NATIONAL CANCER INSTITUTE
Technology Transfer Center

Mouse Xenograft Model for Mesothelioma

Summary

The National Cancer Institute is seeking parties interested in collaborative research to co-develop, evaluate, or commercialize a new mouse model for monoclonal antibodies and immunoconjugates that target malignant mesotheliomas. Applications of the technology include models for screening compounds as potential therapeutics for mesothelioma and for studying the pathology of mesothelioma.

NIH Reference Number

E-302-2009

Product Type

- Research Tools

Keywords

- Research tool
- mouse model
- cancer
- malignant mesothelioma
- asbestos
- immunoconjugate
- SS1P

Collaboration Opportunity

This invention is available for licensing.

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Description of Technology

The National Cancer Institute is seeking parties interested in collaborative research to co-develop, evaluate, or commercialize a new mouse model for monoclonal antibodies and immunoconjugates that target malignant mesotheliomas. Applications of the technology include models for screening compounds as potential therapeutics for mesothelioma and for studying the pathology of mesothelioma.

This invention involves the creation of a new mouse model for mesothelioma. By creating xenografts with mesothelioma cells that express GFP-Luciferase fusion proteins, the xenografts can be detected to a high degree of sensitivity, and monitored for several months following implantation. The high level of detection sensitivity improves the ability to monitor disease progression in response to therapeutic candidates, thereby allowing more efficient drug screening and evaluation. This has already been demonstrated by using the mouse to evaluate an anti-mesothelioma immunotoxin known as SS1P, a drug candidate that is currently being evaluated for clinical effectiveness.

Competitive Advantages
- The model is created using well characterized, art-accepted mesothelioma cells
- The model exhibits the classical clinical progression of mesothelioma, demonstrating its accuracy as a model
- The use of GFP-Luciferase fusion proteins allow for non-invasive evaluation of mesothelioma progression and response to drug candidates and for the use of highly sensitive detection systems such as bioluminescence

Inventor(s)

Mitchell Ho (NCI)

Development Stage
- Pre-clinical (in vivo)

Patent Status
- **Research Material:** NIH will not pursue patent prosecution for this technology

Therapeutic Area
- Cancer/Neoplasm

Updated
Friday, September 16, 2022

Source URL:https://techtransfer.cancer.gov/availabletechnologies/e-302-2009