Docket #: S17-409

Compounds targeting phospholipid synthesis to treat cancer and metabolic disease

Disease indication:
Cancer: Renal cell carcinoma (RCC), hepatocellular carcinoma (HCC), lymphoma and potentially other MYC-driven cancer

Drug format: Small molecule compounds, alone or in combination with other chemotherapeutic drugs

Drug class: First-in-class

Target: enzymes in phospholipid metabolic pathway

Research stage and Preliminary data:
The inventors demonstrated that various lipogenesis inhibitors suppress cancer proliferation in human and murine lymphoma lines.

Continued research: The inventors continue to develop SAR for leads.

Background: Previous studies have shown that lipid metabolism is frequently perturbed in cancers. Using desorption electrospray mass spectrometry (DESI-MSI), the inventors showed that phospholipid metabolism is altered.

Mode of action: Inhibiting phospholipid metabolism disrupts cancer metabolism, suppressing cancer proliferation. To date, the inventors have demonstrated results for lymphomas, HCC and RCC.

Advantages

- First-in-class approach with potential for treating a wide range of cancers

- This is a novel target in oncology

Patents

- Published Application: WO2019165232
- Published Application: 20210002240
- Issued: 11,702,394 (USA)

Innovators

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