ALLERGY

INNATE IMMUNITY IS SPECIES-, INDIVIDUAL, ORGAN-SPECIFIC

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In a previous paper I have questioned if LPS

> nanogram exposure on the pulmonary epithelium will supersede the gram-wise exposure on the gut mucosa.

This may indeed work as now shown by Eyal Raz in a commentary in Nature Immunology where previous TLR studies

> typically reproduce the splenic version of innate immunity (the spleen is used here as a metaphor for the sterile internal environment).

In the lung only the alveolar space is thought to be sterile while macrophages should not be in a constant state of activation (as inflammation would compromise gas exchange).

There are now several indicators for a lung-specific regulation of innate immunity: TLR9 is expressed in human plasmacytoid dendritic cells while TLR4 is only on myeloid DCs; TGF-B-ß mediated crosstalk between alveolar macrophages and epithelial cells seems to be unique in the lung; in addition indeolamine induction or surfactant production is not found elsewhere. Yea, yea.