



Inventors

Sidney Hecht

Professor/Director
Center for BioEnergetics
The Biodesign Institute
Arizona State University

Manikandas Madathil

Post-Doc Research Assistant*
Arizona State University

Chandrabali Bhattacharya

Graduate Research Assistant*
Arizona State University

Trevor Bozeman

Graduate Research Assistant*
Arizona State University

Rakesh Paul

Graduate Research Assistant*
Arizona State University

Zhiqiang Yu

Post-Doc Research Associate*
Arizona State University

Michael Rishel

Synthetic Organic Chemist
GE Global Research

* With the Biodesign Institute

Intellectual Property

Status:

Patent Pending

Contact

Yash Vaishnav, PhD, MBA

Vice President

Business Development, Life
Sciences

Arizona Technology
Enterprises, LLC (AzTE)

P: 480.884.1648

F: 847.971.2871

YASH@AZTE.COM

HEALTHSCIENCES@AZTE.COM

Optimized Carbohydrates for Tumor Targeting

AzTE Case # M13-142

Invention Description

The bleomycins (BLMs) are well-known antineoplastic agents, clinically useful in the treatment of squamous cell carcinomas and malignant lymphomas. The carbohydrate moiety, particularly the disaccharide moiety, of BLM is also known to be highly tumor targeting.

Researchers at the Biodesign Institute of Arizona State University have discovered disaccharides that target tumor cells more efficiently than the natural BLM disaccharide. Numerous highly specific disaccharide analogues have been produced and conjugated to an imaging agent or a reporter group. These disaccharides have been tested in several cancer cell lines including prostate carcinoma cells and showed excellent tumor targeting.

These novel disaccharide analogs with their high specificity for tumors offer great utility as tumor imaging agents.

Potential Applications

- Tumor imaging agents

Benefits and Advantages

- More efficient tumor targeting than the disaccharide moiety of BLM