

## Program of pregradual education, Study year 2019/2020

### Molecular pathophysiology, 3rd study year Molecular pathophysiology, 4th study year

Study program: General medicine ; Study period: 6. Semester

Category of the subject: elective ; Range of courses: 14 h/ semester; Study form: **Lectures**

Venue: Department of Pathophysiology, 8th floor, 2nd section;

Form of graduation: exam; Credits: 2

*Terms are preliminary and based on the current students registered in elective course.  
Registered students have to visit the department to fix any further requirements.*

	Date	Time	Lecture	Lecturer
1.	28. 2. 2020 Friday	14:00 – 15:30 2 h	Molecular endocrinology – Cellular signaling 1	Doc. MUDr. R. Beňačka, CSc., mim. prof.
2.	<del>(13.3.2020)</del> DS	(13:30 – 16:15)	Cellular signaling 2, Cell cycle, Cell stress	Doc. MUDr. R. Beňačka, CSc., mim. prof.
3.	<del>(27.3.2020)</del> DS	(14:00 – 15:30)	Oxidative damage of cells and tissues; redox homeostasis	MVDr. E. Lovásová, PhD
4.	<del>(03.4.2020)</del> DS	(13:30 – 16:30)	Molecular basis of acute, chronic inflammation & healing	Doc. MUDr. R. Beňačka, CSc., mim. prof.
5.	<del>(24.4.202)</del> DS	(14:00 – 15:30)	Molecular genetics, epigenetics	Doc. MUDr. O. Rácz, CSc., mim. prof.
6.	<del>(15.5.2020)</del> DS	(13:30 – 15:45)	Molecular carcinogenesis <b>Credit seminar</b>	Doc. MUDr. R. Beňačka, CSc., mim.prof.

By the dean order all formerly planned lectures are to be done via distant study (DS) at least until 13.4.2020 and further. All registered student for a course should immediately contact a garant of the subject: roman.benacka@upjs.sk via e mail communication. Lectures will be available on the external web page of the Department of Pathophysiology in Košice, Slovakia. Section Molecular Pathophysiology: <http://patfyz.medic.upjs.sk/estudmat.htm>. Further updates based on situation will be given in due time. Further duties for home study will be provided to students via email. Students have to confirm their participation on distant study via email on Friday on that week when the lectures were planned.

- Presented as tutorial lectures with discussion to given topics
- Attendance of students in the lectures is required for the credit

Updated 20.3. 2020

#### Recommended resources for individual study and provided by teachers :

1. Materials from the presentations; lectures/handouts
2. Basic of cell signaling. [http://www.wiley-vch.de/books/sample/3527313974\\_c01.pdf](http://www.wiley-vch.de/books/sample/3527313974_c01.pdf), 20.2.2016
3. Cell signaling: <http://www.physiology.sdu.edu.cn/Medical%20Books/cell%20signal%20biology/module%20%20cell%20signaling%20pathways.pdf>
4. Reactive oxygen species. [https://en.wikipedia.org/wiki/Reactive\\_oxygen\\_species](https://en.wikipedia.org/wiki/Reactive_oxygen_species)
5. Oxidative stress. [https://en.wikipedia.org/wiki/Oxidative\\_stress](https://en.wikipedia.org/wiki/Oxidative_stress)
6. Kumar, V. Abbas, A.K., Aster, J.C. Fausto, N.: Robbins & Cotran Pathologic Basis of Disease. Online Access, 8<sup>th</sup> Ed, Saunders, 1464 p., ( ISBN-10: 1416031219)
7. Stryer, D.S., Rubin, E., Saffitz, J, E., Schille, A.L. (Ed.): Rubin's Pathology: clinicopathologic foundations of medicine. LWW, 7<sup>th</sup> Ed., 1464 p., ( ISBN-10: 1605479683)

#### Other interesting resources used in the education:

8. Runge, M. S., Patterson, C. (Ed.): Principles of molecular medicine. 2.ed., Humana Press, New Jersey, 2006, 1304 s., ISBN-10: 1588292029 (chosen chapters)
9. Lang, F. (Ed.): Encyclopedia of Molecular Mechanisms of Disease. Springer, Berlin, 2009, 766 s. (ISBN-10: 3540671366)

Košice, 14.2. 2020

  
Doc. MUDr. Roman Beňačka, CSc., m. prof.