BREATHING MATTERS NEWSLETTER: ISSUE 25

WINTER 2019



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Interstitial Lung Disease Clinical Trials Update, by Professor Porter

I would like to take this opportunity to reflect on another remarkable year for Breathing Matters. As we reach our 8th year, many of the seeds that we planted in 2011 are bearing fruit.

Our cryoscopic lung biopsy service allowing us to do relatively non-invasive lung biopsies continues to flourish and has allowed many of our patients to have a biopsy taken, but avoid the 3 day hospital stay, and side-effects of a surgical lung biopsy, by having it all done by 'key hole'.

We have finally, after many different approaches, shown a role for platelets and blood clotting in pulmonary fibrosis and have some very exciting data that we are submitting for publication in 2019, fingers crossed.

We have gone on to show that anti-coagulation may have beneficial effects in patients with IPF and we hoping to take this into a feasibility study in 2019. It will take some years before this has the widespread clinical impact that we hope as there are many hurdles still to negotiate, but I am confident that Breathing Matters will finally answer the question 'should patients with pulmonary fibrosis be anti-coagulated routinely'.

However, our major achievement in 2018 was the publication of our study of FDG -PET scans in IPF patients, followed for 10 years. In this tour-de-force, that over 150 of our patients took part in, we showed that FDG-PET scans can predict how well individual patients do over time and are able to refine the current scoring systems based on age and lung function. This work has led on to the major pre-occupation of the last few months which has been the submission of a funding request for £400,000 to the National Institute of Health Research to see if FDG-PET can predict which patients should be treated with drug, nintedanib or pifenidone or neither, and whether using the information from PET scans can improve the quality and length of our patients' lives-which is our ultimate goal.

I would like to thank you all for your support over the year in what has been an uncertain and challenging time for many of you. With your support Breathing Matters has continued to excel by focusing on our core mission.



For more detailed information on our clinical trials in interstitial lung disease including how your donations have helped gain leveraged funding, please see our report on our website: https://bit.ly/2SrjEZb

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LUNG 'TRUE OR FALSE' QUIZ



True or False?

- 1. The left lung has three lobes and the right lung has two lobes?
- 2. As you age, your lungs hold less air?
- 3. At the time of birth, a baby's lungs are filled with fluid?
- 4. Our lungs can never fully deflate?
- 1. The rib cage helps the lungs to breathe?

Answers on our website www.breathingmatters.co.uk

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Infection Clinical Trials Update, by Professor Brown

Potential New Vaccine Against Streptococcus pneumoniae, the Commonest Cause of Pneumonia

Streptococcus pneumoniae is the commonest cause of pneumonia, and vaccines to prevent infections by this bacteria are very important for preventing lung infections both in infants and in vulnerable adults (the elderly and those with chronic lung diseases such as asthma, bronchiectasis, COPD, and interstitial lung disease). However, there is still a need for a better vaccine that is cheaper and effective against all *S. pneumoniae* strains rather than just a proportion. Making the most effective S. pneumoniae vaccines is expensive as it requires multiple chemical steps that each need to be very carefully controlled to ensure they have worked properly. Professor Brown's group in collaboration with Professor Wren from the London School of Hygiene and Tropical Medicine have now shown in a recent scientific paper

that an effective vaccine can be made using genetically engineered bacteria, a much simpler and cheaper method. Furthermore, they also have shown that the vaccine could protect against many more strains than the existing vaccine. It is hoped that this paper will stimulate investment in the new vaccine approach and eventually lead to the introduction of cheaper but better *S. pneumoniae* vaccines to help prevent lung infections.

Reglinski et al. 'A recombinant conjugated pneumococcal vaccine that protects against murine infections with a similar efficacy to Prevnar-13.' NPJ Vaccines, in press 2018

New Study for Bronchiectasis Patients

Professor Brown's research group has started a new study for patients with bronchiectasis, mainly for patients who have developed bronchiectasis as a consequence of a haematology disease or are receiving rituximab. The aim of the project is to investigate the effects of antibody deficiency on how the immune system is able to recognise and control Streptococcus pneumoniae infections. The study is being carried out by Dr Hall and Dr Jose and involves measuring antibody and white cell recognition of *S. pneumoniae* in volunteers before and after an injection of dead *S. pneumoniae* into their forearm. Dr Hall will be contacting patients with bronchiectasis who maybe suitable for this study to describe in more detail what it involves.

Bronch UK Recruitment Reaches 100

We have now recruited 110 patients into the Medical Research Council funded Bronch UK study; well done to Dr Hall and Joel Solis (research nurse) for reaching this target, **and thank you for all the patients who have volunteered to take part.** The data from this study will be essential in designing future trials of new therapies or ways of managing bronchiectasis.

FUNdraising Events, Tributes and Inspirations

- Join a sponsored Easter bunny hop.
- ▼ Have a Hot Cross
 Bun bake-off.
- ▼ Join a sponsored walk, a scooter, a cycle, a hop—be as outrageous or as simple as you dare!
- Make us your Charity of the Year for 2019. Do you know any local businesses who could support us?



CHARITY SILENT DISCO

Come along and have the best FUN this side of Easter at the iconic and atmospheric London Museum of Water and Steam, Kew Bridge. Choose your fav tune on your personal headset and dance like no-one is watching!.

Tickets from £25 at: https://bit.ly/2LxPJZ8

CHALLENGE YOURSELF IN 2019



We have access to a wide range of fundraising events including the Prudential Ride London to the Paris Half Marathon to the Inca Trail Trek.

Visit our events page on:

https://bit.ly/2zFd6fM