



TECHNOLOGY

HSP90 as a Biomarker for Malignancies

OVERVIEW

Heat Shock protein 90 (Hsp90) a molecular chaperone has shown to have a great potential as an anti-cancer target. Hsp90 antagonists (e.g. 17AAG) have emerged as promising drugs that inhibit tumor cell growth by affecting the ability of Hsp90 to fold associated molecules important in cancer growth and progression. The invention relates to methods of diagnosing` prognosticating` monitoring` and/or treating cancer based on Hsp90 levels.

APPLICATIONS

Diagnosing the presence of cancer. Monitoring a cancer therapy. Prognosing the course of cancer. Defining clinical responsiveness to Hsp90-interacting drugs.

ADVANTAGES

Biomarker studies based on this invention do not require tumor biopsies or peripheral blood mononuclear cells (PBMC). Valuable pharmacodynamic tool in clinical trials of Hsp90 drugs. Can be used to identify the type of cancer. Can be used to determine cancer progression.

STAGE OF DEVELOPMENT

Proof of concept validated in arrhythmic nude mice bearing human tumor xenografts. Multiple HSP90 inhibitor clinical trials currently underway.

R&D REQUIRED

Clinical trials required.

LICENSING POTENTIAL

UM seeks to develop and commercialize via an exclusive or non-exclusive license agreement and/or sponsored research with a company active in the area.

CONTACT INFO

Office of Technology Transfer
620 W Lexington St., 4th Floor
Baltimore, MD 21201
Email: ott@umaryland.edu
Phone: (410) 706-2380

Additional Information

INSTITUTION

University of Maryland, Baltimore

PATENT STATUS

U.S. Patent 8,580,519, issued November 12, 2013

LICENSE STATUS

Available for licensing

CATEGORIES

- Diagnostics
- Biomarker

INVESTIGATOR(S)

Angelika Burger
Edward Sausville

EXTERNAL RESOURCES

- [Impact of heat-shock protein 90 on cancer metastasis.](#)
- [Highlights in experimental therapeutics.](#)
- [Comparison of 17-dimethylaminoethylamino-17-demethoxy-geldanamycin \(17DMAG\) and...](#)
- [Antiangiogenic properties of 17-\(dimethylaminoethylamino\)-17-demethoxygeldanamycin...](#)

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