

## BIO1404: "Cellular organization of life" 2021

<b>A) CELL CYCLE &amp; DIVISION</b>	
<b>Δευτέρα, 15 Νοέμβριος 2021</b>	
<b>10:00-13:00</b>	<b>G. Zachos (Ροτόντα τρίτου ορόφου Τμήματος Βιολογίας)</b>
	<u>Cell cycle checkpoints in vertebrate cells</u>
	<ul style="list-style-type: none"> <li>· The cell cycle control system: cell cycle checkpoints</li> <li>· The DNA damage and DNA replication checkpoints</li> <li>· The mitotic spindle checkpoint</li> <li>· DNA bridges and the abscission checkpoint</li> </ul>
<b>B) CELL ORGANIZATION AND TRANSPORT</b>	-
<b>Τρίτη, 16 Νοέμβριος 2021</b>	
<b>10:00-13:00</b>	<b>P. Theodoropoulos (Ροτόντα τρίτου ορόφου Τμήματος Βιολογίας)</b>
	Nuclear envelope. Nuclear pore structure and nucleo-cytoplasmic transport
	Nuclear envelope composition, organization and dynamics
	Nuclear pore composition and structure
	Nucleo-cytoplasmic transport
<b>14:00-16:00</b>	<b>C. Delidakis</b>
	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)
<b>Παρασκευή, 19 Νοέμβριος 2021</b>	
<b>10:00-12:00</b>	<b>P. Moschou (Μέσω ZOOM)</b>
	Animal vs Plant cells
	Differences in cell organization
	Cytoskeleton dynamics
	Membrane dynamics

<b>C) THE NERVE CELL: PROPERTIES AND MODELS – NEURODEGENERATION</b>	
<b>15:00-17:00</b>	<b>K. Sidiropoulou (Μέσω ZOOM)</b>
	a) Nerve cells: Types, properties, function
	b) Membrane potential, Action potential initiation and propagation
	c) Ion channels
<b>Δευτέρα, 22 Νοέμβριος 2021</b>	
<b>10:00-12:00</b>	<b>D. Karagozeos (Ροτόντα τρίτου ορόφου Τμήματος Βιολογίας)</b>
	Myelin and proteins involved in the function and architecture of myelinated fibers.
<b>13:00-15:00</b>	<b>M. Monastirioti (Ροτόντα τρίτου ορόφου Τμήματος Βιολογίας)</b>
	Transmitters and Transmitter release (presynaptic release machinery)
	Chemical synapse ( Pre- and Post-synaptic sites)
<b>Τρίτη, 23 Νοέμβριος 2021</b>	-
<b>11:30-13:30</b>	<b>M. Monastirioti (Μέσω ZOOM)</b>
	Metabotropic transmitter receptors
	Second messenger systems
<b>15:00-17:00</b>	<b>K. Sidiropoulou (Μέσω ZOOM)</b>
	a) Electrical/chemical synapses
	b) Transmitter receptors with a focus on ionotropic receptors
	c) Signal integration
<b>Τετάρτη, 24 Νοέμβριος 2021</b>	
<b>13:00-15:00</b>	<b>George Diallinas, University of Athens (μέσω ZOOM)</b>
	Fungi as emerging model systems for protein trafficking

	Membrane cargo trafficking, endocytosis and turnover
	The unconventional Golgi-bypass of plasma membrane transporters
<b>D) IMMUNOLOGY-INFLAMMATION-AGING</b>	
<b>Πέμπτη, 25 Νοέμβριος 2021</b>	<b>I. Athanassakis (μέσω ZOOM)</b>
<b>10:00-12:00</b>	a) Extracellular and intracellular antigens - Antigen processing
	b) Recognition of class I/antigen and class II/antigen complexes by T cells
<b>E) CANCER BIOLOGY</b>	
<b>Παρασκευή, 26 Νοέμβριος 2021</b>	<b>Ioanna Keklikoglou (μέσω ZOOM)</b>
<b>10:30-12:30</b>	Targeting the hallmarks of cancer
	- Introduction to cancer biology and complexity
	- Introduction to the hallmarks of cancer
	- Combinatorial targeting approaches to overcome therapy resistance
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<b>PART II - ORAL EXAMS (PAPER PRESENTATIONS) Ροτόντα τρίτου ορόφου Τμήματος Βιολογίας</b>	-
<b>Δευτέρα, 29 Νοέμβριος 2021</b>	
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
<b>Τρίτη, 30 Νοέμβριος 2021</b>	
9:30-10:30	Athanassakis 2 papers
11:00 – 12:00	Sidiropoulou 2 papers

12:30 – 13:30	Delidakis 2 papers
14:00 – 15:00	Monastirioti 2 papers
<b>PART III - WRITTEN EXAM (open books)</b>	<b>(Ροτόντα τρίτου ορόφου Τμήματος Βιολογίας)</b>
<b>Δευτέρα, 6 Δεκέμβριος 2021</b>	
10:00 - 13:00	