Highlights from this issue

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The Triumvirate

There are just a few heroes and many villains on the UK and international scene at present. With a nod to wider geopolitical events (and many works of fiction), this month's Airwaves presents you with the heroes and villains of the respiratory system.

DOCTORS SAY 'NO' TO THE TOBACCO VILLAINS?

While Bond villains might have their secret lair disguised within a volcano, the villains of the respiratory world have a more prosaic disguise. In the case of the tobacco industry's latest attempt at legitimacy, the disguise comes in the form of the inhaler manufacturer 'Vectura'. In this month's Airwaves, Nick Hopkinson tells the sorry tale how tobacco company Phillip Morris has bought Vectura, a company which makes inhalers for a large number of pharmaceutical companies (*see page 537*). The tobacco giant's ruse is more devious than anything conceived by Dr No. Vectura manufacture platform technology which has been adopted by many pharmaceutical companies in order to deliver their products. This makes it more difficult to for prescribers to avoid prescribing inhalers manufactured by the tobacco industry. However, for a handy list of which inhalers to avoid click the link (bit.ly/3FDcuqN). Doctors and patients can say 'No' to the Phillip Morris inhalers! We understand there are no plans to drop the CEO of Phillip Morris into a tank of piranhas…

NO MORE HEROES?

The new wave band 'the Stranglers' famously sang 'No more heroes anymore' in a song which name-checks Trotsky, Lenin and Sancho Panza. To many CF physicians and patients, the huge task of combatting pulmonary infection with *Pseudomonas aeruginosa* may seem like a Quixotic enterprise, doomed to failure. What then could be more troubling than the idea that two drugs aimed at respiratory infection might antagonise one another? In this issue of *Thorax*, David Nichols and colleagues (*see page 581*) investigate whether the antagonism shown by tobramycin and azithromycin in laboratory studies is replicated in a clinical setting. The TEACH study randomised 108 patients, starting inhaled tobramycin for clinical indications, to azithromycin or placebo. The authors find that, over a 6 week study period (4 weeks of inhaled tobramycin), there was no statistically significant difference in the relative change in FEV_1 between arms. They demonstrated no clinically meaningful antagonism although, in a smaller sub-group with paired sputum samples, the change in *P. aeruginosa* density favoured the placebo group. In a linked editorial (*see page 534*), 'Dutch' van Devanter salutes the heroes of TEACH and puts the work in its wider context.

SPECTRE OF ILD

One of the best described global villains is Ernst Stavro Blofeld, head of the SPECTRE criminal organisation and nemesis of the eponymous hero in the James Bond novels and films. Over the years Blofeld tried to no avail to get the better of one of our favourite hero, unfortunately the same cannot be said for the spectre of ILDs which appear to be getting the better of our 'intelligence services'! In this issue of *Thorax*, Ma and colleagues (*see page 596*) use the Global Burden of Diseases dataset from 2019 to determine the global incidence, morbidity and mortality associated with ILD and pulmonary sarcoidosis. They show that there has been a increase in ILDs globally with marked geographical differences and note that high sociodemographic income (SDI) regions have a higher incidence but lower mortality than low SDI regions suggesting considerable health inequity. Unfortunately, it looks as though there is considerable life in this franchise yet but with luck the 'intelligence services' can gain the upper hand in time for the next analysis.

THE DUDE

The Big Lebowski is a crime comedy classic, with a convoluted plot involving an ageing hero Jeffrey 'the Dude' Lebowski (which ultimately just works), being regarded as the one of the funniest films of the last 25 years. In this issue of *Thorax* Paschalaki and colleagues (*see page 616*) have defined a mechanism through which corticosteroids, 'the Dude' of anti-inflammatory drugs, may work in COPD. Using endothelial-colony-forming cells they demonstrate increased senescence on cells from smokers and patients with COPD compared with controls, and showed this was reduced in patients receiving corticosteroids. Further studies demonstrated a protective effect of steroids in oxidative stress induced senescence using an endothelial cell line. Generations of anti-inflammatories come and go, but the Dude abides.

VILLAINS AND HEROES

Viruses can be both villains and heroes. Unfortunately, the bad guys far outweigh the good but we must not forget the bacteriophages, the viruses that infect bacteria. Some bacteriophages have been engineered as phage therapy to combat antibiotic resistance. However, human papillomavirus (HPV) is a true villain and the principal risk factor for cervical cancer. Thornton and colleagues (see page 625) investigated HPV and cervical dysplasia in adult female cystic fibrosis lung transplant recipients. 35% of patients studied had more than one abnormal Papanicolaou smear test and demonstrated complications including refractory anogenital warts, vulvectomy and cervical cancer, with two deaths from metastatic disease. None of these patients had been vaccinated and exhibited four times the risk of cervical dysplasia. Viruses can be both heroes and villains but we need to provide a cloak of hero protection with HPV vaccination to our female cystic fibrosis patients.

A VILLAINOUS INDWELLING PLEURAL CATHETER?

Where is the tip of the pleural catheter? Test your diagnostic skills with a tricky image from Bedawi and colleagues (*see page 633*).