

Faculty of Medicine in Rijeka

**Curriculum
2023/2024**

For course

**Regulacija rasta i diobe stanica u fiziološkim i
patološkim uvjetima**

Study program:	Medicina (R) (elective) University integrated undergraduate and graduate study
Department:	Department of Molecular Medicine and Biotechnology
Course coordinator:	prof. dr. sc. Volarević Siniša, dr. med.
Year of study:	3
ECTS:	1.5
Incentive ECTS:	0 (0.00%)
Foreign language:	No

Course information:

Upoznati studente s najnovijim spoznajama o regulaciji rasta i diobe stanice na molekularnoj razini. Rast i dioba stanice su temeljni biološki fenomeni koji imaju presudnu ulogu u regulaciji brojnih fizioloških procesa, a njihova poremećena regulacija može dovesti do velikog broja patoloških stanja kao što su razvojni anomalije, maligne bolesti, metaboličke bolesti itd. Studenti će biti upoznati i s implikacijama ovih spoznaja na razvoj novijih dijagnostičkih i terapijskih postupaka u budućnosti.

List of assigned reading:

Lodish H., Berk A., Zipursky S.L., Matsudaira P., Baltimore D., Darnell J.E. (1999) Molecular Cell Biology. 4th edition, W H Freeman & Co (Poglavlja 20 i 24)

List of optional reading:

1. Alberts B., Bray D., Lewis J., Raff M., Roberts K., Watson J.D. (1994) Molecular Biology of the Cell. 3rd edition, Garland Publishing, Inc., New York & London (Poglavlja 15 i 17)
2. Veliki broj originalnih i preglednih članaka

Curriculum:

Seminars list (with titles and explanation):

Definicija pojmova rasta i diobe stanice

Rast i dioba stanice

Receptori i ligandi koji reguliraju rast i diobu stanice

Receptori i ligandi koji reguliraju rast i diobu stanice

PI3K-TOR signalni put (1. dio)

PI3K-TOR signalni put (1. dio)

PI3K-TOR signalni put (2. dio)

PI3K-TOR signalni put (2. dio)

Ostali signalni putevi koji reguliraju rast i diobu stanice (1. dio)

Ostali signalni putevi koji reguliraju rast i diobu stanice (1. dio)

Ostali signalni putevi koji reguliraju rast i diobu stanice (2. dio)

Ostali signalni putevi koji reguliraju rast i diobu stanice (2. dio)

Regulacija staničnog diobenog ciklusa

Regulacija staničnog diobenog ciklusa

Kontrolni mehanizmi staničnog diobenog ciklusa (1. dio)

Kontrolni mehanizmi staničnog diobenog ciklusa (1. dio)

Kontrolni mehanizmi staničnog diobenog ciklusa (2. dio)

Kontrolni mehanizmi staničnog diobenog ciklusa (2. dio)

Tumorski supresor p53

Tumorski supresor p53

Poremećaji rasta stanice

Poremećaji rasta stanice

Poremećaji rasta i diobe stanice

Poremećaji rasta i diobe stanice

Student obligations:

Pohađanje nastave, aktivnost na nastavi, seminarski rad, kontinuirana provjera znanja i usmeni ispit.

Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, grading criteria):

70% prisutnosti na nastavi.

Other notes (related to the course) important for students:

SADRŽAJ KOLEGIJA

1. Definicija pojmova rasta i diobe stanice
2. Receptori i ligandi koji reguliraju rast i diobu stanice
3. PI3K-TOR signalni put (1. dio)
4. PI3K-TOR signalni put (2. dio)
5. Ostali signalni putevi koji reguliraju rast i diobu stanice (1. dio)
6. Ostali signalni putevi koji reguliraju rast i diobu stanice (2. dio)
7. Regulacija staničnog diobenog ciklusa
8. Kontrolni mehanizmi staničnog diobenog ciklusa (1. dio)
9. Kontrolni mehanizmi staničnog diobenog ciklusa (2. dio)
10. Tumorski supresor p53
11. Poremećaji rasta stanice
12. Poremećaji rasta i diobe stanice

COURSE HOURS 2023/2024

Regulacija rasta i diobe stanica u fiziološkim i patološkim uvjetima

Seminars (Place and time or group)
11.12.2023
Definicija pojmova rasta i diobe stanice: • Department of Molecular Medicine and Biotechnology - library (14:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
Receptori i ligandi koji reguliraju rast i diobu stanice: • Department of Molecular Medicine and Biotechnology - library (14:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
PI3K-TOR signalni put (1. dio): • Department of Molecular Medicine and Biotechnology - library (14:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
PI3K-TOR signalni put (2. dio): • Department of Molecular Medicine and Biotechnology - library (14:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
prof. dr. sc. Volarević Siniša, dr. med. ^[154]
14.12.2023
Ostali signalni putevi koji reguliraju rast i diobu stanice (1. dio): • Department of Molecular Medicine and Biotechnology - library (15:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
Ostali signalni putevi koji reguliraju rast i diobu stanice (2. dio): • Department of Molecular Medicine and Biotechnology - library (15:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
prof. dr. sc. Volarević Siniša, dr. med. ^[154]
15.12.2023
Regulacija staničnog diobenog ciklusa: • Department of Molecular Medicine and Biotechnology - library (14:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
Kontrolni mehanizmi staničnog diobenog ciklusa (1. dio): • Department of Molecular Medicine and Biotechnology - library (14:15 - 19:00) ^[154] ◦ Regulacija rasta 2022/2023
prof. dr. sc. Volarević Siniša, dr. med. ^[154]
20.12.2023
Kontrolni mehanizmi staničnog diobenog ciklusa (2. dio): • Department of Molecular Medicine and Biotechnology - library (14:00 - 20:00) ^[154] ◦ Regulacija rasta 2022/2023
Tumorski supresor p53: • Department of Molecular Medicine and Biotechnology - library (14:00 - 20:00) ^[154] ◦ Regulacija rasta 2022/2023
Poremećaji rasta stanice: • Department of Molecular Medicine and Biotechnology - library (14:00 - 20:00) ^[154] ◦ Regulacija rasta 2022/2023
Poremećaji rasta i diobe stanice: • Department of Molecular Medicine and Biotechnology - library (14:00 - 20:00) ^[154] ◦ Regulacija rasta 2022/2023

List of lectures, seminars and practicals:

SEMINARS (TOPIC)	Number of hours	Location
Definicija pojmova rasta i diobe stanice	3	Department of Molecular Medicine and Biotechnology - library
Receptori i ligandi koji reguliraju rast i diobu stanice	2	Department of Molecular Medicine and Biotechnology - library
PI3K-TOR signalni put (1. dio)	2	Department of Molecular Medicine and Biotechnology - library
PI3K-TOR signalni put (2. dio)	2	Department of Molecular Medicine and Biotechnology - library
Ostali signalni putevi koji reguliraju rast i diobu stanice (1. dio)	2	Department of Molecular Medicine and Biotechnology - library
Ostali signalni putevi koji reguliraju rast i diobu stanice (2. dio)	2	Department of Molecular Medicine and Biotechnology - library
Regulacija staničnog diobenog ciklusa	2	Department of Molecular Medicine and Biotechnology - library
Kontrolni mehanizmi staničnog diobenog ciklusa (1. dio)	2	Department of Molecular Medicine and Biotechnology - library
Kontrolni mehanizmi staničnog diobenog ciklusa (2. dio)	2	Department of Molecular Medicine and Biotechnology - library
Tumorski supresor p53	2	Department of Molecular Medicine and Biotechnology - library
Poremećaji rasta stanice	2	Department of Molecular Medicine and Biotechnology - library
Poremećaji rasta i diobe stanice	2	Department of Molecular Medicine and Biotechnology - library

EXAM DATES (final exam):
