

## **CAF/16/09 - Pregnancy zone protein in the lung- investigating gender differences in development and prognosis of bronchiectasis**

Women are more likely than men to suffer from a number of severe lung conditions. Bronchiectasis, a chronic lung disease causing cough and chest infections, affects around 10,000 people in Scotland and 70% of patients are female. We want to know why women are more likely to get this condition, and why they have a worse prognosis when they do. We have found that pregnancy zone protein (PZP) accumulates in the lung to a much greater degree in women with bronchiectasis. When PZP is high, patients have greater lung bacterial infections. In this study we will look carefully at lung inflammation and lung bacteria in men and women with bronchiectasis. We will then test whether female hormones are making lung disease worse by increasing lung levels of PZP. Finally, we believe it is possible that PZP stops the lung from effectively killing bacteria, and we will test this in the laboratory. Together we hope this study will discover the key differences causing women to have worse lung disease outcomes and lead to better treatments.