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Sciomics participates in collaborative clinical trials for the treatment of metaphyseal chondrodysplasia type Schmid (MCDS)

Multinational consortium has been granted 5.7 Million Euro for the development of novel therapeutic approaches in rare skeletal disorders. Sciomics' expertise with the antibody microarray technology herein serves as a valuable tool for biomarker identification and personalized treatment monitoring.

The biotechnology company Sciomics GmbH, located in Heidelberg, Germany, today announced its participation in the multinational clinical project 'MCDS Therapy'. This five-year collaborative study comprises both world-renowned clinical centres as well as small and medium-sized enterprises in the EU and Australia with a total funding of 5.7 Million Euro. In successive clinical trials, the re-purposing of the drug carbamazepine (CBZ) for the treatment of the skeletal disease metaphyseal chondrodysplasia type Schmid (MCDS) will be investigated. Furthermore, 'MCDS Therapy' encompasses biomarker development and health economics assessment studies to deliver an innovative and affordable therapy for MCDS, along with diagnostic and prognostic tools to personalize the treatment.

MCDS is a skeletal disorder resulting in short stature, abnormally shortened or bowed limbs, chronic pain and decreased mobility. Less than 1 in 100,000 people is affected, which renders the disease a so-called orphan disease. The disease is incurable, and MCDS patients rely on the long-term use of pain therapy and usually undergo numerous orthopaedic surgical interventions to correct knee and hip deformities. This burden in pain and disability leads to poor quality of life and extensive healthcare costs.

CBZ received orphan drug designation by the European Commission for the treatment of MCDS in 2016. 'MCDS Therapy' aims at advancing the re-purposing of CBZ to deliver the first non-surgical therapeutic intervention for MCDS. During the course of the project, an assessment of relevant biomarkers will be incorporated. The aim is to discover novel biomarkers that are directly relevant to CBZ treatment of MCDS which can then be used to monitor therapy and are potentially applicable to a broader group of genetic skeletal diseases or human connective tissue disease in general. 'MCDS Therapy' will use a high-content screening approaches to discover panels of potential biomarkers using samples from both mouse models and patient-derived samples. Herein, Sciomics' antibody microarrays serve as a crucial tool to identify and validate biomarkers for diagnosis, prognosis and personalized therapy.

Sciomics GmbH was founded in 2013 as a spin-off company of the German Cancer Research Centre (DKFZ). 'We are glad to participate in this highly innovative project with our solid expertise in antibody microarrays', states Dr. Christoph Schroeder, CEO of Sciomics. 'Accounting for the hallmarks of our microarray technology, which include high throughput, flexibility, multiplex analysis and robustness, I am convinced that our contribution to this novel treatment option for MCDS will be of great service. Especially for the patients suffering from this severe illness.'