

18th Smögen Summer Symposium on Virology

August 26-28, 2021

Program

Arranged by Virus- och Pandemifonden –

Swedish Society for Virology

<http://www.swedishvirology.se>



Welcome to the 18th Smögen Symposium on Virology!

It is a pleasure for the Organizing Committee to announce that the 18th symposium will be held at Smögens Hafvsbad, Smögen, Thursday August 26 to Saturday August 28, 2021 with the possibility to participate online as well.

The scientific as well as the social agenda will be very much like previous Smögen meetings. This year we will have the pleasure to listen to, and discuss with Dr Tony Cunningham, Dr Stephan Urban, and Dr Linda Dixon, on the subjects Varicella Zoster Virus, Hepatitis B virus, and African swine fever virus.

Smögens Hafvsbad or “Hafvsbadet” is a famous spa establishment with traditions from 1903, and with a splendid view of the beautiful archipelago north-west of Smögen. Hafvsbadet is a fully modern hotel with high-class cuisine, and an excellent conference facility, including an indoor swimming pool. As the number of expected delegates exceeds the number of beds at Hafvsbadet we have reserved one excellent alternative: “Makrillviken”, a high standard youth hostel, situated less than 200 m from Havsbadet. We wish you all very welcome in Smögen!

Kristina Nyström, Niklas Arnberg, Katarina Danskog och Johan Nordgren



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Thursday, August 26

All events are at Smögens Havsbad unless otherwise stated and sessions also through zoom.

Please note that all information provided during the sessions is considered as privileged. You are therefore not allowed to take any photographs of the slides.

12.00 Lunch + Registration (collect information and nametag outside conference hall)

13.30 Welcome and Practical Information: Kristina Nyström

13.45-14.30 **Keynote 1**
Introduction: Magnus Lindh

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| Dr. Stephan Urban | Heidelberg, Germany | Towards a Curative Therapy for Hepatitis B and D Virus Co-infected patients: A key role for the entry inhibitor Hepcludex/bulevirtide |
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14.30-15.30 **Session 1: Pathogenesis**
Chair: Lennart Svensson

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| Nunya Chotiwan | Umeå | Microscopic and mesoscopic imaging reveals cellular tropisms of tick-borne flavivirus infection in mouse brains are shaped by type I interferon response |
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| Stefanie Willekens | Umeå | Co-registration of OPT and MRI enables detailed anatomical brain mapping of tick-born flavivirus infection in mice |
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| Jonas Klingström | Stockholm | IL-6 trans-signaling in hantavirus pathogenesis |
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| Magnus Evander | Umeå | Virus infection and miscarriage - infection model in trophoblast cells |
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| Anna Smed-Sörensen | Stockholm | Functional monocytic myeloid-derived suppressor cells increase in blood but not airways and predict COVID-19 severity |
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| Marie Hagbom | Linköping | Replication of Norovirus from Vomits samples in Human Intestinal Enteroids |
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15.30-16.00 Coffee Break

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| 16.00-16.40 | Session 2: Örjan Strannegård Memorial Session - Tumor Virology Chair: Anders Vahlne | |
| Guojiang Xie | Gothenburg | The landscape of Epstein-Barr Virus gene expression in malignancies |
| Sanna Abrahamsson | Gothenburg | Single-cell analysis of nasopharyngeal carcinoma |
| Yarong Tian | Gothenburg | Air-liquid interface nasopharyngeal cell culture model of Epstein-Barr virus infection |
| 16.40-17.10 | Session 3 and 4: Molecular and Structural Virology and Epidemiology Chair: Ka-Wei Tang | |
| Isak Holmqvist | Gothenburg | Epstein-Barr virus RNA splicing at full-length resolution using single-molecule sequencing |
| Luisa Bustamante Jaramillo | Gothenburg | Detection of AAV2 genomes in living cells |
| Per-Eric Lindgren | Linköping | TBE-epidemiology in the Nordic countries during the pandemic |
| 17.10-17.30 | Technical News Flash | |
| 19.00 | Dinner | |

Friday, August 27

07.30 Breakfast

09.00-09.45 **Keynote 2**
Introduction: Tomas Bergström

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| Dr. Tony Cunningham | Sydney, Australia | The new Recombinant Zoster vaccine, a paradigm for vaccine efficacy in the ageing and immunocompromised |
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09.45-10.35 **Session 5: Virus-Cell Interactions I**
Chair: Marianne Jansson

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| Ebba Rosendal | Umeå | The influence of TBEV structural proteins on viral tropism in the brain |
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| Hung Tran | Örebro | Interplay between ESCRT proteins and ISG15 during tick-borne flavivirus infection |
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| Magnus Johansson | Örebro | Roles of the Endogenous Lunapark Protein during Flavivirus Replication |
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| Vanessa Monteil | Stockholm | Identification of cell factors involved in Crimean-Congo Hemorrhagic Fever virus entry by chemical mutagenesis screening in mouse haploid stem-cells |
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| Alan Bäckerholm | Gothenburg | Latent Epstein-Barr virus gene expression in single-cell sequencing of PBMC |
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10.35-11.05 Coffee Break

11.05-12.00 **Session 6: Virus-Cell Interactions II**
Chair: Marianne Jansson

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| Hudson Pace | Umeå | Cellular Taxidermy: a novel platform for investigating interactions between host membranes and viruses |
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| Katarina Danskog | Umeå | Bile Acids Enhance Aggregation, Binding and Entry of Human Norovirus VLPs to Cells |
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| Konrad Thorsteinsson | Umeå | Binding kinetics of human noroviruses to histo-blood group antigens predict susceptibility of human intestinal enteroids to infection |
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| Johan Nordgren | Linköping | The Importance of Secretor-status in Norovirus Infection Following Allogeneic Hematopoietic Stem Cell Transplantation |
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| Arash Hellysaz | Linköping | 3D visualization reveals that rotavirus downregulates ileum-innervating sympathetic nerves concomitant with increased intestinal transit and altered brain activity |
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12.00-12.40 Session 7: Antivirals and Chemotherapy

Chair: Jan Albert

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| Anna-Lena Spetz | Stockholm | Development of broad-spectrum antivirals |
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| Marjo Puumalainen | Stockholm | CRISPR-based antivirals against emerging viruses |
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| Marianna Tampere | Stockholm | A phenomics approach for antiviral drug discovery: Team science effort from SciLifeLab academic groups and a national chemical biology infrastructure |
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| Johan Lennerstrand | Uppsala | Identification of broad spectrum inhibitors against the main protease of coronaviruses |
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12.40-12.50 Session 8: Clinical Virology and Diagnostics

Chair: Johan Westin

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| Diana Vracar | Gothenburg | Characterization of Epstein-Barr virus miRNA in blood in post-transplant lymphoproliferative disease |
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12.50 Lunch

14.30-16.00 Session 9: SARS coronavirus-2

Chair: Mattias Forsell

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| Clas Ahlm | Umeå | CoVUM: Understanding the transition from mild to severe COVID-19 |
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| Maaran Michael Rajah | Paris | SARS-CoV-2 Variants Display Enhanced Spike Mediated Syncytia Formation |
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| Ylva Ivarsson | Uppsala | Large scale discovery of virus-host interaction motifs reveals common and SARS-CoV-2 specific mechanisms and vulnerabilities |
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| Elizabeth Elder | Stockholm | Identification of lectin receptors for conserved SARS-CoV-2 glycosylation sites |
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| Ebba Samuelsson | Gothenburg | Glycan hotspot on the SARS-CoV-2 receptor binding domain is essential for antibody reactivity |
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| Benjamin Nilsson-Payant | NY | The NFkB transcriptional footprint is essential for SARS-CoV-2 replication |
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| Matti Sällberg | Stockholm | Towards a universal vaccine against SARS Coronaviruses |
| Anna Martner | Gothenburg | Easy and sensitive method to detect T cell responses to SARS-Cov-2 |

16.00 **Poster Session** including Coffee
Posters the floor below the venue, short presentation of posters in the lecture hall

18.30 Archipelago Cruise & Seafood buffet or Gourmet Dinner (see page 11)

Saturday, August 28

07.30 Breakfast

09.00-09.45 Keynote 3

Introduction: Ali Mirazimi

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| Dr. Linda Dixon | Pirbright, UK | African swine fever virus evasion of host defences and application to vaccine development |
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09.45-10.25 Session 10: Viral Immunology and Vaccines I

Chair: Matti Sällberg

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| Yaoska Reyes | Linköping | Host genetic and rotavirus infections in a vaccinated birth cohort of Nicaragua |
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| Lasse Toftdal Dynesen | Paris | Neutralizing antibodies from African hunters infected with simian foamy viruses target dominant epitopes within the receptor binding domain |
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| Mattias Forsell | Umeå | Heterologous vaccination against Covid-19 |
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| Jorma Hinkula | Linköping | Humoral immunity against respiratory tract viruses |
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10.25-10.55 Coffee Break

10.55-11.15 Session 11: Viral Immunology and Vaccines II

Chair: Matti Sällberg

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| Sofia Appelberg | Stockholm | Development of a vaccine against Crimean-Congo Hemorrhagic Fever Virus |
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| Lars Rombo | Uppsala | The Adjuvanted Recombinant Zoster Vaccine (RZV) Confers Long-term Protection Against Herpes Zoster: Interim Results of an Extension Study (ZOSTER-049) of Two Clinical Trials (ZOE-50 and ZOE-70) |
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11.15-11.25 Session 12: Emerging Viruses

Chair: Ali Mirazimi

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| Ujjwal Neogi | Stockholm | Multi-omics analysis to understand the metabolic control of RNA virus replication |
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| Harindranath Cholleti | Uppsala | Characterization of the virome from Swedish bats |
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11.30-12.15 ca Annual Meeting Swedish Society for Virology

12.15 Lunch

13.00 Bus 1 leaves for Gothenburg

13.30 Bus 2 leaves for Gothenburg

The Venue: Smögens Havsbad

A fully modern hotel with a capacity of more than 100 guests in comfortable single and double rooms. Indoor swimming-pool and exclusive spa services available. The conference facilities include a fully equipped lecture hall taking 100-200 people, and a lot of smaller meeting rooms. The cuisine is excellent, the



Foto: SYEN LINDWALL

same overwhelming view of the Skagerrak archipelago as experienced by the first summer guests of Smögens Havsbad in 1903 is still available from the dining room and the western terrace. The hotel is situated close to the heart of Smögen offering excellent sea baths and easy access to the classical wooden quay of the Smögen Sailing Harbour.

Additional lodgings: Makrillviken



Ideal accommodation for the young virologists accepting shared rooms, all renovated 2015 with private shower and toilet. Modern standard. Full board, incl. bed cloths and bathroom towels also for the delegates staying at Havsbadet. Delegates registering for "Bed in shared room" will primarily be checked in at Makrillviken.

Useful information:

Accommodation

Registration includes Full Board and all conference activities listed in the program. You **do not** need to bring any bedclothes etc, but please bring your own towel for outdoor swimming activities.

Bus Transfer Göteborg-Smögen

Buses will leave from Downtown Göteborg (Nils Ericson-platsen) at about 10.20 on August 26 and from Smögen after lunch on August 28. All transfer is complimentary. The bus ride takes 1 hour 50 minutes. We will schedule the bus to wait for trains from Stockholm and Malmö arriving between 10-10.40. However, should extreme train delays occur, the delegates concerned will be instructed by mobile telephone how to act. To sign up for bus transport please mail your (a) e-mail address and (b) mobile phone number to Bus Captain Maria Johansson (maria.johansson@microbio.gu.se).

Usually the Swedish West Coast climate is dry and sunny in late August (19-22°C daytime and the sea temperature about 20°C) but the temperate climate zone means a slight but definite risk for occasional low pressure weather with wind and showers. Please bring a sweater, rain jacket, and an umbrella just to be sure. The sea is excellent for swimming and diving, flippers and snorkel recommended.

Scientific presentations

There will be a number of sessions, each addressing a specific topic. Participants are offered to submit an oral presentation (no longer than 7 minutes + time for a few questions) that will be scheduled to appear in a suitable session. There will be a maximal number (7) of slides. The URL to the form for electronic registration is http://www.swedishvirology.se/smogen_meeting_registration.html and contains a field for Presentation Title. Instructions for abstract preparation will be sent to the presenters in late June. **Please do not forget** to mark the box "I am not a spam robot" of the electronic form. This is a protection measure against spam attacks interfering with the electronic registration procedure.

Registration information

Symposium information will be continuously updated at the official homepage of the Swedish Society for Virology: <http://www.swedishvirology.se> where you also will find an electronic form for convenient on-line registration. Those who are not on the mailing list, please notify kristina.nystrom@gu.se.

Registration Fee includes everything!

As soon as you embark the complimentary bus shuttle to Smögen, the Registration fee will cover everything: Admittance to all sessions, full board, all social activities, bus shuttle from Gothenburg (Round trip), and a three (3) year membership in Swedish Society for Virology.

Conference dinner on Friday:

Seafood Buffet on board of M/S “Byfjorden” during an evening cruise in the Smögen Archipelago



Welcome onboard the “Byfjorden” to a traditional Smögen Seafood Buffet including, shrimps, crayfish and a lot of other sea food specialities.

“Byfjorden” was built in 1968 at Skaalurens Skibsbyggeri, Rosendal, Norway. The ship was lengthened in 1989

by 5 meters and she is now 31 m long with a cruising speed of 11 knots. She recently became thoroughly restored and modernized and takes up to 120 dining guests. Her large upper deck offers great possibilities for wonderful views of the scenery.

Alternative Friday Night Activity: Gourmet Three Course Dinner

The Gourmet Dinner will take place at Smögens Havsbad as an alternative for delegates not interested in Archipelago Cruises and Seafood mainly based on shellfish.

Map of important places



The positions of the two hotels are indicated. Läsidan is a room annex for Havsbadet

A: Where boarding for the Seafood Cruise on Friday takes place.

B: Place for Welcome Reception Thursday