

Press Release

Lille, 20th May 2021

The OA-BIO European Consortium, led by 4Moving Biotech, awarded a Eurostars grant for its €4,2M project to develop a life changing therapy for osteoarthritis patients through a biomarkers-driven approach

Lille, France, 20th May 2021 – 4Moving Biotech (France), Utrecht University (The Netherlands), Chondrometrics GmbH (Germany) and AO Research Institute Davos (Switzerland) have received a EUREKA-Eurostars grant award to finance its €4,2M project (OA-BIO) to complete early clinical development (Phase I) of 4P004, a first-in-class disease modifying osteoarthritis drug (DMOAD), and to identify and validate OA imaging and liquid biopsy biomarkers.

The consortium composed of 4Moving Biotech (France), the Faculty of Veterinary Medicine of Utrecht University (the Netherlands), Chondrometrics GmbH (Germany) and AO Research Institute Davos (Switzerland) have been awarded funding through the highly competitive EUREKA-Eurostars program to develop the OA-BIO project over a 3-year period. National EUREKA member countries and the European Union Horizon 2020 Framework Program will co-finance 50% of the R&D budgeted project cost of a total amount of €4,2M, OA-BIO consortium will thus receive €2,1M in grants.

Osteoarthritis (OA) is the most common chronic joint disease and a leading cause of disability worldwide, affecting more than 300 million people. Current treatments only relieve OA symptoms but have no impact on the progression of the disease. The pressing need to bring novel disease-modifying OA drugs (DMOAD) to patients is made even more challenging by the lack of clinical specific disease biomarkers.

OA-BIO represents the breakthrough development of two components that address an unmet need in advancing OA treatment (therapy and biomarkers). The consortium, composed of both industrial and academic partners, will join in their expertise to advance to phase II clinical trial 4P004, a novel first-in-class disease-modifying drug for OA, and to validate new OA imaging and liquid biopsy biomarkers needed for 4P004 efficacy determination and patient selection in phase II/III clinical trials.

“OA-BIO Eurostars grant represents a unique opportunity to bring together some of the most renowned European teams in the field of OA biomarkers”, said Prof. Francis Berenbaum, CEO/CMO of 4Moving Biotech, Head of rheumatology department at Saint-Antoine Hospital (AP-HP), Professor at Sorbonne University (Paris, France) and Director of the INSERM UMR-S938 research team. “Our complementarity will undoubtedly lead to results that will not only benefit 4P004 but also the entire scientific community and patients.”

4Moving Biotech (France), a biotech company focusing on 4P004 development, has previously achieved 4P004 preclinical proof-of-concept and demonstrated its disease modifying properties in OA. Part of OA-BIO, 4Moving Biotech will further detailed 4P004 mode of action and will conduct clinical development.

Prof. Marianna Tryfonidou's research group from Utrecht University (The Netherlands), the leading veterinary medicine faculty in Europe, will validate 4P004 efficacy as a DMOAD for veterinary indication and further complement biomarker identification in collaboration with OA-BIO partners. A proof-of-concept study in canine patients suffering from OA will be performed.

"OA-BIO is an excellent multi-disciplinary collaboration that will advance our understanding on OA biomarkers across the species that typically suffer from OA, like horses and dogs", added Prof. Marianna Tryfonidou, Professor of Regenerative Orthopedics at Faculty of Veterinary Medicine of Utrecht University. "Within the concept of "One Medicine" advances in the 4P004 therapy will serve both human and veterinary patients."

Chondrometrics GmbH (Germany), led by Prof. Felix Eckstein, is a leading provider of quality-controlled, quantitative medical image analysis services for osteoarthritis researchers and the pharmaceutical industry with a strong focus on articular cartilage, meniscus, and muscle from magnetic resonance images (MRI). Within the OA-BIO project, Chondrometrics will focus on development and qualification of innovative osteoarthritis imaging biomarkers.

"The OA-BIO project is a great chance to develop, qualify and evaluate innovative osteoarthritis imaging biomarkers in a team of highly skilled experts from different fields", completed Prof. Felix Eckstein, CEO/CMO of Chondrometrics. "OA-BIO has a large potential to promote the understanding of the disease and to make a step towards urgently needed therapies."

Prof. Mauro Alini's research group from AO Research Institute Davos (ARI, Switzerland) focuses on cartilage, bone and intervertebral disc tissue engineering and regenerative medicine. ARI has been involved on biomarkers research within the last years and has identified several ones, potentially related with intervertebral disc OA and low back pain. As part of OA-BIO project, ARI will validate the new liquid biopsy biomarkers predictive for knee OA treatment response.

"The OA-BIO consortium breakthrough lies in correlating OA imaging biomarkers with OA molecular ones, to better understand osteoarthritis disorder and its evolution, as well as to follow how the innovative 4P004 treatment will efficiently interfere with the progression of the OA disease. The excellence and the multidisciplinary dimension of the consortium's partners are the guarantee for a successful project", concluded Prof. Mauro Alini, Vice-Director of ARI.

About Eurostars

Eurostars is a funding and support program aiming to help international innovative projects led by R&D-performing small- and medium-sized enterprises (SMEs) that are interested in international collaboration.

Eurostars is a European joint program between EUREKA and the European Commission. It is co-funded from the national budget of 36 EUREKA countries and by the European Union through Horizon 2020.

<https://www.eurostars-eureka.eu/>

About 4P004

4P004 is a disease modifying drug for the treatment of Osteoarthritis (OA), developed by 4Moving Biotech. It is an already approved incretin mimetic (a Glucagon-Like Peptide-1 receptor agonist) formulated for intra-articular administration. OA is a chronic degenerative disease characterized by chronic joint pain and functional impairment, affecting 15% of the adult worldwide population. 4P004 has the potential to stop and reverse the course of the disease improving patient's quality of life through its unique triple effect: anti-inflammatory, analgesic and cartilage regeneration, thus qualifying as a Disease Modifying OA Drug. Protected by two international patents, it has undergone extensive preclinical validation and will move towards clinical phases in 2021.

About 4Moving Biotech

4Moving Biotech is a biotech start-up company focusing on the development of 4P004, a first-in-class Disease Modifying OsteoArthritis Drug (DMOAD). It addresses the high unmet medical need for a curative treatment against osteoarthritis (OA), a chronic degenerative joint disease.

4Moving Biotech was established in July 2020 and is a majority-owned subsidiary of 4P-Pharma. The company is headquartered at the Institut Pasteur de Lille (France).

4Moving Biotech is headed by Revital Rattenbach, PhD, MBA, founder and chairwoman of 4P-Pharma, as Chairwoman, and Prof. Francis Berenbaum, Head of Rheumatology department at St-Antoine's hospital in Paris (AP-HP), as CEO/CMO.

<https://4p-pharma.com/our-pipeline/pipeline-inflammation/>

<https://www.linkedin.com/company/4moving-biotech/>

@4Moving_Biotech

About Utrecht University and the Faculty of Veterinary Medicine of Utrecht University

Founded in 1636, Utrecht University is one of the largest research universities of Europe, with over thirty thousand students and a staff of more than six thousand. We invest in creating the leaders of the future through innovative education of the highest quality, as reflected by the University's consistently high position in international rankings. Dedicated to performing groundbreaking research aimed at resolving large global issues, our culture of cooperation is a breeding ground for innovation, new insights and social impact.

The Faculty of Veterinary Medicine is the leading veterinary knowledge centre in the Netherlands. We build bridges between science and society, and provide specialist care in the largest academic veterinary hospital in Europe. Animals are a cornerstone of society and important for human health. We believe in multidisciplinary collaboration with our partners, both in the Netherlands and abroad. At the faculty of Veterinary Medicine, we perform fundamental and strategic research focused on the health, disease and welfare of animals and on related public and environmental health aspects. This knowledge should provide a solid basis for novel strategies that benefit veterinary practice, human health, and the economy.

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About Chondrometrics GmbH – medical data processing

Chondrometrics is a leading provider of medical image analysis services to researchers in academia and in the pharmaceutical industry. The focus of the company is on quantitative analysis of articular cartilage, meniscus, and muscle from magnetic resonance images (MRI), and on the research of osteoarthritis.

The company has developed a highly efficient software platform and has formed a team of well-trained and highly experienced readers, to provide quantitative imaging surrogates of tissue adaptation and disease progression in large scale studies.

Chondrometrics is a certified medical device manufacturer and maintains a quality management system for GCP-compliant analysis of articular tissues for its customers.

Representatives of the company are actively involved in academic research and publish continuously and extensively in the biomedical literature. The purpose of these activities is to provide and validate novel quantitative image analysis methodologies, to gain a better understanding of musculoskeletal disease pathogenesis, and to help companies to detect therapeutic drug effects earlier and with greater efficiency than currently possible based on traditional methodologies.

<https://www.chondrometrics.com/>

<https://www.linkedin.com/company/chondrometrics-gmbh/>

About AO Research Institute Davos

The Swiss AO Research Institute Davos (ARI) is part of the AO Foundation, which is the biggest trauma and orthopaedic network worldwide globally. In its work to further the AO mission, ARI's purpose is to advance orthopaedic patient care through innovative research and development. Orthopaedics concerns musculoskeletal, spine and cranio-maxillo-facial trauma, degenerative musculoskeletal diseases, infections, and congenital disorders. ARI's scientific activities are

multidisciplinary and with a very strong approach to basic and translational research, focused towards clinical applications and realized through a cooperation network with many industrial partners. ARI has a vast experience in managing and supervising research projects with a portfolio of international (H2020, EUROSTARS) and national (SNF) competitive projects. ARI has produced >1600 publications in peer reviewed journals since 1962 and >100 patent applications over the last 30 years. The entire ARI is certified according to ISO 9001:2015.

The accreditation includes ARI's pre-clinical facility, which can perform GLP-like studies.

<https://www.aofoundation.org/what-we-do/research-innovation/about>

<https://www.linkedin.com/company/ao-foundation/>

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