

A low-angle, close-up photograph of a person's legs and feet walking down a set of stairs. The person is wearing red pants with white cuffs and blue denim-style sneakers with tan soles. The background is bright and out of focus, suggesting an indoor setting with large windows.

## The **FALCON** study: a clinical research study for people with primary mitochondrial disease

**Primary mitochondrial disease (mitochondrial disease) is a group of rare diseases with a high unmet medical need for which there are currently no approved treatments.**

Mitochondria, the “powerhouse of the cell,” generate most of the energy required by the human body in the form of adenosine triphosphate (ATP). Mitochondria have their own DNA (mtDNA) and protein synthesis process. They play an important role in synthesizing various proteins that are part of the electron transport chain, a critical part of the ATP production.

Mitochondrial diseases are generally triggered by a dysfunction of the electron transport chain in mitochondria due to mutations in either mtDNA or nuclear DNA. This dysfunction leads to impaired regulation of energy metabolism, including an imbalance of cofactors  $\text{NAD}^+/\text{NADH}$ , affecting the cell’s capacity to generate energy. Mitochondrial diseases may be seen in any part of the body, but more frequently in the brain, heart or muscles, which require a lot of energy. Common clinical manifestations include pervasive fatigue, muscle weakness, exercise intolerance, and signs of metabolic dysfunction such as diabetes.

## Introducing the FALCON study

We are now inviting people to consider taking part in the FALCON study, a clinical research study to evaluate the effects of a study medicine called KL1333, a NAD<sup>+</sup>/NADH modulator, on fatigue symptoms and impact on the daily living and functional capacity of participants who have PMD. In addition, the study will evaluate safety and how well KL1333 is tolerated at different doses. In this fact sheet, when we use the term “study medicine” we are referring to KL1333.

The FALCON study consists of a screening and baseline period (8-12 weeks) to determine eligibility for the study, followed by a 48-week treatment period. During the treatment period, participants will be randomized (by chance, like picking straws) to receive either KL1333 or placebo. Participants will have a 60% chance of receiving the study medicine and a 40% chance of receiving a placebo. Neither the participants nor the study doctor will know who is receiving the study medicine or placebo.

All participants will receive 25 mg tablets of KL1333 (or placebo) twice a day for one week (for a total of 50 mg a day). If the dose is well tolerated after 1 week, the dose will be increased to 50 mg twice a day (for a total of 100 mg a day). The dose of the study medicine (or placebo) may be lowered at the discretion of the investigator until the maximum tolerated dose is determined (between 25 mg to 100 mg a day).

After the treatment period there will be a 5-week safety follow-up period.

## Who is eligible to participate in the FALCON study?

To qualify for this study, participants must:

- Be 18 years or older
- Have a confirmed mitochondrial disease diagnosis due to a known disease-causing gene mutation or deletion in the mitochondrial DNA
- Be experiencing chronic fatigue, muscle weakness, and mitochondrial myopathy

Other eligibility criteria apply. Only a study doctor can determine if a participant meets all of the eligibility criteria. To learn more about the FALCON study, please contact the study doctor or the study team.

Qualified participants may receive:

- The investigational study medicine or placebo
- Study-related medical assessments throughout the study
- Study-related follow-up care to check the effects on a participant’s health
- Reimbursement for study-related travel expenses

## Potential Risks to Patients

As with any clinical study, there are risks associated with taking a study medicine like KL1333. The most common adverse effects are abdominal discomfort, abdominal distension, abdominal pain, diarrhea and nausea.

## Consider the FALCON study

We are currently enrolling adults 18 years and older to take part in the FALCON study.

The study team can answer any questions about this clinical study and what participation may involve.

To learn more and/or determine eligibility for the FALCON study, please contact:

