Docket #: S15-013

Treating Fibrosis by Inhibiting AXL/Gas6 Signaling

Researchers in Prof. Amato Giaccia's laboratory have discovered that preventing Axl signaling can reduce tumor-related fibrosis. Axl is a receptor tyrosine kinase that is activated by its ligand, Gas6. Proteins that trap Gas6 can starve Axl of the stimulus required to initiate signaling. Agents that block Axl signaling could open a new avenue to treat a variety of fibrotic conditions, including end-stage liver disease, idiopathic pulmonary fibrosis, and tumor invasion/metastasis.

Stage of Research
The inventors have demonstrated the anti-fibrotic effects of a soluble variant of the Axl receptor with enhanced affinity to Gas6.

Applications

- **Therapeutic approach for fibrosis and fibrotic conditions**, such as those associated with:
  - pancreatic cancer
  - idiopathic pulmonary fibrosis
  - end-stage liver disease
  - chronic inflammatory diseases

Advantages

- **Unmet medical need** - fibrosis is a contributing factor to a number of disease states, and is difficulty to effectively manage with current treatment options
- **First in class approach** - novel approach for managing fibrotic disorders
- **Variety of potential therapeutic molecules** - Axl signaling can be modulated by a variety of methods, including soluble receptors, kinase

inhibitors and neutralizing antibodies

Patents

- Published Application: WO2016100738
- Published Application: 20180057898
- Issued: 10,876,176 (USA)

Innovators

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