CD19: A KEY TARGET IN TREATING AUTOIMMUNE DISEASES

Unmet Need in Autoimmune Diseases

Autoimmune diseases affect tens of millions of people around the world, and their numbers continue to grow. These conditions place a significant and ongoing strain on both people living with these diseases and healthcare systems, underscoring the need for the development of effective and accessible therapies.

Current autoimmune treatments focus on symptom relief or broad immunosuppression; however, these approaches typically offer only a temporary reduction in inflammation.

It is essential that treatments are designed to address the root cause of the disease to achieve more durable disease control, rather than just managing symptoms.

Emerging Therapeutic Strategies for Immune Reset in Autoimmune Diseases

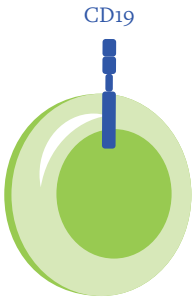
In autoimmune diseases, the ultimate goal of treatment is to reset the immune system. T cell engagers aim to deplete disease-causing B cells, so healthy B cells can repopulate, rebooting the immune system to function normally again. Immune reset achieved with T cell engagers intends to provide long-term disease control without the need for immunosuppression.

Recently, emerging research has provided insights into a relevant target, CD19, and how it can be critical to modulate the immune system.[1,2]

What is CD19 and Why is Targeting It Important?

- B cells are a type of immune cell which can be autoreactive. Autoreactive cells mistakenly target a person's own body, causing chronic inflammation and damage, and disease progression.[1,2]
- CD19 is a protein found on the surface of B cells throughout their life cycle, often on cells that make harmful antibodies in autoimmune diseases.[1,3,4,5]
- To thoroughly eliminate the B cells that drive the disease, CD19 is an important target with the potential to reset the immune system.
- CD19 also plays a critical role in B cell signaling, helping them activate, multiply and mature into antibody-producing cells.

Growing evidence shows that CD19-expressing B cells drive disease-causing processes in many autoimmune diseases, such as rheumatoid arthritis, Sjögren's disease, and systemic lupus erythematosus. Because CD19 is broadly expressed on B cells and absent from other immune cells, it represents a precise target for autoimmune disease therapies.[1,3,4,5,6,7]

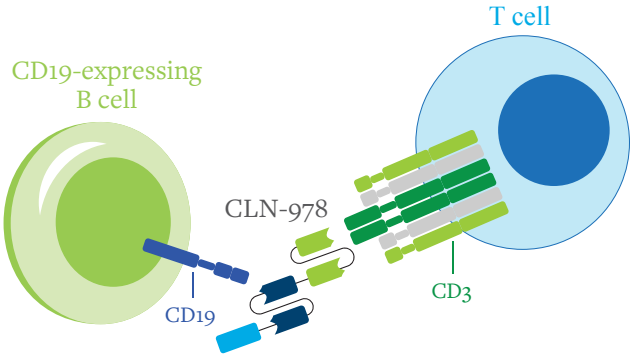


CD19-expressing B cell

Investigational Treatments Targeting CD19

Cullinan Therapeutics is investigating new ways to help the body eliminate these harmful B cells, including a new approach to target surface proteins like CD19 with a T cell engager.

- T cell engagers are bispecific antibodies designed to guide the immune system's T cells to find and eliminate harmful cells, such as autoreactive cells that carry specific markers on their surface.[8]
- Bispecific T cell engagers work by linking a T cell and a target cell together by binding to CD3 on T cells and a cell surface antigen on target cells.
- Once the T cell is linked to the target cell, the T cell then destroys the targeted harmful cell.



Learn more about active clinical trials of **CLN-978**, our investigational T cell engager targeting CD19 across rheumatoid arthritis, Sjögren's disease, and systemic lupus erythematosus by visiting: https://cullinantherapeutics.com/pipeline/

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