Technology Offer

Novel PROTACs for the treatment of autoimmune diseases

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Autoimmune diseases affect approximately 5%–8% of the global population, causing immense suffering and posing a significant socioeconomic burden.

Over 80 autoimmune diseases have been identified so far, including Rheumatoid Arthritis, Multiple Sclerosis, and Systemic Erythematosus Lupus.

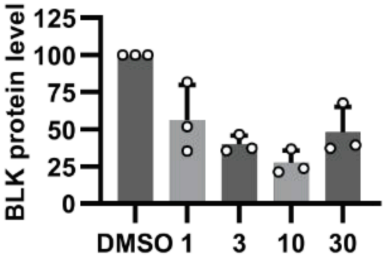
Current immune-modulatory drugs used in treating autoimmune diseases are non-specific and often associated with adverse effects. Additionally, a substantial proportion of patients do not respond adequately to these therapies. Consequently, there is an urgent need for the development of novel drugs with improved efficacy and fewer side effects.

Technology

Researchers at the Max Planck Institute for Molecular Physiology have developed a novel class of molecules that act as bifunctional protein targeting chimeras (**PROTACs**), especially for **degradation of** B lymphoid kinase (**BLK**)/Bruton´s tyrosine kinase (**BTK**). BTK plays a crucial role in B cell activation and differentiation, which, in turn, mediates the activation of other immune cells such as T cells and myeloid cells, contributing to autoimmune disease pathology.

These inhibitors are characterized by an **arylidene-indolinone** structure and exhibit a good **protein degradation activity** for BTK and BLK proteins.

By facilitating the degradation of BLK and BTK, these compounds hold great promise for the prevention and treatment of autoimmune diseases such as Rheumatoid arthritis, Multiple Sclerosis and SLE.



Patent Information

Priority Patent Application filed in March 2023.

Opportunity

We are open to **research partnerships** and **license agreements** to accelerate the integration of our PROTACs into the clinical practice.

Contact

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