Following the recommendations of the Scientific Committee during the abstracts review process, the ECFS wishes to commend the quality of the work presented in the abstracts of some young investigators under the age of 35 having applied for the award. The Young Investigator Award includes a monetary grant of €750, a free registration to the Conference, and a 2015 ECFS membership subscription. We wish to extend our congratulations to the following Young Investigators:

**SUSANNE DITTRICH**

Susanne Dittrich is an clinician scientist at the Translational Lung Research Center Heidelberg (TLRC), member of the German Center for Lung Research (DZL) and the Molecular Medicine Partnership Unit (MMPU), University of Heidelberg. In 2013, she graduated from medical school at the Dresden University of Technology, where she conducted her experimental M.D. thesis on pulmonary inflammation in acute respiratory distress syndrome. This was associated with a research stay at the Massachusetts General Hospital, Boston (USA). In 2015, Susanne Dittrich was awarded with the HRMM (Heidelberg Research Center for Molecular Medicine) Career Development Fellowship.

**About the research presented at the 38th European CF Conference, abstract number ePS06.3:**

Neutrophilic airway inflammation is a hallmark of Cystic Fibrosis (CF). Previous studies identified free neutrophil elastase (NE) in bronchoalveolar lavage fluid and sputum as a key risk factor for early bronchiectasis and decline in lung function in CF. Until now, studies have focused on soluble NE activity in supernatants of airway secretions, while little is known about the relevance of membrane-associated NE activity on the surface of inflammatory cells. In the presented work, NE activity was quantified on sputum neutrophils of 37 patients with CF, using a novel approach based on Foerster resonance energy transfer. Correlations with pulmonary function indices (FEV1 % predicted, residual volume) revealed that membrane-associated NE activity might be a valuable biomarker in CF lung disease.

**REBECCA KEYTE**

Rebecca completed her undergraduate Psychology degree with First Class Honours at Birmingham City University in 2014. Alongside her undergraduate degree, Rebecca worked in a variety of positions within the field of psychology. As a research assistant investigating interpersonal partner coercion and manipulation amongst young people; as a volunteer at “Addictions” drug and alcohol rehabilitation centre; as a volunteer at “Resources for Autism”; and as an “AimHigher” secondary school mentor. Rebecca was awarded school scholarship and started studying for her PhD at Birmingham City University in 2014. Rebecca’s doctoral research is investigating the role of health beliefs in predicting and explaining risky health behaviours within Cystic Fibrosis patients. Alongside studying for her PhD, Rebecca is a Visiting Lecturer in Psychology.

**About the research presented at the 38th European CF Conference, abstract number ePS03.1:**

The increasing life expectancy within the Cystic Fibrosis population is creating manifold challenges for patients in independently maintaining their complex and time consuming treatment regime. To improve adherence, factors associated with compliance need to be identified. We therefore investigated the relationships between the beliefs of Cystic Fibrosis adults about their treatment and reported adherence. Participants completed the Hospital Anxiety and Depression Scale and the Beliefs about Medicine Questionnaire. Adherence to pancreatic enzymes, vitamins, physiotherapy and exercise was recorded over two days using daily telephone diaries. It was concluded that in this research, beliefs about treatment did not predict adherence well, demonstrating the need to further investigate the experiences of people with Cystic Fibrosis in relation to health behaviours. Research utilising qualitative interviews is under way to better understand the health related practices and their potential interrelationships with identity and values, and how these relate to adherence. This research will help to develop tools for health professionals to use with young people to discuss risky health behaviours in a way which reflects their experiences and acknowledges the particular issues for this population.

**EMMA REECE**

Emma Reece graduated from University College Dublin with an Honours Degree in Biochemistry and Molecular Biology in 2010. Currently she is a PhD student in the department of Clinical Microbiology in Trinity College Dublin. Her research focuses on Pseudomonas aeruginosa and Aspergillus fumigatus co-infections in patients with Cystic Fibrosis and understanding how these pathogens interact with each other, the host and how they impact on disease progression. This research is funded by the National Children’s Hospital Tallaght.

**About the research presented at the 38th European CF Conference, abstract number ePS02.3:**

Pseudomonas aeruginosa and Aspergillus fumigatus are the most common bacterial and fungal pathogens isolated from Cystic Fibrosis (CF) airways. This research aims to investigate how these two pathogens interact at the CF bronchial epithelial (CFBE) cell surface, contributing to CF lung disease.

*P. aeruginosa* (mucoid and non-mucoid) and *A. fumigatus* isolates from colonised CF patients were studied. The effect of *P. aeruginosa* and *A. fumigatus* co-infection on the host immune response was examined by ELISAs for pro-inflammatory cytokines, IL-6 and IL-8. The signalling pathways involved in activating this inflammatory response were investigated employing MAP kinase inhibitors and ELISA. *P. aeruginosa* isolates inhibited or reduced the growth of *A. fumigatus* isolates in a strain-dependent manner. A greater pro-inflammatory response was observed when CFBEs were infected with the non-mucoid *P. aeruginosa* isolates compared to the mucoid isolates, CFBE pro-inflammatory response to co-infections was significantly lower than the cumulative inflammatory response predicted. The co-infection induced IL-6 and IL-8 response occurs via the ERK and p38 MAPK pathways.

This study demonstrates *P. aeruginosa* is capable of inhibiting the growth of *A. fumigatus*. The competition between these microbes may result in a reduced airway inflammatory response which could allow these microbes to chronically co-colonise the CF airways.