MO-201, a candidate therapeutic for drug-resistant Cancer Stem Cells

Published date: Oct. 22, 2015

Technology description

This invention comprises novel compounds of the Glycosylated Antitumor Ether Lipid (GAEL) class, which selectively target apoptosis-resistant cancer stem cells in ovarian cancer and breast cancer. The invention provides novel compounds: Glycosylated antitumor ether lipids (GAELs) α- or β-D-gluco-configured 2-amino-2-deoxy (2-NH2-Glc) sugar moiety linked to a glycerolipid aglycone. These compounds kill cancer cells via a non-apoptic mechanism and are highly active against cancer stem cells. The molecules inhibited the formation of tumorspheres from BT-474 cancer stem cell lines, caused the disintegration of preformed tumorspheres and resulted in total loss of cell viability of the cancer stem cells at concentrations of 3 to 20 μM. In contrast, the related antitumor ether lipid gold standard, edelfosine (currently in clinical development) was much less effective in preventing tumorsphere formation and affecting the viability of the cancer stem cells.

Institution

University of Manitoba

Inventors

Gilbert Arthur
Frank Schweizer
Pranati Samadder

联系我们

叶先生

电 话：021-65679356

手 机：13414935137

邮 箱：yeyingsheng@zf-ym.com