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*The Triumvirate*

This month's airwaves has a festive flavour...

### INCREMENTAL COSTS AND EBENEZER SCROOGE

"If they would rather die, they had better do it, and decrease the surplus population."

So said Ebenezer Scrooge in Charles Dickens' "A Christmas Carol". His views may be a fictional reflection of those of the political economist Thomas Malthus. A different kind of economics is presented in this month's *Thorax*. Chen and colleagues (see page 1113) consider the economic burden of severe asthma – particularly multimorbidity. Using data from British Columbia, which cover a 20 year period, they conclude that the incremental cost of severe asthma (compared with no asthma) is \$2779 per person-year. The authors attribute more than half incremental cost to co-morbidities – mainly respiratory co-morbidities. The incremental cost of severe asthma was comprised of: hospitalisations for comorbidities; medications for asthma and medication for comorbidities. Scrooge was very aware of incremental costs and paid his clerk, Bob Cratchit only 15 shillings a week. He paid this derisory salary while knowing that Cratchit's son, Tiny Tim, suffered multimorbidity. "Bah Humbug!"

### AIRWAY OBSTRUCTION PAST, PRESENT AND YET TO COME

In "A Christmas Carol" Scrooge is visited by the ghosts of Christmas past, present and Christmas yet to come. The ghost of Christmas yet to come shows Scrooge his likely prognosis: a neglected grave in a churchyard overrun with weeds, with the name Ebenezer Scrooge carved on the gravestone. In this month's journal, Doyle *et al* (see page 1147) describe a long term follow-up of infants born less than 28 week's gestation or under 1000g, in the surfactant era and speculate on their likely prognosis. They present data from participants at 25 years of age and describe how ex-preterm participants had a lower airflow trajectory than controls between 8 and 18 years. Although this reduced trajectory is not seen after 18 years, the researchers suggest that a greater proportion of ex-preterm infants will develop COPD in later life. When finally Scrooge mends his ways he says: "*I will live in the Past, the Present, and the Future. I will not shut out*

*the lessons that they teach.*" The same lesson can be learnt from this exemplary neonatal follow-up study.

### HOME ALONE

Everybody is aware of the importance of family, especially at Christmas. When Macaulay Culkin wakes to find himself alone the initial relish of independence gives way to the realisation that he has to contend with tribulations of life alone. While the inheritance of risk alleles for idiopathic pulmonary fibrosis may not seem the greatest Christmas gift this does offer the ability to provide an important new avenue of treatment. In this issue of *Thorax* (see page 1131) Mathai *et al* describe the risk of asymptomatic radiological changes in the relatives of patients with Familial Pulmonary Fibrosis. Radiological changes consistent with early interstitial lung disease were found in 15% of relatives and were associated with risk factors for pulmonary fibrosis including the *MUC5B* genotype, male sex and prior smoking history. These data raise the prospect that, much like our eponymous hero booby trapping his house to thwart the impending burglary, we can identify patients at risk of IPF but before the onset of substantial functional defects and symptoms and treatment initiated to prevent future declines. Now that would be a gift worth having!

### ELF

On Christmas Eve when a young boy crawls into Santa's sack he ends up in the North Pole and is raised as a model Elf. Unfortunately much like forward translation, this reverse translation does not give the predicted results and Buddy is unable to perform as a real Elf does with unfortunate consequences. In this issue of *Thorax* (see page 1120) Oakley and colleagues try and improve the translation power of pre-clinical disease models by ventilating mice with lung injury at the same time as initiating a specific therapy. They demonstrated that beta-agonists, which had previously worked in other pre-clinical models but failed clinical trials, were ineffective in this model but that TNF- $\alpha$  targeting strategies were protective. The authors propose that by using more clinically relevant models with reverse translation of negative controls based on prior clinical trial data may ultimately improve the predictive power of pre-clinical models. Hopefully, this approach perhaps

with a few verses of 'Santa Claus is coming to Town' will raise the Christmas spirit enough to improve outcomes for ARDS.

### DO THEY KNOW IT'S CHRISTMAS?

This song was written in 1984 by Bob Geldof and Midge Ure to raise funds in reaction to worldwide reports of famine in Africa. This song was extremely poignant, in particular at Christmas, as it highlighted the significant difference between the African and European continent. In this vein, Michele Arigliani and colleagues (see page 1154) investigated the differences in lung function between children with sickle cell anaemia from West Africa and Europe. These investigators undertook a prospective cross-sectional study in black African children from Nigeria and the UK. The authors report that chronic respiratory impairment is more severe in children with sickle cell anaemia from West Africa than Europe and implementation of respiratory assessment in African children to early identify those with chronic lung disease is a priority.

### LAST CHRISTMAS

A classic Christmas song where George Michael gave away his heart, however, the very next day his heart was given away. Within respiratory medicine, there is now much attention being placed on coexistent cardiovascular risk and although Mamta Ruparel and colleagues (see page 1140) have not taken away a heart, they have given the readers of *Thorax* much needed data detailing the cardiovascular risk in a lung cancer screening cohort. The authors enrolled subjects from a lung cancer screening low-dose CT cohort and patients underwent a cardiovascular risk assessment, which was assessed in the context of coronary artery calcification. 680 subjects were included in the final analysis and 62% demonstrated coronary artery calcification with the cardiovascular risk assessment positively associated with increasing coronary artery calcification. In order to avoid a last Christmas, the authors suggest we need to use lung cancer CT screening as an important opportunity to assess cardiovascular risk.

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