

9<sup>th</sup> International Congress on

# Nutrition & Health

February 20-21, 2017 Berlin, Germany

## Vitamin A deficiency promotes inflammation by induction of type 2 cytokines in experimental ovalbumin-induced asthma murine model

Dong Li and Weiwei Cui  
Jilin University, China

**Statement of the Problem:** Vitamin A (VA) deficiency is one of the most common malnutrition conditions. Recent reports showed that VA plays an important role in the immune balance, lack of VA could result in enhanced type 2 immune response characterized by increased type 2 cytokines production and type 2 innate lymphoid cells infiltration and activation. Type 2 immune responses plays protective role in anti-infection, but plays pathological role in asthmatic disease.

**Methodology & Theoretical Orientation:** In order to investigate the role of VA in the asthmatic disease, we used ovalbumin-induced asthma murine model, and observed the pathological changes between mouse received VA-deficient and -sufficient diets. We also measured the type 2 cytokine expressions to reveal the potential mechanism.

**Findings:** Our results showed that VA deficiency exacerbates ovalbumin-induced lung inflammation via induction of the type 2 cytokine productions.

**Conclusion & Significance:** VA deficiency, or malnutrition in further extent, may contribute to the increasing prevalence of asthma.

### Biography

Dong Li has done his PhD in Immunology from University of Glasgow in 2014. His research interest is to identify the key factors in immune regulation which control the development of allergy and inflammatory diseases. Current focus is on the role of cytokines IL-1 family members in the mucosal immune system related diseases as well as how nutrition status influences these key immune regulatory factors.

lidong1@jlu.edu.cn

Notes: