SCITHERM
BIOTECH SOLUTIONS FOR WEIGHT CONTROL

## SciTherm

SciTherm is at the forefront of developing innovative solutions for the treatment and control of obesity. Inspired in capsaicinoids, we focus on creating thermogenics designed in-silico, to activate lipid and triglyceride degradation metabolic pathways, without the pungency and irritation effects of chili molecules.

## The Problem

Currently, the most effective drug treatments for weight control do not burn fat. They were designed either to inhibit fat accumulation or to maintain glucose homeostasis for patients with diabetes type II.

**Tetrahydrolipstatin**: Prevents the absorption of fats as a lipase inhibitor. Secondary effects include steatorrhea with excessive flatus, fecal incontinence and frequent or urgent bowel movements.

**GLP-1**: Promotes insulin secretion in a glucose-dependent manner. These peptides do not promote fat degradation and can produce several secondary effects.

## Our solution

At SciTherm we rationally designed artificial capsaicinoids that bind to a receptor that triggers fat burn through lipolysis activation and inhibits fat accumulation.

Our ***new-to-nature*** molecules improve the ligand channel interaction to effectively activate lipolysis without causing a spicy sensation, nor stomach irritation.

> **“Turning on the heat without the hot”**

## Approach

**In-Silico Design**: Computer modeling to design molecules that mimic the structure and function of natural capsaicinoids, increasing their efficacy without adverse effects.

**Specificity and Potency**: Our compounds are designed to specifically activate fat degradation pathways and inhibit lipid accumulation pathways, ensuring greater efficiency in weight control.

## Results

**In-Vitro:** We have tested our molecules in 3T3-L1 adipocytes, demonstrating significant inhibition of adipogenesis and lipid and triglyceride degradation.

**In-Vivo:** In diet-induced obesity models in rodents, our compounds have shown a notable decrease in body fat accumulation and improvement in lipid profile, reducing LDL, VLDL, and triglycerides in serum.

**SciTherm** is a newly established startup dedicated to validate its innovative approach to thermogenesis for the treatment of obesity.

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## Preclinical trials

### Adipocytes

SciTherm 80%

### Roents

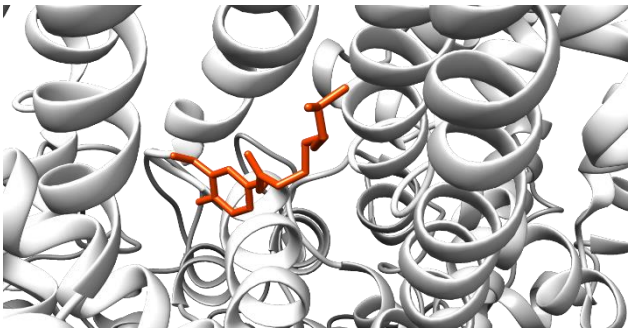
SciTherm 55%

Total lipid degradation. Results are expressed as percentage of total lipid degradation after treating with our candidate molecule.

## Ongoing research

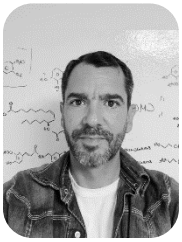
We have enzymatically synthesized novel structural variants exhibiting promising thermogenic activity. Our validation efforts will focus on:

- TRPV1 receptor affinity
- In-vitro lipolysis
- In-vivo fat mass decrease



Cuauhtémoc Licona

Martín Banda



Alejandro Torres

Blend of deep technical knowledge in thermogenesis and biocatalysis with business skills.

All team members have entrepreneurial experience and have worked together in the past.

# Seeking Strategic Partners to Advance Drug Development from Lab to Life

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