



A Method for treating TNF- α -driven pathologies via Fn14 inhibition

Inventor(s)



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Research Areas

- Rheumatic Diseases.
- Small-Molecule Inhibitors.
- Monoclonal Antibodies
- Proteomics.

Business Opportunities

Available for licensing or
sponsored research

Patent Status

Provisional Patent Filed

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Unmet Need: Precise and sustained knockdown of Tumor Necrosis factor- α (TNF- α) mediated inflammation without immunosuppressive outcomes

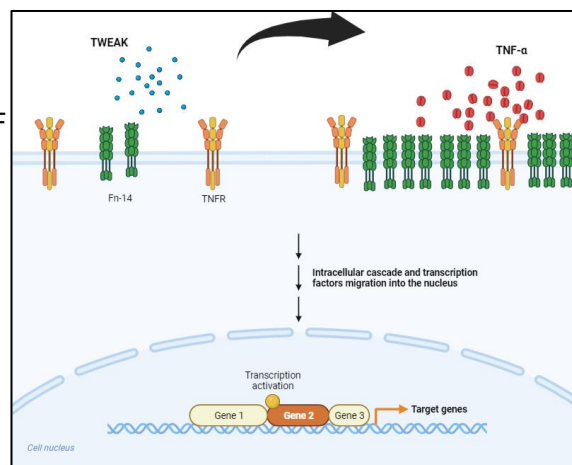
Despite advancements in rheumatoid arthritis (RA) treatment, many patients experience inadequate responses, ranging from primary non-response to partial response or treatment intolerance. Researchers at Washington State University (WSU) have developed a new method of treating RA by targeting factor-inducible 14 (Fn14) receptor.

Technology: Innovative Method for treating Rheumatoid Arthritis by blocking Fn14 receptor

TNF- α is a key proinflammatory cytokine in RA. It plays a central role in driving inflammation and joint destruction in RA. WSU Researchers have uncovered a novel crosstalk between the TNF-related weak inducer of apoptosis (TWEAK)/Fn14 and TNF- α signaling and shed light on the potential molecular mechanism of anti-TNF therapy resistance in RA. Administration of Fn14 antagonist is described as an adjunct therapy to treat TNF- α driven pathologies. Blocking Fn14 by an antagonist provides a non-immunosuppressive method to reduce TNF's inflammatory functions in RA and other autoimmune diseases.

Market Applications:

- Improved RA treatment and anti-TNF Resistance
- Development of targeted drug delivery systems
- Personalize RA treatment plans
- Development of new biologic agents or small molecule inhibitors
- Therapeutic strategy for untreated patient populations



Advantages:

- Enhanced treatment and improved patient outcomes
- Reduced side effects
- Personalized treatment approach
- Improved disease monitoring
- Potential for combination therapies

Technology Readiness Level (TRL) : 3-4