# Course on
# One Health from a veterinary perspective, incl. drug resistance in bacteria and parasite

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| **Target group** | Veterinarians and veterinary nurses (production animals, companion animals and horses) and other interested from the Nordic countries. |
| **Language** | English |
| **Time** | Thursday 31st of January-Friday 1st of February 2019 |
| **Place** | Rungstedgaard, Rungsted Strandvej 107, 2960 Rungsted Kyst |

## Program day 1

11.30-12.30 Lunch

12.30-13.05 (35 min) **Recent Developments in the One Health approach to tackling complex health issues**, *by Professor of Veterinary Preventive Medicine Liza Rosenbaum Nielsen, University of Copenhagen.*

One Health is an approach to improving the understanding of complex issues that cross the boundaries between animal, human and environmental health. The health issues are often driven by changing ecosystems. The One Health approach is no longer just a buzzword, but is actually being used more widely throughout the world, and the methods used in One Health are rapidly developing. This includes methods for evaluation of One Health initiatives, which will be introduced in short here.

13.05-13.15 Break

13.15-14.00 (45 min) **10 years of livestock-associated MRSA in Denmark: How big is the problem?** *by Professor Luca Guardabassi,Veterinary Clinical Microbiology, University of Copenhagen*

14.00-14.10 Break

14.10-15.00 (45 min) **Antimicrobial use and resistance in food animals**, *by Professor Luca Guardabassi*

15.00-15.30 Coffee break

15.30-16:15 (45 min) **Antimicrobial use and resistance in companion animals**, *by Professor Luca Guardabassi*

16.15-16.20 Break

16.20-17.05 (45 min) **Antimicrobial stewardship in veterinary medicine**, *by Professor Luca Guardabassi*

17.05-17.15 Break

17.15-18.15 (60 min) **Antiparasitic resistance (horses, ruminants, pigs, poultry),** *by Research Professor Heidi Enemark, Norwegian Veterinary Institute, Department of Animal Health and Food Safety*

This lecture will give a brief status of antiparasitic resistance in selected parasites of horses and livestock with a focus on prevention/delay of the development of resistance

19.00 Dinner and networking

# Program day 2

09.00-10.00 (60 min) **Why are vector borne diseases returning to Northern Europe?,** *by Epidemiologist René Bødker, Division of Diagnostics & Scientific Advice – Epidemiology, DTU VET, National Veterinary Institute*

What is suddenly causing outbreaks of Bluetongue virus and Lumpy skin Disease in cattle and sheep, Dengue Fever in humans, mosquito borne worms in humans, dogs and reindeer, spread of TBE virus and an increasing number of new tick borne pathogens in Europe? What should we expect next? And what is the role of the veterinarian in this strange development?

10.00-10.15 Break

10.15-11.15 (60 min) **Helminths of veterinary importance in Europe with a focus on zoonotic infections**, *by Research Professor Heidi Enemark*

Ongoing climate changes and increased pet travel are some of the factors affecting the prevalence and geographical spread of parasitic

diseases in pets, livestock and humans in Europe. In this lecture, symptoms, diagnostics, treatment and control will be described for selected major pathogens.

- Cestodes: *Echinococcus* spp. (cystic and alveolar echinococcosis)
- Nematodes: *Trichinella* spp. (trichinellosis), *Dirofilaria* spp. (dirofilarioses), *Ascaris suum* (ascariosis), *Baylisascaris procyonis* & *Toxocara* spp. (larva migrans visceralis), *Ancylostoma*, *Uncinaria* & *Strongyloides* spp. (larva migrans cutanea)
- Trematodes: *Fasciola hepatica* (fasciolosis), *Alaria alata* (alariosis)

11.15-11.30 Break

11.30-12.30 (60 min) **Important zoonotic protozoa**, *by Research Professor Heidi Enemark*

Zoonotic protozoa are widespread and very hard to control in animals as well as humans. *Cryptosporidium* can be found in nearly all cattle herds and is one the most common causes of waterborne outbreaks of diarrhoea in humans. Likewise, *Giardia* is present in farm animals as well as pets resulting in chronic, recurrent diarrhoea. *Toxoplasma*, one of the most successful parasites on Earth, can infect almost any warm-blooded animal; and finally, the vector-borne *Leishmania* is spreading North due to climate change, pet travel and import of rescue dogs. Here, current knowledge about epidemiology, detection and treatment will be discussed.

- *Cryptosporidium* spp. (cryptosporidiosis)
- *Giardia duodenalis* (giardiasis)
- *Toxoplasma gondii* (congenital & acquired toxoplasmosis)
- *Leishmania infantum* (visceral and cutaneous lismaniosis)

12.30-12.45 Evaluation and good-bye