P2X3: A NEW TARGET FOR TREATING CHRONIC COUGH
A substantial proportion of patients with chronic cough (lasting longer than 8 weeks) have no obvious cause after extensive investigation and their symptoms persist despite commonly prescribed antitussive medication. P2X3 receptors are expressed by airway vagal afferent nerves and contribute to the hypersensitisation of sensory neurons. This randomised, double-blind, placebo-controlled UK based phase II study (Lancet, doi: 10.1016/S0140-6736(14)61255-1) aimed to investigate the efficacy of a first-in-class oral P2X3 antagonist, AF-219, to reduce cough frequency in patients with refractory chronic cough. After 2 weeks of treatment, cough frequency was reduced by 75% when patients were allocated to AF-219 compared with placebo (p=0.0003). Taste disturbance was reported by all patients taking AF-219, leading to six patients withdrawing from the study. Inhibition of P2X3 receptors, by antagonists such as AF-219, seems to have significant effect on cough neuronal hypersensitivity and is a promising new target for antitussives.

ANTIBIOTICS IN FETAL AND EARLY LIFE AND SUBSEQUENT ASTHMA
A rise in the rates of childhood asthma has coincided with the increasing use of antibiotics. Previous studies investigating a possible association have reported conflicting results, potentially due to bias. This nationwide prospective population based cohort study (BMJ 2014;349:g6979) followed a cohort of Swedish children from the start of their mother’s pregnancy up to school age. Sibling controls were used to adjust for familial factors. Antibiotic exposure in fetal and early life was associated with an increased risk of asthma in cohort analyses (HR 1.28, 95% CI 1.25 to 1.32), but not in sibling analyses (HR 0.99, 95% CI 0.92 to 1.07). In the sibling analyses, the excess risks after exposure to antibiotics for respiratory infections decreased, and disappeared for antibiotics for urinary tract and skin infections. This would indicate that the positive association was confounded by genetic and environmental factors shared by siblings.

CHES T CT FINDINGS IN HIV-INFECTED INDIVIDUALS IN THE ERA OF ANTIRETROVIRAL THERAPY
Advancements in antiretroviral therapy (ART) have led to chronic comorbidities of HIV becoming more common as the life expectancy of those with HIV has increased. Studies in HIV-infected individuals before the introduction of ART reported a high prevalence of radiographic abnormalities such as nodules, ground-glass opacities and intrathoracic lymphadenopathy. Often, these abnormalities were associated with past or chronic infections. This study (PLOS One, doi:10.1371/journal.pone.0112237) assessed the prevalence and nature of radiographic abnormalities on chest CT examinations in a HIV-infected population, without acute respiratory illness, in the current ART era. The majority of participants (5.4%) had a radiographic abnormality with the most common being emphysema (26.4%), nodules (17.4%) and bronchiectasis (10.7%). Age, smoking history and pneumonia were significant predictors of having any radiographic abnormality, but HIV-specific factors (use of ART, CD4 cell count, HIV viral load) did not seem to predict risk.

Competing interests None.
Provenance and peer review Commissioned; internally peer reviewed.

To cite Rolin S. Thorax 2015;70:202.
doi:10.1136/thoraxjnl-2014-206703