

PRESS RELEASE

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Age-related decline: Accelerating the development of new therapies

Strategic collaboration between Hamburg and Groningen

Hamburg, Groningen – In order to facilitate drug discovery and biomarker development within the theme Healthy Ageing, Fraunhofer IME ScreeningPort (Hamburg) and the European Research Institute for the Biology of Ageing ERIBA (University Medical Center Groningen, University of Groningen), have formed a strategic alliance. The initiative is supported by grants from the cities of Hamburg and Groningen.

Scientific studies prove that reducing calorie intake may improve health and extend lifespan. Calorie restriction shows similar beneficial effects in model organisms like mice, flies and worms. Furthermore, a prominent feature of calorie restriction is that it may result in less cancer. Not surprisingly, these findings have fuelled the hope of being also able to improve human health and lifespan and it has sparked a whole new market with a myriad of often opposing advices about how to achieve healthy ageing through dietary strategies. In fact, it is not yet fully understood, how biological mechanisms can be exploited to develop scientifically defined strategies against age-related physical decline and diseases. Therefore, it is the aim of the Hamburg-Groningen alliance to discover possible targets within the cellular calorie restriction pathway for intervention and to develop drugs that act as calorie restriction mimetic with potential for anti-cancer treatment.

A first collaborative project between Fraunhofer IME ScreeningPort and ERIBA aims for the identification of small molecule compounds that have beneficial health effects comparable to those induced by calorie restriction diets. The project is based on the discovery of a genetic mechanism involved in calorie restriction and related health improvements from Cornelis Calkhoven and colleagues at ERIBA. Together with Ole Pless of Fraunhofer IME ScreeningPort, Calkhoven has developed a high-throughput drug screening system to find drugs that target this mechanism.

Dr. Pless:

„We are excited about the new strategic alliance because it enables us to bridge the well-known gap between fundamental research and its translation into pharmacological application, in particular for age-related diseases.“

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Prof. Dr. Calkhoven:

„Our approach is of wider interest to the general public, since age-associated decline in health and age-associated diseases including cancer will become an increasing burden to our societies. It is our aim to push the occurrence of age-related disease and decline as far as possible to the end of life. We are very happy with the financial support by the cities of Groningen and Hamburg that will enable us in setting the first steps to achieve this goal.“

Katharina Fegebank (Minister of Science, Research and Equalities, Free and Hanseatic City of Hamburg)

»I am delighted that after my visit to Groningen in January, we were able to launch a cooperation between the two research institutes so soon. The cooperation of the renowned Fraunhofer IME with the European Research Institute for the Biology of Ageing Groningen strengthens both Hamburg's position as a scientific location and our alliance with the city of Groningen. Ageing research plays a decisive role for our society: As a result of the rapid advances in medicine over the last 100 years, the share of elderly people has grown considerably. Based on the results of this transnational research project, new approaches in therapy and prevention in medicine for older people can be developed, of which not only the people in the metropolitan area of Hamburg will benefit.«

Joost van Keulen (vice-mayor of Groningen):

„The strategic alliance between Fraunhofer und ERIBA amplifies the connection between Hamburg and Groningen. The interest of the cooperation is more than just economic and scientific. It is also a beautiful connection between top research and practical ageing issues in both our regions. And it increases our collective position as strong region in Europe.“

About the European Research Institute for the Biology of Ageing ERIBA

ERIBA is a research institute dedicated to fundamental research in the biology of ageing and the causes of age-related diseases. Currently, ERIBA hosts 13 independent research groups that focus on a diversity of research topics, using a variety of model systems and up-to-date technology platforms. With a strong commitment on collaboration at the scientific and technical level, a synergistic research environment is created at ERIBA. ERIBA's unique location at the campus of the University Medical Center Groningen (UMCG) facilitates cooperation with medical and pharmacological scientists. For more information see, <http://eriba.umcg.nl>.

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About the Fraunhofer Institute for Molecular Biology and Applied Ecology IME

The Fraunhofer IME conducts research in the field of applied life sciences from a molecular level to entire ecosystems, in the areas of pharmacy, medicine, chemistry, agriculture, as well as environmental and consumer protection. Our mission is the development and use of novel technologies for diagnosis and therapy of human and animal diseases as well as the protection of crop plants and food sources. The IME's interdisciplinary organization features laboratories with state-of-the-art infrastructure, including GMP production facilities and complex facilities for environmental simulations, allowing a wide spectrum of research and development services in the divisions of Molecular Biology and Applied Ecology.

We aim at taking innovative products closer towards the market, develop enabling technologies and provide scientific services to partners from academic institutions and industry.

Since 2014 the IME ScreeningPort with its labs in Hamburg, Germany, is part of the institute. The Fraunhofer IME has approximately 650 employees working at its laboratories in Aachen, Schmallenberg, Münster, Gießen, Hamburg, Frankfurt and its subsidiary research centers in the USA and in Chile.

For more information, see
www.ime.fraunhofer.de/en/businessareasMB/screeningport.html.

The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. Its research activities are conducted by 67 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of 24,000, who work with an annual research budget totaling more than 2.1 billion euros. Of this sum, more than 1.8 billion euros is generated through contract research. More than 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects. International collaborations are supported by branches in Europe, North and South America as well as Asia.

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