



## Insulin Sensitization Using RNAi

### The Technology

Type II diabetes treatment is a \$21 billion market worldwide and growing due to the ever increasing overall age of the population and unhealthy lifestyle choices.

Although there are a variety of treatment options available, there are still significant opportunities for improving diabetes control. Alternative therapeutic targets and insulin sensitizing agents are needed.

Researchers at the University of Tennessee College of Veterinary Medicine have identified a novel target within adipose cells (both primary and immortal) that, when silenced by small-interfering RNA (siRNA), significantly enhances the cell's ability to uptake glucose in an insulin-stimulated state. These data are the first to show this protein's involvement in glucose metabolism and anti-diabetic action. This work represents a new alternative target and potential therapeutic option for the treatment of metabolic disorders of diabetes and obesity.

### Benefits

- New therapeutic target and treatment option for diabetes
- Potential for a new insulin-sensitizing drug
- Ground-breaking opportunity within the RNAi space for diabetes treatment

### The Inventor

**Dr. Madhu Dhar** is a Research Assistant Professor in the Department of Large Animal Clinical Sciences, College of Veterinary Medicine at the University of Tennessee. Dr. Dhar specializes in molecular and functional genomics. Her research interests are primarily focused in the area of mouse models and novel protein targets associated with obesity and diabetes. She has successfully developed novel transgenic mouse models for her research which has led to the discovery of novel targets associated with the disease.

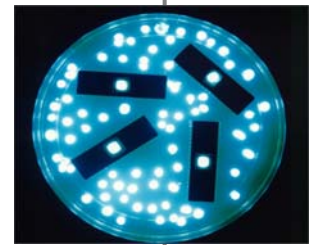
### Patents

- US Patent Pending

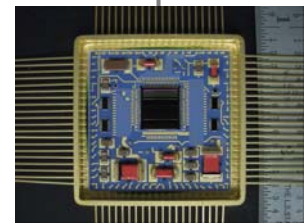
#### AGRICULTURE



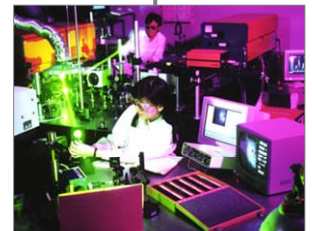
#### BIOTECHNOLOGY



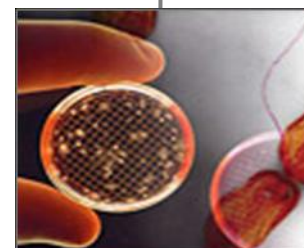
#### ENGINEERING



#### MATERIALS



#### MEDICINE





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## Contact

The University of Tennessee Research Foundation (UTRF) is a non-profit corporation responsible for commercializing University of Tennessee technologies. UTRF is seeking parties interested in learning more about this technology and in exploring possible research and/or commercialization arrangements.

Stacey S. Patterson, Ph.D.

Licensing Associate

Ph: (865) 974-3140

Fax: (865) 974-3140

E-mail: [sspatter@utk.edu](mailto:sspatter@utk.edu)

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