

## Scientific programme NordTick 2022 (pr. 130622)

### Monday June 13<sup>th</sup>

**11:30** Registration and lunch

≈ **12:35** Preludium, by Haraldsguttene

**12:45** **Welcome!**

Nina Mevold, Director of Sørlandet Hospital Trust, Norway. Haraldsguttene

**12:55** **Congress Opening:** Harald Reiso, The Norwegian National Advisory Unit on Tick-borne Diseases, Sørlandet Hospital Trust, Norway

**Keynote 1:** Atle Mysterud, Centre for Ecological and Evolutionary Synthesis, University of Oslo, Norway: Tick-host biology and interplay with pathogenic microorganisms.

In collaboration with the EU Interreg North Sea Region project NorthTick

Introduced by Lars Korslund, Department of Natural Sciences, University of Agder, Kristiansand, Norway

**13:35** **Session 1: Tick biology, ecology and interplay with pathogenic microorganisms**

Chairs: Per-Eric Lindgren, Linköping University/County Hospital Ryhov, Sweden & Lars Korslund, University of Agder, Norway

Snorre Stuen, Faculty of Veterinary Medicine, Norwegian University of Life Sciences (NMBU), Norway: *Hyalomma marginatum* – a future establishment in Norway?

Peter Wilhelmsson, Linköping University, Sweden: First records of suspected tick-borne pathogens in a population of the bat tick *Carios vespertilionis* in Sweden

Nellie Carlströmer Berthén, BiMelix, Åland Is, Finland: The AxBioTick-study: Host immune responses following a tick bite in relation to pathogens, tick characteristics, and clinical outcome

Eszter Tompa, Linköping University, Sweden: AxBioTick study: Prevalence of tick-borne pathogens in ticks detached from humans in the Åland Islands

Matilda Ljungqvist Lövmär, Region Östergötland/Linköping University, Sweden: Tick-borne pathogens in ticks and infections in tick-bitten TBD STING study participants in an emerging tick focus in northern Europe

**14:40** Coffee break

**15:00** Giulio Grandi, National Veterinary Institute (SVA), Uppsala, Sweden: Ixodid tick species found in northern Sweden – what's going on?

Ann Albihn, SVA, Sweden: Tick-borne pathogens in ixodid tick collected in northern Sweden - new risks for the community?

Fathiah Zakham, Faculty of Medicine, University of Helsinki, Finland: Molecular detection of pathogens from ticks collected from dogs and cats at veterinary clinics in Finland

René Bødker, University of Copenhagen, Denmark: Large-scale study of tick-borne pathogens in ticks removed from dogs and cats in Norway and Denmark

Eva Kallio, University of Jyväskylä, Finland: Ticks and tick-borne pathogens in urban and rural forests: increased hazard in urban ecosystems

**16:00** End of session

**17:00** Busdeparture. Excursion (prebooked): We visit Grimstad in the footsteps of Ibsen and Hamsun. A city-walk takes us to the Ibsen Museum. There, a 15-year-old Henrik Ibsen worked as an apothecary's assistant for six years. Knut Hamsun moved to Nørholm nearby Grimstad in 1918. The city tour includes some aspects of his life in Grimstad as well. Thereafter we visit the nearby brewery – Nøgne Ø, before return to the hotel and dinner.

**20:30** Dinner at the hotel. Taxi-transfer to Grimstad 23:00 (Busses 21:33, 22:33 & 23:34)

## Tuesday June 14<sup>th</sup>

**08:30 Session 1 continued. Tick biology, ecology and interplay with pathogenic microorganisms**  
Chairs: Per-Eric Lindgren, Linköping University/County Jönköping Region, Sweden & Lars Korslund, University of Agder, Norway

Käthe Robert, University of Antwerp, Wilrijk, Belgium: Investigating the distribution of ticks and tick-borne diseases through citizen science

Mats Van Gestel, University of Antwerp, Belgium: Exploring indirect effects of forest infrastructure on *Ixodes ricinus* distribution in urban greenspaces: host distribution

Therese Janzen, Södertörn University, Sweden: Assessing public health risk due to ticks along the urbanization gradient in Stockholm County, Sweden

Patrik Dinnetz, Södertörn University, Sweden: Landscape and local site factors affecting tick abundance along an urbanization gradient

**09:20 Coffee break**

**09:40 Keynote 2:** Cornelia Silaghi, Institute of Infectology, Friedrich-Loeffler-Institut, Greifswald Isle of Riems, Germany: Tick-borne infections in animals in N. Europe, zoonotic aspects – present & future (*lecture presented digitally*)

Introduced by Snorre Stuen, NMBU, Norway

**10:20 Coffee break**

**10:50 Session 2: Ecology, epidemiology & molecular biology of tick-borne encephalitis virus (TBE)**

Chairs: Randi Eikeland, The Norwegian National Advisory Unit on Tick-borne Diseases, Sørlandet Hospital Trust, & University of Agder, Norway, and Anne-Mette Lebech, Rigshospitalet, Denmark

Jessica Tikkala, Medimar & Åland Central Hospital, Åland Is, Finland: Tick-borne encephalitis in the Åland Islands 2006-2020: incidence, clinical characteristics, and outcome since implementation of free vaccination.

Sambor Grygorczuk, Medical University in Białystok, Poland: Associations of the cerebrospinal fluid lymphocyte populations with a clinical presentation of tick-borne encephalitis

Henna Mäkelä, Institute for Health and Welfare, Finland: TBE epidemiology in Nordic and Baltic countries – changes between 2021 and the period 2017-2020

Maya Holding, UK Health Security Agency, Salisbury, UK: Utility of eco-epidemiological studies for the surveillance of tick-borne encephalitis virus in non-endemic areas – a UK example

**11:50 Session 3: Ecology, epidemiology and diagnostics of other potential pathogens: e.g. *Anaplasma*, *Rickettsia*, *Neoehrlichia* & *Babesia***

Chairs: Snorre Stuen, NMBU, Norway & Anne-Mette Lebech, Rigshospitalet, Denmark

Christine Wennerås, Sahlgrenska University Hospital, Sweden: Tick-borne disease caused by *Spiroplasma ixodetis* in Sweden

Hanne Quarsten, Sørlandet Hospital Trust, Norway: Types and availability of diagnostic tests for less known tick-borne infections

**12:30** Lunch

**13:30** Conference photo session

**13:45 Keynote 3:** Hein Sprong, National Institute for Public Health and the Environment (RIVM), The Netherlands: Ecology and epidemiology of tick-borne diseases in the Netherlands

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Introduced by Anne-Mette Lebech, Rigshospitalet, Denmark

**14:25** Rosa Maja Møhring Gynthersen, Copenhagen University Hospital, Rigshospitalet, Denmark: *Neoehrlichia mikurensis* detected in Danish immunosuppressed patients: a retrospective cohort study

Lisa Labbé Sandelin, County Hospital Kalmar/Uppsala University, Sweden: *Neoehrlichia mikurensis* in Blood Donors and in Traced Recipients in Southeast Sweden

Linda Wass, Sahlgrenska University Hospital, Sweden: The Neoferon study – a study to answer if *Neoehrlichia mikurensis* causes chronic persistent infection

Pia Formisano, University of Aberdeen, Scotland, UK: Developing a recombinant protein ELISA for diagnosis and prevalence studies of human babesiosis, an emerging disease in Scotland

Sveinung Eskeland, NMBU, Norway: Preliminary transcriptomic results in sheep intravenously inoculated with a virulent *A. phagocytophilum* strain.

**15:30** Poster presentations & coffee (for our virtual participants, posters are presentations are available on the NordTick website. Post questions/comments by the Teams chat function)

**16:30** Public (and streamed) lecture on “Ticks & pets”, in Scandinavian: «Kan hunder og katter bli syke av flåttbitt?»

Invited speaker: Karin Hultin Jäderlund, veterinarian neurology, NMBU, Norway

Welcome & introduction by Randi Eikeland, Norway

(30 minutes presentation + 30 minutes discussion/questions – also from chat in Teams-streaming)

**19:00** Greetings from "Ticks and Tick-borne Diseases", a 10<sup>th</sup> year plus anniversary (virtually in the conference room).  
Invited: Olaf Kahl, Tick-Radar GmbH, Managing Editor of "Ticks and Tick-borne Diseases", Germany

**19:30** Dinner & entertainment, at Strand Hotel Fevik. Taxi-transfer to Grimstad 23:00 (Busses 21:33, 22:33 & 23:34)

## Wednesday June 15<sup>th</sup>

**08:30 Keynote 4:** Klaus-Peter Hunfeld, Zentralinstitut für Labormedizin, Mikrobiologie und Krankenhaushygiene, Krankenhaus Nordwest, Frankfurt, Germany; Laboratory diagnostics of tick-borne pathogens  
Introduction by Marika Nordberg, Mariehamn Hospital, Åland Is, Finland

**09:10 Session 4:** Ecology, epidemiology and diagnostics of *Borrelia*  
Chairs: Marika Nordberg, Mariehamn Hospital, Åland Is, Finland & Harald Reiso, Sørlandet Hospital Trust, Norway

Frederick J. Angulo, Vaccines Medical Development & Scientific/Clinical Affairs, Pfizer Inc, Collegeville, PA, USA: Estimate of the number of Lyme Borreliosis (LB) cases in Finland in 2021 after adjusting for under-ascertainment by national surveillance programs

Sally Mavin, NHS, Scotland, UK: NorthTick evaluation of IgM testing

Ram Dessau, Region Sjælland, Denmark: Detecting changes in *Borrelia burgdorferi* antibody reactivity in follow-up samples.

Tamara van Gorkom, RIVM, The Netherlands: Retrospective Evaluation of Various Serological Assays and Multiple Parameters for Optimal Diagnosis of Lyme Neuroborreliosis in a Routine Clinical Setting

Dieuwertje Hoornstra; AMC, The Netherlands: The development and validation of a protein array for the detection of antibodies against the tick-borne pathogen *Borrelia miyamotoi*

Nanna Skaarup Andersen, Lillebaelt Hospital – University Hospital of Southern Denmark, Denmark: Optimization of PCR diagnostics in Lyme Neuroborreliosis

**10:25 Coffee break**

**10:40** Paula Gyllemark, County Hospital Ryhov/Linköping University, Sweden: Outcome and intrathecal Th1-, Th2-, Th17- and B-cell associated cytokines and chemokines in Lyme neuroborreliosis: a prospective follow-up study from South-eastern Sweden.

Helene Mens, Copenhagen University hospital - Rigshospitalet, Denmark: Neurofilament light in CSF is associated with disease staging in European Lyme neuroborreliosis

Fredrikke Christie Knudtzen, Odense University Hospital, Denmark: Lyme neuroborreliosis with encephalitis; a systematic literature review and a Scandinavian cohort study

Silje Andreassen, Sørlandet Hospital Trust, Arendal, Norway: Cognitive function and fatigue in patients with neuroborreliosis: A prospective follow-up 12 months post-treatment

Anne Marit Solheim, Sørlandet Hospital Trust, Kristiansand, Norway: Antibiotic treatment length in European Neuroborreliosis: Two versus six weeks treatment with doxycycline

Amber Vrijlandt, AMC, The Netherlands: *Borrelia burgdorferi* sensu lato persists: a systematic overview and appraisal of the current evidence from experimental animal models for Lyme borreliosis

**11:55** Pictorial review of the Conference

Closing address. Welcome to NordTick 2024!

**12:05** Lunch & departure