

### Grünenthal, Lead Discovery Center and Max Planck Society Enter Into a Research Collaboration on Charcot-Marie-Tooth 1A (CMT1A)

Grünenthal, Lead Discovery Center GmbH (LDC), Max-Planck Innovation and Max Planck Institute of Experimental Medicine (MPI-EM) have entered into a research collaboration to develop novel therapies for patients suffering from Charcot-Marie-Tooth 1A (CMT1A), an inherited neurological disorder.

The collaboration combines the disease proficiency of MPI-EM, the drug discovery expertise of LDC and Grünenthal's competency in drug discovery and development as well as pain management. The project's scientific foundation was laid at MPI-EM by Michael Sereda, Klaus-Armin Nave and Moritz Rossner.

Within the framework of this research collaboration, LDC and MPI-EM intend to establish a novel screening platform to identify small molecule modulators to generate innovative drug candidates. These research efforts are equally funded by Grünenthal and Max Planck Society. Grünenthal will assume responsibility for the development of any drug candidates derived from this research collaboration from the identification of preclinical candidate onwards.

"It's our aspiration to provide patients with disease modifying treatments. We therefore team up with academia and foster research collaborations leveraging basic research," said Gabriel Baertschi, CEO Grünenthal. "There is no curative treatment available for patients affected by CMT1A. This neurological disorder places a burden on patients and we're looking forward to developing potential treatment options with our partners."

"We are enthusiastic to collaborate with Grünenthal and our MPI-EM colleagues on this early-stage drug discovery project", said Bert Klebl, Managing Director and CSO at LDC. "As a leading specialist in pain research and pain management, Grünenthal's synergistic capabilities will help advance this joint project to hopefully make a difference in the lives of CMT1A patients".

### About Charcot-Marie-Tooth

Charcot-Marie-Tooth is one of the most common inherited neurological disorders, affecting approximately 1 in 2.500 people. It affects both motor and sensory nerves and symptoms include weakness of the foot and lower leg muscles, foot deformities, pain, and numbness.

CMT1A is the most common form of CMT and results from a duplication of the gene on chromosome 17 that carries the instructions for producing the peripheral myelin protein 22 (PMP22). PMP22 is a critical component of the myelin sheath that isolates human peripheral nerve. Overexpression of this gene causes the structure and function of the myelin sheath to be abnormal, resulting in a slower conduction of nerve impulses. Currently, there is no curative therapeutic treatment available.

### About Grünenthal

Grünenthal is an entrepreneurial, science-based pharmaceutical company specialized in pain, gout and inflammation. Our ambition is to deliver four to five new products to patients in diseases with high unmet medical need by 2022 and become a €2 bn company. We are a fully integrated research & development company with a long track record of bringing innovative pain treatments and state-of-the-art technologies to patients. By sustainably investing in our R&D above the industrial average, we are strongly committed to innovation.

Grünenthal is an independent, family-owned company headquartered in Aachen, Germany. We are present in 32 countries with affiliates in Europe, Latin America and the US. Our products are sold in more than 100 countries and approx. 5,200 employees are working for Grünenthal worldwide. In 2017, Grünenthal achieved revenues of approx. €1.3 bn.