Median age of FLD diagnosis was 35 (IQR 25–43, range 16–62), with a median latent period from first farm exposure of 28 years (IQR 20–42).

**Discussion** The prevalence of FLD in this British cohort (representing over 1% of British farmers) was in keeping with that reported from other countries. Age of diagnosis was very variable, with the majority of those affected having never smoked. Although most had worked on a mixture of farm types, workers with FLD were more likely to report only having lived on an animal versus cereal production farm.

**Introduction** A number of tasks in heavy construction generate crystalline silica dust, which is a significant contributor to occupational mortality and morbidity. When a new heavy construction site is established, first excavators come to clear the soil. Thereafter holes are drilled to prepare for blasting. There is a lack of knowledge regarding exposure levels of dust and crystalline silica among rock drillers and blasting workers generated by these work tasks. Exposure to dust and crystalline silica are suggested to cause obstructive and restrictive lung changes.

**Methods** The study is designed as a two years follow-up of 132 rock drillers and 50 referents (administrative personnel) working in the same construction companies, but without airborne occupational exposure. All subjects were examined with lung function tests and blood was collected during the winter 2015/2016. They will be re-examined in 2017/2018. Pneumoproteins and markers of inflammation are currently being analysed.

Eighty-three rock drillers using different drilling rigs carried out sampling equipment for the determination of respirable dust and crystalline silica.

**Result** Preliminary results show: The exposure to dust and crystalline silica in the respirable aerosol fraction ranged from 0.01 to 2.91 mg/m$^3$, and from 0.002 to 0.45 mg/m$^3$, respectively, depending on type of drilling equipment in use. Workers using drill rigs with feed mounted operation panels were most highly exposed.

Compared with the referents at baseline the rock drillers had significantly lower forced vital capacity (FVC) $\%$ predicted (p=0.012) and forced expiratory volume in one second (FEV$_1$) $\%$ predicted (p=0.001). The decline in FEV$_1$/FVC (Tiffeneau index) was associated with years of exposure (p=0.017) and smoking (pack years) (p=0.02). The serum concentration of CRP was comparable between the two groups.

**Discussion** Exposure to crystalline silica during rock drilling may have negative impact on the lung function.

**Aim of special session** Advances with chest CT scanning and CT scan-based lung cancer screening are changing the way diagnosis and screening for occupational lung diseases are conducted. We plan to review existing methodologies and experience-based emerging strategies.

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