Natural Products for Cancer Therapeutics

Tech ID: 19544 / UC Case 2006-079-0

TECHNOLOGY DESCRIPTION

Although algorithms and chemistries for developing new therapeutic entities are constantly evolving, none can replicate the path and novelty of natural selection over eons of time. Inventors at the Scripps Institution of Oceanography have engaged their fleet of research ships to cull the oceans for marine organisms from which new compositions are isolated. Using a variety of culture systems, selective fractionation and bioassays, two, distinct classes of compounds, isolated from actinomycetes, have demonstrated potent anti-tumor activity and considerable selectivity toward some cancers. One class of compounds, the ammosamides, are unique molecules that target a previously untargeted intracellular pathway. It is anticipated that proprietary methods and naturally evolved compositions may yield therapeutics that are significantly differentiated from those developed by limited iteration of pre-defined platforms.

RELATED MATERIALS

- http://scrippsnews.ucsd.edu/Releases/?releaseID=719
- http://fenical.ucsd.edu/Fenical%20Home.htm
- Hughes CC, et. al. Ammosamides A and B target myosin. Angew Chem Int Ed Engl. 2009; 48(4):728-32.
- Hughes CC, et al. The ammosamides: structures of cell cycle modulators from a marine-derived Streptomyces species. Angew Chem Int Ed Engl. 2009; 48(4):725-7.

STATE OF DEVELOPMENT

Potent anticancer activity against HCT-116 (human colon cancer cells).

INTELLECTUAL PROPERTY INFO

Patents pending; see WO/2009/006319.

CONTACT

University of California, San Diego
Office of Innovation and Commercialization
innovation@ucsd.edu
tel: 858.534.5815.

INVENTORS

- Fenical, William H.

OTHER INFORMATION

KEYWORDS

chemical entity, chemical entities, composition, marine, tumor, composition

CATEGORIZED AS

- **Medical**
  - Disease: Autoimmune and Inflammation
  - Disease: Cancer
  - Disease: Cardiovascular and Circulatory System
  - Disease: Central Nervous System
  - Disease: Dermatology
  - Disease: Digestive System
  - Disease: Infectious Diseases
  - Disease: Kidneys and Genito-Urinary System
  - Disease: Metabolic/Endocrinology
  - Disease: Ophthalmology and Optometry
  - Disease: Respiratory and Pulmonary System
  - New Chemical Entities, Drug Leads
  - Other

RELATED CASES

2006-079-0, 2010-351-0, 2010-329-0,

2003-248-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Salinosporamide A: A Superior Proteasome Inhibitor

University of California, San Diego
Office of Innovation and Commercialization
9500 Gilman Drive, MC 0910, ,
La Jolla,CA 92093-0910

Tel: 858.534.5815
innovation@ucsd.edu
https://innovation.ucsd.edu
Fax: 858.534.7345