Speakers

Plenary Session: AI possibilities and challenges in respiratory field

Prof. Rozemarijn Vliegenthart, Professor of Cardiothoracic Imaging/ Radiologist, UMCG, Groningen

Rozemarijn Vliegenthart is Radiologist and Professor of Cardiothoracic Imaging at UMCG Groningen. She focuses on early imaging diagnosis of lung cancer, COPD and cardiovascular disease, including use of AI. Vliegenthart is PI of the ImaLife, CONCRETE, NELSON-POP and B3Care studies. She is (co-)author of 318 papers (H index 52), and Deputy Editor of Radiology. Vliegenthart is involved in the UMCG DataScience Center in Health as expert in cohort data.

Dr. Jeroen de Ridder, Principal Investigator / Associate Professor in the Center for Molecular Medicine of the UMC Utrecht

Jeroen de Ridder is a principal investigator and associate professor at the Center for Molecular Medicine of the University Medical Center Utrecht and a senior PI at Oncode Institute. The de Ridder lab focusses on creating cutting-edge machine-learning-inspired methods to integrate and make sense of cancer omics data with the ultimate goal to advance cancer diagnostics. For instance, the de Ridder lab has recently proposed a deep learning method to enable brain tumor type classification based on nanopore methylation profiling while the surgery is still ongoing, published in Nature (Sept 2023). Jeroen is also the co-founder of Cyclomics, a company that aims at improving cancer diagnosis by detecting tumor circulating DNA in the blood of patients. In 2024, Jeroen received an ERC Consolidator grant to expand the lab's work on using foundation models for omics-based cancer diagnostics.

Prof.dr. Gerard van Westen, PI Computational Drug Discovery Drug Discovery and Safety, LACDR, Leiden

Prof. G.J.P. van Westen combines research in drug discovery with artificial intelligence (AI). He is a worldwide expert in machine learning on combined chemical and biological data. In his group, large language models are used to design (generate) new molecular structures with a desired activity and toxicity profiles that are subsequently synthesized in the wet lab. Moreover, structure-based approaches are used to gain a mechanistic insight in the molecular interaction between small molecule ligands and (membrane bound) protein targets. Here dynamical methods are created that are subsequently analyzed using AI approaches to design and improve small molecule ligands.

Prof. van Westen studied biopharmaceutical sciences in Leiden and obtained his PhD in 2013 in Leiden in a project funded by and collaborating with Janssen Pharmaceutica. He did a postdoc in Cambridge at the European Bioinformatics Institute. Van Westen has co-authored >120 publications. Major grants/prizes/honors include: a Marie Curie postdoc fellowship, Leiden University Discoverer of the year 2013, an NWO VENI grant (2015), the KNCV Gold Medal 2023, and more. Furthermore, he is the lead of the AI Platform in the national Growth Fund Project 'Oncode Accelerator' and has received multiple European (including IMI eTransafe and ITN 'Drugtrain') and Dutch National consortia. He has completed the supervision of 5 PhD students, participated in 18 PhD opposition committees, and currently supervises 9 PhD students.

Dr. Daan Caudri, Pediatric Respiratory & Sleep Physician / Clinical Epidemiologist, Erasmus MC – Sophia Children's Hospital, Rotterdam

Daan Caudri is epidemiologist and pediatric pulmonologist at the Erasmus MC Sophia Children's Hospital Rotterdam. He leads the LungAnalysis image analysis core laboratory, with a joint appointment at Erasmus MC Radiology. He is treasurer of the NRS. His objective is to have a positive impact on people living with a chronic lung disease, through collaborative epidemiologic research on state-of-the art lung imaging using both manual and AI-supported automated lung image analysis techniques.

Speakers

Scientific Session 1: Pulmonary fibrosis

Dr. Coline van Moorsel, Head ILD Research and R&D Pulmonology, ILD Center of Excellence, St. Antonius Hospital, Nieuwegein

Dr. Coline van Moorsel is Head ILD Research and R&D Pulmonology at St Antonius ILD center of excellence, Nieuwegein. She received her MSc degree in Biology with honors from Leiden University and after her PhD and postdoc on genotype-phenotype associations, she joined St Antonius Hospital to study the genetics of Interstitial Lung Disease (ILD). She chaired the ERS taskforce on familial pulmonary fibrosis and is currently chair of the NIH ClinGen ILD gene curation expert panel.

Drs. Sanne Kloosterman, pediatric pulmonologist, Erasmus MC - Sophia Children's Hospital, Rotterdam

I'm a pediatric pulmonologist and have been working at the Sophia Children's Hospital since 2013. I have a special interest in interstitial lung diseases in children. I am affiliated with the EMC center of expertise for ILD. ILD in children comprises more than 200 different and very rare diseases. Recognition of the clinical picture and multidisciplinary teamwork in diagnosis, treatment and follow-up are of great importance for these children.

Drs. Jelle Miedema, Pulmonologist, ILD Center, Erasmus MC Rotterdam

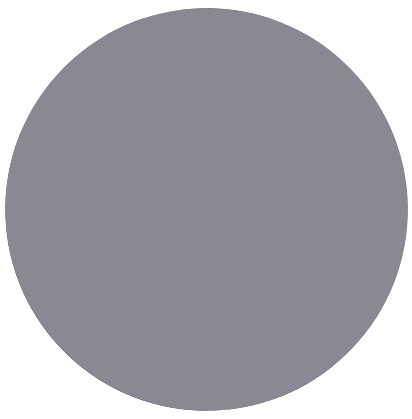
Jelle Miedema works as a pulmonary physician and interstitial lung disease (ILD) consultant in the Erasmus University Medical Center, with a specific interest in pulmonary fibrosis, connective tissue disease related ILD and sarcoidosis. The Erasmus MC ILD team participates in collaborative projects involving ILD experts from around the world, multiple preclinical and clinical research projects, patient organizations and industry, to improve patient quality of life and treatment outcomes for patients with these rare but devastating lung diseases. He is chair of the ILD group of the Dutch Pulmonary Society (NVALT). Additionally, he works on several translational research projects on pathogenesis and improved personalized treatment of ILD.

Scientific Session 2:

Prediction of treatment responses in lung diseases

Prof. dr. Maarten van der Berge, Pulmonologist, University Medical Center Groningen

Maarten van den Berge is a Pulmonologist and Professor at the University Medical Center Groningen, the Netherlands. He is involved in clinical and translational research with a focus on endytoping and biomarker discovery in asthma and COPD. He is a member of the ERS and published more than 300 manuscripts in peer-reviewed scientific journals.



Dr. Eva Madsen, Gastrointestinal and Oncological Surgeon, Erasmus MC Rotterdam

Bio: will follow

Prof. dr. Jeffrey Beekman, Professor Cellular Disease Models at University Medical Center

Dr. J.M. Beekman is full professor Cellular Disease Models at the University Medical Center Utrecht in the Netherlands. He obtained a PhD in molecular immunology at Utrecht University and is principal investigator since 2010, focussing of the development and application of patient-derived stem cell models for basic science studies, drug development and precision medicine applications, mostly in the context of genetic diseases such as cystic fibrosis.

Speakers

Scientific Session 4:

Career Development in the respiratory field

Dr. Henk Viëtor, Chief Medical Officer, DC4U

Henk is a medical doctor specialized Immunology, Transfusion Medicine and Clinical Genetics. He became involved in the Life Sciences industry in 2000 and has been an active entrepreneur founding more than 35 Life Sciences companies including drug discovery, medical devices, service providers, but primarily in most in diagnostics including Skylkine Diagnostics, Mendus and DC4U. Henk has been involved numerous public-private-partnerships, and was on the supervisory board of CTMM, Lygature and Skyline Diagnostics and is advisor Technobis.

Marlijn Klerk, Online content specialist, Longfonds

Marlijn Klerk is a communication advisor at Longfonds and a social media specialist. Her drive is to make 'difficult' topics accessible to a broad audience, ranging from history to science. After working for several years for the Dutch Public Broadcasting Corporations, she has swapped one public cause for another: healthcare.

Marlijn Klerk is communicatieadviseur bij Longfonds en social media specialist. Haar drijfveer is om ‘moeilijke’ onderwerpen toegankelijk te maken voor een breed publiek, van geschiedenis tot wetenschap. Na enkele jaren voor de Nederlandse Publieke Omroepen te hebben gewerkt, heeft zij de ene publieke zaak voor de andere verwisseld: de gezondheidszorg.

Stephan van Duin, Sr. Advisor Science Communication, Directorate Marketing & Communication, UMC Utrecht

My career in science communication started a little before graduating as a biologist. Fifteen years on, I’ve pretty much done it all: from EU-project websites to high-end museum exhibitions, I’ve written books and appeared in the media. I founded my company The Online Scientist in 2012, and now I’m working exclusively with scientists to help them tell their story, through workshops and consultancy. I also keep close contact with the academic side of science communication, and I’m currently co-chair of SciCom NL.

Speakers

Scientific Session 5: Pulmonary disorders: transition from childhood to adulthood

Dr. Lieke Kamphuis, Pulmonologist, Erasmus MC, Rotterdam

Dr. Lieke Kamphuis is a pulmonologist at the Erasmus University Medical Center in Rotterdam. Her clinical and research interest is in respiratory infectious diseases and congenital and perinatal lung diseases. She is the founder of the first center for adults with a congenital or perinatal lung disease worldwide. One of the current research areas is the exploration of the need for long term follow-up in patients with congenital or perinatal lung diseases.

Dr. Natalie Mazur, Pediatric Resident, St Antonius Hospital/ Postdoc Wilhelmina Children's Hospital, Utrecht

Natalie Mazur is a pediatric resident and post-doctoral researcher at the Wilhelmina Children's Hospital in Utrecht. Natalie aims to combine translational research and global health to promote vaccine equity. Her PhD was designated cum laude and advocated for a poorest first approach to RSV vaccine development. Her mission is impact-driven drug development.

Prof. Dr. Markus Weckmann, Deputy Head of Department Pediatric Pneumology & Allergology/ Joint Professor for Epigenetics in Pneumology, Leibniz Lung Center, Research Center Borstel & The University of Lübeck, University Medical Center Schleswig-Holstein, Campus Centrum Lübeck, Germany

Prof. Dr. Markus Weckmann earned his Ph.D. at the Children's Hospital and the Max-Planck-Institute Freiburg. He currently serves as the Deputy Head of Paediatric Pneumology at the University Children’s Hospital Lübeck (Germany), where he’s been pivotal for the successful continuation of the All-Age-Asthma cohort of the German Lung Research Center (DZL). His research focusses on extracellular matrix and epi-/genetic factors advancing respiratory science and supporting children with lung diseases.

Scientific Session 6: Novel cell types in lung diseases

Prof. Killian Hurley, Associate Professor, RCSI, Consultant Respiratory Physician, Beaumont Hospital/ HRB Emerging Clinical Scientist, Ireland

Professor Hurley is faculty member at the Royal College of Surgeons in Ireland. His research seeks to better understand alveolar cell function, their role in pulmonary fibrosis and find new treatments using patient-derived induced pluripotent stem cells. In 2022, he was awarded a prestigious European Research Council Starting Grant to develop new gene therapies for patients with pulmonary fibrosis.

Dr. Elin Kersten, Pediatric Pulmonologist, University Medical Center Groningen

‘Elin Kersten works as a pediatric pulmonologist in the University Medical Center Groningen. She is an expert on preschool wheeze and severe childhood asthma. She is a clinician-scientist with a research focus on early-onset asthma and allergic diseases, and has advanced skills in setting up and coordinating clinical research and experience in collecting and analyzing multi-omics data. She recently graduated as a medical AI practitioner in the exquAIro program.’

Prof. Dr. Robbert Rottier, associate professor, department of Pediatric Surgery Erasmus Medical Center, Rotterdam

Prof. Dr. R.J. Rottier is staff member of the Pediatric Surgery department at the Erasmus MC – Sophia Children’s Hospital and holds a research chair in Developmental Biology of Congenital Pulmonary Malformations. He specializes in in molecular cell - and developmental biology, especially of the foregut and lung, including branching morphogenesis and lung vascular development. His research group has been interested in (1) developmental biology in relation to major congenital anomalies, (2) molecular and cellular aspects of pulmonary development, (3) diaphragm development, and (4) integration of new models in lung research.

Speakers

Plenary Session

Metabolome & immune system intersection

Prof. Hermelijn Smits, Professor Host-commensal Interactions and Immune Modulation, Leiden University

Prof. dr. Hermelijn Smits is an immunologist with a keen interest in understanding host-commensal interactions and their correlation to inflammatory events in the lung. Her research focuses on the involvement of various commensals, also known as evolutionary ‘old friends’, emphasizing the identification of immunomodulatory molecules and their mechanism of action. These molecules and the pathways they activate present a novel approach for treating or preventing immune-mediated disorders in the lung, including responses to respiratory viral infections. To determine the most effective applications, she investigates tissues in the (upper) airways and characterizes local mucosal immune responses through cutting-edge single-cell technologies (Cytof, single cell transcriptomics). She has been leading the international Dutch Lung Foundation consortium ‘A World Without Asthma’ (AWWA) focusing on developing asthma prevention strategies through microbial-based strategies. She is a recipient of the Veni-Vidi-Vici laureate and past president of the Netherlands Respiratory Society (NRS).

Dr. Arjan van Laarhoven, Researcher / Internal Medicine, Radboudumc, Nijmegen

Arjan van Laarhoven graduated from Utrecht University in 2010, defended his PhD thesis "Host response in relation to tuberculosis susceptibility” (http://hdl.handle.net/2066/190507) at Radboudumc in 2018 and finished his Infectious Diseases training in 2021. His research now aims to unravel mechanisms underlying damaging inflammation (‘immunopathology’) and increased susceptibility om mycobacterial infections. He co-leads the Radboud Mycobacterial Cohort Study which amongst others uses site-of-disease sequencing techniques. Internationally, his research focusses on understanding the immunopathophysiology of tuberculous meningitis.