

# WINTER MEETING 2021 - ONLINE



# Full Programme

WEDNESDAY 24<sup>TH</sup> TO FRIDAY 26<sup>TH</sup> NOVEMBER

Please see our website: **brit-thoracic.org.uk** 

Better lung health for all

### **WELCOME**

#### **Dear Colleagues**

I am delighted to present to you our full programme of named lectures, major symposia, spoken and poster sessions for the 2021 BTS Winter Scientific Meeting.

The Science and Research Committee has organised an outstanding line up of speakers for the Meeting, which I am sure will provide something of interest to all health professionals and scientists who are working hard to improve how we care for patients with respiratory disease.

Our symposia programme contains some first-class international speakers who, together with our own national experts, will inform delegates of the very latest advances in the clinical, translational and basic science of lung disease.

As it is likely that COVID-19 will still be endemic and work pressures still great this winter, the Meeting will again be held fully online. We hope that this will enable many more participants to attend and to do so safely. We will use the same platform as for the Winter Meeting 2020 (held in February 2021) but with some new features and updates, including easier and more interactive options for delegates to ask questions.

There will be ample opportunity also to interact with clinicians, allied health professionals and scientific colleagues from within the UK and abroad in our spoken and abstract sessions both of which remain vitally important components of the Meeting.

The Winter Scientific Meeting remains the highlight of our professional calendar and I look forward to welcoming you and your colleagues.

Yours faithfully

Professor Elizabeth Sapey Chair, BTS Science and Research Committee



### **FINAL PROGRAMME**

The final programme is published as a supplement to Thorax and will be available to all subscribing BTS members in advance of the Meeting. For ease of reference, it will also be available to all participants in advance on the BTS website: www.brit-thoracic.org.uk

### **BTS SCIENCE AND RESEARCH COMMITTEE MEMBERS** – THE 2021 WINTER MEETING PLANNING COMMITTEE:

Professor Elizabeth Sapey (Chair) Dr Nazia Chaudhuri Professor Jane Davies Professor Andres Floto Dr Amanda Goodwin Professor John Hurst Dr Akhilesh Jha Dr Neelam Kumar Dr Philip Molyneaux Dr Nicola Roberts

Dr Chris Scotton Dr Aashish Vyas Dr Thomas Ward

### **CONFERENCE ORGANISATION**

The Winter Meeting is organised by the British Thoracic Society. For general conference enquiries, please email: **bookings@brit-thoracic.org.uk** 

### **ONLINE CONFERENCE AND EXHIBITION**

The Winter Meeting 2021 will be fully online with live streaming of all major symposia, guest lectures spoken and poster sessions. There will be ample opportunity for delegates to ask questions via an interactive chat function.

All delegates are encouraged to visit the online exhibition stands for the latest information on pharmaceutical products and therapeutic equipment.

### **CPD APPROVAL**

Application pending for CPD approval from the Federation of the Royal Colleges of Physicians of the UK. When approved, we will automatically register all eligible delegates for CPD when they pre-register for the Meeting.

### PROGRAMME

Whilst every effort is made to provide the publicised programme, this may be subject to change where circumstances are outside our control.

The British Thoracic Society gratefully acknowledges sponsorship from the under listed companies, through the purchase of online exhibition space at the Winter Meeting 2021. None of them have had any input into the programme content or the planning of the conference. Furthermore, the Society does not allow any sponsored symposia at this event, within the programme or associated in any way with it.

AstraZeneca Boehringer Ingelheim Bioprojet UK Ltd Boston Scientific Chiesi GSK Insmed Irwin Mitchell Janssen Olympus Pfizer Sandoz Sanofi Genzyme

#BTSWinter2021

British Thoracic Society Winter Meeting 2021

### FULL PROGRAMME WEDNESDAY 24<sup>TH</sup> NOVEMBER 2021

### 08:00-08:30 BTS JOURNAL CLUB

### VASCULITIS AND LUNG DISEASE

Dr Janice Harper (Liverpool)

### Learning objectives

Eosinophilic granulomatosis with polyangiitis (EGPA) is a subset of ANCA associated vasculitis with two distinct subtypes. Differences in pathophysiology and airway autoimmunity, clinical features and response to treatment (anti-IL5 and anti-B cell) will be discussed.

### 08:30-10:30 JOINT BTS/BALR SYMPOSIUM PART 1 FIGHTING THE FIRE IN AIRWAY INFLAMMATION AND BACTERIAL COLONISATION

Chaired by: Dr Bettina Schock (Belfast) and Dr Amanda Tatler (Nottingham)

- 1) Inflammation and cilia: a hairy situation Dr Amelia Shoemark (Dundee)
- 2) AMPlifying host defense: innate control of respiratory infections Professor Pieter Hiemstra (Leiden)
- Circadian rhythm and lung inflammation: right place at the wrong time Dr Julie Gibbs (Manchester)

### Learning objectives

- Gain understanding of innate barrier defences in the lung, and cutting-edge scientific approaches to characterise ciliary defects in the context of bronchiectasis.
- 2) In the age of antimicrobial resistance, discover the key role of the antimicrobial peptides naturally produced within the airway, and how they are modulated in health and disease.
- Develop awareness of how circadian rhythm our biological clock – can modulate the immune system, inflammation and steroid responsiveness in the lung.

#### 08:45-10:05 SPOKEN SESSION

#### THE CLINICAL MANAGEMENT OF ACUTE ASTHMA

08:45-10:05 SPOKEN SESSION STAY AWAKE! IT'S AN UPDATE ON SLEEP

08:45-10:05

PROBING THE PLEURAL SPACE

**SPOKEN SESSION** 

08:45-09:50

08:45-09:50 SPOKEN SESSION PREDICTIVE TOOLS FOR ACUTE DETERIORATION IN COVID-19 AND BEYOND

### 08:45-10:15

### SYMPOSIUM

# TRANSLATION OF SCIENTIFIC ADVANCES INTO PATIENT BENEFIT

Chaired by: Dr Ahsan Akram (Edinburgh) and Dr Emma O'Dowd (Nottingham)

- Importance and therapeutic implications of tumour heterogeneity in the clinical setting Dr Mariam Jamal-Hanjani (London)
- 2) Vaccines for lung cancer: bench to bedside Professor Benoit Van Den Eynde (Oxford)
- 3) Clinical trial designs in the personalised therapy era Professor Gary Middleton (Birmingham)

#### Learning objectives

- 1) Understanding the importance of genomic heterogeneity within clinical settings.
- 2) Potential impact of vaccine therapies as strategies to harness IO.
- 3) Understanding how advanced trial designs are needed in the era of personalised medicine.

### 08:45-10:15 **SYMPOSIUM**

# MOVING ON IN PULMONARY REHABILITATION AFTER COVID-19

Chaired by: Laura Graham (London) and Professor Sally Singh (Leicester)

- Intermittent exercise training in severe lung disease: evidence and clinical application Professor loannis Vogiatzis (Northumbria)
- 2) Post COVID-19 rehabilitation: what's the evidence? Professor Sally Singh (Leicester)
- Can ambulatory oxygen therapy improve performance in patients with chronic lung disease? Dr Samantha Kon (London)

### Learning objectives

- 1) To understand the clinical impact of intermittent exercise training in severe lung disease.
- 2) To discuss the evidence around post COVID-19 rehabilitation.
- 3) To discuss the role of ambulatory oxygen in improving outcomes for those with chronic lung disease.

#### 10:45-11:45 **POSTER SESSION**

# ILD: HOW BIG IS THE PROBLEM? HOW CAN YOU SPOT IT AND HOW SHOULD YOU MONITOR IT?

#### British Thoracic Society Winter Meeting 2021

### 10:45-12:00 **POSTER SESSION**

CLINICAL DEVELOPMENTS IN NON-INVASIVE VENTILATION AND SLEEP

### 10:45-12:15 **SYMPOSIUM**

### **ACUTE AND CHRONIC COVID-19**

Details to be confirmed

### 10:45-12:15 JOINT BTS/BPRS SYMPOSIUM THE CHILD IS FATHER OF THE MAN

Chaired by: Professor Charlotte Bolton (Nottingham) and Monica Fletcher (Edinburgh)

- 1) Air pollution and asthma: the effect of the new legal ruling Professor Jonathan Grigg (Munich)
- 2) Poor nutrition: destroyer of the developing lung Dr Ian Sinha (Liverpool)
- 3) Where next for our children's lungs post COVID-19? Professor Monica Lakhanpaul (London)

### Learning objectives

- 1) To understand the major public health concerns in paediatric respiratory medicine globally.
- 2) To appreciate the impacts of intersections eg poverty, second-hand tobacco smoke, environmental pollution.
- To increase awareness of public health initiatives and political drivers in these areas, particularly during the sharp focus of the COVID-19 pandemic.

### 10:45-12:20 **SPOKEN SESSION**

# THE NEW NORMAL? NOVEL AND REMOTE STRATEGIES FOR PULMONARY REHABILITATION

### 10:45-12:20 **SPOKEN SESSION**

COPD EXACERBATIONS: PREVENTION, TREATMENT, RECOVERY

### 11:00-13:00 JOINT BTS/BALR SYMPOSIUM PART 2 NOVEL APPROACHES TO EXTINGUISHING LUNG DYSBIOSIS

Chaired by: Dr Kylie Belchamber (Birmingham) and Dr Alison John (Nottingham)

- Pneumonia prevention using genetically-engineered live attenuated Streptococcus pneumoniae Professor Jeremy Brown (London)
- Exploiting commensal bacteria to enhance respiratory resilience to pathogenic colonisation Professor Mirco Schmolke (Geneva)
- 3) Harnessing natural predation using phage therapy Dr Helen Spencer (London)

### Learning objectives

- Gain an appreciation of the basic science and pre-clinical testing required in the development of novel vaccination approaches against bacterial pneumonia.
- 2) Further understand the key role played by (and manipulation of) lung commensals in the protection against bacterial colonisation.
- 3) In the face of increasing anti-microbial resistance, evaluate the potential of utilising tailored bacteriophage therapy to target key respiratory pathogens such as Pseudomonas.

### 13:00-13:45 GUEST LECTURE THE BTS SCIENTIFIC LECTURE

### THE GLOBAL CHALLENGE OF AGEING

Professor Linda Partridge (London/Cologne)

Introduced by Dr Graham Burns (Newcastle upon Tyne)

### Learning objective

To learn about why we age, and what is healthy and unhealthy ageing. To consider the links between ageing and chronic disease and multi-morbidity, and consider novel ways to improve health with longevity.

### 14:00-15:25 POSTER SESSION

### **VIRTUAL MONITORING IN COVID-19**

### 14:00-15:30 SYMPOSIUM

### **COPD: SCALING NEW HEIGHTS**

Chaired by: Professor Charlotte Bolton (Nottingham) and Professor Tom Wilkinson (Southampton)

- 1) Inequalities: the silent killer Professor Nadia Hansel (Baltimore)
- 2) Exacerbations: zero tolerance Professor John Hurst (London)
- 3) Endobronchial intervention: right person for the right approach Dr Nick Hopkinson (London)

- 1) To highlight the influence of these factors on the detection, management and diagnosis of COPD.
- 2) A focus on the first exacerbation, what can we do to emphasise this event and prevent future. What options are there? What are the latest interventions? The patient perspective. The need to address this in research and not settle for repeated exacerbation.
- 3) That the long-term plan encompasses a lot of COPD care and is vital but there is still a need to identify certain treatments for certain patients like LVR. We should not be denying patients access to these. Discussion that LVR would be good to be highlighted, especially with plans for commissioning coming in.

### 14:00-15:30 SYMPOSIUM

### JOINT BTS/BALR/BLF EARLY CAREER INVESTIGATOR AWARDS

This symposium will showcase the very best original research submitted to the Winter Meeting by UK scientists and clinicians in the early part of their research career, as they compete for prestigious prizes from the BTS, BALR and BLF.

14:00-15:30 SYMPOSIUM UPDATES IN THE PATHOGENESIS, PROGNOSIS AND TREATMENT OF ILD

Chaired by: Dr Mark Jones (Southampton) and Dr Lisa Nicol (Edinburgh)

- 1) The Lung Cell Atlas for clinicians Dr Herbert Schiller (Munich)
- Racial differences in IPF Dr Ayodeji Adegunsoye (Chicago)
- 3) Acute exacerbations of ILD Dr Tamera Corte (Sydney)

### Learning objectives

14:00-15:40

- 1) Understanding the Lung Cell Atlas and its impact for health and pulmonary fibrosis.
- 2) To understand the racial differences in age at diagnosis and survival in patients with pulmonary fibrosis.
- 3) An update in our understanding and management of acute exacerbations of interstitial lung disease.

#### POSTER SESSION

ADVANCES IN THE MANAGEMENT OF TB AND NTM INFECTIONS

14:00-15:45 POSTER SESSION DIAGNOSTICS AND MONITORING OF ASTHMA AND CO-MORBIDITIES

16:00-17:00 PRESIDENT'S ADDRESS

### **BTS PRESIDENT'S ADDRESS & AWARD PRESENTATIONS**

The changing faces of respiratory medicine

Rachael Moses (London)

Introduced by: Dr Graham Burns (Newcastle upon Tyne)

### **THURSDAY 25<sup>TH</sup> NOVEMBER 2021**

#### 08:00-08:30

### 30 BTS JOURNAL CLUB

"HOT OFF THE PRESS" CLINICAL TRIALS

Dr Philip Molyneaux (London)

### Learning objectives

To discuss the trials and tribulations of 2021.

#### 08:30-10:00

### SYMPOSIUM

### YEAR OF THE NURSE: A SPOTLIGHT ON NURSE RESEARCH LEADERSHIP

Chaired by: Alison Hughes (Chair, ARNS) and Carol Stonham (Chair, PCRS)

- 1) The support needs of patients with COPD and their carers Professor Morag Farquhar (Norwich)
- 2) Personalised approaches to asthma treatment Professor Vanessa McDonald (Newcastle, Australia)
- Reducing admissions by providing nurse led psychological support

Dr Karen Heslop-Marshall (Newcastle upon Tyne)

### Learning objectives

- 1) Understand the support needs of COPD patients and their carers.
- 2) To understand personalising approaches to asthma management.
- 3) To discuss the impact of providing psychological support to patients.
- 4) To discuss the pathways for nurses to be more involved in leading research.

### 08:30-10:00 JOINT BTS/BPRS SYMPOSIUM INTERSTITIAL LUNG DISEASE ACROSS THE DEVELOPMENTAL DIVIDE

- Chaired by: Dr Nazia Chaudhuri (Manchester) and Dr Priti Kenia (Birmingham)
- 1) ChILD: what adult physicians can learn from paediatricians Dr Rishi Pabary (London)
- 2) ILD: what paediatricians can learn from adult physicians Dr Martina Vasakova (Prague)
- 3) ILD genetics: pearls and pitfalls Dr Tessa Homphray (London)

### Learning objectives

- 1) To gain a full understanding of the breadth of ILD in childhood and adult life.
- 2) To appreciate differences and similarities of ILD across the age spectrum.
- 3) To be brought up to date on advances in genetic and molecular diagnosis.

### 08:30-10:30

### CHRONIC RESPIRATORY DISEASE IN LOW-INCOME AND MIDDLE-INCOME COUNTRIES (LMICs): FROM CHALLENGES TO SOLUTIONS

**SYMPOSIUM** 

Chaired by: Dr Jamilah Meghji (Liverpool) and Professor Kevin Mortimer (Liverpool)

- Challenges to the delivery of care for people with chronic respiratory disease in LMICs: a perspective from Malaysia Professor Khoo Fe Ming (Malaysia)
- 2) Opportunities to improve care for people with chronic respiratory disease: perspectives from Malawi and Kenya Dr Stephen Mulupi (Liverpool)
- 3) When it's not TB bronchiectasis and post TB lung disease in LMICs
  - Dr Shami Jayasooria (Sheffield)
- 4) The WHO's CRD strategy for chronic respiratory disease in LMICs
  - Dr Sarah Rylance (WHO Respiratory Director)

#### Learning objectives

- 1) To give an up-to-date perspective on CRDs in LMICs building on a review published in The Lancet on this topic with authorship from the BTS GHG.
- To give the new WHO Medical Officer for non-communicable respiratory disease an opportunity to engage with the BTS membership and GHG and to explore opportunities for collaborative working.
- To inspire BTS members to get involved with work to address global respiratory health through Global Health Group initiatives.

# 08:45-10:05 SPOKEN SESSION TREATMENT AND ADHERENCE IN ASTHMA

### 08:45-10:05 SPOKEN SESSION

BEYOND ACID-FAST: DIAGNOSIS AND TREATMENT OF TB IN THE 21ST CENTURY

08:45-10:20 SPOKEN SESSION WHAT GOES DOWN, MUST COME UP: OSCILLATION, OBSTRUCTION AND LUNG PHYSIOLOGY

08:45-10:20 SPOKEN SESSION DEVELOPING TREATMENTS FOR COVID-19

11:00-11:50POSTER SESSIONCOUGH: IS IT A PROBLEM AND WHAT CAN WE DO ABOUT IT?

 11:00 - 12:05
 SPOKEN SESSION

 UNDERSTANDING COVID-19 MECHANISMS

### 11:00 - 12:20 **SPOKEN SESSION**

TREATMENT CHOICES IN CF AND BRONCHIECTASIS: WHAT WORKS AND WHEN

### 11:00-12:20 SPOKEN SESSION

# WHAT'S IN A GENOTYPE? UNPICKING GENETIC LINKS IN COMPLEX DISEASE

### 11:00-12:25 POSTER SESSION

BREAKING BARRIERS IN PULMONARY REHABILITATION AND PHYSIOTHERAPY

### 11:00-12:30 **SYMPOSIUM**

# COVID-19: WE PLANNED, WE DELIVERED, WHAT HAS CHANGED?

- Chaired by: Dr Kenneth Baillie (Edinburgh) and Dr Charlotte Summers (Cambridge)
- 1) Pandemic planning in critical care Professor Ramani Moonesinghe (London)
- Non-invasive respiratory support in COVID-19: what have we learnt so far? Professor Gavin Perkins (Warwick)
- Critical care rehabilitation during COVID-19: improving long term outcomes from critical care Dr Bronwen Connolly (Belfast)

### Learning objectives

- An understanding of national pandemic planning for COVID-19, including insights into NHS structure and management and a national quality improvement project.
- 2) To understand the importance of non-invasive respiratory support in prevention of intubation in COVID-19 and the management of clinical trials during pandemic COVID-19.
- 3) To understand the role of rehabilitation and follow up in critical illness in terms of improving acute outcomes from COVID-19 and in the longer term.

### 11:00-13:00 SYMPOSIUM

### **TB: GLOBAL LESSONS FOR ALL!**

- Chaired by: Professor Marc Lipman (London) and Professor Kevin Mortimer (Liverpool)
- 1) Patient perspective living with TB Ingrid Schoeman (Pretoria)
- Hot topics in TB in the Global South what we think the Global North needs to know Dr Stellah Mpagama (Tanzania)
- Hot topics in TB in the Global North what we think the Global South needs to know Dr Esther Robinson (PHE)
- The competing global pandemics of COVID-19 and TB – what have we learned and where do we go from here? Dr Nim Arinaminpathy (London)

### Learning objectives

- 1) Hear perspectives from people and communities affected by TB in the UK and Global South.
- 2) Share learning from TB experience and research in the Global South and North.
- 3) Share learning about the impacts of COVID-19 on TB and vice versa and implications for the Stop TB agenda.

# 13:00-13:45GUEST LECTURETHE BTS CLINICAL LECTUREEARLY COPD COHORT DATA

Professor Wisia Wedzicha (London)

Introduced by: Professor Jon Bennett (Leicester)

### Learning objective

To learn what is "early COPD", how we can more accurately predict who is at risk of developing COPD, and what potential treatment modalities might mitigate disease progression.

### 14:00-14:50 **POSTER SESSION**

### VIRTUALLY PERFECT: REMOTE MEDICINE AND DIGITAL HEALTH

 14:00-15:00
 POSTER SESSION

 THE REAL-WORLD CARE OF COPD PATIENTS

14:00-15:30 SYMPOSIUM

### **HIGHLIGHTS FROM JAMA AND THORAX**

Details to be confirmed nearer to the time

### 14:00-15:30 **SYMPOSIUM**

# NON-TUBERCULOUS MYCOBACTERIA: TRANSLATING SCIENCE INTO CUTTING EDGE CARE

Chaired by: Dr David Connell (Dundee) and Dr Clare Sander (Cambridge)

- Which factors host, microbial and environmental determine the outcomes of NTM infections? Dr Jennifer Honda (Denver)
- Results of the National NTM UK Survey of Practice and review of international data Dr Heinke Kunst (London)
- Treating the untreatable: guideline-based approaches, and emerging therapies for NTM Dr Charles Haworth (Cambridge)

- 1) To learn how cutting-edge laboratory techniques are informing our understanding of NTM disease and epidemiology.
- 2) To learn what new therapies will be used in the next decade to treat complex NTM infections.
- 3) To describe the current clinical care landscape for patients with NTM in the UK.

### 14:00-15:30 **SYMPOSIUM**

### **BTS AUDIT AND QUALITY IMPROVEMENT**

Chaired by: Professor Michael Steiner (Leicester)

- 1) Introduction to the BTS QI and Audit Programme Professor Michael Steiner (Leicester)
- 2) Pleural Services Organisational Audit Dr Matthew Evison (Manchester) and Dr Andrew Stanton (Newcastle upon Tyne)
- 2021 Smoking Cessation Audit Dr Nikesh Devani (London) and Dr Matthew Evison (Manchester)
- 4) Update on the BTS 3-year Tobacco Dependency Project Dr Zaheer Mangera (London) and Ms Melanie Perry (BTS)

### 14:00-15:30 **POSTER SESSION**

### **COVID-19: CLINICAL FEATURES AND RISK**

# 14:00-15:45POSTER SESSIONTHE WIDER IMPACT OF THE PANDEMIC

16:00-17:30

### SYMPOSIUM

# RECENT ADVANCES IN CF: WHAT'S RELEVANT TO OTHER DISEASES?

Chaired by: Dr Maya Desai (Birmingham) and Dr Helen Rodgers (Glasgow)

- 1) Theranostics: personalised medicine guided by ex-vivo testing Dr Francois Vermeulen (Leuven)
- Secondary CFTR dysfunction in chronic airways disease: a role for modulator drugs? Dr Steven Rowe (Alabama)
- 3) Telemedicine, digital monitoring and machine learning Professor Andres Floto (Cambridge)

### Learning objectives

- 1) To appreciate the role of ex vivo organoid systems to predict drug responses in lung disease.
- 2) To understand the potential for CFTR modulation in other lung diseases.
- To recognise how machine learning can predict clinical deteriorations and long-term clinical trajectories in CF and by extension other chronic lung diseases.

### 16:00-17:45 **SYMPOSIUM**

### PLENARY SCIENTIFIC

- Chaired by: Professor Elizabeth Sapey (Birmingham) and Dr Chris Scotton (Exeter)
- Disruptive optical technologies to advance respiratory medicine and critical care Dr Kevin Dhaliwal (Edinburgh)
- 2) COVID-19 pathogenesis: common themes and unique features Dr Ryan Thwaites (London)
- Innate immune signatures in COVID-19 during acute disease and convalescence Dr Elizabeth Mann (Manchester)
- 3D bioprinting airway and lung tissue for transplantation: hype or future therapy? Dr Darcy Wagner (Lund)

- 1) To learn how molecular imaging has the potential to revolutionise the practice of medicine.
- 2) To learn about the features of the immune response to COVID-19 that contribute to pathogenesis.
- 3) To understand the balance needed for our innate immune system to clear infection, and then reduce by-stander damage in the context of COVID-19.
- 4) To learn about different approaches for 3D bioprinting tissue in the lab for disease modeling as well as for potential tissue transplantation.

### FRIDAY 26<sup>TH</sup> NOVEMBER 2021

#### 08:00-08:30

#### **BTS JOURNAL CLUB**

#### **SLEEP**

Dr Alanna Hare (London)

### Learning objective

Something to wake up for! An update about the latest evidence in sleep medicine, including recently published studies.

#### 08:30-09:50 SPOKEN SESSION

GAZING THROUGH THE CRYSTAL BALL: PREDICTING OUTCOMES FROM COVID-19

### 08:30-09:50 SPOKEN SESSION

#### A CUT ABOVE: AN UPDATE IN THORACIC SURGERY

### 08:30-09:50 SPOKEN SESSION UNDER PRESSURE: AN UPDATE IN PULMONARY

VASCULAR DISEASE

#### 08:30-10:00

#### SYMPOSIUM

### STATE OF THE ART PLEURAL DISEASE MANAGEMENT: LATEST EVIDENCE FROM UK TRIALS

Chaired by: Dr Eihab Bedawi (Oxford) and Laura McNaughton (Glasgow)

- What is the optimal first line intervention for malignant pleural effusions? Results of the OPTIMUM study Dr Deepan Sivakumar (London)
- 2) What is the optimal first line management for benign organ failure pleural effusions? Results of the REDUCE study Dr Steven Walker (Bristol)
- 3) Optimising pleurodesis protocols results of the SIMPLE study Dr John Corcoran (Plymouth)

### Learning objectives

- To understand the results and impact of an RCT comparing the impact on quality of life from indwelling pleural catheters versus Seldinger chest drain and talc slurry in patients with malignant pleural effusions.
- 2) To understand the results and impact of an RCT comparing indwelling pleural catheters versus standard care in benign pleural effusions.
- 3) To understand the results and impact of an RCT comparing ultrasound guided pleurodesis assessment protocol versus standard care following a talc pleurodesis.

### 08:30-10:00

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# THE CHALLENGE OF MEDICINE NON-ADHERENCE IN RESPIRATORY DISEASE

Chaired by: Professor Anna Murphy (Leicester) and Dr Aashish Vyas (Preston)

- 1) Medicine adherence in severe asthma Grainne D'Ancona (London)
- 2) Managing non-adherence in adult patients with cystic fibrosis Dr Martin Wildman (Sheffield)
- Will the use of SMART technologies revolutionise medicine adherence in asthma and COPD? Dr Richard Costello (Dublin)

### Learning objectives

- 1) To discuss the complexities of non-adherence in people with respiratory disease.
- 2) To highlight how to monitor and address non-adherence in people with respiratory disease.
- 3) To discuss the evidence and use of smart inhaler technology in supporting people with managing their medicines.

### 08:30-10:00 SYMPOSIUM

# EXPLORING THE ILL-EXPLORED: IDENTIFYING OCCUPATIONAL RISK FACTORS FOR LUNG DISEASE

Chaired by: Dr Chris Barber (Sheffield) and Dr Jennifer Hoyle (Manchester)

- 1) Risk factors for COVID-19: occupation or preoccupation? Professor Andrew Curran (HSE)
- 2) IPF, smoking and asbestos exposure: is it all in the genes? Dr Carl Reynolds (London)
- HP screening for occupational and environmental causes: what is the pick up? Dr Hayley Barnes (Melbourne, Australia)

- 1) To better understand how national research projects have helped our understanding of COVID-19 risk factors in the workplace.
- 2) To increase awareness of the role that genetic polymorphisms and historic environmental exposures play in IPF.
- 3) To review international consensus opinion on how we should screen HP patients for occupational and environmental causes.

# 08:30-10:05 SPOKEN SESSION BIOLOGICS FOR ASTHMA

### 10:30-11:30 POSTER SESSION

THINKING OUTSIDE THE LUNG: MONITORING AND MANAGEMENT OF PATIENTS WITH CF, PCD AND BRONCHIECTASIS

### 10:30-11:45 **POSTER SESSION**

IMPROVING CARE PATHWAYS IN ADULTS AND CHILDREN

### 10:30-11:50 **SPOKEN SESSION**

NEW INSIGHTS INTO AIRWAYS DISEASE

### 10:30-12:00 SYMPOSIUM

# A JOURNEY THROUGH CLOTS, COVID-19 AND CHRONIC THROMBOEMBOLIC DISEASE

Chaired by: Dr Colin Church (Glasgow) and Professor David Kiely (Sheffield)

- COVID-19 and its effects on the pulmonary vasculature: is it here forever? Dr Laura Price (London)
- The spectrum of chronic thromboembolic disease: is it straight from PE to CTEPH? Professor Marion Delcroix (Leuven)
- The changing landscape of management of chronic pulmonary thromboembolic disease Dr John Cannon (Cambridge)

### Learning objectives

- To document the molecular pathways involved in COVID-19 related pulmonary vascular disease and highlight the clinical effects and strategies to try and mitigate those.
- 2) The molecular mechanisms which are implicated in the transition for acute PE to chronic thromboembolic pulmonary disease and then to CTEPH are discussed. The entity of CTEPD is defined and explored further from a clinical perspective.
- Recent developments in the management of chronic thromboembolic disease are discussed. This includes evolving roles of surgery and balloon pulmonary angioplasty and pre-treating with pulmonary vasodilators.

### 10:30-12:00 **SYMPOSIUM**

# LATEST ADVANCES IN IMMUNOTHERAPY FOR LUNG AND PLEURAL MALIGNANCY

Chaired by: Dr Richard Lee (London) and Dr Selina Tsim (Glasgow)

- Latest developments in immunotherapy for treatment of lung cancer Dr Yvonne Summers (Manchester)
- Dual immunotherapy: a new standard of care in mesothelioma? Discussion of the Checkmate 743 Study Professor Sanjay Popat (London)
- IO pneumonitis: differential diagnosis, investigation and management Dr Jaishree Bhosle (London)

### Learning objectives

- 1) Appreciating the rapid advances in IO for lung cancer treatment.
- 2) Latest trial evidence for IO in mesothelioma.
- 3) Managing challenging and life-threatening complications.

### 10:30-12:05 **SPOKEN SESSION**

# FROM BENCH TO LUNG: SCIENTIFIC ADVANCES IN RESPIRATORY RESEARCH

10:30-12:15 POSTER SESSION

**COVID-19 RECOVERY: PREDICTING LONG TERM OUTCOMES** 

**GUEST LECTURE** 

12:30-13:15

### THE BTS GRAND CHALLENGE LECTURE CHILD POVERTY AND HEALTH INEQUALITIES

Professor Dave Gordon (Bristol) Introduced by: Rachael Moses

### Learning objective

The COVID-19 pandemic has highlighted the impact of health inequalities both nationally and globally, especially for children. This lecture will outline changing trends in child poverty, and what measures can be taken to 'level up' our society.

### 13:30-14:40 **POSTER SESSION**

ASSESSING, MANAGING AND PREDICTING OUTCOMES IN ILD

13:30-14:40	POSTER SESSION
NEW TREATMENT PATHWAYS IN THE POST-COVID-19 ERA	

# 13:30-14:50SPOKEN SESSIONEASE THAT WHEEZE: MANAGING RISK IN COPD

### 13:30-14:55 **POSTER SESSION**

### **TOPICS IN THORACIC MALIGNANCIES**

### 13:30-14:55 POSTER SESSION

# PERSPECTIVES ON EDUCATION, TRAINING AND RESEARCH COLLABORATIVES

### 13:30-15:00

### SYMPOSIUM

# PULMONARY INFECTION HORIZON-SCANNING: WHAT COULD GO WRONG NOW?

- Chaired by: Professor Alison Condliffe (Sheffield) and Dr Anand Shah (London)
- The global emergence of antifungal resistance: the calm before the storm?
   Due fore the Matthew Fishers (Lenders)
  - Professor Matthew Fisher (London)
- Precision medicine in infectious disease: is a system genomic approach the answer?
   Dr Myrsini Kaforou (London)
- 3) Accelerated immune ageing in severe COVID-19 infection Dr Niharika Duggal (Birmingham)

### Learning objectives

- Insight into the rapid global spread of antifungal resistance and the use of whole genome sequencing to identify mechanism of evolution. Awareness of novel diagnostics in development for rapid detection and implications for therapeutic options.
- 2) Understand how a system genomic approach can be used to define specific pathway defects in infectious disease and primary immunodeficiency. Insight into how this can translate into novel precision medicine therapy.
- 3) Understand the long term (3 months post infection) impact of severe and moderate COVID-19 infection on the immune ageing clock. Insight into anti-viral immune responses post infection.

### 13:30-15:30 **SYMPOSIUM**

# THE ASTHMA SCIENCE SYMPOSIUM: DEEP PHENOTYPING INTO ACTIONABLE INSIGHTS

Chaired by: Dr Tara Sutherland (Manchester) and Professor Sebastian Johnston (London)

- 1) Targeting treatable traits in severe asthma Professor William Busse (Wisconsin)
- 2) The human lung cell atlas: mapping cell types to tissues context Dr Kerstin Meyer (Cambridge)
- 3) Asthma and the microbiome Dr Geraint Rogers (Adelaide)
- 4) Asthma and COVID-19: comparing rhinovirus and SARS-CoV2 Professor Sebastian Johnston (London)

### Learning objectives

- 1) To understand how to focus asthma treatments in severe disease based by biological signals.
- 2) To learn how novel methodologies have identified new cell types and how this might lead advances in clinical care.
- 3) To understand the relationship between the lung microbiome and outcomes in asthma.
- 4) To compare the impact and biology of SARS-CoV2 and rhinovirus infections in asthma.

### 15:15-17:15 **SYMPOSIUM**

## MACHINE LEARNING AND DATA SCIENCE TO IMPROVE PATIENT CARE

- Chaired by: Dr Joseph Jacob (London) and Dr Muhunthan Thillai (Cambridge)
- 1) Computer science Professor Daniel Alexander (London)
- 2) Lung nodules Dr Colin Jacobs (Nijmegen)
- 3) ILAs and the potential implications for AI/ML Dr Rachel Putman (Boston)
- Parametric response mapping in COPD Dr George Washko (Cambridge, Massachusetts)

- 1) An introduction to AI and ML for the respiratory physician.
- 2) Understand the application of ML in the detection and monitoring of pulmonary nodules.
- 3) Understand the application of ML in assessing and monitoring ILA.
- 4) Understand the application of ML in the diagnosis, prognostication and monitoring of COPD.

# 15:30-16:30POSTER SESSIONFIGHTING BACK: OPTIMISING TREATMENT FOR COVID-19

15:30-16:40 **POSTER SESSION** 

PERSPECTIVES ON PLEURAL DISEASE

15:30-16:45 **POSTER SESSION** ASTHMA: PHENOTYPING AND THE RESPONSE TO BIOLOGICS

15:30-16:55 POSTER SESSION

OXYGEN, CPAP, NIV OR ICU: WHAT WORKS IN COVID-19?

### 15:45-17:30 **SYMPOSIUM**

### TO VAPE OR NOT TO VAPE, THAT IS THE QUESTION

Chaired by: Dr Nazia Chaudhuri (Manchester) and Dr Aaron Scott (Birmingham)

- 1) Acute effects of e-cigarettes on the innate immune response Dr Aaron Scott (Birmingham)
- E-cigarette constituents propylene glycol and vegetable glycerin, decrease glucose uptake and its metabolism in airway epithelial cells in vitro Professor Deborah Baines (London)
- 3) Cochrane review of e-cigarettes for smoking cessation Dr Jamie Hartmann (Oxford)
- 4) How close are we to definitively identifying the respiratory health effects of e-cigarettes?
   Dr Maciej Goniewicz (New York)

### Learning objectives

- 1) Are e-cigarettes effective as a cessation therapy?
- 2) Discuss the immunological effects of e-cigarettes use.
- 3) Discussion of non-nicotine e-cigarette effects in the context of metabolism.
- 4) Based on cohort studies carried out by Dr Goniewicz, how close are we now to quantifying the effects of e-cigarette use?

### **FUTURE BTS MEETINGS**

Summer Meeting 2022

23<sup>rd</sup> & 24<sup>th</sup> June, Manchester

Winter Meeting 2022

 $23^{\mbox{\scriptsize rd}}$  to  $25^{\mbox{\scriptsize th}}$  November, London



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