

Infectous Diseases Courses

Q9 & Q10 - the autumn semester (September -January)

Students can choose two out of three Bachelor Research Minors that together form a track of Infectious Diseases and Global Health of 20 weeks. This track has a scientific approach to applied infectious diseases and public health questions, and is suitable for medical students and students with a background in biomedical sciences, molecular biology or comparable studies. Students choose one Monday-Tuesday Minor and one Thursday-Friday Minor. Wednesday is for self study, or another optional course.

Q11 In the spring semester (February - April).

We offer a clinical minor in infectious diseases which lasts 10 weeks and is full time. This minor has a strong clinical focus and is suitable for medical students with a specific interest in Infectious diseases and/or Tropical Medicine. Every year at least 8 international students from partner universities of low- and middle income countries join this minor.

Q9 & Q10

For the Monday-Tuesday Minor, choose either MEDMIN23 or MEDMIN06 and for the Thursday-Friday Minor, choose MEDMIN 29.

Q11

Choose MEDMINK16 for Q11.

Internship

Students who take the courses above, can combine or follow this up with a research internship at Radboud University. To do an internship, you first need to find a supervisor or department that is willing to offer you a place to do your internship. Make sure you do your homework and find out about our departments, researchers and the topics they work on. The more detailed and motivated your request, the bigger the chance that you will be accepted by the department of your choice. When contacting an institute, make sure you have a strong motivation and mention that the Radboudumc international office will support you. Once you receive your approval, please make sure you contact the Radboudumc international office for students: internationalofficestudents@radboudumc.nl

A good place to start looking for a supervisor is the website of one of our three research institutes:

Donders Center for Medical Neuroscience - DCMN

As part of the interfaculty Donders Institute for Brain, Cognition and Behaviour, DCMNs mission is to carry out world class research that advances our knowledge on how the nervous system develops and functions and how it is altered by disease, injury, genetic, and environmental factors such as stress. > www.ru.nl/donders

Radboud Institute for Health Sciences - RIHS

The Radboud Institute for Health Sciences aims to facilitate, through scientific training and research, essential successive steps in translating early biomedical discoveries into applied clinical practice and public health. > www.rihs.nl

Radboud Institute for Molecular Life Sciences - RIMLS

The Radboud Institute for Molecular Life Sciences aims to generate basic knowledge in molecular medical science and to translate this knowledge into clinical applications, the development of diagnostics and the treatment of patients through translational research programmes. > www.rimls.nl

Course Coordinators

MEDMINo6: Global Health and Infectious Diseases

Dr. E Spaan, Dept. of Health Evidence Dr. A. Tostmann, Dept. of Medical Microbiology

MEDMIN23 : Pediatric Infectious Diseases and Immunity

Drs. K. van Aerde, MD, Dept. of Pediatrics Dr. S. van Selm, Dept. of Pediatrics

MEDMIN29 : Control of Infectious Diseases

Dr. J. Hautvast, MD, Dept. of Public Health Dr. F. Stelma, MD, Dept. of Medical Microbiology

MEDMK16: Principles and practices of infectious diseases

Dr. M. Keuter, MD-PhD, Dept. Infectious Diseases Dr. F. Stelma, MD, Dept. of Medical Microbiology

For more information about the content of the courses, please contact Dr. Foekje Stelma, MD: Radboudumc; PO Box 9101, 6500 HB Nijmegen, the Netherlands; Telephone: +31 24 361 9041 email: Foekje.Stelma@radboudumc.nl



REDUCING DRUG RESISTANT INFECTIONS

'Drug resistant infections are emerging globally. Radboudumc has a global outreach through MSF (Médecins Sans Frontières) and other global networks to perform research and find the evidence to prevent, diagnose and treat infections. Together with experts, and based on our studies, we inform policy makers and try to reduce the growing burden of drug resistant infections.'

International Office

The international office consists of:

Guusje Jongen & Carly Pepers, Junior international officers Loes Vaessen, Marketing, Recruitment & Admissions Officer Cindy van Dijk, International Officer and Erasmus Coordinator

You can reach us on:

- E: internationalofficestudents@radboudumc.nl
- T: +31 24 361 5065 (Mon-Fri 9.00-17.00)
- M:+31 6 4695 1068 for WhatsApp only (Mon-Thur 9.00 till 17.00):
- I: www.radboudumc.nl/internationaloffice
- F: www.facebook.com/radboudmedical

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Infectious Diseases and Global Health



change perspective





More information and contact

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Contact us on internationalofficestudents@radboudumc.nl



Radboudumc Center for Infectious Diseases

The Radboud university medical center for Infectious Diseases (RCI) has a leading role and a unique identity in top referral care, healthcare innovation, scientific research, and transfer of knowledge in the field of infectious diseases.

More information on the RCI can be found on: www.radboudumc.nl/en/center-for-infectious-diseases

Researchers of the RCI coordinate the English-taught Bachelor's courses on Infectious Diseases, which are open to exchange students.

In this brochures you will find the course descriptions as well as information on how to enroll for these courses.

Global Health and Infectious Diseases

The focus is global health and research within this field. Part of this minor is a visit to a global health institution.

You will acquire essential scientific knowledge and skills to analyze global health issues in the field of infectious diseases, thereby linking molecular, clinical and population level aspects.

You will learn to critically assess interventions that are aimed at reduceing the global burden of infectious diseases and how to address these issues in low- and middle income countries. After completion of the minor, students are able to:

- Critically assess molecular and biological approaches to fundamental research on infectious diseases that are of global significance.
- Understand the pathogenesis of certain infectious diseases and the options and limitation of infectious disease control.
- Apply practical knowledge on important aspects in the design of programme evaluation and clinical trials, and get hands-on experience in the handling, analysis and interpretation of research data for informing public health decisions.
- Apply mathematical models on the impact, costs and cost-effectiveness of HIV/AIDS control interventions; and use multiple criteria decision analysis for priority setting of health interventions.
- Describe and analyze the main building blocks of a (national) health system and critical aspects of good health governance.

Course code: MEDMINo6

Pediatric Infectious Diseases and Immunity

The focus is children's infectious diseases. The minor is a research minor focusing on research with a strong clinical impact.

After completion of the minor, students are able to:

- Explain the different components of the developing immune system of the child from fetus throughout the first year of life and thus to understand vulnerability to, and prevalence of, specific pathogens.
- Define the impact of infectious diseases and the associated clinical signs, and explain the use of appropriate preventative, diagnostic and therapeutic tools.
- Recognize primary and secondary immune deficiencies and to apply this knowledge for better understanding of immune development and the pathophysiology of infectious diseases.
- Evaluate the optimal use of vaccines to be implemented or developed in order to contribute to the prevention of infectious diseases (at the cellular level, the individual level and the population level).
- Critically appraise clinical research questions, showing the ability to translate these into relevant research and clinical decision making, and to communicate these in graphical, oral and scientific presentation.

Course code: MEDMIN23



Control of Infectious Diseases

The focus is rational antibiotic policy, infection control and surveillance. This minor is a research minor with a strong link to public health policy.

You will acquire essential scientific knowledge and skills to contribute to antibiotic stewardship and the prevention and control of infectious diseases in hospital and community settings. After completion of the minor, students are able to:

- Gain profound understanding of how genetic diversity and antigenic variation of micro-organisms relate to infectious disease pathogenesis and to the transmission and evolution of infectious diseases.
- Gain profound and practical understanding of the development of anti-microbial resistance in infectious diseases and to participate in a multidisciplinary antibiotic stewardship team.
- Develop and present hospital infection control programs by understanding the concept of hospital infection prevention and control on a patient level.

MALARIA RESEARCH Infectious diseases and global health

'The Infectious diseases and global health (IDGH) theme combines cutting-edge research in immunology, microbiology, epidemiology, and pharmacology. Key attributes of the theme's ambition are integration of 'omics' data, translational research in immunology and infectious diseases, and implementation research at a population level. Our research on innate immunity has changed the textbook paradigm and it is very likely that the first active malaria vaccines will have a basis at Radboudumc.'

- To apply the theoretical basis of infectious disease surveillance, prevention and control, outbreak investigation and vaccine epidemiology into practice and scientific settings.
- Acquire modeling skills and to be able to use them for the prediction of the effect of interventions on an outbreak.
 Integrate the knowledge gained during the course by doing your own research assignment, involving literature search, statistical data analyses, writing a scientific article and giving an oral presentation of the results during a mini-symposium.

Course code: MEDMIN29

Clinical infectious diseases and Global Health

The focus is clinical infectious diseases and rational antibiotic use in the Dutch situation and across borders. This minor is internationally oriented and suitable for medical students.

The student will acquire basic and advanced understanding and skills in the management of individual patients with infectious diseases, including tropical infectious diseases.

The student will study the principles of rational use of antimicrobials for viral, bacterial, fungal and protozoal infections (stewardship) and will learn how to apply infection control measures in hospital care in order to be able to develop antimicrobial and infection prevention guidelines (on a basic level).

Description

This minor concerns clinical infectious diseases and rational antimicrobial and immunotherapy for the individual patient. After this minor you have an improved understanding and clinical insight of several infectious diseases and management of the patient. You have learned to order diagnostics in a more appropriate manner. In addition you can plan more rational treatment.

Not only do we look at the Dutch situation but also across the border to other resistance patterns and even to tropical infections. In your classroom there are at least 8 international medical students. With them you will work on group assignments. You will practice antibiotic stewardship with the help of casuistry. Furthermore, you will join several multi-disciplinary discussions.

AMAR JAMALPOOR, IRAN

'Radboud University is the fastest rising Dutch University in the international university

rankings and hosts a number of research groups conducting world-leading, cutting-edge research. Furthermore, you are taught by an exceptionally selected group of lecturers who are all experts in their fields. Students work in small groups so you really get to know your fellow students.'

In these 10 weeks you will be challenged to give at least two presentations with your group. One of those will be about the development of an international guideline for a global health problem such as pneumonia. You will also get acquainted with the practice of the hospital infection prevention committee. Your knowledge of immunology will be deepened in order for you to be able to advise on immunotherapy and vaccinations.

Hiv, tuberculosis and tropical infections such as malaria among others will be discussed. The interest of knowledge about tropical (also neglected) diseases for the Netherlands will be made clear to you. In short, this is a challenging minor for the medical student with more than normal interest in infectious diseases in the whole World.

Course code: MEDMINK16

