JUNG-Stiftung
FÜR WISSENSCHAFT & FORSCHUNG
AUSGEZEICHNETE HUMANMEDIZIN

PRESS RELEASE

Understanding and treating genetic immunodeficiencies

Professor Dr. Alain Fischer receives the Ernst Jung Gold Medal for Medicine 2022 for his outstanding life's work in human immunology

Hamburg, 12 May 2022. "A healthy immune system can distinguish pathogenic microbes from harmless ones. But in the case of genetic disorders, life is at risk – and this is where the therapy developed by me, and my team, comes in." Professor Dr med. Alain Fischer from the University of Paris Descartes and Collège de France dedicated more than 40 years of his life to the field of clinical immunology and achieved significant progress with his scientific work: he deciphered the molecular etiology of numerous genetic disorders of the immune system and developed a corresponding gene therapy. The Hamburg Jung Foundation for Science and Research has already honored Alain Fischer for his outstanding research with the Ernst Jung Prize for Medicine in 1998 and is now all the more pleased to award him the Ernst Jung Gold Medal for Medicine 2022 for his life's work. This medal is awarded annually by the Jung Foundation to top researchers who have significantly advanced medical research and practice (or who are still actively doing so) and is a recognition of their life's work to date.

Congenital immunodeficiencies, also called primary immune deficiency diseases, are rare, extremely diverse and can have fatal consequences for those affected. While some genetic immunodeficiencies already manifest in childhood, others are only triggered by certain factors in adulthood. Alain Fischer and his working group significantly advanced research in this field, including the important development of approaches for forms of therapy. For example, the research team succeeded in uncovering the molecular etiology of five types of so-called **s**evere **c**ombined **i**mmuno**d**eficiencies (SCID). When affected by SCID, the immune system is so weak that it

hardly offers any protection against infections. This can be life-threatening for a patient.

In further research, Fischer helped prove that the enzyme "**a**ctivation-**i**nduced cytidine **d**eaminase" (AID) plays an important role in antibody maturation. He thus identified an important component in the adaptive, i.e. acquired or secondary, immune response of the human body. Prof Fischer's work also serves as a milestone in the study of hemophagocytic lymphohistiocytosis (HLH), also known as "hyperinflammatory syndrome", as his research group identified most of the genetic defects causing HLH. HLH is a severe inflammatory reaction and life-threatening immune system dysfunction. The insights gained from his work enabled Fischer to propose different clinical treatments, for example in the field of stem cell transplantation and gene therapy. In addition, it has paved the way for further therapies that are currently being researched.

A mix of curiosity and passion: the career of Prof. Dr. Alain Fischer

Professor Dr Alain Fischer started his career at the Hôpital Necker-Enfants malades in Paris, where he also took over as head of the Department of Pediatric Immunology from 1986. 26 years later – in 2013 – the Parisian moved to the Collège de France for another professorship. From 2009 to 2016, he also directed the Institut des Maladies Génétiques Imagine, a research institute for genetic diseases in Paris. His driving force during these years was, above all, his curiosity, coupled with a perpetual quest for new insights to advance medicine. This mixture of his work in the hospital and his excellent research is also reflected in his mentality, as his recommendation to young doctors proves: „It is essential to listen to patients and to take the time to answer their questions, but it is equally important to keep up to date and know what progress has been made in the field." With so much dedication to the job, Alain Fischer finds balance by immersing himself in books and eagerly following football matches.

Ernst Jung Gold Medal 2022 recognizes Fischer's outstanding achievement in research in the field of human immunology

Alain Fischer has already been awarded the Ernst Jung Prize for Medicine in 1998 for his scientific work. The Ernst Jung Gold Medal for Medicine now honors him for his life's work. "The goal should always be to develop the best innovative science without losing sight of the welfare and concerns of patients. I believe that in order to achieve this, it is important to remain humble and open-minded towards all scientific questions." With this award, the Paris-based renowned researcher receives 30,000 euros, which he can grant as a scholarship to a young researcher of his choice. The Jung Foundation has been committed to advancing human medicine for over 40 years. With the Ernst Jung Gold Medal and two other prizes, it supports science with more than half a million euros annually.

About the Jung Foundation for Science and Research

The Jung Foundation for Science and Research, based in Hamburg, was founded by the Hamburg entrepreneur Ernst Jung in 1967. Its work, led by chairman Jochen Spethmann, aims to advance human medical research, promote new therapies and strengthen Germany as a centre of science. Each year, the Foundation awards three prizes with these goals in mind, which, with an overall prize fund of €540,000, are among the most lucrative medical prizes in Europe and promote excellent human medicine: the Ernst Jung Prize for Medicine, the Ernst Jung Gold Medal for Medicine and the Ernst Jung Career Advancement Prize for Medical Research. Talented young physicians can apply directly for the Career Advancement Prize. The candidates for the other awards are nominated.

For more information, visit www.jung-stiftung.de

Press contact:
MuthKomm GmbH
Nele Luchsinger
Hopfensack 19
20457 Hamburg
Germany
Phone: 040 307070710
Email: nele.luchsinger@muthkomm.de