



Wisconsin Miniature Swine™ for Cardiovascular Research

WARF: P140228US01

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in a breed of swine ideally suited for studying human cardiovascular disease.

Overview

Rodents and other small animals are extensively used as models to study human health and disease, but there are increasing concerns about their relevance. Research funding and regulatory agencies are beginning to demand that large translational animal models be used instead, especially for studies pertaining to the development/validation of diagnostic and therapeutic technologies.

Swine are well suited for these studies given their genetic proximity to humans and similarities in anatomy, body function and diet. However, years of selective breeding for meat production has resulted in fast-growing, muscular swine. Such conventional breeds are unsuitable for modeling human physiology and disease.

The Invention

UW–Madison researchers have developed a novel line called Wisconsin Miniature Swine – Familial Hypercholesterolemia (WMS-FH). The animals are hypercholesterolemic and develop atherosclerotic vascular disease that is remarkably similar to that of humans.

The body weight, size and composition of WMS-FH are similar to humans and can be manipulated easily. They are ideally suited for studying the mechanisms of cardiovascular disease, and for developing/validating diagnostic and therapeutic technologies in the field of cardiology.

Applications

- Novel model for studying human cardiovascular disease

Key Benefits

- Weight, size and composition are similar to humans and easily manipulated.
- Show propensity towards hallmarks of metabolic syndrome, including obesity
- Friendlier and easier to work with than conventional breeds
- Cardiovascular disease is remarkably similar to that of humans.
- Maintained in a special pathogen-free facility

Stage of Development

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Additional Information

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For More Information About the Inventors

- [Jess Reed](#)
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Related Technologies

- [For more information about Wisconsin Miniature Swine, see WARF reference number P130271US01.](#)

Tech Fields

- [Drug Discovery & Development : Disease models](#)
- [Research Tools : Animal & disease models](#)

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854

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