

## **Biopharm GmbH enters into Co-Research Agreement with Merck**

Collaboration in Osteoarthritis on discovery of protein with potential effect on joint cartilage formation

Heidelberg, Germany, November 20th, 2013 - Biopharm GmbH, Heidelberg, announced today that they have signed an agreement with Merck to cooperate with Merck Serono, the biopharmaceutical division of Merck in their research activities directed toward the molecular engineering of a biologic compound for the treatment of osteoarthritis. Under the terms of the agreement, Biopharm and Merck Serono will enter a joint discovery project focusing on a potential proanabolic osteoarthritis modifying drug based on a growth factor derived from the Biopharm growth factor platform technology. Payment fees include an upfront payment, service fees, potential milestone, and royalty payments. Further financial details of the agreement were not disclosed.

The aim of the research program, which is intended to run for two years, is to strengthen the potential beneficial effects of an existing wildtype protein, which is thought to drive hyaline joint cartilage formation during embryogenic development and seems to be associated with osteoarthritis.

Biopharm will provide variants of the wildtype protein and early pre-clinical research services focusing on the molecule properties to Merck Serono. In case of identification of any development candidates, Merck Serono will own exclusive development and commercialization rights to the development candidates for osteoarthritis.

"We have insight that the maternal protein shows an important role in joint cartilage formation. These findings raise hope that a modified wildtype protein may induce cartilage regeneration in the osteoarthritic joint," said Dr. Frank Plöger, CSO of Biopharm. "The alliance will draw on the combined expertise and resources of Merck Serono and Biopharm with the ultimate goal to develop a disease modifying osteoarthritis drug. Although we have knowledge about the molecule, we need a partner like Merck Serono, who does not only provide the necessary resources, but also know how best to set up of our research program to ensure a successful hand over to clinical experts," commented Biopharm.

According to the World Health Organization more than 5% of adults over 40 in developed countries, or more than 30 million people, suffer from osteoarthritis of the knee.



## About Biopharm GmbH

BIOPHARM GmbH is one of the pioneers in the research and development of biotechnological drug substances in the field of Regenerative Medicine. The proprietary Biopharm platform technology of recombinant human growth factors combines more than 27 years of experience in biologics with innovative applications in the field of orthopedics, dermatology and personalized medicine. As a privately-owned company Biopharm is committed to improve human life, achieve scientific excellence and operate with the highest standards of integrity to meet the changing needs of the health care market worldwide.

For more information please visit www.biopharm.de

## About Merck Serono

Merck Serono is the biopharmaceutical division of Merck. With headquarters in Darmstadt, Germany, Merck Serono offers leading brands in 150 countries to help patients with cancer, multiple sclerosis, infertility, endocrine and metabolic disorders as well as cardiovascular diseases. In the United States and Canada, EMD Serono operates as a separately incorporated subsidiary of Merck Serono.

Merck Serono discovers, develops, manufactures and markets prescription medicines of both chemical and biological origin in specialist indications. We have an enduring commitment to deliver novel therapies in our core focus areas of neurology, oncology, immuno-oncology and immunology.

For more information, please visit www.merckserono.com

## About Merck

Merck is a leading pharmaceutical, chemical and life science company with total revenues of  $\in$  11.2 billion in 2012, a history that began in 1668, and a future shaped by approx. 38,000 employees in 66 countries. Its success is characterized by innovations from entrepreneurial employees. Merck's operating activities come under the umbrella of Merck KGaA, in which the Merck family holds an approximately 70% interest and free shareholders own the remaining approximately 30%. In 1917 the U.S. subsidiary Merck & Co. was expropriated and has been an independent company ever since.