



National course on lung diseases and lung research for those early in their careers (2023 version)

Short description:

The main target audience of the course is formed by PhD students (or Master students who are likely to start a PhD in the respiratory field in the next year) and postdoctoral fellows early on in their trajectories with either a clinical, translational and / or basic science background. There are no further restrictions as to the admission. The aim of the course is to understand the larger field of pulmonary research better, and to get to know each other better by establishing a national professional network.

Teaching goals:

At the end of the course the participant has knowledge about:

1. The structure and function of the lung.
2. The pathogenesis and pathophysiology of pulmonary diseases, including asthma, COPD, interstitial lung disease, lung infections and lung cancer.
3. The impact of these lung diseases on healthcare and quality of life of the patient.
4. The use of advanced *in vitro* models in research in the field of respiratory medicine
5. The pharmacological and non-pharmacological treatment of these lung diseases.
6. Career perspectives in science in the Netherlands and abroad.

Teaching methods:

Lectures, interactive workshops.

Education Load:

The course is organized annually and has two components. The first component is a basic course in lung diseases and research, of which the lectures are concentrated in three days with a total of 24 contact hours. Preparation for the lectures by means of going through relevant literature is required. Participants are also required to prepare a presentation centered around the development of an hypothesis-driven research proposal in the field of respiratory medicine. They are therefore expected to work in groups with course-participants at other centers (detailed description in the assignment). Collectively, this course and preparatory aspects are estimated to take a total of 70 hours.

As for the second component, the candidates are expected to attend at least two one-day NRS Young Investigator Symposium (YIS) meetings. The teaching load for this component is estimated at 40 hours. Together, this provides a teaching load of 134 hours or 5 ECTS.



Day 1 (Wednesday 7 Feb.): Introduction in Respiratory Medicine & Research

9h15 - 9h45 Arrival, registration and coffee/tea

09h45 - 10h Welcome and introduction (Marcel Veltkamp, Nieuwegein)

10h-10h30 Introduction round groups

Session 1: General lung development, lung structure and physiology

Chair:

10h30 - 11h15 Lung structure, physiology and development (Wim Timens)

11h15 - 11h30 Coffee and tea break

Session 2: Tools for respiratory research

Chair:

11h30 – 12h Lab skills & clinical tools in respiratory research; part I (Ger Rijkers)

12h - 12h30 Lab skills & clinical tools in respiratory research; part II (Marcel Veltkamp)

12h30 - 13h25 Lunch

Session 3: Patient participation in respiratory research

Chair:

13h30 - 14h15 Jacqueliën Noordhoek and Longfonds patient volunteer

14h15 – 14h30 Coffee and tea break

Session 4: Research Proposals

Chair:

14h30 – 14h40 Instructions Research Proposal

14h40 – 15h20 Preparation in groups for the research proposals that will be presented on day 3

15h20 – 16h00 Time for check in/prepare for social activity

16h - 17h30 Social activity (Forest expedition)

18h30 - 20h30 Dinner at the Brasserie



Day 2 (Thursday 8 Feb.): Diverse landscape of respiratory disease (except oncology)

Session 1: Acute and chronic lung infections

Chair: Marcel Veltkamp

9h-9h40 Inez Bronsveld (UMCU) (Bronchiectasis + Cystic Fibrosis)

9h40-9h45 quick coffee and tea break

9h45 – 10h25 Bas Haak (AUMC & Cambridge) (Pneumonia + bacteria/host interaction)

10h25 – 10h45 Coffee and tea break

Session 2: Obstructive lung diseases

Chair: Corry-Anke Brandsma (Esther)

10h45 – 11h25 Reinoud Gosens (Basic science COPD + Asthma)

11h25 – 11h30 quick coffee and tea break

11h30 – 12h10 Frits Franssen (Clinical COPD + Asthma)

12h10- 13h Lunch

13h – 14h Preparation in groups for the discussion items that will be presented on day 3

Session 3: Interstitial lung disease & vascular lung disease

Chair: Esther Pompe

14h00 – 14h40 Marcel Veltkamp (Sarcoidosis basic + clinical)

14h40 – 14h45 quick coffee and tea break

14h45 – 15:25 Jelle Miedema: (fibrosis/ILD basic + clinical)

15h25 – 15h45 Coffee and tea break

15h45 - 18h30 FREE TIME

18h30 – 20h30 Dinner at the Brasserie including evening lectures:

Taking charge of your scientific career (20m each)

- Basic researcher/PhD (Corry-Anke Brandsma, Groningen)
- MD/PhD (Lieuwe Bos, Amsterdam)



Day 3 (Friday 9 February): radiology, lung cancer & scientific proposals

Session 1: Radiology

Chair: Lieuwe Bos

9h00 – 9h55 Esther Pompe (Imaging in respiratory research)

9h55 – 10h00 quick coffee and tea break

Session 2: Lung cancer

Chair: Corry-Anke Brandsma

10h00 – 10h40 Berber Piet (Lung cancer; basic)

10h40 – 11h20 Anthonie van der Wekken (Lung cancer; clinical)

11h20 - 11h30 Coffee and tea break

11h30 - 12h00 Preparation in groups of 6 of the research proposals that will be presented today

12h00 - 13h Lunch

Session 3: Research Proposal

Chairs: Corry-Anke Brandsma & Liewe Bos

13h – 15h30 Plenary discussions of the research proposals on provided topics (+ coffee and tea)

15h30 - 16h Evaluation + closing remarks