# Host-Pathogen Interactions (Elective Course in MHS / Videregående Medicinalbiologi)

Title	Host-Pathogen Interactions (Elective Course in MHS / Videregående Medicinalbiologi)
Semester	F2024
Master programme in	Medicinal biologi / Chemical Biology / Molecular Health Science
Type of activity	Course
Teaching language	English
Study regulation	Read about the Master Programme and find the Study Regulations at ruc.dk
	Læs mere om uddannelsen og find din studieordning på <u>ruc.dk</u>

#### REGISTRATION AND STUDY ADMINISTRATIVE

Registration

Sign up for study activities at  $\underline{\mathsf{stads}}$  selvbetjening within the announced registration period, as you can see on the  $\underline{\mathsf{Studyadministration}}$  homepage.

When signing up for study activities, please be aware of potential conflicts between study activities or exam dates.

The planning of activities at Roskilde University is based on the recommended study programs which do not overlap. However, if you choose optional courses and/or study plans that goes beyond the recommended study programs, an overlap of lectures or exam dates may occur depending on which courses you choose.

Number of participants

The Master Programme/Institute reserves the right to cancel the course if fewer than 8 studentes are registered for the course.

ECTS

5

Responsible for the activity

Lotte Jelsbak (<u>ljelsbak@ruc.dk</u>) Karen Angeliki Krogfelt (<u>karenak@ruc.dk</u>)

Head of study

Lotte Jelsbak (<u>ljelsbak@ruc.dk</u>)

Teachers

Study administration

INM Registration & Exams (inm-exams@ruc.dk)

Exam code(s)

U60183

#### ACADEMIC CONTENT

# Overall objective

The aim of the course is to introduce the basic molecular and cellular mechanisms involved in host-pathogen interactions and infectious disease.

# Detailed description of content

The course consists of a mixture of lectures and colloquia with student presentations of research papers, discussions of scientific literature, and may involve group work and peer-feddback.

It is organized around a number of themes within microbial pathogen host-interactions that may be Quorum-sensing, biofilm, virulence mechanisms, microbiome in health and disease, chronic infections, treatment of bacterial infections, antimicrobial resistance.

#### Course material and Reading list

Scientific peer-reviewed literature (Research papers) and overview/review literature (Review papers).

See Moodle for details

# Overall plan and expected work effort

5 ECTS corresponds to 135 hours

- Lectures 16 hrs
- Colloquia 16 hrs
- Preparation 103 hrs
- Total 135 hrs

#### Format

# Evaluation and feedback

The course includes formative evaluation based on dialogue between the students and the teacher(s).

Students are expected to provide constructive critique, feedback and viewpoints during the course if it is needed for the course to have better quality. Every other year at the end of the course, there will also be an evaluation through a questionnaire in SurveyXact. The Study Board will handle all evaluations along with any comments from the course responsible teacher.

Furthermore, students can, in accordance with RUCs 'feel free to state your views' strategy through their representatives at the study board, send evaluations, comments or insights form the course to the study board during or after the course.

#### Programme

Detailed program will be available in Moodle.

#### ASSESSMENT

# Overall learning outcomes

After completing the course, the students will be able to:

- describe physiological processes and pathological mechanisms in relation to selected infectious diseases and treatment of these
- discuss key issues and research in specific areas of hostpathogen interactions
- extract relevant knowledge from scientific review articles

- critically analyze new original scientific literature, including interpret and assess of experimental data and hypotheses within the subject area of the course
- give oral presentations to fellow students of scientific hypotheses, results and interpretations
- disseminate knowledge from scientific review articles in a clear and comprehensible manner in accordance with scientific requirements and standards
- reflect on the latest scientific hypotheses and experiments within the infectious disease field
- set up a relevant problem and formulate a testable hypothesis, as a starting point for a thesis project related to the course's academic area

# Form of examination

The course is passed through active, regular attendance and satisfactory participation.

Active participation is defined as:

The student must participate in course related activities (e.g. workshops, seminars, field excursions, process study groups, working conferences, supervision groups, feedback sessions).

Regular attendance is defined as:

- The student must be present for minimum 80 percent of the lessons.

Satisfactory participation is defined as:

- e.g. oral presentations (individually or in a group), peer reviews, mini projects, test, planning of a course session .

Assessment: Pass/Fail.

#### Form of Reexamination

Individual written take-home assignment

The character limit of the assignment is: 24,000-48,000 characters, including spaces.

The character limit includes the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices.

The duration of the take-home assignment is 7 days and may include weekends and public holidays.

Assessment: Pass/Fail.

Type of examination in special cases

Examination and assessment criteria

Satisfactory participation is defined as (1) orally presenting and discussing at least 3 research-papers, (2) through active participation in discussions of presented papers, and (3) by preparing and providing constructive feedback to at least 3 research papers presented by other students.

Students will be assessed by their ability to

 describe physiological processes and pathological mechanisms in relation to selected infectious diseases and treatment of these.

- discuss key issues and research in specific areas of hostpathogen interactions
- extract relevant knowledge from scientific review articles
- critically analyze new original scientific literature, including interpret and assess of experimental data and hypotheses within the subject area of the course
- give oral presentations to fellow students of scientific hypotheses, results and interpretations
- disseminate knowledge from scientific review articles in a clear and comprehensible manner in accordance with scientific requirements and standards

students will for the re-exam

Do a Individual written take-home assignment

the students will be assessed by the same assessment criteria as to the ordinary exam and furthermore have to live up til formel requirements

The character limit of the assignment is: 24,000-48,000 characters, including spaces.

The character limit includes the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices.

Exam code(s) Exam code(s): U60183

#### Course days:

#### Hold: 1

### **Host-Pathogen Interactions (MHS)**

time 19-03-2024 12:15 til 19-03-2024 14:00

forberedelsesnorm ikke valgt forberedelsesnorm D-VIP ikke valgt

location 07.1-061 - undervisningslokale (30)

Teacher Karen Angeliki Krogfelt ( karenak@ruc.dk )

### **Host-Pathogen Interactions (MHS)**

time 21-03-2024 10:15 til

21-03-2024 12:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 07.1-061 - undervisningslokale (30)

Teacher Karen Angeliki Krogfelt (karenak@ruc.dk)

### **Host-Pathogen Interactions (MHS)**

time 02-04-2024 12:15 til

02-04-2024 14:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 07.1-061 - undervisningslokale (30)

Teacher Lotte Jelsbak ( ljelsbak@ruc.dk )

# **Host-Pathogen Interactions (MHS)**

time 09-04-2024 12:15 til

09-04-2024 16:00

forberedelsesnorm ikke valgt forberedelsesnorm D-VIP ikke valgt

location 28b.0-05 - lille teorirum (20)

Teacher Lotte Jelsbak ( ljelsbak@ruc.dk )

## **Host-Pathogen Interactions (MHS)**

time 16-04-2024 10:15 til

16-04-2024 14:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 28b.0-05 - lille teorirum (20)

Teacher Lotte Jelsbak ( ljelsbak@ruc.dk )

# Host-Pathogen Interactions (MHS)

time 23-04-2024 10:15 til

23-04-2024 12:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 28b.0-05 - lille teorirum (20)

Teacher Lotte Jelsbak ( ljelsbak@ruc.dk )

### **Host-Pathogen Interactions (MHS)**

time 23-04-2024 12:15 til

23-04-2024 14:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 28b.0-05 - lille teorirum (20)

Teacher Karen Angeliki Krogfelt (karenak@ruc.dk)

# **Host-Pathogen Interactions (MHS)**

time 30-04-2024 12:15 til

30-04-2024 14:00

forberedelsesnorm ikke valgt forberedelsesnorm D-VIP ikke valgt

location 28b.0-05 - lille teorirum (20)

Teacher Lotte Jelsbak ( ljelsbak@ruc.dk )

## **Host-Pathogen Interactions (MHS)**

time 07-05-2024 10:15 til

07-05-2024 14:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 07.1-061 - undervisningslokale (30)

Teacher Lotte Jelsbak ( ljelsbak@ruc.dk )

# Host-Pathogen Interactions (MHS)

time 14-05-2024 10:15 til

14-05-2024 14:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 28b.0-01 - store teorirum (30)

Teacher Karen Angeliki Krogfelt (karenak@ruc.dk)

### **Host-Pathogen Interactions (MHS)**

time 21-05-2024 10:15 til

21-05-2024 14:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 28b.0-01 - store teorirum (30)

Teacher Karen Angeliki Krogfelt (karenak@ruc.dk)

# **Host-Pathogen Interactions (MHS)**

time 21-05-2024 14:15 til

21-05-2024 15:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 28b.0-01 - store teorirum (30)

Teacher Lotte Jelsbak ( ljelsbak@ruc.dk )

Karen Angeliki Krogfelt (karenak@ruc.dk)

## Host-Pathogen Interactions - Reexam (MHS)

time 02-08-2024 10:00 til

09-08-2024 10:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt