Innovation Ventures

Oncology

Small Molecule Vav3 inhibitor as Novel Cancer Therapeutic

Brief Description of Technology
Our proprietary inhibitor binds to Vav3 thereby inhibiting the activation of Rac and the estrogen receptor.

Technology Overview
The Vav3 oncogene is a drug target for leukemia, breast, pancreatic, skin, gastric, prostate cancers and glioblastoma. We have identified the small molecule inhibitor of Vav3, a key cellular signaling molecule which is in the Rac and Rho families of small GTPases. Our proprietary inhibitor binds to Vav3 thereby inhibiting the activation of Rac and the estrogen receptor. This inhibitor was efficacious on both mouse models and patient derived xenografts of Ras-driven tumors. Our technology is specific to oncogene-expressing cells and not toxic to normal tissues.

Applications
• Therapeutic for tyrosine kinase inhibitor-resistant acute myeloid leukemia • Therapeutic for triple negative breast cancer

Market Overview
• Acute Lymphoblastic Leukemia: About 6000 new cases/year, and 1500 deaths/year, in the US. • Breast Cancer: over 330,000 new cases per year in the US. • Triple Negative Breast Cancer: about 33,000 new cases per year in the US.

Investigator Overview
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