Press Release
Duesseldorf and Freiburg, July 18th, 2005

ProQinase and University of Duesseldorf receive BMBF-Grant for German-Chinese Research Project for the discovery of novel drugs for the treatment of cancer and viral diseases

ProQinase, a division of KTB Tumorforschungs GmbH at the Tumor Biology Center Freiburg, Germany, and the Institute of Pharmaceutical Biology and Biotechnology at the University of Duesseldorf, Germany, announced the start of a research project for the discovery of novel anti-cancer drugs. In co operation with the Universities of Beijing and Qingdao, China, the Chinese Academy of Sciences and the Chinese biotech company Pason-Biotech, scientists will isolate natural compounds from Chinese marine organisms, and investigate their usefulness for the treatment of cancer and viral diseases.

China offers an immense variety of marine organisms that represent a largely unexplored source for natural compounds with medical potential. The project combines the expertise of the Chinese scientists in the field of marine organisms and natural compound chemistry, the knowledge of the groups of Prof. Peter Proksch and Dr. Rainer Ebel of the University of Duesseldorf in the area of natural compound purification and characterisation with the know how of the biotech companies in the field of drug development for viral infections (Pason Biotech) and cancer (ProQinase). The project will be supported by the German Federal Ministry of Research as part of its “Biotechnology Research and Technology-Programme” with about 1 Mio. Euro in the next three years.

Marine organisms such a sponges, snails, algae, fungi and bacteria represent an approved source for compounds with medical use for different disease such as cancer (Ara-C), pain (Conotoxin), and viral diseases (Ara-A). Natural compounds are also used as starting point for the generation of synthetic drugs such as AZT for the treatment of AIDS. „So far more than 10,000 natural compounds with pharmacological properties have been discovered. However, just a small number of marine organisms have been explored so far, which means that an invaluable potential for novel drugs exists in this area“, Prof. Proksch explains. „The co operation with our Chinese partners allows us to investigate marine organisms derived from a region that features a huge diversity of unexplored species“. Compounds isolated from these organisms will be characterised in biological test systems with regard to their anti-viral properties by PASON Biotech. At the same time the compounds will be analysed by ProQinase for inhibitory properties against protein kinases and, subsequently, in cellular and in *in vivo* models with respect to their anti-tumoral effects.

Many protein kinases, when deregulated, are linked causally to the formation of human tumors. Inhibitors of protein kinases such as Gleevec and IRESSA are recently approved anti-cancer drugs. „The development of protein kinase inhibitors for the treatment of cancer is just at the very beginning. Due to the diversity of molecular alterations found in human cancers the lack of efficient and safe drugs for treatment of the different types of cancer is substantial. In this context the development of protein kinase inhibitors represents a very promising strategy“,

states Dr. Michael Kubbutat, Head of Research & Development at ProQinase. „ProQinase works on a novel strategy with the goal to develop drugs that simultaneously block different mechanisms that allow the tumors to grow. Bringing together this novel strategy with the potential of natural compounds of yet unexplored marine organisms could result in the discovery of completely novel drugs“.

About ProQinase:
ProQinase is a division of the KTB Tumorforschungs GmbH at the Tumor Biology Center Freiburg, Germany. Based on its Integrated Protein Kinase Technology Platform (iProKiTe®) ProQinase offers services to the pharmaceutical industry worldwide. At the same time this platform is used for internal drug development in collaboration with academic and industrial partners. iProKiTe® covers a large part of preclinical drug development in oncology, ranging from high throughput screening and kinase inhibitor profiling to cellular assays, *in vivo* models and soluble biomarker assays. On top of this ProQinase has rapid access to clinical trials of in house developed drugs due to its affiliation with the Tumor Biology Center, Freiburg, Germany. Further information is available at http://www.proqinase.com.

For more information please contact:

ProQinase
Dr. Michael Kubbutat
Head of Research & Development
ProQinase/KTB Tumorforschungs GmbH
Breisacher Str. 117
79106 Freiburg
Tel: +49 (0) 761 206-1780
E-mail: m.kubbutat@proqinase.com
Web: www.proqinase.com

For Business Development:
Dr. Michael Szardenings
info@proqinase.com

Heinrich-Heine-University Düsseldorf
Prof. Dr. Peter Proksch
Dr. Rainer Ebel, Juniorprofessor
Institute of Pharmaceutical Biology and Biotechnology
Heinrich-Heine Universität
Universitätsstrasse 1
40225 Düsseldorf
Tel: +49 (0) 211 811 4163
E-mail: proksch@uni-duesseldorf.de

Web: http://www.uni-duesseldorf.de/WWW/MathNat/PharmBio/