Skysong Innovations
Advancing the Arizona State University Knowledge Enterprise

1475 N. Scottsdale Road, Suite 200
Scottsdale, AZ 85287-3538
Phone: 480 884 1996 Fax: 480 884 1984

Case ID:Halistatins
Published: 3/22/2010

Inventors

George (Bob) Pettit

Contact

Tom Goodman
thomas.goodman@skysonginnovations.com

Halistatins 1, 2 & 3

Contact

Jack Geltosky, PhD

Senior Vice President of Business Development, Life Sciences

Arizona Technology Enterprises, LLC (AzTE)

P: 480.884.1989

F: 480.884.1984

JGELTOSKY@AZTE.COM

Inventors

George Pettit, PhD

Regents Professor

Department of Chemistry and Biochemistry

Arizona State University

Rui Tan

Feng Gao

Yoshitatsu Ichtihara

Halistatins 1, 2 and 3

AzTE Cases # 626, 627, 701

Intellectual Property Status:

U.S. Patent 5,426,194

U.S. Patent 5,352,804

U.S. Patent 5,519,050

Invention Description

Halistatins are highly potent polyether macrolides with anti-mitotic actions that were originally isolated from certain marine sponges. Similar polyether macrolides,

such as, Bryostatin 1 (Ph2), Halichondrin B (PC) and its analog, E7389 (Ph 2), are being tested both preclinically and clinically as anti-cancer agents.

Halistatin 1 has highly potent cytotoxic activity in vitro against P388 cells (ED50 of 4x10-4 µg/mL) and against 60 human cancer cell lines from the NCI's anti-tumor screening panel (average overall panel GI50 of 7x10-10 M).

Halistatin 2 has highly potent cytotoxic activity in vitro against P388 cells (ED50 of 4x10-4 µg/mL) and against 60 human cancer cell lines from the NCI's anti-tumor screening panel (average overall panel GI50 of 7x10-10 M).

Halistatin 3 strongly inhibits growth (ED50 of 3.5x10-5 µg/mL) of P388 leukemia cells and a 'mini' panel of human cancer cell lines (GI50, µg/mL): brain (SF-295, 3.5x10-5), lung (NCI-460, 2.5x10-5), colon (KM 2062, 5.1x10-6), ovary (OVCAR-3, 1.3x10-5), renal (A498, 5.6x10-5) and melanoma (SK-MEL-5, 2.5x10-5).

Potential Applications

These novel compounds have applications as: