

A) CELL CYCLE & DIVISION

Δευτέρα, 16 Νοέμβριος 2020

10:00-13:00

G. Zachos

Cell cycle checkpoints in vertebrate cells

- The cell cycle control system: cell cycle checkpoints
- The DNA damage and DNA replication checkpoints
- The mitotic spindle checkpoint
- DNA bridges and the abscission checkpoint

B) CELL ORGANIZATION AND TRANSPORT

Τετάρτη, 18 Νοέμβριος 2020

10:00-13:00

P. Theodoropoulos

Nuclear envelope. Nuclear pore structure and nucleo-cytoplasmic transport
Nuclear envelope composition, organization and dynamics
Nuclear pore composition and structure
Nucleo-cytoplasmic transport

Πέμπτη, 19 Νοέμβριος 2020

10:00-12:00

George Dhallinas, University of Athens

Fungi as emerging model systems for protein trafficking
Membrane cargo trafficking, endocytosis and turnover
The unconventional Golgi-bypass of plasma membrane transporters

13:00-15:00

C. Delidakis

Mechanisms of endocytosis and endosome trafficking
mechanisms of endocytosis at the plasma membrane
endosome sorting and cargo trafficking
examples of regulated cargo trafficking (signalling molecules and nutrient transporters)

Παρασκευή, 20 Νοέμβριος 2020

10:00-12:00

P. Moschou

Animal vs Plant cells
Differences in cell organization
Cytoskeleton dynamics
Membrane dynamics

C) THE NERVE CELL: PROPERTIES AND MODELS – NEURODEGENERATION

13:00-15:00

K. Sidiropoulou

- a) Nerve cells: Types, properties, function
- b) Membrane potential, Action potential initiation and propagator
- c) Ion channels

Δευτέρα, 23 Νοέμβριος 2020

10:00-12:00

D. Karageorgos

Myelin and proteins involved in the function and architecture of myelinated fibers.

13:00-15:00

M. Monastirioti

Transmitters and Transmitter release (presynaptic release machinery)
Chemical synapse (Pre- and Post-synaptic sites)

Τρίτη, 24 Νοέμβριος 2020

10:00-12:00

M. Monastirioti

Metabotropic transmitter receptors
Second messenger systems

Τετάρτη, 25 Νοέμβριος 2020

14:00-16:00

K. Sidiropoulou

- a) Electrical/chemical synapses
- b) Transmitter receptors with a focus on ionotropic receptor
- c) Signal integration

D) IMMUNOLOGY-INFLAMMATION-AGING

Πέμπτη, 26 Νοέμβριος 2020

10:00-12:00

I. Athanassakis

- a) Extracellular and intracellular antigens - Antigen processing
- b) Recognition of class I/antigen and class II/antigen complexes by T cells

Παρασκευή, 27 Νοεμβρίου 2020

11:00-13:00

N. Tavernarakis

- a) Mitochondria biogenesis, maintenance and elimination.
- b) Mitochondria in ageing.
- c) Mitochondria in neurodegeneration.

PART II - ORAL EXAMS (PAPER PRESENTATIONS)

Δευτέρα 30 Νοεμβρίου 2020

9:30 – 10:30 Zachos 2 papers
11:00 – 11:30 Karagogeos 1 paper
12:00 – 13:00 Theodoropoulos 2 papers
13:30 – 14:30 Moschou 2 papers

Τρίτη 1 Δεκεμβρίου 2020

9:30-10:30 Athanassakis 2 papers
11:00 – 11:30 Tavernarakis 1 paper (Maria Markaki)
12:00 – 13:00 Sidiropoulou 2 papers
13:30 – 14:00 Delidakis 1 paper
14:30 – 15:00 Monastirioti 1 paper

PART III - WRITTEN EXAM (open books)

Δευτέρα, 7 Δεκέμβριος 2020

10:00 - 13:00