

PRECISION PEPTIDES FOR IMMUNE BALANCE: HARNESSING PD-1 MODULATION TO TRANSFORM AUTOIMMUNE CARE

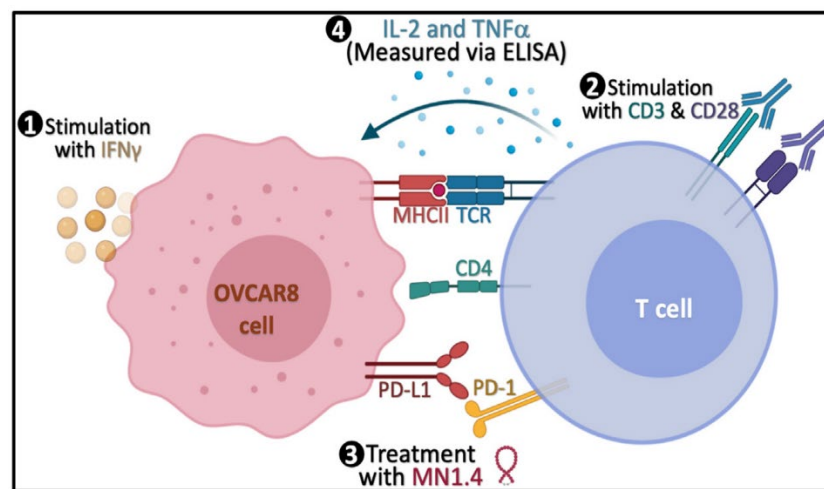
This innovative technology targets the PD-1/PD-L1 immune checkpoint pathway, which plays a crucial role in regulating immune responses. By designing optimized peptides, such as MN1.4, it offers potential applications in treating autoimmune disorders. MN1.4 mimics the PD-L1 interaction and can be used to modulate PD-1 signaling, offering a novel approach for immunosuppressive therapies.

Key Features

- **PD-1/PD-L1 Modulation:** Optimized peptides that precisely target the PD-1/PD-L1 interaction to regulate immune responses
- **Enhanced Stability:** The MN1.4 peptide demonstrates improved serum stability through N-methylation and cyclization, ensuring prolonged activity
- **Therapeutic Applications:** Ideal for autoimmune disease treatments, including conditions like type 1 diabetes, inflammatory arthritis, and lupus
- **Selective Immunosuppression:** Designed to trigger PD-1 signaling, suppressing T-cell responses without the harsh side effects of conventional treatments
- **Peptide Design Expertise:** Developed using advanced structural biology techniques like protein painting and computational modeling

This technology represents a first-in-class immunotherapy option with significant potential for treating PD-1 deficiency-related autoimmune disorders.

Co-Culture Model Schematic



For More Information contact:

George Mason University, Office of Technology Transfer
 703-993-8933 ott@gmu.edu <https://ott.gmu.edu/>