UNIVERSITY OF MINNESOTA
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Mouse model expressing human APOBEC3B for cancer research

A novel transgenic mouse model expresses human APOBEC3B to study cancer mutagenesis and develop therapeutic strategies.

IP Status: Research tool

Applications

- Evaluating APOBEC3B's role in tumorigenesis
- Studying point mutations in various cancer types
- Preclinical testing of APOBEC3B inhibitors
- Investigating tumor evolution and metastasis

Technology Overview

Researchers at the University of Minnesota have developed a novel transgenic mouse model that expresses human APOBEC3B, an enzyme implicated as a source of mutation in many cancers. This model is unique as mice naturally lack human APOBEC3B. The mouse strain, designated rosa26::LSL-A3Bi, expresses tumor-like levels of the enzyme, leading to accelerated carcinogenesis and providing a new in vivo platform for studying cancer phenotypes and testing therapeutic agents.

Phase of Development

TRL: 4-5
The mouse model has been generated and characterized.

Desired Partnerships

This technology is now available for:

- License
- Sponsored research
- Co-development

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Researchers

- **Reuben Harris, PhD** Position, Department of Biochemistry, Molecular Biology, and Biophysics

References

1. Cameron Durfee, Nuri Alpay Temiz, Rena Levin-Klein, Prokopios P Argyris, Lene Alsøe, Sergio Carracedo, Alicia Alonso de la Vega, Joshua Proehl, Anna M Holzhauer, Zachary J Seeman, Xingyu Liu, Yu-Hsiu T Lin, Rachel I Vogel, Rocio Sotillo, Hilde Nilsen, Reuben S Harris(2023) , https://www.cell.com/cell-reports-medicine/fulltext/S2666-3791(23)00378-6, https://www.cell.com/cell-reports-medicine/home, 4

Technology ID

20150120

Category

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