

Symbiotic microbiome *Staphylococcus epidermidis* restricts IL-33 production in allergic nasal epithelium by limiting cellular necroptosis

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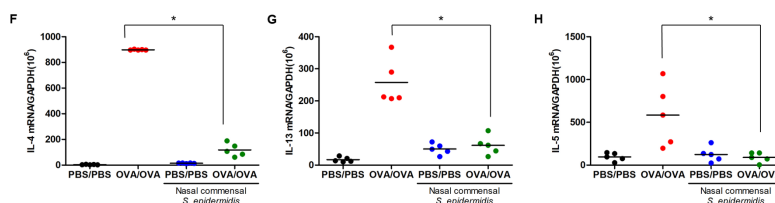
Abstract

Remarkable progress has recently been achieved to identify the biological function and potential value of interleukin (IL)-33 as a novel therapeutic target of allergic rhinitis (AR) at the nasal epithelium level. ¹⁻⁴ The nasal mucosa is constantly exposed to inhaled allergens, and insights into the microbiota of human nasal mucosa can provide fundamental information on factors contributing to related allergic inflammation. ⁵ However, a mechanistic consideration of immunomodulatory properties of the nasal microbiome to inhaled allergens has not been comprehensively performed in AR. The purpose of this study was to show the distinctive role of the nasal microbiome *S. epidermidis*, a major symbiont in healthy nasal mucus, and the potential impact on reduction of T helper (Th)2 inflammation through decreased cellular necroptosis and subsequent IL-33 release in nasal epithelium.

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Manuscript (YI Jeon et al).Allergy.doc available at <https://authorea.com/users/356026/articles/712732-symbiotic-microbiome-staphylococcus-epidermidis-restricts-il-33-production-in-allergic-nasal-epithelium-by-limiting-cellular-necroptosis>

Figure 1



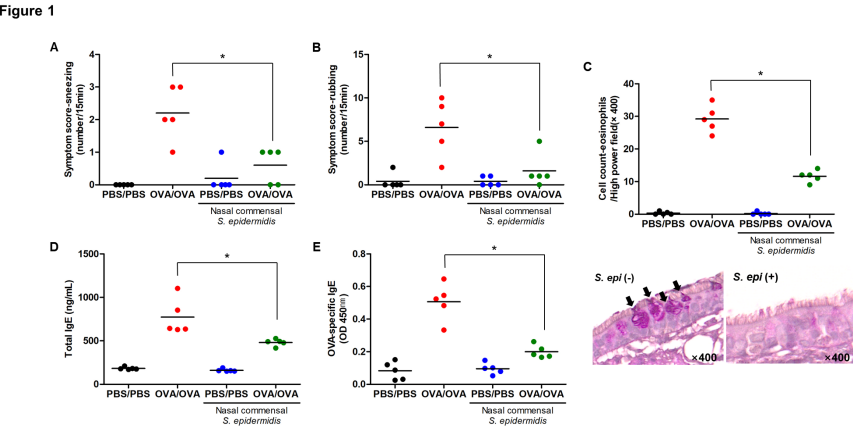
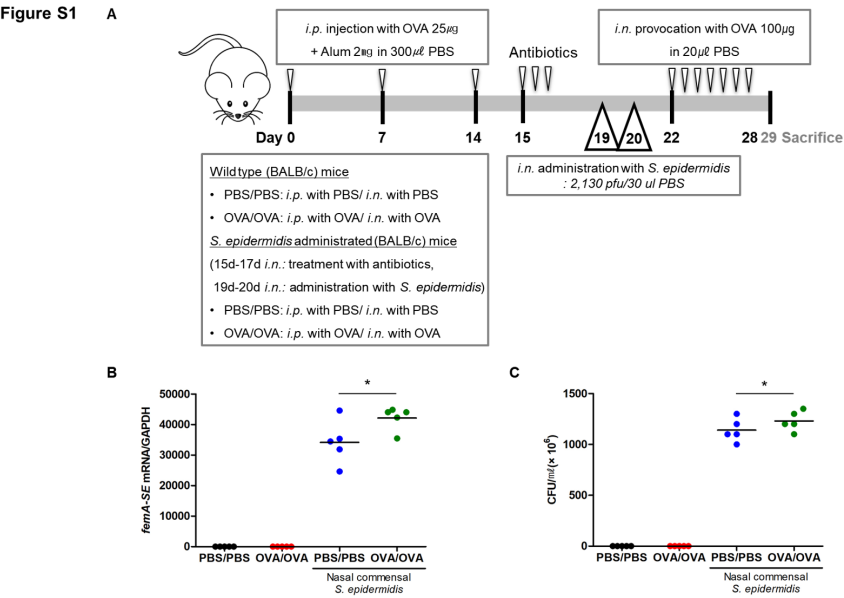


Figure 2

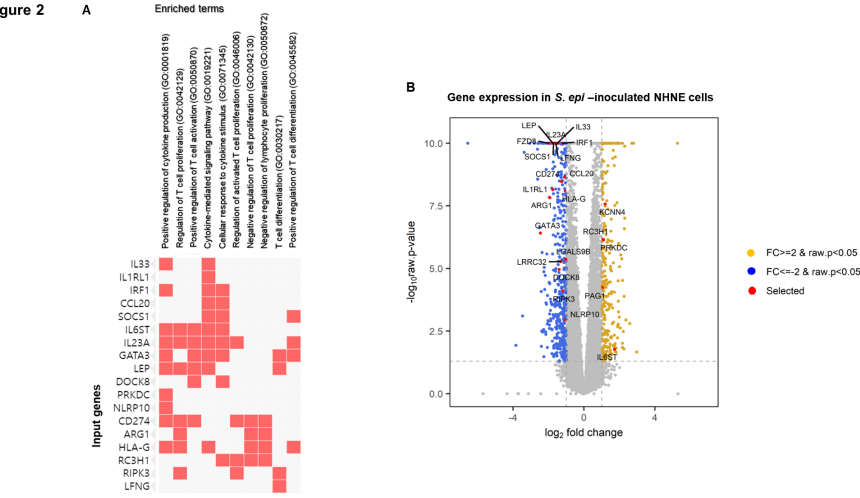
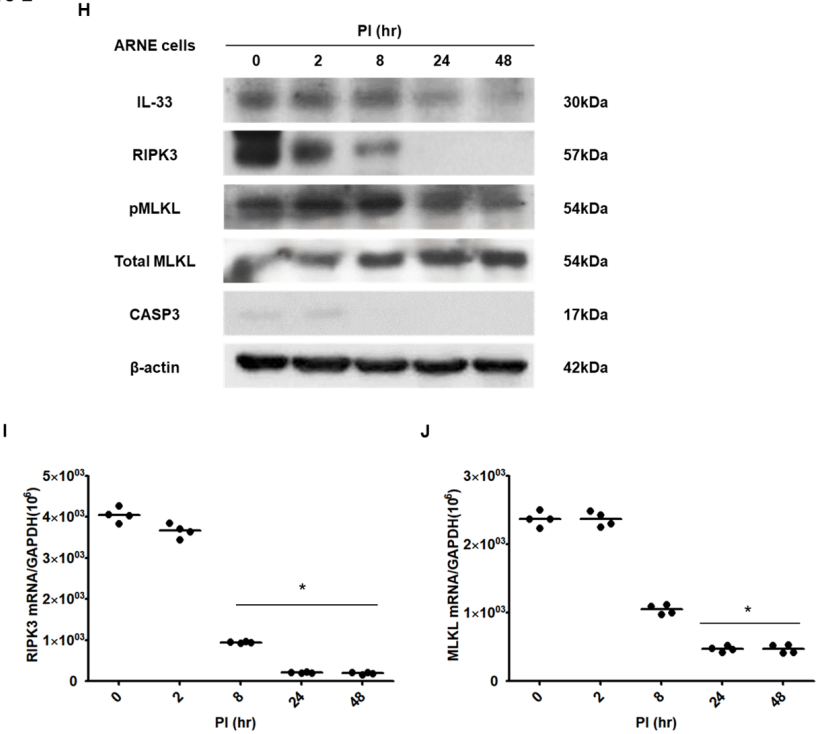


Figure 2



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