THE UNIVERSITY of EDINBURGH

News Release

Issued: Wednesday 17 May 2017

Drug to tackle lung scarring shows promise in clinical trial

People with a lung scarring condition that leaves them fighting for breath could be helped by a new medication, research suggests.

Results from an early stage clinical trial show that the new drug has no serious side effects and was well tolerated by patients with the condition, called Idiopathic Pulmonary Fibrosis.

The findings also reveal promising signs that the drug – called TD139 – may help to slow progression of disease.

The trial led by the University of Edinburgh involved 24 patients who were treated for two weeks with either TD139 or a dummy treatment.

After two weeks, those treated with the drug had reduced levels of key molecules in their blood that are linked to a worsening of the disease. TD139 appeared safe and was well tolerated by patients in this study.

Idiopathic Pulmonary Fibrosis is a chronic disease characterised by a progressive decline in lung function. It is caused by increased scarring in the lung tissue which causes breathlessness.

TD139 works by blocking a molecule called galectin 3, which is known to play a key role in the scarring process. The drug is given to patients by inhalation.

The research was initially developed by a collaboration between scientists from the University of Edinburgh and Lund University in Sweden. The project is being developed by Galecto Biotech, a Swedish company.

Experts are now planning a further clinical trial to work out the optimum dose for the therapy. The drug will then be tested in a much larger, randomised study, to check whether the approach offers any benefit for patients.

Findings from the first trial will be presented at the American Thoracic Society's annual conference in Washington DC this week.

Dr Nikhil Hirani said "This is a welcome and much needed break-through for the treatment off IPF. Current treatments for this disease are not well tolerated and don't specifically target the lung. This inhaled drug is delivered directly into the lung, is concentrated within lung

cells and has minimal side effects in the short term. However, longer term studies with more patients are now needed to test if TD139 really can stop or even improve lung scarring.

Dr Alison Mackinnon said: “We have worked on galectin-3 for a number of years and were the first to describe its role in scarring type (fibrotic) conditions such as IPF. This new drug which specifically targets galectin-3 provides an exciting new avenue for therapy. Galectin-3 is also involved in the scarring process in other organs of the body. This research opens up new potential to develop other galectin-3 blockers to treat fibrotic conditions of the heart, liver and kidneys.

For further information, please contact:
Jen Middleton, Press & PR Office, tel 0131 650 6514, email Jen.Middleton@ed.ac.uk