MODULAR DENDRON MICELLES FOR TREATMENT OF PULMONARY DISEASES RELATED TO FIBROSIS AND VIRAL INFECTION INCLUDING COVID-19

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Inventors: Seungpyo Hong, Allan Brasier, Weiping Tang

The Invention

UW-Madison researchers have developed a dendron-micelle (DM) nanoparticle platform that can be used for combination therapy in the treatment of interstitial lung disease (ILD), including idiopathic pulmonary fibrosis. The researchers demonstrated the incorporation of several therapeutically relevant/proven payloads into the DM. Exemplary payloads include PD-L1-binding peptides, fibronectin-binding peptides, and BRD4 inhibitors (e.g., BRD4 ligand or BRD4 proteolysis targeting chimera). These DMs could be used as a platform for the treatment of ILDs, including fibrosis and viral infection (e.g., COVID-19), which could improve patient outcomes when compared to existing therapies (e.g., glucocorticosteroids (i.e., prednisone), antioxidants, or immunosuppressants.

Additional Information

For More Information About the Inventors

- Seungpyo Hong
- Weiping Tang

Tech Fields

- Drug Delivery : Other drug delivery technologies
- Therapeutics & Vaccines : Anti-infectives (antibacterials, antifungals, antivirals)
- Therapeutics & Vaccines : Pulmonary

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847