

World's First Pax7-Foxo1 Genetically Engineered Mouse Developed

Researchers have developed the first genetically-engineered mice containing the Pax7-Foxo1 gene fusion found in some forms of alveolar rhabdomyosarcoma.

BEAVERTON, OR, UNITED STATES, November 14, 2022 /EINPresswire.com/ -- Children's Cancer Therapy Development Institute (cc-TDI) researchers, led by Scientific Director Dr. Charles Keller, have developed the world's first genetically-engineered mice that contain the Pax7-Foxo1 gene fusion found in some forms of alveolar rhabdomyosarcoma. Typically, alveolar rhabdomyosarcoma is characterized by the Pax3-Foxo1 gene fusion. Pax7-Foxo1 is the less common fusion variant.

Rhabdomyosarcoma (RMS) is an underserved form of cancer found in the soft tissue of the muscle and skeletal systems. In the last 7 years no new drugs have emerged to be tested in clinical trials for high-risk or relapsed RMS and throughout history no primary drug approvals for RMS have occurred – leaving many patients and families without life-saving treatment options.

Having previously generated the Pax3-Foxo1 alveolar rhabdomyosarcoma mouse, cc-TDI is now beginning the months' long process of putting the Pax7-Foxo1 mutation with activators in muscle to create the world's first ever Pax7-Foxo1 alveolar rhabdomyosarcoma mouse that naturally develops tumors. The advantage of this particular mouse model is that it will allow researchers to essentially turn on and off the gene when testing against targeted drugs, an important experimental feature.

The \$53,000 cost to produce this mouse was made possible by crowdfunding in honor of Suede, Tina, Gary, Leo and Kathryn that raised \$18,196 (including \$13,000 from David Sullivan via Golf Fights Cancer in honor of Princess Kiley) and was significantly enabled most recently by the [Megan's Mission Foundation](#) and its community of supporters with a contribution of \$10,000. To help with the last \$24,804 needed to complete the project, you can join via the [crowdfunding campaign: https://cc-tdi.kindful.com/?campaign=1052576](https://cc-tdi.kindful.com/?campaign=1052576).

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About cc-TDI: [The Children's Cancer Therapy Development Institute](#), is a non-profit biotech organization whose mission is to translate scientific discovery into clinical trials by understanding and providing new disease-specific treatment options for children with cancer. cc-TDI's research

team of biologists and biomedical engineers work closely to identify targets on cancer cells and provide evidence-based testing for the selection of new drugs to be used in childhood cancer phase I and phase II clinical trials.

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