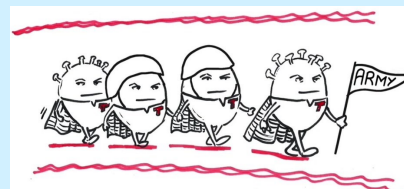


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The Neutrophil Army

Is our [neutrophil] army too trigger-happy?

Professor Porter's group have found that IPF patients with more white blood cells, specifically a type of white blood cell called a neutrophil, do less well. In fact, the number of neutrophils that we find in the lungs of patients that undergo bronchoscopy can predict their mortality. It is not clear why this is the case.



We have found that neutrophils may become activated in the lungs and cause damage. This is a little like the bystander injury to civilians (the lungs) when the neutrophils (the army) attach invaders (the bacteria and viruses that get into our lungs). One approach is to try to make the army (neutrophils) less 'trigger happy' so that they just kill the bad-guys and don't cause collateral damage. We have been looking at what over-excites the neutrophils and have found that low levels of oxygen may make them more aggressive and more likely to march into the lungs looking for trouble. When the neutrophils detect the low oxygen in the lungs, they become very combative. By understanding this a bit more, we can try to use medicines that are already available to try and dampen down their enthusiasm. But it must not be dampened too much or they will not get on top of potential infections, so we have to maintain a balance.

We have just submitted a piece of work on this topic that we hope will get published very soon. Fingers crossed it will be accepted and we can move on to our next project. This will involve trying to tone things down, and stop so many neutrophils coming into the lungs and then making extra trouble by destroying lung tissue and driving lung fibrosis.

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RUGBY WORLD CUP QUIZ



1. Which year did England win the World Cup?
2. What is the name of the World Cup trophy?
3. In which year was the first Rugby World Cup?
4. Who won the first Rugby World Cup, and who were runners-up?
5. Who has scored the most tries in a Rugby World Cup?

Answers on our website
www.breathingmatters.co.uk



Bronchiectasis Research Update

Prof Brown's team has had two papers on bronchiectasis published recently.

The first describes the rapid development of bronchiectasis in patients who have weakened immune systems due to haematological disease. This includes information for around 80 patients about bronchiectasis caused by haematological disorders such as lymphoma, myeloma or leukaemia. This is the largest number of these patients described in the medical literature, and is important as it makes other doctors aware that bronchiectasis develops very quickly in these patients and causes a lot of ill health; better awareness of the problem will make doctors much better at recognizing these patients and referring them to specialist centres, such as UCLH. [Jose R et al. De novo bronchiectasis in haematological malignancies. ERJ Open, in press 2019.]

The other paper on bronchiectasis uses computers and CT scans to measure the exact degree of the dilatation of the bronchi in patients with bronchiectasis. The more dilated the bronchi the worse the bronchiectasis, but at present we can only really measure this by eye just looking at the CT scans, which is not very accurate. Using computer software to give an actual measurement for the severity of bronchial dilatation would be a significant breakthrough as it would allow us to follow what happens to a particular patient over time, and rapidly identify if things are getting worse. [Kin et al. Reproducibility of an airway tapering measurement in computed tomography with application to bronchiectasis. J Medical Imaging, in press 2019].

See website for full Lung Infection Research Update: <https://bit.ly/32fMYTk>

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FIGHTING PULMONARY FIBROSIS AND INFECTION



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You can DONATE via www.justgiving.com/campaign/breathingmatters

Thank You

Thank you to Pavers Foundation for awarding us a £500 grant for our research work into ILD and thank you to Kerry Scates for nominating us in memory of her father, Graham. Kerry has since raised a further £175.



Leon Collins and a 10 strong team raised a fabulous £1177 cycling from Southport to Manchester in memory of Leon's dad. Thanks to every member of the team.



Thank you to our very own Medical Director, Jo Porter, who jumped out of a plane to help raise money for ILD research: her skydive raised a soaring £930! Look no hands!



Thanks to all our Royal Parks Half Marathon runners who between them raised an amazing £4000 for pulmonary fibrosis research. It was worth running through the rain!



A massive thank you to the Breathing Matters team at this year's Prudential Ride London for raising an amazing £1400 towards ILD and lung infection research. They deserved a pint after!



Thank you to Pat Lynch and St Joseph's Golf Society for raising a massive £1000 at their recent Captain's Day Golf Tournament at the stunning Sudbury Golf Course. A very jolly and sunny day was had by all. Grand!

Thank you to Mary Foley who completed a Peak District Walk. The £557 raised is to be matched by Santander totalling £1114. Amazing—thanks to both Mary and Santander!



We don't have enough space to thank each and every fundraiser and generous donor, so this is a heartfelt message to you all :-



FUNdraising Events and Inspirations

- ♥ Have your own charity bake-off.
- ♥ Enjoy a charity mulled wine and mince pie evening.
- ♥ Host a Christmas arts and craft evening.
- ♥ Organise a swish party to swap unwanted clothes; just pay an entrance fee. You may get a Christmas outfit for free!
- ♥ 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 2020. Do you know any local businesses who could support us?

HOLST SINGERS CHRISTMAS CONCERT



Friday 13th December 2019, 7.30pm
St Pancras Church, Euston

Come along to our popular Christmas Concert. There will be audience carols as well as a feast of traditional and contemporary seasonal music.
Booking early is advisable.

For further information and tickets, please contact Jane Walker on 01732 366346 or email missjanewalker@hotmail.com

Tickets are also available online at
<https://bmchristmasconcert.bpt.me>

CHALLENGE YOURSELF IN 2020



We work with two fabulous events partners—Run for Charity and Global Adventure Challenges who give our supporters access to an amazing range of fundraising events from Santa in the City, Prudential Ride London, Paris Half Marathon to the Inca Trail Trek.

Visit our events page for more info on: <https://bit.ly/2zFd6fM>