

British Association for Lung Research Conference

22nd to 24th April 2024

*Discovery Point and RRS Discovery,
Dundee*



University
of Dundee



Welcome

Dear Colleagues & Friends,

It's a great pleasure to welcome you to Dundee for the annual conference of the British Association of Lung Research.

After several years of virtual meetings and missed opportunities for scientific interaction we are incredibly excited to bring together the top respiratory scientists in the UK for 3 days of scientific exchange, developing new collaborations and discussing new ideas. We have worked to develop a diverse scientific programme and we are also delighted to welcome outstanding speakers from both within and outside the UK.

The BALR meeting is special for a number of reasons but one I think worthy of special mention is the track record of supporting and promoting early career scientists. It is for this reason we are particularly delighted that the programme incorporates a number of opportunities for early career scientists including our early career awards, poster sessions and slots throughout the programme for spoken abstracts.

Discovery Point on the beautiful River Tay is a delightful venue for the meeting. The meeting will take place beside the RSS Discovery, which set off on its famous voyage in 1901 to chart the wilderness of Antarctica. We know for many of you a trip to Dundee in April will feel like a voyage into a frozen wilderness but I hope you will join us for your own voyage of discovery and 3 days of outstanding scientific exchange.

We warmly invite you to join us for BALR 2024.

Yours Sincerely,

James D Chalmers

Amelia Shoemark

Merete Long

Organising Committee

Conference organisers:

Prof. James D Chalmers (Dundee)

Dr Merete B Long (Dundee), BALR Publications Secretary

Prof. Amelia Shoemark (Dundee)

Respiratory Research Group, University of Dundee

Prof. Karl Staples (Southampton), BALR Chair

Topics

Chronic respiratory disease: molecular exploration of exacerbation

Characterising chronic inflammatory disease endotypes

The role of immune cells in respiratory disease

Mucus and mucociliary clearance

The lung microbiome and lung infection

Lung tissue injury, remodelling and fibrosis

Competitions and awards

Spoken sessions:

Postgraduate prize (including technicians, MSc and PhD students)

Early Career prize (up to 6 years after award of PhD or equivalent)

Mid-Career prize (7 years or more post-PhD or equivalent)

Poster sessions:

Awards available for all career stages

Faculty

Prof. Mona Bafadhel (London, UK)
Prof Jeremy Brown (London, UK)
Prof. James D Chalmers (Dundee, UK)
Dr Aurelie Crabbe (Ghent, Belgium)
Prof. Jane C Davies (London, UK)
Dr Renata Jurkowska (Cardiff, UK)
Dr Merete B Long (Dundee, UK)
Dr Henry McSorley (Dundee, UK)
Prof. Amelia Shoemark (Dundee, UK)
Dr Aran Singanayagam (London, UK)
Prof. Robert Snellgrove (London, UK)
Prof. Karl Staples (Southampton, UK)
Prof. Charlotte Summers (Cambridge, UK)
Dr Amanda Tatler (Nottingham, UK)
Prof. David Thornton (Manchester, UK)
Dr Rabindra Tirouvanziam (Emory, USA)
Prof. Francesca Polverino (Houston, USA)
Dr Dan Neill (Dundee, UK)

Our thanks to the BALR 2024 Spring Meeting Sponsors

Platinum:



Gold:



Silver:



SCIENTIFIC PROGRAMME

Day 1: Monday 22nd April

14.00– 14.45

WELCOME ADDRESS AND OPENING LECTURE

Disrupting the cycle of inflammatory lung disease

Prof. James D Chalmers (Dundee, UK)

14.45– 15.30

KEYNOTE LECTURE 1 SPONSORED BY INSMED INC

Chairs: Prof James Chalmers (Dundee UK) and Dr Merete Long (Dundee, UK)

Immunity to Extracellular Bacterial Pathogens

Prof Jeremy Brown (London, UK)

15.30– 16.30

SCAR WARS

Chairs: Dr Alison John (London UK) Dr Bettina Schock (Belfast UK)

Epigenetic regulation of lung regeneration and repair

Dr Renata Jurkowska (Cardiff, UK)

Spoken abstract: Mesenchymal cell senescence influences ATII cell viability in LAM

Roya Jadidi (Cambridge, UK)

TGF-beta signalling in fibrotic lung disease

Dr Amanda Tatler (Nottingham UK)

16.30 – 16.50

Coffee Break

16.50– 17.50

POSTER SESSION 1: INFLAMMATORY LUNG DISEASE

Judges: Prof. Mona Bafadhel (London UK), Dr Bettina Schock (Belfast UK), Sophie Booth (Manchester, UK), Jessica Orr (London, UK)

17.50– 18.35

EARLY CAREER RESEARCHER COMPETITION

Judges: Dr Karl Staples (Southampton, UK), Dr Aurelie Crabbe (Ghent, Belgium)

Developing a lung organoid signalome for real-time analysis of senescence associated cellular cross talk

Melis T Dalbay

Sputum proteomics in patients with bronchiectasis and Pseudomonas aeruginosa infections

Rebecca C Hull

Human nasal single-cell interferon and inflammatory cytokine responses to the TLR7/8 agonist and viral mimic R848

Akhilesh Jha

18.35

Close of day 1 and Welcome Reception

Day 2: Tuesday 23rd April

08.30-09.30

EXACERBATIONS NEED EXPLANATIONS

Chairs: Dr Kylie Belchamber (Birmingham, UK), Dr Emma Johnson (Dundee, UK)

Molecular mechanisms of exacerbation in Chronic Obstructive Pulmonary Disease and Asthma

Prof. Mona Bafadhel (London, UK)

IL-33- can parasites gives us a new treatment for Asthma exacerbations?

Dr Henry McSorley (Dundee, UK)

Airway microenvironments as drivers of microbial adaptive evolution during chronic infection

Dr Dan Neill (Dundee UK)

09.30- 10.30

KEYNOTE LECTURE 2

Chairs: Prof Karl Staples (Southampton, UK), Dr Merete Long (Dundee, UK)

Neutrophils in chronic lung inflammation: It's looking GRIM

Dr Rabindra Tirouvanziam (Emory, USA)

10.30 – 11.00

Coffee Break

11.00- 1200

NEUTRALISING THE NEUTROPHIL

Chairs: Dr Rabindra Tirouvanziam (Emory, USA), Chloe Hughes (Dundee, UK)

Rationalising the lack of efficacy of neutrophil targeting therapeutics in asthma

Prof. Robert Snellgrove (London, UK)

Neutrophils in ARDS and COVID-19

Prof. Charlotte Summers (Cambridge, UK)

Insights into bronchiectasis disease mechanisms using blood leukocyte transcriptomics

Dr Merete Long (Dundee, UK)

12.00-14.00

Invited session in the Victoria and Albert Museum

12.00-14.00

Lunch and exhibitors

14.00- 14.45

POSTGRADUATE RESEARCHER COMPETITION

Chairs: Prof Charlotte Summers (Cambridge, UK), Amanda Tatler (Nottingham, UK)

Will You Regret Dumping Your X? Sex as a Biological Variable in Asthma Genomics

Sara El-Toukhy

Selective Phagocytosis by Monocyte-derived Macrophages When Exposed to Communities of Bacteria Compared to Single Strains

Karanjot K. Sandhu

Profiling peripheral blood neutrophils in patients with bronchiectasis

Chloe Hughes

14.45- 15.45

POSTER SESSION 2: INFECTION AND LUNG CELL BIOLOGY

Judges: Prof Francesca Polverino (Houston USA) Dr Alison Dicker (Dundee UK), Jennifer Pollock (Dundee UK), Sara El-Toukhy (Nottingham, UK)

15.45 - 16.00

Coffee Break

16.00- 16.45

KEYNOTE LECTURE 3

Chairs: Prof. Jane Davies (London UK), Dr Hollian Richardson (Dundee, UK)

Beneficial microbes in the lung

Dr Aurelie Crabbe (Ghent, Belgium)

16.45- 17.30

KEYNOTE LECTURE 4

Chairs: Prof. Amelia Shoemark (Dundee UK), Dr Daniella Alferes de Lima Headley (Dundee UK)

Unravelling the mysteries of pseudomonas lung infections

Prof. Jane Davies (London)

17.30

Close of day 2 : evening dinner and Ceilidh

Day 3: Wednesday 24th April

08.30– 09.45 **MID CAREER SESSION**

Judges: Prof. James Chalmers (Dundee UK), Francesca Polverino (Houston, USA)

Impaired macrophage phagocytosis in older adults is associated with reduced expression of CD36; a potential target to treat pulmonary infections.

Kylie Belchamber (Birmingham UK)

Artificial Intelligence assisted diagnostic tool for the diagnosis of Primary Ciliary Dyskinesia by Transmission Electron Microscopy

Mathieu Bottier (London UK)

Extracellular matrix and disease progression in lymphangioleiomyomatosis

Debbie Clemments (Nottingham UK)

09.45– 10.45 **YOU CAN'T POSSIBLY WANT A WHOLE SESSION ON MUCUS!**

Chairs: Prof. Rob Snellgrove (London UK), Erin Cant (Dundee UK)

Mucus biology in viral infections

Dr Aran Singanayagam (London, UK)

Mucociliary clearance in chronic lung disease

Prof. Amelia Shoemark (Dundee, UK)

The role of mucins in host defence

Prof. David Thornton (Manchester, UK)

10.45-11.15 *Coffee Break*

11.15– 1200 **KEYNOTE LECTURE 5**

Chairs: Dr Merete Long (Dundee, UK), Professor Karl Staples (Southampton, UK)

Multomics to understand COPD pathogenesis

Prof. Francesca Polverino (Houston, USA)

12.00– 12:30 FINAL AWARDS AND MEETING CLOSE

James Chalmers, Amelia Shoemark, Merete Long, Karl Staples