

## Introduction

Inflammatory disorders, ranging from rheumatoid arthritis to inflammatory bowel disease, represent a significant global health burden due to their chronic nature and the profound impact they have on patients' quality of life. These conditions are characterized by dysregulated immune responses that lead to persistent inflammation, tissue damage, and systemic complications. Central to this process are cytokines, small, potent proteins that serve as signaling molecules within the immune system. Cytokines regulate numerous physiological functions, including immune cell communication, inflammation, and

and ulcerative colitis.

**Psoriasis:** IL-17 and IL-23 inhibitors, including secukinumab and guselkumab, have revolutionized psoriasis treatment by targeting specific cytokines involved in skin inflammation [6].

## Challenges and future directions

Despite their effectiveness, cytokine receptor antagonists face several challenges:

**Side effects:** Immunosuppression associated with these agents can increase the risk of infections and malignancies.

**Treatment resistance:** Some patients develop antibodies against

landscape for inflammatory disorders by targeting key pathways in the immune system. Their ability to modulate cytokine activity offers significant therapeutic benefits, improving quality of life for patients with chronic inflammatory diseases. However, ongoing research is essential to optimize their efficacy, minimize adverse effects, and make these treatments more accessible. By deepening our understanding of cytokine biology, we can unlock new opportunities for managing and potentially curing inflammatory disorders.

### **Acknowledgement**