



# FROM MOLECULES TO CELLS

Kolloquium der molekularbiologisch-biochemisch arbeitenden Gruppen am Institut für  
Biologie der Humboldt-Universität zu Berlin

## ANTRITTSVORLESUNG

**Prof. Dr. Marc Erhardt**

Professur für Bakterienphysiologie am Institut für Biologie, HU

### **Regulation, self-assembly and protein export mechanisms of a bacterial nanomachine**

**Dienstag, den 28.11.2017, 16:15 Uhr  
Philippstr. 13 (Rhoda-Erdmann-Haus), Rm 1023**

**Gäste sind herzlich willkommen!**

#### Abstract:

Life has evolved diverse protein machines and bacteria provide many fascinating examples. Flagella are the primary organelles of motility in bacteria and enable movement towards nutrients and away from harmful substances, a process known as chemotaxis. Flagella-mediated motility is also important for many pathogens – including *Salmonella enterica* – and allows the bacteria to reach the site of infection, facilitate host-pathogen interactions, and promote biofilm formation. The bacterial flagellum is by far the most prominent extracellular structure known in bacteria and made through self-assembly of several tens of thousands individual building blocks. However, many questions concerning the regulation, organization and assembly of this remarkably complex motility organelle remain poorly understood. During the talk recent advances in our understanding of the genetic regulation, self-assembly and protein export mechanisms of this fascinating nanomachine will be highlighted.