

Lecture Series with Tutorials – Frontiers in Bioscience 1 – Winter Semester 2011/2012

Locations: Lectures (Tuesday, Wednesday, Thursday) take place in the Lecture hall of Bioquant, INF 267

Tutorials (Friday, Monday) take place at: Zoology-INF 230, ZMBH, Bioquant (details will be announced)

Written Exam: 9. December 2011 (retake 10. January 2012)

Week 1

1 / 11.10. - 17.10.11 **Macromolecular Complexes / THE GENOME** coord. Clayton

Tue Introduction/Cell division Schiebel

Wed Cell division Schiebel

Thu Epigenetics Voit

Fr Tutorial Cell division

Mo Tutorial Epigenetics

Week 2

1 / 18.10. - 24.10.11 **Macromolecular Complexes / CONTROL OF GENE EXPRESSION** coord. Clayton

Tue Christine Clayton: Translation control and mRNA decay

Wed Sven Diederichs: Regulatory RNAs

Thu Georg Stoecklin: Splicing and mRNA export

Fr Tutorial

Mo Tutorial

Week 3

1 / 25.10. - 31.10.11 **Macromolecular Complexes / PROTEINS** coord. Bukau

Tue Chaperone machines Bukau

Wed Ubiquitin Melchior

Thu Oxidative folding and oxidative stress Dick

Fr Tutorial

Mo Tutorial

Week 4

1 / 2.11. - 7.11.11 **Dynamics of Cell Architecture / INTRACELLULAR TRANSPORT** coord. Nickel

Tue Bank Holiday

Wed Molecular machines in protein targeting: Nucleocytoplasmic transport Hurt

Thu Molecular machines in protein targeting: protein import into mitochondria Brunner

Fr Molecular machines in membrane trafficking: Biogenesis of intracellular transport vesicles (in Zoology)Wieland

Mo Molecular Mechanism of Membrane Fusion (in Zoology) Söllner

Week 5

1 / 8.11. - 14.11.11 **Macromolecular Complexes / MACROMOLECULAR MACHINES AND ORGANELLES** coord. Hell

Tue Transport and traffic in plant cells Schumacher

Wed Organelles and electron transport Rausch

Thu Redox signalling and metabolic adaptation Hell

Fr Tutorial

MO Tutorial

Private Study