



Highly Potent Thiazolidine Analogs for Treating Prostate and Skin Cancer

The Technology

Prostate cancer and melanoma are common cancers that will affect over 10% of the over-65 population. Prostate cancer can be treated effectively with surgery but at a significant risk of side effects. A diagnosis of advanced melanoma has a very poor chance of successful clinical outcome.

Researchers at the University of Tennessee have developed several lead compounds that exhibit low- and sub-micromolar cytotoxicity for prostate and melanoma cell lines while exhibiting high selectivity (>20-fold) against control cells. These compounds represent a new class of cytotoxic agents, 2-aryl-thiazolidine-4-carboxylic acid amides, which appear to function by binding to a cell surface receptor and inhibiting LPA and PI₃ kinase signaling.

The lead researchers on this work, Drs. Duane Miller and Jim Dalton, have an extensive history of developing novel compounds that have been out-licensed for commercial development, including Ostarine™, currently in Phase IIb trials with GTx Inc. Based on this track record and the highly promising initial data, UTRF has developed a broad IP portfolio around this new class of agents, including a first issued US patent (7,307,039) and concurrent applications in all of the major international markets.

Related Publications:

- [Melanoma \(Bioorg Med Chem Lett. 2007 Aug 1;17\(15\):4113-7\)](#)
- [Prostate Cancer \(Bioorg Med Chem Lett. 2005 Sep 15;15\(18\):4010-3\)](#)

Benefits

- Develop best-in-class anticancer drugs with these novel small molecules.
- Reduce business risk with an issued patent for the core intellectual property.
- Acquire exclusive rights to the latest technology from lead researchers with a track record of generating clinically successful compounds.

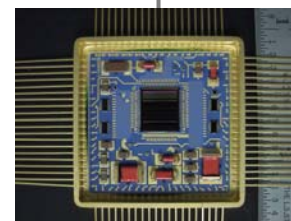
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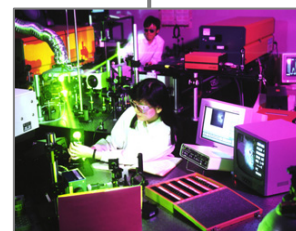
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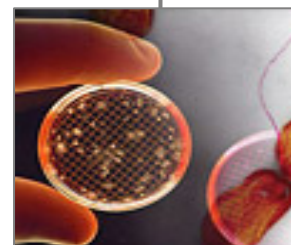
ENGINEERING



MATERIALS



MEDICINE





The Inventors

Dr. Duane Miller, is the Harriett S. Van Vleet Professor, the Associate Dean for Research and Graduate Programs, and the Chair of the Department of Pharmaceutical Sciences in the College of Pharmacy at the University of Tennessee Health Sciences Center. In addition to his extensive record of academic research, his work has also been used as the foundation for two startup companies, and is a fundamental platform technology for a third.

Dr. James Dalton, is Vice-President of Preclinical Research and Development at GTx, Inc. in Memphis, TN. He is also Adjunct Faculty in the Department of Pharmaceutical Sciences in the College of Pharmacy at The University of Tennessee Health Science Center and Professor in the Division of Pharmaceutics in the College of Pharmacy at The Ohio State University. He has published approximately 80 peer-reviewed scientific articles in the areas of molecular, preclinical and clinical pharmacology, and is a co-inventor on over 200 patent applications.

Patents

- US/7307093. Thiazolidinone amides, thiazolidine carboxylic acid amides, methods of making, and uses thereof.
- WO/2005/049591A1. Thiazolidinone amides, thiazolidine carboxylic acid amides, methods of making, and uses thereof.

Contact

The University of Tennessee Research Foundation (UTRF) is a non-profit corporation responsible for commercializing University of Tennessee technologies and for supporting University research. UTRF is presently seeking parties interested in learning more about this technology and in exploring possible research and/or commercialization arrangements.

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