



gegründet 1808

## **Societas physico-medica Erlangensis**



### **Vorstand:**

Prof. Dr. med. C. Bogdan  
Prof. Dr. Dr. h. c. W. Kalender, PhD  
Prof. Dr.-Ing. Dr. rer. med. U. Hoppe  
Prof. Dr. med. Dr. h. c. K.-H. Plattig

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## **Die Physikalisch-Medizinische Sozietät Erlangen**

lädt Sie zu folgendem Vortrag ein:

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### **Using Chemical Glycomics to Understand Infectious Diseases and to Create Vaccines Against Bacteria and Parasites: Malaria and Meningococci as Examples**

**Professor Dr. rer. nat. Peter H. Seeberger**

Max Planck Institute of Colloids and Interfaces, Department of Biomolecular Systems, Potsdam  
E-Mail: [peter.seeberger@mpikg.mpg.de](mailto:peter.seeberger@mpikg.mpg.de)

Every living cell is cloaked by carbohydrates. Cell surface saccharides allow cells to communicate and interact, present or hide, even defend themselves. Many infection pathways of viruses or bacteria are dependent on carbohydrate interactions with the host's target or immune cells. Understanding the role that carbohydrates play in many biological processes is of crucial importance to develop new drugs and therapeutic agents for the treatment of human diseases. Scientific advances in the field of automated oligosaccharide synthesis and carbohydrate arrays, allow many biological problems to be addressed. Professor Peter Seeberger will give an insight into his new automated oligosaccharide synthesis platform as well as an overview of a carbohydrate-based vaccine program which will test the response against more than 10 candidates including malaria, anthrax, and hospital acquired bacterial infections.

Peter Seeberger is Director at the Max Planck Institute of Colloids and Interfaces in Potsdam and Professor at the Free University of Berlin. In addition, he serves as Affiliate Professor at the Sanford-Burnham Institute for Medical Research (La Jolla, USA) and honorary Professor at the University of Potsdam. Dr. Seeberger studied chemistry and biochemistry in Erlangen and Boulder (USA). After completing his PhD in 1995 and performing research at the Sloan-Kettering Cancer Center in New York, he built an independent research program at MIT where he was promoted to Firmenich Associate Professor of Chemistry with tenure in 2002. After six years as Professor at the Swiss Federal Institute of Technology (ETH) Zurich, he returned to Germany as Director at the Max Planck Institute in Potsdam. Professor Seeberger's research on the chemistry and biology of carbohydrates, continuous flow chemistry and automation of chemistry, carbohydrate vaccine development and a broad range of topics from engineering to immunology has been documented in over 280 peer-reviewed journal articles, more than twenty patents, and over 570 invited lectures. Professor Seeberger, who serves as editor and on the editorial advisory boards of many journals, is one of the world's experts in glycomics and has received more than 25 international awards.

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**Mittwoch, 06. Juni, 17.15 Uhr**

(45 Minuten Vortrag plus Diskussion; **anschließend Jahresmitgliederversammlung der PhysicoMedica**)

### **Veranstaltungsort:**

**Seminarraum** des Instituts für Klinische Mikrobiologie, Immunologie und Hygiene, Wasserturmstraße 3/5, 1. Stock  
(Zugang: rückwärtiger Hörsaalzugang gegenüber der Orangerie)

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Für Rückfragen wenden Sie sich bitte an:

Prof. Dr. med. Christian Bogdan

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