

MC4R agonist treatment of patients with monogenic obesity



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SUMMARY

Obesity is an increasing problem with immense socioeconomic burden and severe suffering for the individual patients.

The team has identified a novel intracellular pathway via the Melanocortin-4 receptor (MC4R) which plays a pivotal role in weight regulation. When this signaling pathway is disturbed, the patients experience a constant hunger feeling irrespective of how much they eat.

The aim of this project is to identify patients that benefit from a MC4R agonist treatment resulting in a normal hunger feeling, and thus reducing the weight naturally. Hence, the team recruits affected patients for an investigator-initiated clinical trial in order to find novel treatment options.

PROJECT ACHIEVEMENTS DURING & AFTER SPARK

- Patent filed
- Diagnostic screen established
- Mutations and epigenetic modifications within the MC4R pathway identified for selection of patients eligible to MC4R agonist treatment
- Patients recruited to Phase 2 investigator-initiated clinical trial
- Company sponsored-phase 3 trial led to FDA approval
- Paul-Martini-Prize 2020 for outstanding achievements in clinical-therapeutic drug research