

Research Award:

Assessing the correlation between immune statuses and asthma: from birth to early childhood study.

Awarded to: Aref Kyyaly **Amount:** £8,600

Lay summary

In Southampton, we have developed a programme of research into “early origins of adult diseases” by studying factors present in early childhood including those present before birth. To this end, we recruited pregnant women with asthma and allergy in their family (n=300) as their children are likely to be at high risk of asthma and (for comparison) 40 children with low risk (no parental asthma or allergy). When their infants were born, we collected a small amount of blood from the umbilical cord. We then saw these children at 6, 18 and 30 months to assess their asthma and allergy status and again collected a small amount of blood sample. We are currently examining them at 6-7 years of age to assess them for asthma, lung function and allergy. We plan to use this precious resource of data and samples to identify molecules in the blood samples that were collected at birth, which can predict the development of allergy at 3 and asthma at 6-7 years. Identification of molecules (biomarkers) associated with asthma and allergy will increase our standing of how asthma develops and what we can do to prevent asthma. With AAIR charity funding, we wish to analyse a small subset of approximately 40 samples to ensure that this plan of work is feasible and if we can see any hints with this small group. If successful, we will apply for a larger grant to a major funding body.
