

# Proposal evaluation criteria

- **Scientific novelty and impact:** new targets, mechanisms of action, pathway analyses, etc. (The proposal must contain a novel and clearly defined scientific hypothesis that is feasible to explore in a short-term collaboration).
- **Clear hypothesis and experimental plan:** a concise description of the idea and research plan (The proposed study design can properly address the scientific hypothesis, with a focus on 'killer experiments').
- **"Killer experiments":** proof of principle experiments that will confirm or refute your hypothesis as valid for continued experimentation (The 'killer experiments' should be feasible to conduct within 6-9 months, not comprehensive and open-ended characterization efforts).

# PROPOSAL EXAMPLE

## 1. WHAT IS INNOVATIVE/NOVEL ABOUT YOUR PROPOSAL?

*(Please specify the disease area such as T2D, obesity Or CVD, and describe the proposed MOA of your target, and how it can advance our current understanding and treatment of the disease.)*

Example: The discovery that inhibiting the target by global attenuation of expression leads to loss of body mass and adiposity is highly novel. Hence, our proposal that inhibiting this impacts organismal nutrient sensing and fuel choice, inducing a metabolic shift that promotes lipid catabolism is highly conceptually innovative. We support this proposal with preliminary data showing a rapid, dramatic shift in the respiratory exchange ratio, reduced body mass and adiposity, and alterations in the level of circulating hormones, despite no discernable effect on food intake, body temperature, or activity level.

## 2. WHAT IS THE MEDICAL OR TECHNICAL PROBLEM TO BE SOLVED AND WHAT IS THE UNMET NEED THAT DRIVES THE PROJECT?

Example: Identifying new or complementary strategies to mitigate obesity remains a major healthcare priority. An area of particular interest relates to the modulation of central carbon metabolism and lipogenesis as a means to control adiposity.

## 3. WHICH 'KILLER EXPERIMENTS'/DATA ARE CRITICAL TO CONFIRM/REFUTE YOUR HYPOTHESIS?

*(Please describe the key conclusive experiment that can serve as the stop/go signal, which should be able to finish within 6-9 months involving no more than three in vitro or in vivo experiments. Biological proof of concept in the human system would be a plus.)*

Example: (1) Investigate the secretion pattern of xxxxx using the primary mouse or human xxxxx cells. (2) Evaluate the influence of xxxxx on glucose uptake in both mouse and human xxxxx cells by examining xxxxx. (3) Testing if XXX has an impact on XXX by analyzing levels of XXX in both mouse and human cells.

## 4. WHAT COMPETENCIES AND RESOURCES DOES YOUR TEAM HAVE TO COMPLETE THE STUDY?

*(Please describe the research experience and facility you need for the proposed project, and potential collaborators you can access to for certain technology or assays required in this study.)*

Example: We are a major medical center with full access to resources and core facilities necessary to carry out the goals of this project. We have state of the art animal facilities and mouse models. Study PI has extensive expertise in the metabolic pathway being targeted and has established a collaborative network at XXX and beyond for analysis of phenotypes related to obesity and diabetes.