Haq Sting As A Treatment For Copa Syndrome

Tech ID: 34451 / UC Case 2024-185-0

INVENTION NOVELTY

VALUE PROPOSITION

TECHNOLOGY DESCRIPTION

Researchers at UCSF have developed a breakthrough gene therapy approach that leverages a naturally occurring protective genetic variant called HAQ STING to treat and potentially prevent severe autoimmune disorders caused by overactive immune signaling. The technology is currently in pre-clinical development, with proof-of-concept studies demonstrating complete disease prevention in both human genetic studies and animal models of COPA syndrome, a rare but devastating disorder that causes lung disease, arthritis, and kidney complications. Unlike traditional immunosuppressive therapies that broadly dampen immune function and carry significant side effects, this gene therapy approach specifically targets the root cause of disease by overexpressing a natural protective variant that maintains normal immune function while preventing harmful overactivation of the STING signaling pathway. The therapy represents the first treatment strategy that could potentially cure COPA syndrome and has promising applications for other STING-mediated autoimmune conditions including SAVI (STING-associated vasculopathy), and potentially more common disorders like rheumatoid arthritis and lupus, offering patients a durable treatment option that addresses the underlying genetic cause rather than just managing symptoms

APPLICATION

LOOKING FOR PARTNERS

STAGE OF DEVELOPMENT

RELATED MATERIALS

DATA AVAILABILITY

PATENT STATUS

Patent Pending

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OTHER INFORMATION

KEYWORDS

COPA Syndrome, Rare disease, Gene therapy

CATEGORIZED AS

- Medical
  - Disease: Autoimmune and Inflammation
  - Gene Therapy
  - Therapeutics

RELATED CASES

2024-185-0

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