartlegging av forløpet av PMCV infeksjon	Julie Christine Svendsen	VI
14:30	Modellsystem for risikovurdering av luseindusert dødelighet av vill laksesmolt	Peder Andreas Jansen	VI
14:45	Tilapia Lake Virus – hva vet vi i dag?	Mona Dverdal Jansen	VI

15:00 Avslutning og utdeling av hederspriser

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Our invited guest speakers:

Yrjö T. Gröhn: The Dynamics of Animal Agricultural Systems: The whole is not only more than, but very different from, the sum of its parts

The aim of this presentation is to discuss how the Systems Science Approach can be used to optimize intervention strategies in Food Animal Systems. It advocates the idea that challenges of maintaining a safe food supply are best addressed by integrating modeling and mathematics with biological studies critical to formulation of public policy to address these challenges. Much information on the biology and epidemiology of food animal systems has been characterized through single-discipline methods, but until now this information has not been thoroughly utilized in a fully integrated manner.

The examples are drawn from Dr. Grohn's current research. The first one, explained in depth, uses clinical mastitis to introduce the concept of dynamic programming to optimize management decisions in dairy cows (also introducing the curse of dimensionality problem). In the second example, involving Johne's disease, SIR (susceptible, infectious, resistant) models with different intervention strategies will be optimized. The goal of the optimization strategy depends on whether there is a relationship between Johne's and Crohn's disease. If so, optimization is based on eradication of infection; if not, it is based on the cow's performance only (i.e., economic optimization, similar to the mastitis example). The third example focuses on food safety using *Listeria monocytogenes* and *Salmonella* Typhimurium to introduce risk assessment. The last example, practical interventions to effectively manage antibiotic resistance in beef and dairy cattle systems, introduces meta-population modeling that includes bacterial growth in host (cow), feed, water and the environment. Each example stresses the need to progress towards multi-scale modeling. The presentation ends with examples of multi-scale systems, from mastitis to Johne's and bovine tuberculosis.

Yrjö T. Gröhn is Professor of Epidemiology at College of Veterinary Medicine at Cornell University.

Solve Sæbø: Students in academia are different. Who do we talk to?

The focus of my research is currently on the concept of learning, and especially in mathematical sciences like my own field of expertise, statistics. Years of teaching statistics at all university levels have taught me that students are different, and, hence, should also learn and be taught differently. By Dr. Helge Brovold at the National Centre for Science Recruitment, I have been introduced to an extremely interesting interdisciplinary research area which resides in the intersection between personality psychology, neuro-physiology and pedagogics. There are individual differences between us all when it comes to which parts of the brain (circuits) that we exploit the most. This gives rise to differences in personality and also in favorite and most effective learning routines. A study we have conducted at the Norwegian University of Life Sciences (www.nmbu.no) showed that certain personality types appear to be disfavored by the way undergraduate courses are taught. These findings show us that there is "no-size-fits-all" in teaching!

Solve Sæbø is Professor of Statistics at the Faculty of Chemistry, Biotechnology and Food Science at the Norwegian University of Life Sciences (NMBU).