

CBP-201

Name: CBP-201

Target: IL-4R α

Indication: Allergic inflammation such as asthma and atopic dermatitis

Company: Suzhou Connect Biopharmaceuticals

CBP-201 is a monoclonal antibody against IL-4R α , a receptor found on immune cells that mediates the biological activities of both IL-4 and IL-13, two important cytokines that drive a broad range of allergic inflammation such as asthma and atopic dermatitis. Preclinical studies showed that CBP-201 is extremely potent in inhibiting IL-4R α signaling (IC50 is approximately 50 pM). CBP-201 is currently studied in healthy volunteers to determine its safety, tolerability, pharmacokinetic and pharmacodynamic profiles.

Autoimmune disease is an abnormal reaction of the body's immune system toward its own tissues and organs. The normal functions of the immune cells (white blood cells), a key component of the immune system, are to help protect against bacteria, viruses, toxins, and cancer. In autoimmune diseases, however, the immune system fails to distinguish between self-tissues and foreign pathogens. As a result, the body sets off an overreaction that attacks and destroys otherwise healthy tissues. Autoimmune disease can affect many different organs and tissues. The most common autoimmune diseases are rheumatoid arthritis, psoriasis, multiple sclerosis, inflammatory bowel disease (IBD), and type I diabetes. There are numerous serious though lesser known diseases that are life-threatening and have no effective treatment. At least 80 diseases are believed to be caused by autoimmunity.

Allergic Inflammation

Allergic inflammatory disorders, such as asthma, atopic dermatitis, rhinosinusitis, and food allergy, are induced by antigen (allergen)-specific T-helper (Th)2 cells and Th2 cytokines (IL-5, IL-13, and IL-4). Allergic inflammation disorders are very common, for example, more than 300 million people worldwide suffer from asthma, causing 250 000 deaths a year, and the prevalence of allergic disease has been increasing over the last several decades worldwide. The prevalence of asthma in China has also been increasing rapidly in recent years, and it is estimated that more than 30 million people have asthma. We are currently developing an antibody called CBP-201, which blocks the central signaling pathway of both Th2 cytokines IL-4 and IL-13. The intended clinical indications are atopic dermatitis, asthma, and other serious allergic inflammatory diseases. CBP-201 is currently studied in a Phase 1 in healthy volunteers to determine its safety, tolerability, pharmacokinetic and pharmacodynamic properties. Testing in patients with atopic dermatitis is expected in Q1, 2019.