



## TECHNOLOGY LICENSING OFFICE

4301 West Markham Street, #831

Little Rock, AR 72205

501.686.6696

email: nmgray@uams.edu

### **BV 2018-16, 2018-17 - FLT3 and FLT3 Mutant inhibitors as Cancer Therapeutics**

**APPLICATION:** Two different classes of novel chemical entities that inhibit FLT3 and FLT3 mutant oncogenes

**KEY BENEFITS:**

- Novel chemical entities
- Selective inhibition of FLT3 mutants
- Applications in cancer, especially acute myeloid leukemia

**MARKET SUMMARY:** The FLT3 gene (fms-like tyrosine kinase) is a member of the class III tyrosine kinase receptor family. Recent studies have demonstrated oncogenic potential with FLT3 mutants and chromosomal abnormalities that affect FLT3. Specifically, these mutations have been associated with acute myeloid leukemia and may be important in other cancers.

**TECHNICAL SUMMARY:** This invention consists of small molecule inhibitors that can block catalytic activity of oncogenic FLT3 mutants. This invention will be useful in cancers that are driven by a mutant FLT3 oncogene. This includes, but is not limited to, acute myeloid leukemia (AML). This invention can be used to treat FLT3 driven tumors. Currently, midostaurin is the only approved small molecule for FLT3 driven tumors. However, midostaurin has pan-kinase activity and this limits its therapeutic window. The current invention is selective for FLT3 driven tumors, which increases the therapeutic window and permits safer dosing with other chemotherapy agents.

**DEVELOPMENTAL STAGE:** Chemical synthesis and in vitro testing for specificity

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**Continued**

**PATENT**  
**INFORMATION**  
**AND CONTACT:**

App Type: Prov

Country: US

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Inventor(s): Brendan Frett, Hong-yu Li, Naresh Gunaganti, Nicolas McConnell

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Contact: Joe Underwood, Associate Director – Licensing, [junderwood@uams.edu](mailto:junderwood@uams.edu)