# Old Herborn University Seminar 34

## THE BIOLOGICAL EMPIRE OF THE BACTERIOPHAGE

June 23, 2022 Hohe Schule, Herborn-Dill Germany

Presented by the Old Herborn University Foundation Herborn-Dill, Germany



## Old Herborn University

#### History

The Old Herborn University was founded in 1584 by William I. The Silent, Prince of Orange and Count of Nassau, and his brother, Count Johann VI. of Nassau-Dillenburg-Katzenelnbogen. The structure of the Schola Johannea was oriented at the organisation of the universities in Geneva and Strasbourg. In addition to a Schola privata, comparable to a college of our times, a Schola publica, the university, was built. Faculties in theology, philosophy, jurisprudence, and medicine were installed. As the first reformational university in Germany, the Alma Mater Johannea, the "Hohe Schule", did not only attract numerous students, among them Jan Amos Comenius, but also supported important scholars, as Althusius, Olevian, and Piscator. Many of such influential scholars exerted considerable effects upon historical developments in Germany, the Netherlands, Switzerland, England, eastern and northern Europe, and North America. The small town of Herborn in Nassau became well renowned throughout Europe during 1584 and 1630. War and political changes, however, reduced the importance of the academy more and more, until it was ordered to be closed by Napoleon in 1812 and consequently ceased to exist in 1817. The only remainder of the four faculties is a theological seminary, which now occupies the Castle of Herborn.



www.old-herborn-university.de

## **Old Herborn University Seminar**

In honour of the 400<sup>th</sup> anniversary of the Alma Mater Johannea an International Symposium on Intestinal Microecology was held at Herborn 1984. This special meeting initiated the revival of academic activities at the "Hohe Schule" in the medical field and life sciences. The remarkable symposium stimulated some distinguished ideas and generated the plan to install a series of seminars with a new scientific format at the Old Academy of Herborn.

The Old Herborn University Seminar series started in 1986 and became a splendid success recognized worldwide. The academic activities resulted in the establishment of an independant "Old Herborn University Foundation" in 2003. This non-profit institution is dedicated to the promotion of science and research, in the field of medicine, biomedical and life sciences, respectively. The 24<sup>th</sup> seminar on the "Development of Strategies to Overcome Barriers to Effective Mucosal Immunization of Infants in Developing Countries" in 2010 was supported by the Bill and Melinda Gates Foundation and PATH, a global health organization. The 2022 topic is "The Biological Empire of the Bacteriophage" reflecting a fascinating development in life sciences.

All information upon the Old Herborn University Foundation is accessible via internet, as well as all monographs subsequently published following the individual seminars.

## **Public Presentations**

## THE BIOLOGICAL EMPIRE OF THE BACTERIOPHAGE

## 34<sup>th</sup> Old Herborn University Seminar June 23, 2022

08:30 - 09:00	REGISTRATION
09:00 – 09:15	Introduction – A Short History of the Old Herborn University Volker Rusch
09:15	SESSION 1: BACTERIOPHAGES: MEDICAL APPLICATIONS Chairman: Peter Heidt
09:15 – 09:45	Bacteriophage Therapy: Clinical Experience and Current Developments Mzia Kutateladze
09:45 – 10:15	Getting Phages closer to Clinical Deployment; UTIs as an Important Need Martha Clokie
10:15 – 10:45	From Petri Dish to Patient: Mycobacteriophages and their Therapeutic Potential Graham Hatfull
10:45 – 11:15	COFFEE BREAK
11:15	SESSION 2: PHAGE-HOST INTERACTIONS Chairman: John Bienenstock
11:15 – 11:45	Bacteriophage at the Human/Bacterial Interface Paul Bollyky

## **Public Presentations**

11:45 – 12:15	Phage in a Cell: Proteomic, Transcriptomic, and Immune Responses of Mammalian Cells to Intracellular Phage Jeremy Barr
12:15 – 13:45	LUNCH
13:45	SESSION 2 CONTINUED: PHAGE-HOST INTERACTIONS
13:45 – 14:15	Gut Microbiome, Bacteriophages and Cognitive Function José-Manuel Fernández-Real
14:15	SESSION 3: PHAGE GENOMICS Chairman: Colin Hill
14:15 – 14:45	Turning <i>In Silico</i> Phage into <i>Real</i> Phage – the crAssphage Story Colin Hill
14:45 – 15:15	COFFEE BREAK
15:15 – 15:45	Pathogenicity Island Transduction and the Evolution of Bacterial Pathogens José Penades
15:45 – 16:15	General Discussion
16:15 – 16:45	Academic Ceremony
16:45 – 17:30	Courtyard Reception
20:00	DINNER

## **Executive Committee**

#### Prof. John Bienenstock, M.D.

Director The McMaster Brain-Body Institute St. Joseph's Healthcare Hamilton 50 Charlton Avenue East HAMILTON, ONTARIO L8N 4A6, CANADA

**Prof. Dr. Peter J. Heidt** Willem Alexander Children's Hospital Leiden University Medical Center Albinusdreef 2 2333 ZA LEIDEN, THE NETHERLANDS

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#### Richard I. Walker, Ph.D.

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### **Science Advisory Committee**

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Chair and Director Zoological Institute Interdisciplinary Centre "Kiel Life Science" Christian-Albrechts-University Kiel Am Botanischen Garten 1-9 D-24118 KIEL, GERMANY

## **Science Advisory Committee**

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#### Prof. Michael Zasloff, M.D., Ph.D.

Professor of Surgery and Pediatrics MedStar Georgetown Transplant Georgetown University Hospital 2 Main WASHINGTON, DC 20007, USA

## **OHUS Faculty 2022**

#### Jeremy Barr, Ph.D.

Head, Bacteriophage Biology Research Group Lecturer and Group Leader School of Biological Sciences, Bldg 18, Rm G06, Monash University CLAYTON VIC 3800, AUSTRALIA

#### Paul Bollyky, M.D., Ph.D.

Assistant Professor Div. Infectious Diseases, Department of Medicine Stanford University Medical Center 241 Beckman Building 300 Pasteur Drive STANFORD, CA 94305, USA

#### Prof. Dr. Martha Clokie

Professor of Microbiology Department of Genetics and Genome Biology University of Leicester, University Road LEICESTER, LE1 7RH, UK

#### Prof. José-Manuel Fernández-Real, M.D., Ph.D.

Department of Medical Sciences School of Medicine University of Girona Carrer Emili Grahit, 77 17003 GIRONA, SPAIN

## **OHUS Faculty 2022**

#### Prof. Graham Hatfull, Ph.D.

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#### Prof. Colin Hill, Ph.D.

APC Microbiome Ireland & School of Microbiology Biosciences Building University College Cork CORK, T12 K8AF, IRELAND

#### Dr. Mzia Kutateladze

Director, G. Eliava Institute of Bacteriophages, Microbiology and Virology 3 Levan Gotua Street, 0160 T'BILISI, GEORGIA

#### Prof. José R. Penades, D.V.M., Ph.D.

Professor of Microbiology Institute of Infection, Immunity & Inflammation College of Medical, Veterinary and Life Sciences University of Glasgow Sir Graeme Davies Building 120 University Place GLASGOW G12 8TA, UK

### **Contact and Information**

#### **Dorothee Moseley**

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#### www.old-herborn-university.de

## Travel

Herborn is located approximately 100 kilometers to the northwest of Frankfurt at the base of the Westwood Forest between Wetzlar and Siegen. Herborn is conveniently accessible by railway or Autobahn. The airport of Frankfurt offers worldwide airline connections. The airports Köln/Bonn and Düsseldorf provide further access.

For travel arrangements contact Wilma Jung Old Herborn University Foundation D 35727 Herborn-Dill, Germany Telephone +49 2772 921 100 Telefax +49 2772 921 101 wilma.jung@old-herborn-university.de

## Accommodation

Rooms have been reserved in different hotels in Herborn. To make your reservation, please indicate the prefered room reservation in the registration request form and mail to:

Old Herborn University Foundation, Postfach 1765 D 35727 Herborn-Dill, Germany

#### Hotels and other institutions of interest:

1 Old Herborn University Hotel/Restaurant Hohe Schule Telephone +49 2772 92790 Museum

- 2 Herborn Castle with Theological Seminary
- 3 Town Hall
- 4 Schloß Hotel
  - Telephone +49 2772 7060
- 5 Railway Station

## **Seminar Moderation**

Prof. John Bienenstock, M.D.

Director The McMaster Brain-Body Institute St. Joseph's Healthcare Hamilton 50 Charlton Avenue East HAMILTON, ONTARIO L8N 4A6, CANADA

**Prof. Dr. Peter J. Heidt** Willem Alexander Children's Hospital Leiden University Medical Center Albinusdreef 2 2333 ZA LEIDEN, THE NETHERLANDS

**Prof. Colin Hill, Ph.D.** APC Microbiome Ireland & School of Microbiology Biosciences Building University College Cork CORK T12 K8AF, IRELAND

## **Internal Discussion**

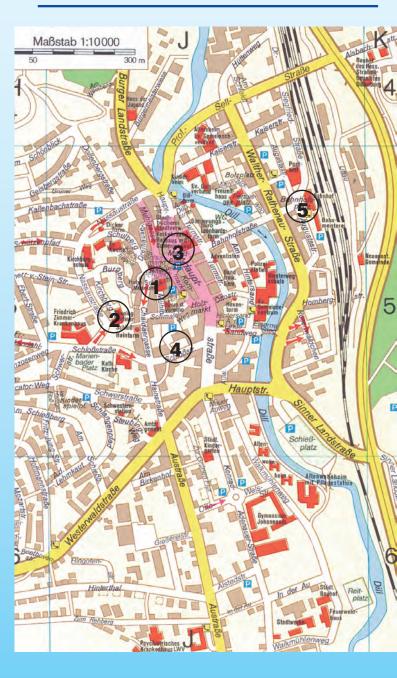
Structured discussion among the faculty only: "The Biological Empire of the Bacteriophage"

Seminar Discussion June 24, 2022

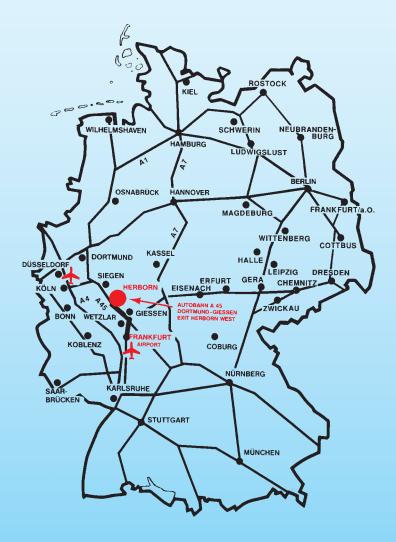


## Old Herborn University

## **Old Herborn University Foundation**



## **Location Germany**



#### Old Herborn University Seminar Public Presentation, June 23, 2022

Name				
Address				
EUR-Zip Code	City		US State	US Zip Code
Country			Postal Code	
Speciality		Degree		
Type of work				

The registration fee is € 100,-. Please remit payment with your registration. Make checks payable to Old Herborn University Foundation Postfach 1765 D-35727 Herborn-Dill, Germany

### **Hotel Accommodation**

Hotel single room	Hotel double room	
Arrival		
Departure		



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