Invitation

Two Professorial Inaugural Lectures

The Department of Biology invites you to two inaugural lectures and reception.

**Time:** Friday December 1st, 2017, 14:00 - 16:00  
**Venue:** Lundbeckfond Auditorium, Biocenter, Ole Maaløes Vej 5, 2200 Copenhagen

**PROGRAM**

- **14:00** Welcome by Head of Department Niels Kroer
- **14:10** Professor Guojie Zhang:  
  *A genomic perspective on the new synthesis of eco-evo-devo* (abstract on page 2)  
- **14:40** Professor Rasmus Hartmann-Petersen:  
  *How are cellular proteins degraded and why should we care?* (abstract on page 2)  
- **15:10** Reception

*All are welcome!*  

**DEPARTMENT OF BIOLOGY**
Abstracts

**A genomic perspective on the new synthesis of eco-evo-devo**

Evolutionary biologists are often fascinated by the rich diversity of creatures on earth for their extraordinary variations on morphology, physiology, and behavior. My main research interest has been on the biodiversity genomics.

The programs in my group include topics, 1) phylogenetic study for various animal groups with full genome data, 2) retracing the evolutionary history and genetic basis of complex traits, 3) inferring genetic mechanisms underlying animal speciation and adaptation, 4) constructing gene regulatory networks for the development and evolution of caste-system and social behavior in ants. In this talk, I will present some finished and on-going projects to demonstrate how novel insights on the general relationships between genes, development, environment, and natural selection can be achieved through the interface of eco-evo-devo by using large-scale comparative genomics.

**How are cellular proteins degraded and why should we care?**

In response to environmental stress conditions or as a consequence of mutations, proteins may lose their native conformation and misfold. Since such misfolded proteins represent a considerable threat to the health of cells, efficient protein quality control mechanisms have evolved that constantly scan the cells for misfolded proteins and target them for degradation via the ubiquitin-proteasome system. I will describe how my research group explores the function of the ubiquitin-proteasome system and its importance for a hereditary cancer predisposition disease.