NOVEL TUMOR-ASSOCIATED ANTIGEN FOR CANCER DIAGNOSTICS AND THERAPEUTICS

SUMMARY

The National Institute on Aging's Laboratory of Immunology is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the use of SPANX-B-based therapeutic approaches to combat cancers.

REFERENCE NUMBER

E-089-2009

PRODUCT TYPE

- Diagnostics
- Therapeutics

KEYWORDS

- cancer
- melanoma
- tumor-associated antigen
- SPANX-B

COLLABORATION OPPORTUNITY

This invention is available for licensing and co-development.

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DESCRIPTION OF TECHNOLOGY

Researchers at the National Institute on Aging's Laboratory of Immunologyhave characterized a novel tumor-associated antigen, SPANX-B, that is naturally immunogenic and is expressed in a variety of human malignancies, including melanoma and lung, colon, renal, ovarian and breast carcinomas. In melanoma specifically, SPANX-B expression is associated with advanced and metastatic disease. Moreover, the authors have found several agonist epitope peptides from SPANX-B which can be used to activate the immune system to eradicate tumors utilizing T cells. SPANX-B peptides have significant clinical and immunotherapeutic potential for the development of cancer diagnostic assays and potent protective and/ or therapeutic vaccines to combat a wide-range of cancers.

Current R&D Status: In vitro pre-clinical studies on human tumor cells. Further R&D is needed is to test efficacy of SPANX-B-based vaccines in modeling experiments in tumor-bearing mice.

POTENTIAL COMMERCIAL APPLICATIONS

- In vitro diagnostic assays for highly-metastatic melanomas or other cancers
- Therapeutic monoclonal antibodies
- Cancer vaccine development

COMPETITIVE ADVANTAGES

- Immunogenic: SPANX-B peptides are naturally able to elicit immune response.
- Expressed in a wide-range of cancers.
- Use of epitope peptides facilitates the activation of cells of the more therapeutically effective branch of the immune system.
- Small epitope peptides: can be more easily manufactured in contrast to recombinant proteins.

INVENTOR(S)

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DEVELOPMENT STAGE

- Discovery (Lead Identification)

PATENT STATUS

- **U.S. Filed:** U.S. Provisional Application No. 61/156,435 filed 27 Feb 2009