

Study Design - Gerard Kaiko 10/20/2015

Primary metabolism (GCTOF MS),
Complex lipids (CSH-QTOF MS),
Biogenic amines (HILIC-QTOF MS)

samples: 15 Human BAL samples 500 uL each

Sample prep: 50ml of hospital grade sterile saline was instilled into the lungs of human volunteers. As much liquid as possible is then gently suctioned out. The sample is then centrifuged to remove cellular material and debris, and supernatant collected and frozen at -80C.

treatments: 3 x 5 samples each

The 3 groups are as follows:

1. Healthy controls (5)
2. Subjects with mild asthma (5)
3. Subjects with severe asthma (5)

This is a preliminary trial to determine how viable this system will be to use on a much larger number of samples (up to 150).

We would like to determine the range, number of metabolite species, and relative concentrations than can be detected in human bronchoalveolar lavage. We would also like to determine how clear the distinction is between the 3 patient groups as this will inform us as to how many of the 150 samples we need to run in the study proper.

Interests: We are interested in an unbiased non-targeted approach on all 3 platforms so that we can see the full range of differences between healthy controls and asthma. To detect as many differences as possible.

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