

Public Symposium April 18-19, 2013

# Synthesizing Theoretical and Experimental Biology Today

This symposium is being held to commemorate eleven years of research conducted under the auspices of the Collaborative Research Centre (Sonderforschungsbereich) for Theoretical Biology. The primary goal of this consortium was to foster collaboration between theoretical and experimental biologists. All talks of our symposium have been designed to be instructive for a broad audience.

## Thursday, April 18

Chair of the afternoon session:

Martin Vingron, MPI Molecular Genetics Berlin

14:00 Welcome addresses

 14:30-15:00 **Theoretical biology – is it really helping empirical science?**  
 Peter Hammerstein, HU Berlin

 15:00-16:00 **Why are we always late? Biological clocks govern our daily life**  
 Achim Kramer & Hans-Peter Herzel, Charité Berlin

16:00 Coffee break

 16:30-17:30 **When drugs fail to work in cancer therapy – the ignored role of feedback**  
 Christine Sers & Nils Blüthgen, Charité Berlin

17:30 Break

18:00 Evening Lecture

**Getting the gift of gab – the evolution of speech**  
 Tecumseh Fitch, University of Vienna

## Friday, April 19

Chair of the morning session: Andreas Herz, LMU Munich

 9:00-10:00 **Economics in nature – the design principles of an efficient brain**  
 Simon Laughlin, University of Cambridge, UK

10:00 Coffee break

 10:30-11:30 **Where am I? A neural navigation system**  
 Michael Brecht & Richard Kempter, HU Berlin

 11:30 **How to keep cool in hot situations – lessons from the grasshopper auditory system**  
 Bernd Ronacher & Susanne Schreiber, HU Berlin

Chair of the afternoon session: Hermann-Georg Holzhütter, Charité Berlin

 14:30-15.30 **The immune system doesn't forget – but where is its memory?**  
 Andreas Radbruch, Deutsches Rheumaforschungszentrum, Berlin

15:30 Coffee break

 16:00-17:00 **When the guest becomes a pest – conflict between symbionts and their hosts**  
 John H. Werren & Peter Hammerstein, University of Rochester USA, Wissenschaftskolleg zu Berlin; HU Berlin

 17:00-18:00 **In at the finish - can theory make sense of old age?**  
 Tom Kirkwood, Newcastle University, UK

 18:00 **Final reflections on the interplay between theory and experimentation**  
 Adam Wilkins (HU Berlin)

Location: Akademiegebäude am Gendarmenmarkt, Leibniz-Saal, Markgrafenstrasse 38, 10117 Berlin-Mitte.

 Registration: Could those who are thinking of coming to the symposium please let us know by sending an email to Adam Wilkins at [wilkins316@btinternet.com](mailto:wilkins316@btinternet.com)

 Organized by  
 Peter Hammerstein,  
 the teams of the SFB 618  
 and Adam Wilkins