

Schweinfurthins and Uses Thereof

Summary

Researchers at the National Cancer Institute (NCI) developed novel analogs of the natural product schweinfurthins to treat neurofibromatosis type 1 (NF1). The compounds demonstrate effective growth inhibition in malignant peripheral nerve sheath tumor cell lines and mouse models of astrocytomas. Researchers seek licensing and/or co-development research collaboration opportunities to further develop the schweinfurthin analogs.

NIH Reference Number

E-183-2009

Product Type

- Therapeutics

Keywords

- Neurofibromatosis, Schweinfurthin, Neurofibromas, Beutler

Collaboration Opportunity

This invention is available for licensing and co-development.

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Description of Technology

Neurofibromatosis type 1 (NF1) is a genetic disorder affecting 1 per 3000 individuals on average. Patients develop a variety of developmental benign and malignant pathologies. The most common tumors associated with NF1 are peripheral sheath tumors, including neurofibromas, optical gliomas, and malignant peripheral nerve sheath tumors.

Researchers at the National Cancer Institute (NCI) developed novel analogs of the natural product schweinfurthin that inhibits growth of NF1-associated pathologies. The schweinfurthin analogs show inhibitory activity against mouse and human NF1 cancer cell lines. Glioma, diffuse B cell lymphoma, and leukemia cell lines also show significant sensitivity against the schweinfurthin analogs.

Potential Commercial Applications

- Therapies for tumors associated with NF1, for leukemia, and for diffuse B cell lymphoma

Competitive Advantages

- Specificity of mode of action reduces potential side effects
- Novel mode of action
- Inhibitory activity against mouse and human NF1 cancer cell line

Inventor(s)

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Development Stage

- Discovery (Lead Identification)

Publications

T.J. Turbyville. et al. [[PMID: 20442305](#)]

Patent Status

- **U.S. Patent Issued:** U.S. Patent Number 8,686,016, Issued 01 Apr 2014
- **Foreign Filed:** EP - Patent Application 10719562
- **Foreign Filed:** EP - Patent Application 18162475, Filed 19 Mar 2018

Therapeutic Area

- Cancer/Neoplasm

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