

National course on lung diseases and lung research for those early in their careers

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 allergy, asthma, COPD, interstitial lung disease, lung infections, lung cancer and orphan lung diseases.
3. The impact of these lung diseases on healthcare and quality of life of the patient.
4. Environment, lifestyle and (epi) genetic factors that influence the risk of these lung diseases.
5. The pharmacological and non-pharmacological treatment of these lung diseases.
6. Career perspectives in science in the Netherlands and abroad.

Teaching methods:

Lectures (lectures), interactive workshops.

Teaching Load:

The course starts 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 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 here and to prepare their own presentation in the context of a master class. The teaching load for this component is estimated at 40 hours.

Together, this provides a teaching load of 134 hours or 5 ECTS.

Course Structure:

The basic 3-day course is provided annually. The first day focuses on allergy and asthma. On the second day the focus will be on rare and interstitial lung diseases and respiratory infections, while day 3 will discuss COPD and lung cancer.

Wednesday 26 June 2019: Day 1 asthma and allergy.

N.B.: participants will need to read relevant literature on lung diseases and lung research in preparation for the lectures.

Meeting room: 'de Rentmeester'

9.30 – 10.00 Arrival, registration and coffee/tea

10.00 – 10.30 Welcome and introduction round (Mirjam Kool, Rotterdam)

Chairs: Barbro Melgert (Groningen), Els Weersink (Amsterdam)

10.30 – 11.10 Pathophysiology and immunology of allergy and asthma (Barbro Melgert, Groningen)

11.10 – 11.50 Diagnosis of asthma: role of phenotypes and endotypes (Els Weersink, Amsterdam)

11.50 – 12.30 Remodeling of the airways in asthma (Reinoud Gosens, Groningen)

12.30 – 13.30 Lunch

13.30 – 15.00 Interactive workshops: patient's experience - researcher's advantage (Lung Foundation Netherlands, Rolf Neubert, Elly Janssen, Hilma Bolsman)

15.00 – 17.30 Preparation in groups of two of discussion items that will be presented on day 2 and day 3. Supervision by Mirjam Kool (Rotterdam) and Reinoud Gosens (Groningen).

18.00 – 20.00 Dinner at the Brasserie

20.00 – .. Evening program: Scientific quiz or other social activities

Thursday 27 June 2019: Day 2 “Orphan lung diseases, interstitial lung diseases and (chronic) infectious diseases.

N.B.: Participants will need to read relevant literature on lung diseases and lung research in preparation for the lectures.

Chairs: Tjip van der Werf (Groningen), Jelle Miedema (Rotterdam)

09.00 – 09.50 ILD and sarcoidosis (Mirjam Kool and Jelle Miedema, Rotterdam)

09.50 – 10.30 Tuberculosis (Tjip van der Werf, Groningen)

10.30 – 11.00 Coffee and tea break

Chair: Mirjam Kool (Rotterdam)

11.00 – 11.40 Bronchiectasis (Josje Altenburg, Amsterdam)

11.40 – 12.20 Pulmonary arterial hypertension (Harm Jan Bogaard, Amsterdam)

12.20 – 13.00 Pneumonia (bacterial and viral pneumonia) (Pieter Fraaij, Rotterdam)

13.00 – 13.45 Lunch

Chairs: Jeffrey Beekman (Utrecht), Robbert Rottier (Rotterdam)

13.45 – 14.25 Lung transplantation (Erik Verschuuren, Groningen)

14.25 – 15.05 Cystic Fibrosis (Jeffrey Beekman, Utrecht)

15.05 – 15.45 Normal and abnormal lung development (Robbert Rottier, Rotterdam)

15.45 – 18.00 Plenary discussions (incl. coffee and tea break)

Participants have prepared a theme for this discussion in groups of 2 or 3. On day 2, focus of the discussions will be on ageing and the early origins of lung disease. On day 3, focus will be on cross-fertilization in research and overarching mechanisms of lung disease. For each discussion theme, 30 min will be allocated. The following 4 themes will be discussed on day 2:

Chairs: Robbert Rottier (Rotterdam) and Ismé de Kleer (Rotterdam)

- Conditions for a 'healthy' lung development.
- RSV infections and the risk for asthma development.
- The atopic march.
- Transgenerational effects of lung diseases: epigenetics.

For each item, the idea is to set up the discussion with a 10-15 min presentation by the participants, followed by questions on this topic. The discussion will be facilitated by a senior researcher in this area.

18.00 – 20.00 Dinner at the Brasserie including evening lecture:

Taking charge of your scientific career! (Alex Remels, Maastricht)

Friday 28 June 2019: Day 3 COPD and lung cancer.

N.B.: Participants will need to read relevant literature on lung diseases and lung research in preparation for the lectures.

Chairs: Harry Groen (Groningen), Alex Remels (Maastricht)

09.00 – 09.40 Pathogenesis and pathophysiology of COPD (Anne van der Does, Leiden)

09.40 – 10.20 Pathogenesis and pathophysiology of lung cancer (Harry Groen, Groningen)

10.20 – 10.50 Coffee and tea break

Chairs: Harry Groen (Groningen), Maarten van den Berge (Groningen)

10.50 – 11.30 Treatment, pharmacological and non-pharmacological of COPD (including bronchoscopic Interventions, rehabilitation and non-invasive ventilation) (Maarten van den Berge, Groningen)

11.30 – 12.10 Treatment, pharmacological and non-pharmacological of lung cancer (Harry Groen, Groningen)

12.10 – 12.50 Radiological assessment of COPD and lung cancer (Esther Pompe, Gelre Ziekenhuizen)

13.00 – 14.00 Lunch

14.00 – 17.00 Plenary discussions

Similar to day 2 but with focus on cross-fertilization in research and overarching mechanisms of lung disease.

The following 4 themes will be discussed on day 3:

Chairs: Maarten van den Berge (Groningen) and Anne van der Does (Leiden).

- Mechanistic overlap between chronic lung diseases and lung cancer (i.e. increased risk of lung cancer in COPD and IPF patients) and co-morbidities
- Overarching mechanisms of (defective) repair in chronic lung diseases
- Matrix changes in chronic lung diseases
- Overlap with other diseases (i.e. other than lung disease)

17.00 – 18.00 Evaluation and drinks