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A bispecific antibody that targets IL-6 receptor and IL-17A for the potential therapy of patients with autoimmune and inflammatory diseases

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Abstract

Despite the success of current biological therapeutics for rheumatoid arthritis, these therapies, targeting individual cytokines or pathways, produce beneficial responses in only about half of patients. Therefore, better therapeutics are needed. IL-6 and IL-17A are proinflammatory cytokines in many autoimmune and inflammatory diseases, and several therapeutics have been developed to specifically inhibit them. However, targeting both of these cytokines with a bispecific therapeutic agent could account for their nonoverlapping proinflammatory functions and for the fact that IL-6 and IL-17A act in a positive feedback loop. Here, we present the development of MT-6194, a bispecific antibody targeting both IL-6R and IL-17A that was developed with the FynomAb technology. We also present data from mouse inflammatory disease experiments, indicating that simultaneous inhibition of both IL-6 and IL-17A yields enhanced efficacy compared with inhibition of each cytokine alone.

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Footnotes

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