

Faculty of Medicine in Rijeka

**Curriculum
2025/2026**

For course

Animal Models of Human Diseases

Study program: **Medical Studies in English (R)** (elective)
University integrated undergraduate and graduate study
Department: **Department of Histology and Embryology**
Course coordinator: **prof. dr. sc. Polić Bojan, dr. med.**

Year of study: **4**
ECTS: **1.5**
Incentive ECTS: **0 (0.00%)**
Foreign language: **Possibility of teaching in a foreign language**

Course information:

Osnovni cilj je upoznati studente s kreiranjem animalnih modela humanih bolesti (infektivnih i genetskih) i s eksperimentalnim pristupom u izučavanju pojedinih molekularnih mehanizama *in vivo* važnih za nastanak bolesti. Jedan od osnovnih zadataka ovoga izbornoga kolegija jest integracija dosadašnjih predkliničkih i kliničkih znanja studenata s osvrtom na važnost eksperimentalnog pristupa u razvoju biomedicine. Planirani izhod kolegija je da se studenti upoznaju s čitavim nizom relevantnih eksperimentalnih modela humanih bolesti i suvremenim trendovima u biomedicini

List of assigned reading:

Cooper G.M i Hausman R.E.: Stanica., , Medicinska naklada Zagreb, Stručni urednik hrvatskog izdanja: Prof. dr. sc. Gordan Lauc, odabrana poglavlja.

List of optional reading:

Relevantni izvorni i pregledni znanstveni radovi.

Curriculum:

Lectures list (with titles and explanation):

P1 Ingroduction into mouse models

P2. Generation of genetically modified mice

P3. Maintenance and health monitoring of laboratory mice in an SPF facility

P4 Mouse models for metabolic diseases

Mouse models for viral infections

Seminars list (with titles and explanation):

Animal models of MASLD

Animal models for obesity and diabetes

Developoment of CMV based vaccines

Development of CAR-based therapy

Development of immune check point inhibitors

Animal models for allergy

Viral infections and diabetes

Student obligations:

Studenti su dužni redovito pohađati nastavu. Dopušteno je do 30% opravdanog izostanka sa nastave.

Predviđeno je da tijekom seminara studenti prezentiraju pojedine radove iz recentne znanstvene literature te da se potiče rasprava po pojedinim temama.

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

Nazočnost na nastavi (predavanja i seminari) te izvršena prezentacija jedne zadane teme.

Ocjenjivanje studenata će biti kontinuirano po načelu 70% bodova tijekom nastave, a 30% bodova na završnom ispitu. Na nastavi student može zaraditi 5% bodova redovitim prisustvom na nastavi, 15% bodova aktivnošću na seminarima te 50% bodova seminarskim radom. Uvjet za pristup ispitu je najmanje 35% ukupnih bodova sakupljenih tijekom nastave. Završni ispit će se polagati testom (30% bodova).

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

Aktivnost studenata će biti kontinuirano praćena i ocjenjivana. Također, biti će nadziran i rad suradnika tijekom izvedbe nastave. Uspjesi na ispitima će biti pomno analizirani. Studenti će nakon odslušane nastave ispuniti anonimnu anketu o njihovom viđenu sadržaja i izvedbe nastave.

COURSE HOURS 2025/2026

Animal Models of Human Diseases

Lectures (Place and time or group)	Seminars (Place and time or group)
22.05.2026	
P1 Ingroduction into mouse models: • ONLINE (17:15 - 18:00) ^[145] ◦ AMHD P2. Generation of genetically modified mice: • ONLINE (18:00 - 18:45) ^[145] ◦ AMHD P3. Maintenance and health monitoring of laboratory mice in an SPF facility: • ONLINE (19:00 - 19:45) ^[145] ◦ AMHD	
prof. dr. sc. Polić Bojan, dr. med. ^[145]	
28.05.2026	
P4 Mouse models for metabolic diseases: • ONLINE (13:15 - 14:00) ^[145] ◦ AMHD	Animal models of MASLD: • ONLINE (14:00 - 16:15) ^[145] ◦ AMHD Viral infections and diabetes: • ONLINE (16:15 - 18:30) ^[145] ◦ AMHD Development of CAR-based therapy: • ONLINE (18:30 - 20:00) ^[145] ◦ AMHD
prof. dr. sc. Polić Bojan, dr. med. ^[145]	
29.05.2026	
Mouse models for viral infections: • ONLINE (11:15 - 12:00) ^[145] ◦ AMHD	Development of immune check point inhibitors: • ONLINE (12:00 - 14:15) ^[145] ◦ AMHD Developoment of CMV based vaccines: • ONLINE (14:15 - 16:30) ^[145] ◦ AMHD Animal models for allergy: • ONLINE (16:30 - 18:45) ^[145] ◦ AMHD Viral infections and diabetes: • ONLINE (18:45 - 20:15) ^[145] ◦ AMHD
prof. dr. sc. Polić Bojan, dr. med. ^[145]	

List of lectures, seminars and practicals:

LECTURES (TOPIC)	Number of hours	Location
P1 Ingroduction into mouse models	1	ONLINE
P2. Generation of genetically modified mice	1	ONLINE

P3. Maintenance and health monitoring of laboratory mice in an SPF facility	1	ONLINE
P4 Mouse models for metabolic diseases	1	ONLINE
Mouse models for viral infections	1	ONLINE

SEMINARS (TOPIC)	Number of hours	Location
Animal models of MASLD	3	ONLINE
Animal models for obesity and diabetes	3	
Development of CMV based vaccines	3	ONLINE
Development of CAR-based therapy	3	ONLINE
Development of immune check point inhibitors	3	ONLINE
Animal models for allergy	3	ONLINE
Viral infections and diabetes	2	ONLINE

EXAM DATES (final exam):
