

Advanced Lectures on "Gene Regulation, Epigenetics and Genome Stability" IMB, Seminar Room 2nd floor, Ackermannweg 4, Mainz

Exam: Friday, 16 August, 13:30-14:30

| | Monday, 12 August | Tuesday, 13 August | Wednesday, 14 August | Thursday, 15 August | Friday, 16 August |
|---------------|--|--|--|--|--|
| 09:00 - 09:45 | Introductory Lecture: Epigenetic mechanisms in development René Ketting | Introductory Lecture: DNA replication and repair Helle Ulrich | Introductory Lecture: Epigenetic mechanisms in evolution Susanne Foitzik | Introductory Lecture: Epigenetic mechanisms in disease Jens Marquardt | Introductory Lecture: Epigenetic control of gene expression Peter Baumann |
| 9:50 - 10:20 | Small RNA mediated control of gene expression René Ketting | How to replicate damaged DNA Helle Ulrich | The role of differential gene expression for the evolution and plasticity of social insects Susanne Foitzik | Epigenetics of cancer stem cells in solid tumors Jens Marquardt | The role of telomerase in aging and cancer Peter Baumann |
| 10:20 - 10:40 | | | Coffee Break | | |
| 10:40 - 11:10 | Genetic conflict and the origins of eukaryotic gene regulation Joan Barau | Mechanisms of protein quality control Anton Khmelinskii | Molecular regulation of division of labor in insect societies Romain Libbrecht | Fresh blood for the vertebrate globin family Tom Hankeln | DNA methylation and demethylation Lars Schomacher |
| 11:15 - 11:45 | Engineering of neurogenesis via lineage reprogramming Benedikt Berninger | Telomeres Falk Butter | Long-term memories in Drosophila melanogaster Roland Strauss | Can old cancer drugs be made smarter? Leszek Wojnowski | What does the Primary Cilium have to do with gene regulation? Helen May-Simera |
| 11:50 - 12:20 | The role of IL-17 in autoimmunity Ari Waisman | Outcomes of DNA damage in transcribed genes Andriy Khobta | Regulatory T cells: From epigenetics to metabolism and back Tim Sparwasser | Epigenetic dependencies in hematologic malignancies Michael Kühn | Symbioses as driving forces of evolutionary innovation Martin Kaltenpoth |

13:20-14:20: Introductory lectures into IMB Core Facilities

13:30-14:30: **Exam**