Paediatric severe asthma: a need for novel innate molecular phenotypes

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Molecular phenotyping and mainstay treatment of children with severe asthma is a great challenge and requires further in depth studies http://bit.ly/2ME9GQP

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Asthma is a heterogeneous chronic inflammatory disease of the airways with variety of different phenotypes and is most frequently classified according to clinical phenotypes into allergic and non-allergic asthma [1] or according to severity into intermittent, mild, moderate or severe asthma [2]. Asthma affects around 14% of children worldwide and different immune cells and inflammatory mediators play a role, leading to typical asthma pathophysiology [3]. Severe asthma is associated with high mortality, morbidity and healthcare expense [4]. It is generally characterised by poor asthma control with persistent symptoms and exacerbations despite high-doses of inhaled steroids (ICS), long-acting beta-agonists and/or biologicals [5]. Children with severe asthma are the most susceptible group of patients in urgent need for careful clinical phenotyping complemented by more defined molecular phenotypes, enabling more specific treatment regimens. However, molecular phenotyping of children with severe asthma is a great challenge based on low numbers of children, and the availability of sufficient and high-quality biomaterial taken in a standardised fashion.