



www.AdipoTherapeutics.com

Adipo Therapeutics Mission: Transforming obesity-related diseases, starting with Type 2 Diabetes

Company:

Adipo Therapeutics a preclinical stage pharmaceutical company developing a breakthrough approach to treating type 2 diabetes by converting energy storing white fat to energy burning brown fat.

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Strategic Focus

Transforming energy burning white adipose tissue (WAT) into energy burning brown adipose (BAT) to treat obesity-related diseases

Intellectual Property

Technology platform protected by US 15/771,312; US63/055,410; U.S. 15/621,627; International: PCT/US16/58997

IP Counsel

Bill Christiansen, JD, Cooley LLP

General Council

Ice Miller, LLP

Scientific Advisors

Kuang, Shihuan, PhD - Professor, Dept. of Animal Sciences and Dept. of Biological Sciences, Purdue University; Co-inventor of IP; PhD in Cellular and Molecular Biology, and Physiology

Heiman, Mark, PhD - Chief Scientific Officer, Scioto Biosciences; Key advisor on brown fat physiology and clinical translation

Sturek, Michael, PhD - Professor of Medicine at Indiana University School of Medicine; expert in preclinical metabolic syndrome studies

Funding & Investors

Funding for Adipo to date of \$2.3 M has been provided by Purdue Research Foundation, Elevate Ventures, Angels, and an NIH SBIR grant

- ADP-002 is the first treatment with the potential to change white fat to brown fat, increasing energy expenditure, improving insulin resistance, and changing fat storage
- \$1-2 billion opportunity in lead indication, Type 2 Diabetes (T2D), large market with recognized unmet need and well-defined regulatory path
- Strong team with diabetes drug development and launch experience

Team: Adipo is led by **Karen Wurster, CEO**, a pharmaceutical executive with over 25 years of experience in developing and commercializing billion-dollar diabetes products, and Prof. **Meng Deng, PhD** (Purdue), Founder & President, who has developed biomaterials technologies for drug delivery, cell and tissue engineering applications, including post-doc work in the MIT Langer lab. The company has recruited a world class team of drug development experts with an average of 27 years industry experience to provide specific, contracted expertise.

Problem: An excess of white fat is the root cause of the development and progression of Type 2 Diabetes (T2D). By 2025, there will be 37 million people in the US with T2D, and despite multiple available treatments, the majority of treated patients are not reaching their therapeutic goals, resulting in an 8-year reduction in life expectancy and \$327bn in US medical costs.

Solution: Adipo is developing ADPO-002, a breakthrough Notch-inhibitor nanoparticle treatment delivered directly into white fat depots as weekly subcutaneous injections. The Adipo injections induce localized conversion of white fat to brown fat through mitochondrial biogenesis. Animal studies have demonstrated that this localized "browning" leads to systemic metabolic changes, including improved glucose control and clinically relevant weight loss without reductions in calorie intake.

US Market Size: The US market for direct T2D treatment is in excess of \$88B with a forecast CAGR of 14%. \$10B of this market is the non-insulin injections (GLP-1s), which is Adipo's patient target. Customer research has indicated that a therapy with Adipo's product profile could grow the injectable market and capture 10% of this GLP-1 market in 3 years post launch, yielding \$1-2bn annual revenue.

Competition: Current T2D treatments work by increasing circulating insulin, decrease appetite and removing glucose directly from the blood. **ADPO-002 would be the first treatment in its class**, directly reducing excess white fat while increasing the beneficial brown fat. ADPO-002 would be the only treatment to increase energy expenditure, improve insulin resistance, and offer healthier fat storage. Adipo is not aware of any treatments in development that convert white fat to brown fat in a localized manner

Business Model: Adipo is currently in preclinical studies, with plans to develop ADPO-002 through initial clinical proof of safety and efficacy, followed by partnering for Phase 3 pivotal trials and commercialization. Adipo anticipates a partnering window to open after completion of Phase I, with the optimal partnering point being after the completion of Phase II. The leading global diabetes companies, including Eli Lilly, Novo Nordisk, Boehringer Ingelheim, have all demonstrated an interest in continued investment in diabetes. Lilly currently has 10 candidates in Phase 1 clinical trials, and Novo has 7. Other major companies such as Merck, Bristol Myers, and AstraZeneca may also have an interest in novel diabetes treatments. As a point of reference some transactions of note in this space include Roche/Marcadia (\$587M plus royalties), Merck/Hanmi (\$10M upfront, \$860M Milestones plus royalties). Other opportunities to extend the platform includes treatments for obesity, NASH, and CV, as well as aesthetic treatments for submental fat.