

# **Interleukin-33 produced by M2 macrophages and other immune cells contributes to immune reaction of IgG4-related disease**

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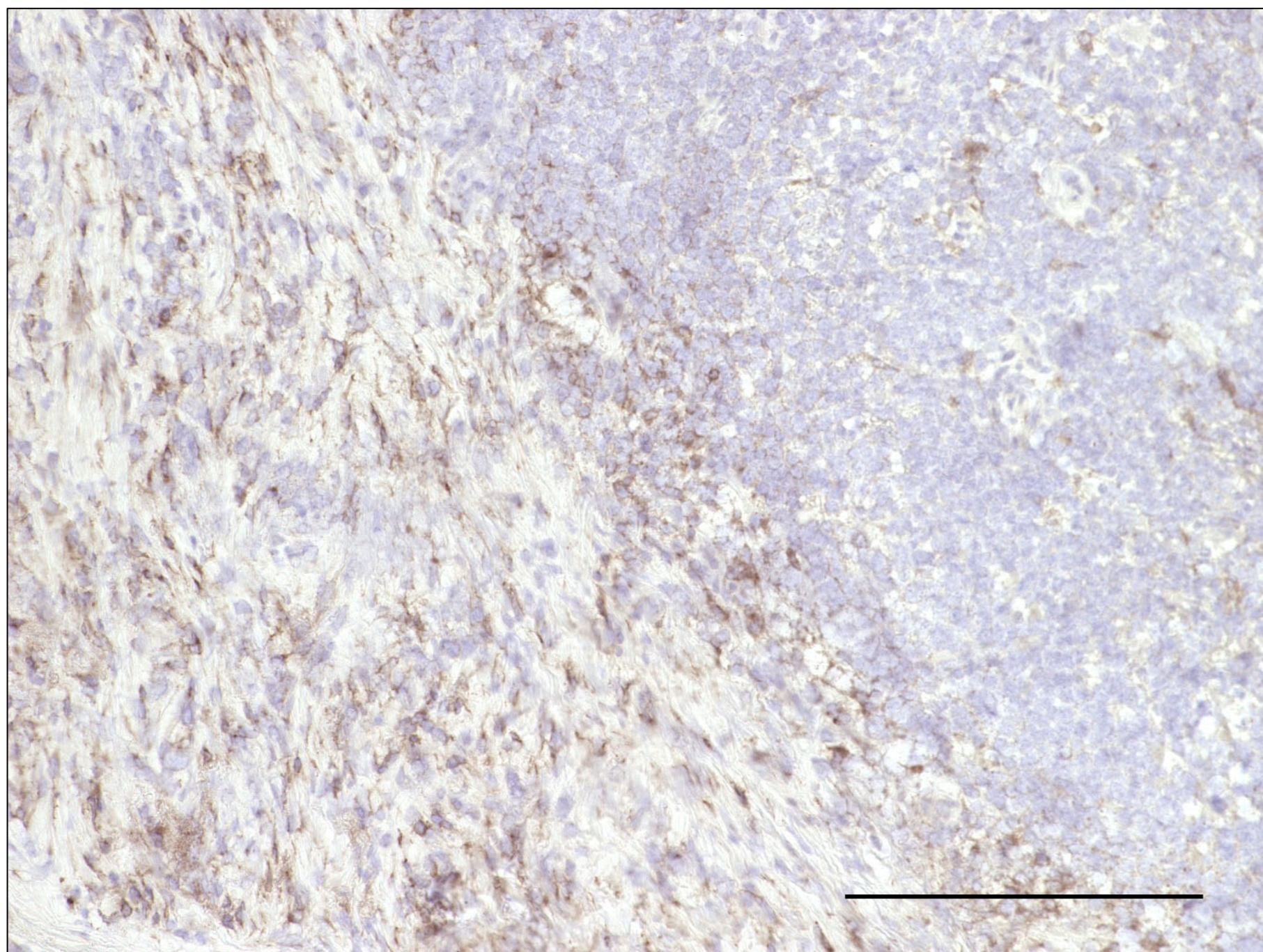
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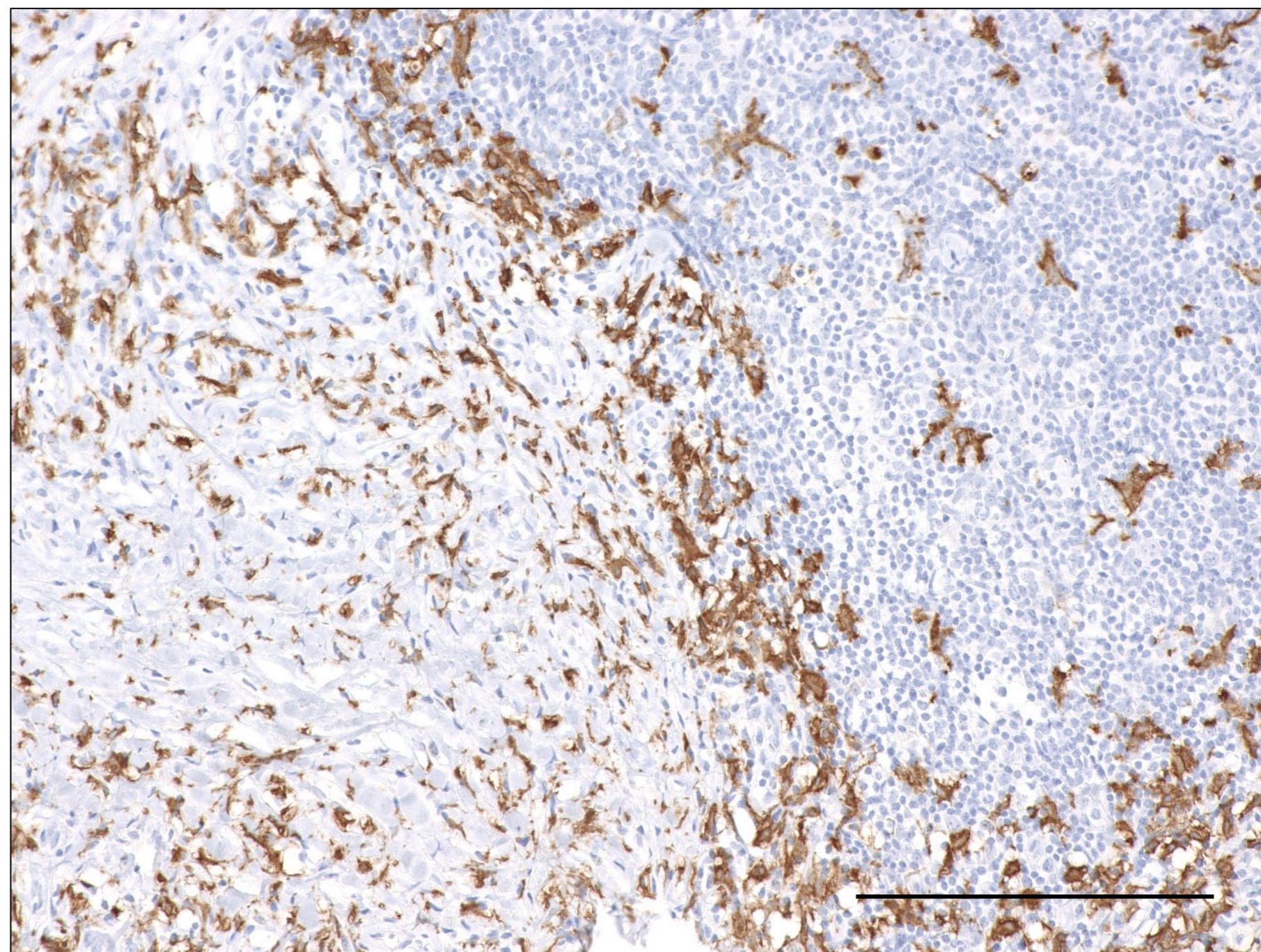
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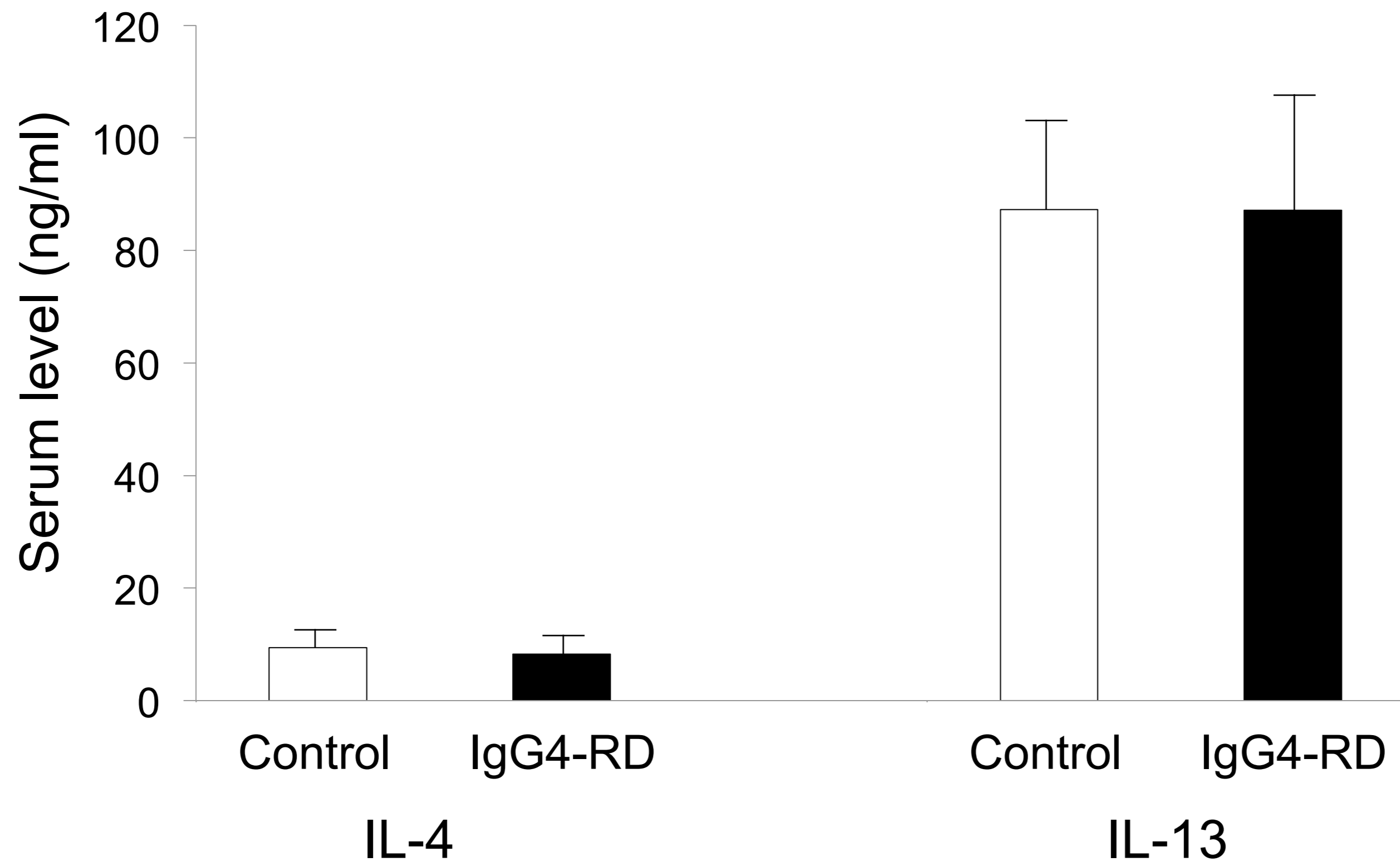


**TLR7**

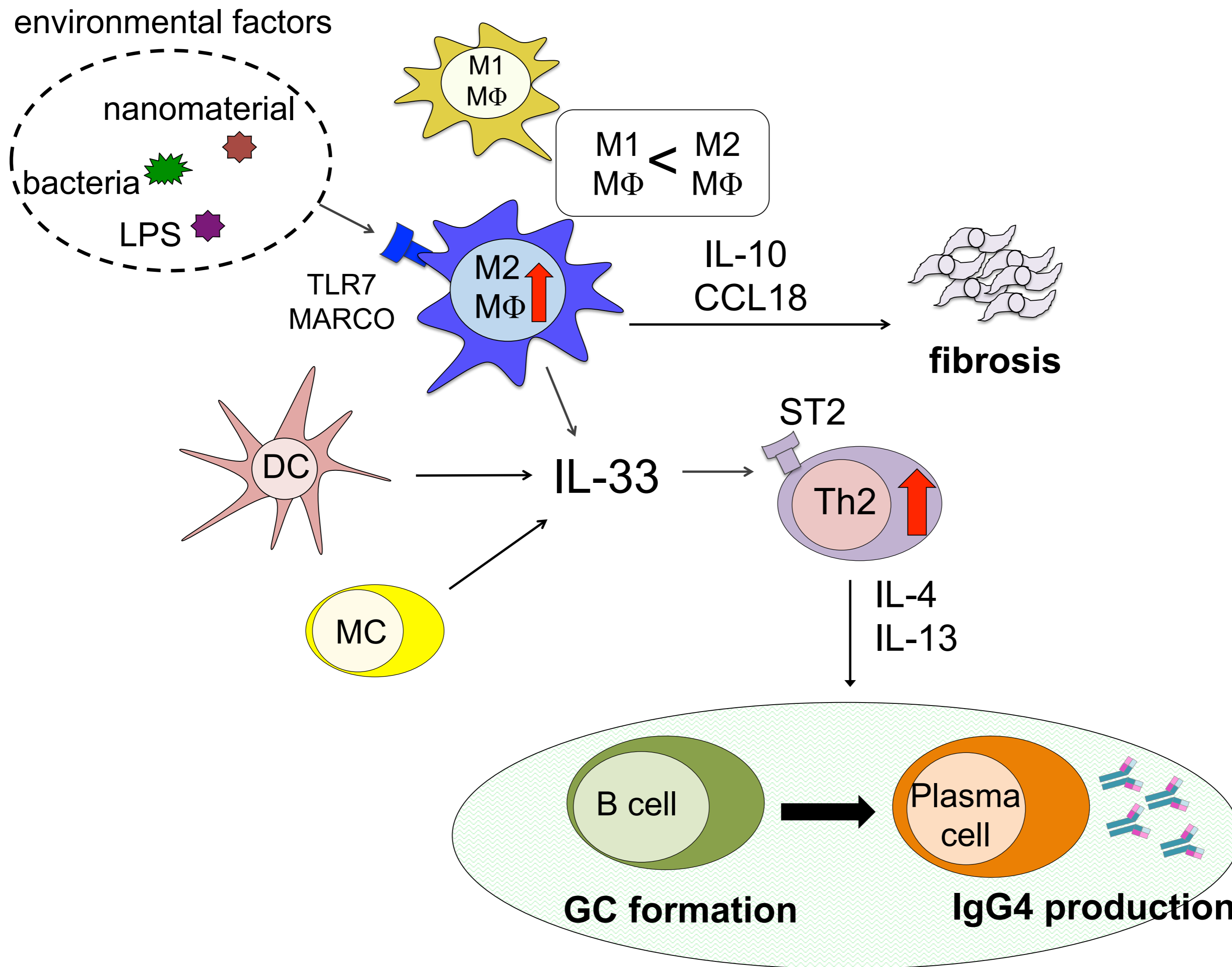


**CD163**

**Supplementary Figure 1.** Expression and localization of TLR7 and CD163 in SG from a representative patient with IgG4-RD. Counterstaining was performed with Mayer's hematoxylin (blue). Scale bars, 50  $\mu$ m.



**Supplementary Figure 2.** Serum concentration of Th2 cytokines. Serum levels of IL-4 and IL-13 were measured in healthy controls (n = 12) and patients with IgG4-RD (n = 7). Significant differences between groups were determined by the Mann–Whitney *U* test.



**Supplementary Figure 3.** Schematic model of IL-33 and innate immune network in IgG4-RD. M2 macrophages recognize some environmental factors and promote local fibrosis and production of T helper type 2 (Th2) cytokines via IL-33. Abbreviations: DC, dendritic cell; GC, germinal center; ; LPS, lipopolysaccharide; MARCO, macrophage receptor with collagenous structure; MC, mast cell; MΦ, macrophage; TLR, Toll-like receptor.