







PRESS RELEASE

Research project aims to make pain "visible"

Aachen, Germany, December 7, 2018 – Grünenthal is participating in the PAIN-Vis research initiative and working with the University of Cologne, the Goethe University Frankfurt and Forschungszentrum Jülich [Jülich Research Center] to create a foundation for improvements in pain diagnosis. The basic research project will receive €2.26 million from the European Regional Development Fund and the German federal state of North Rhine-Westphalia over three years from 2017 to 2020 (PAIN-Vis grant ref. EFRE-800975).

The PAIN-Vis research initiative investigates molecular pathological changes in peripheral pain. This is done using a tracer that is already used in Positron Emission Tomography (PET) to diagnose cancer in humans. This radiotracer forms a strong bond with an enzyme (PSMA) that plays an important role in glutamate production in the nervous system. Preliminary preclinical results indicate that PSMA increases locally with pain intensity and can be visualized by the radiotracer. If validated, this could form the basis for a follow-up project to develop an objective diagnosis that enables a more targeted choice of therapy by identifying the exact location of pain. This would significantly reduce the length of time that patients suffer for, while also reducing costs for the healthcare system.

"Pain is a widespread condition – one in five Europeans suffers from chronic pain. Inadequate or incorrect pain treatment causes huge burdens for individuals and for society," says Dr. Philip Just Larsen, Chief Scientific Officer at Grünenthal. "We hope that PAIN-Vis will help to develop an approach that supports doctors when selecting the appropriate treatment and significantly improves pain therapy for patients."

"Pain diagnosis is essentially based on patient self-assessment," explains Dr. Klaus Schiene, Head of Laboratory in the Biology, Target Identification & Validation Department at Grünenthal. "This self-assessment is very difficult for patients, particularly for groups like disabled people, dementia patients or children. With PAIN-Vis, we want to contribute to improving care also for these patient groups by enabling faster and more accurate diagnosis, and by avoiding unnecessary therapeutic measures."

About the Lead Market Competition "LifeSciences.NRW"

The state of North Rhine-Westphalia (known as NRW) launched the Lead Market Competition LifeScience.NRW in 2015 to develop possible solutions for challenges related to the health and well-being of the world's ageing population. The aim is to provide associations of SMEs, academic institutions and pharmaceutical companies in North Rhine-Westphalia with an opportunity to









receive support for innovative biomedical research and development projects through funding from the European Regional Development Fund and the federal state of North Rhine-Westphalia. By boosting innovation in this way, the state government is aiming to promote sustainable growth and employment – while also strengthening its international reputation as a leading location for life sciences.

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 approx. 30 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.

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