

## THE BAILLET LATOUR GRANT 2017 FOR MEDICAL RESEARCH AWARDED TO PROFESSOR ROOSMARIJN VANDENBROUCKE (GHENT UNIVERSITY / VIB) FOR HER PROJECT IN THE FIELD OF NEUROLOGICAL DISEASES

To promote medical research in Belgium, the Baillet Latour Fund awards every year a Grant to help a young group leader to conduct a research project in a Belgian University or University Hospital. This year the Grant is awarded to Professor Roosmarijn Vandenbroucke (Ghent University) for her research project in the field of neurological diseases. Delivery of therapeutics into the brain to treat neurological diseases remains a major, unsolved challenge. The research of Professor Vandenbroucke aims at exploring a novel entry gate to deliver therapeutics into the brain.

### ■ A GRANT TO PROMOTE MEDICAL RESEARCH IN BELGIUM

Every year the Baillet Latour Fund awards the Baillet Latour Grant for Medical Research. This Grant supports the research project of a young group leader in a Belgian University or University Hospital, on the same topic as that of the international Baillet Latour Health Prize. The laureate is chosen by the jury of the Health Prize. The laureate's laboratory will receive an annual sum of 150,000 euros for three years with a possible extension for two more years.

The Baillet Latour Grant 2017 for Medical Research is awarded to an investigator in the field of "Neurological Diseases". The topic for next year will be "Cancer".

### ■ PROFESSOR ROOSMARIJN VANDENBROUCKE, AWARDEE OF THE BAILLET LATOUR GRANT 2017 FOR MEDICAL RESEARCH



Professor Roosmarijn Vandenbroucke was selected by the jury for her research project on "Hijacking natural occurring mechanisms at the blood-cerebrospinal fluid barrier to deliver therapeutic molecules into the brain".

Professor Vandenbroucke investigates the role of brain barriers under physiologic and pathophysiologic conditions, including neurological disorders such as Alzheimer's disease. In healthy conditions, the brain is strictly separated from the blood by the presence of specific brain barriers. One of these barriers is the blood-cerebrospinal fluid (CSF) barrier. This unique barrier is composed of a single layer of choroid plexus epithelial cells and appears to be essential in the communication between body and brain. The goal of her research is to study blood-CSF barrier functionality in health and disease and to use the blood-CSF barrier as an entry gate to the brain, e.g. for brain-specific therapeutics. Professor Vandenbroucke's group identified several alterations at the blood-CSF barrier functionality in systemic inflammation and neuro-inflammation. Her research resulted recently in the identification of a novel mechanism of blood-to-brain communication in sepsis through the secretion of extracellular vesicles (EVs) by the choroid plexus epithelial cells into the CSF, thereby transferring a pro-inflammatory message from the body to the brain.

Professor Vandenbroucke's research project relies on the observation that the choroid plexus epithelial cells allow the controlled transport of molecules from blood to brain through two separate mechanisms: transcytosis and EV secretion. Delivery of therapeutics into the brain to treat neurological diseases remains a major, unresolved issue. The blood-CSF barrier therefore is an attractive entry gate to the brain as it consists of a single layer of epithelial cells between the peripheral blood and the CSF, in contrast to other multi-layered blood-brain barriers. Therefore, the objective of her research project is to hijack these naturally occurring mechanisms to allow therapeutics to cross the blood-CSF barrier into the brain.



Professor Vandembroucke obtained a Ph.D. degree in Pharmaceutical Sciences at Ghent University in 2008, with a research project on “Non-viral Delivery Strategies to Guide Therapeutic Nucleic Acids through Cellular Barriers”, under the guidance of Professor Jo Demeester and Professor Stefaan De Smedt. Hereafter she was a postdoctoral trainee in the lab of Professor Claude Libert for 7 years. In 2015 she became team leader at the Center for Inflammation Research (Flemish Institute of Biotechnology; VIB) and Associate Professor at the Faculty of Sciences (Ghent University). She holds multiple research grants amongst which, a research grant from the Foundation for Alzheimer’s research (SAO-FRA) for the ‘Analysis and therapeutic implications of choroid plexus functionality in Alzheimer’s disease’ (2015), a Horizon 2020 grant for a project entitled ‘Brain-specific, Modular and Active RNA Therapeutics’ (B-SMART) (2016) and a Belgian Parkinson liga grant (2015) for her research on the importance of the gut in Parkinson’s disease.

### THE JURY OF THE BAILLET LATOUR GRANT 2017 FOR MEDICAL RESEARCH

**Prof. Richard FRACKOWIAK (President):** Ordinary Professor ad hominem, University of Lausanne and CHUV, Paris, France

**Prof. Dr. med. Claudio L.A. BASSETTI:** Chairman and Head Neurology Department Inselspital - Bern University Hospital, Bern, Switzerland

**Prof. Marie-Germaine BOUSSER:** Neurology Department - Hospital Lariboisière, Paris, France

**Prof. Alexis BRICE:** General Director at the Institute for Brain and Spinal Cord - ICM, Paris, France

**Prof. John J. FOXE:** Professor of Neuroscience, Director of The Ernest J. Del Monte Institute for Neuroscience and Chair at the Department of Neuroscience - University of Rochester Medical Center, Rochester, United States of America

**Prof. Kjell FUXE:** Head of Division of Cellular and Molecular Neurochemistry - Department of Neuroscience, Stockholm, Sweden

**Prof Angela VINCENT:** Emeritus Professor - Nuffield Department of Clinical Neurosciences University of Oxford, John Radcliffe Hospital, United Kingdom

### ■ FOR FURTHER INFORMATION

#### **Baillet Latour Fund - Alain De Waele, Secretary General**

Tel: +32 (0) 16 27 61 59

GSM: + 32 (0) 473 80 84 73

E-mail: [alain.dewaele@iblf.be](mailto:alain.dewaele@iblf.be)

#### **Interel - Ellen De Wilde**

Tel: +32 (0)2 213 13 09

E-mail: [ellen.dewilde@interelgroup.com](mailto:ellen.dewilde@interelgroup.com)

#### **Roosmarijn Vandembroucke**

Tel: +32 (0)9 331 35 87

E-mail : [Roosmarijn.Vandembroucke@irc.VIB-UGent.be](mailto:Roosmarijn.Vandembroucke@irc.VIB-UGent.be)

#### **Websites**

Baillet Latour Fund: [www.fondsbailletlatour.com](http://www.fondsbailletlatour.com)

F.R.S.-FNRS: [www.frs-fnrs.be](http://www.frs-fnrs.be)

FWO: [www.fwo.be](http://www.fwo.be)



Fund Fonds  
**Fonds Baillet Latour**



## Excellence on the move

The Baillet Latour Foundation was established in 1974, on the initiative of Count Alfred de Baillet Latour. Its aim? To promote, encourage and reward excellence, principally in Belgium, by focussing **its work on people.**

### ■ Building a better future

For over 40 years, the Foundation has sought to support initiatives that are remarkable for their influence, the excellence they inspire or their innovative approach to meeting the challenges faced by tomorrow's society.

Its support generates concrete spin-offs with specific future benefits in four areas: **health, education, culture and sport.**

### ■ Making a difference

The Health Prize, the Grant for Medical Research or the Environmental Prize, university and sports management chairs, the restoration of iconic elements of Belgium's movable heritage, support for high achievement in music and sport or for initiatives in societal development and citizenship education encouraging the involvement of young people in particular... The Foundation contributes on an ongoing basis to the development of **projects that make a difference.**

### ■ Dynamism and good governance

With its sights set firmly on the future, the Baillet Latour Foundation is keen to maintain natural discretion, while the hundreds of projects that it has supported since its inception make it a widely recognised, indispensable member of civil society. The backdrop to this commitment is a mode of operation that is absolutely rigorous and ensures good governance.

The General Secretary and President jointly manage its day-to-day work – namely the pre-selection, supervision and monitoring of projects. The Board of Directors, supported by experts of international renown, is then responsible for validating its work and **undertakings.**

Go further

Like to know more?

All the projects supported by the Baillet Latour Foundation and the remarkable work it rewards can be found on its website: **[www.fondsbailletlatour.com](http://www.fondsbailletlatour.com)**. Welcome!