

Editorial: Mechanistic and statistical modeling approaches to study alloimmune T-cell responses

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Abstract-

This article discusses the critical role of T cells in transplant rejection and the challenges in selectively targeting them due to their complex dynamics. It highlights advances in single-cell technologies and T-cell receptor sequencing, which have enhanced our ability to monitor alloimmune responses. The article emphasizes the need for new mechanistic and statistical modeling approaches to better understand T cell behavior and improve therapeutic strategies for transplant recipients. The research presented aims to provide insights into T cell dynamics, improve diagnostic markers, and optimize immunosuppressive therapies.

Index Terms- T cells, statistical methods, computational modeling, alloimmune, mechanism

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