

# British Association for Lung Research

CONFERENCE  
22<sup>nd</sup> to 24<sup>th</sup>  
APRIL 2024

Discovery Point and RRS Discovery, **Dundee**



University  
of Dundee



**BALR**  
BRITISH ASSOCIATION FOR  
LUNG RESEARCH SINCE 1982



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## 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



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## 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



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## 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*)

Dr Dan Neill (*Dundee, UK*)

Prof. Francesca Polverino (*Houston, USA*)

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*)



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Our thanks to the BALR 2024 Spring Meeting Sponsors

## PLATINUM



## GOLD



## SILVER



AstraZeneca has provided a sponsorship towards the independent programme. AstraZeneca has had no editorial input or control over the agenda, content development or choice of speakers, nor opportunity to influence except for the AstraZeneca sponsored symposia presentations.

All sponsors have had no input into the scientific programme except where specifically indicated.



## Scientific Programme

### Day 1 Monday 22<sup>nd</sup> April

**14.00 – 14.45**

**WELCOME ADDRESS AND OPENING LECTURE**

**Disrupting the cycle of inflammatory lung disease**

*Prof. James 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 Betina Schock (Belfast UK),  
Sophie Booth (Manchester, UK), Jessica Orr (London, UK)**



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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*



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## Day 2 Tuesday 23<sup>rd</sup> 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*





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**11.00 – 12.00**

## 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 supported by AstraZeneca**

*This is a non-promotional symposium sponsored and organized by AstraZeneca and is intended for UK HCPs only*

**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*



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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*



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## Day 3 Wednesday 24<sup>th</sup> 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 Clements (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 – 12.00 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*



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