Sunday 23 April, 2023

- 17.30 Meet and Greet at Hotel Concordia
- 18.30 Dinner at Hotel Concordia

Monday 24 April, 2023

08.30 - 09.00 Course Introduction Vasili Hauryliuk, Lund University, Sweden Biosketch on page 9 Toomas Mets, Lund University, Sweden/Tartu University, Estonia Biosketch on page 10

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- 09.00 09.45 Bacteriophages From the Fundamentals of Molecular Biology to the BASEL Collection Alexander Harms, ETH Zürich, Switzerland Biosketch on page 11
- 09.45 10.00 Questions & Discussion
- 10.00 10.15 Break
- 10.15 11.00 Bacteriophages The Unexplored Treasure Chest of Medicines within the Tropical Rainforests Thomas Sicheritz-Pontén, University of Copenhagen, Denmark Biosketch on page 12
- 11.00 11.15 Questions & Discussion
- 11.15 12.15 Lunch
- 12.15 13.00 Insights into Phage Ecology to Inform Translation to the Clinic Martha R.J. Clokie, University of Leicester, England Biosketch on page 13
- 13.00 13.15 Questions & Discussion

Lab work — Phage Isolation -

- 13.15 14.15 Collection of environmental samples around town (<u>Botanical Garden</u>)
- 14.15 15.00 Preparation of the top agar and SM buffer and isolation of phages infecting *E. coli* BW25113 strain from the environmental samples
- 15.00 15.15 Break
- 15.15 17.00 Lab work continues
- 18.30 Dinner at Hotel Concordia

Tuesday 25 April, 2023

Lab work	Phage Isolation Continued & Phage Immunity Assays
09.00 - 09.30	Picking plaques from the isolation plates and re-streaking
09.30 - 13.00	Immunity assays: <i>E. coli</i> BW25113 + pBR322-EcoRI and BW25113 transformed with pBR322-TA expression constructs vs BASEL phage collection
13.00 - 14.00	Lunch
Lectures	Chairperson: Toomas Mets
14.00 - 14.45	Using Bacteriophages to Control Plant Pathogenic Bacteria Ville Friman, University of Helsinki, Finland Biosketch on page 14
14.45 - 15.00	Questions & Discussion
15.00 - 15.15	Break
15.15 - 16.00	Bacterial CRISPR-Cas Immunity System Virginijus Šikšnys, Vilnius University, Lithuania Biosketch on page 15
16.00 - 16.15	Questions & Discussion
16.15 - 17.00	Phages, Engineered Phages and Phage Lysins: The Belgian Phage Valley Yves Briers, Ghent University, Belgium Biosketch on page 16
17.00 - 17.15	Questions & Discussion
18.30	Dinner at Hotel Concordia

Wednesday 26 April, 2023

Lab work	Phage Stocks, Titre, Confluence Plates & Escape Mutants
09.00 - 10.30	Preparation of the phage lysate (working stock) from isolated phages
10.30 - 12.00	Determination of the phage titre
12.00 - 13.00	Lunch
13.00 - 14.00	Phage escape mutant assay
Lectures	Chairperson: Marcus Johansson ——————————————————————————————————
14.00 - 14.45	Phages as Master Regulator of Nutrient Cycles in Aquatic Environments Karin Holmfeldt, Linnaeus University, Sweden Biosketch on page 17
14.45 - 15.00	Questions & Discussion
15.00 - 15.15	Break
15.15 - 16.00	Understanding the Molecular Interplay between Phages and Their Host Rob Lavigne, KU Leuven, Belgium Biosketch on page 18
16.00 - 16.15	Questions & Discussion
18.30	Dinner at Hotel Concordia

Thursday 27 April, 2023

Lab work	- Isolation of Escape Mutants Continued
09.00 - 10.30	Streaking the phage escape mutants into single plaques
Lectures	- Chairperson: Karin Ernits
10.30 - 11.15	Phage-Bacteria Interactions in Mucosal Conditions Gabriel Magno de Freitas Almeida, UiT The Arctic University of Norway, Norway Biosketch on <u>page 19</u>
11.15 - 11.30	Questions & Discussion
11.30 - 12.30	Lunch
12.30 - 13.15	Gene Sharing Networks Structure the Phage (Meta)Genomics Space Gipsi Lima-Mendez, University of Namur, Belgium Biosketch on page 20
13.15 - 13.30	Questions & Discussion
13.30 - 13.45	Break
13.45 - 14.30	Hundreds of Viral Families in the Human Gut Virome Shiraz Shah, COPSAC, Gentofte Hospital, Denmark Biosketch on <u>page 21</u>
14.30 - 14.45	Questions & Discussion
18.30	Dinner at Hotel Concordia

Friday 28 April, 2023

Lab work	 Verification of Phage Escape Mutants & Result Analysis
09.00 - 10.00	Working stocks of escape mutants and verification of the escape mutants with a spot assay - Data will be sent later
10.00 - 12.00	Discussion and data analysis of both the actual data and theoretical aspects of the course (oral examination) Vasili Hauryliuk, Lund University, Sweden

12.00 - 13.00 Lunch

 13.00 - 13.45
 Concluding remarks, course evaluation, and certificates

 https://forms.gle/Lx7GGHBX6wcEhk5H9



13.45 Departure



Addresses and Google map directions:

Lund Central Station: Hotel Concordia: University (biology building): Lunch spot (Moroten & Piskan): Botanical Garden:

Central Station to Hotel



Bangatan 1, 222 21 Lund Stålbrogatan 1, 222 24 Lund Sölvegatan 35, 223 62 Lund Sölvegatan 22B, 223 62 Lund Östra Vallgatan 20, 223 61 Lund

Hotel to University



University to Central Station

