

SUCCESS STORY

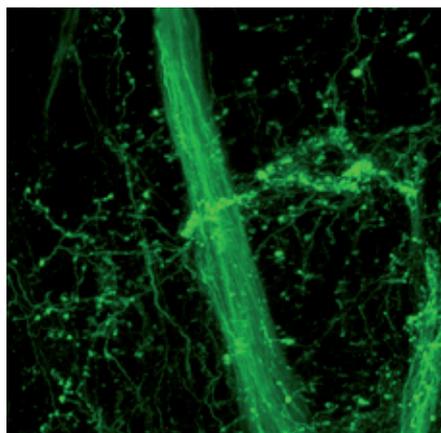
INSIGHT / An Integrated Network of Glucose Sensing Cells in Glucose Homeostasis

Research area: FP7 – European Research Council / Physiology, Pathophysiology and Endocrinology (LS4)
Beneficiary: Prof. Bernard Thorens

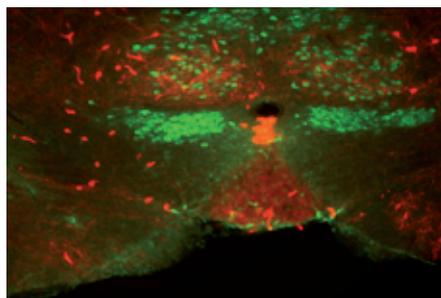
Host institution: University of Lausanne (UNIL)
Start date – End date: 2011-08-01 to 2016-07-31
Duration: 60 months
Funding: € 2 499 421
Type of contract: ERC Advanced Grant



BERNARD THORENS



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“The findings of our latest research could benefit millions of people.”

HOW TO INCREASE INSULIN SECRETION IN DIABETES SUFFERERS

A leading light in diabetes research and professor at the UNIL's Centre of Integrative Genomics (CIG), Bernard Thorens in 2010 received an Advanced Investigator Grant from the ERC, in recognition of the high standards of his research.

What are the applications of the research that you and your team are conducting with the ERC funding?

First, we hope to discover new mechanisms that could increase the number and effectiveness of beta cells — cells that secrete insulin — inside the pancreas. We are also trying to identify those genes connected with the brain mechanisms that control responses to hypoglycaemia. Repeated, worsening episodes of hypoglycaemia are a major risk when using insulin to treat diabetes.

What other projects are you involved in concurrently?

Since February 2010, I have been co-chair for the Innovative Medicines Initiative for Diabetes (IMIDIA), a consortium bringing together public and private researchers. Around 15 research groups based in various European countries and eight drug companies have teamed up to investigate the functioning and survival of pancreatic islets. This project, which is financed by

the Innovative Medicines Initiative (IMI), aims to identify new biomarkers, develop techniques to improve the treatment of diabetes patients, and introduce long-term active therapies.

But you are also involved in other projects, aren't you?

We are also looking for new molecular mechanisms involved in hepatic steatosis (the abnormal retention of lipids within liver cells), which is a condition associated with lower insulin effectiveness and the onset of type-2 diabetes. We have drawn attention to new predisposition genes. Moreover, invalidation of one of these genes in mice has revealed a new mechanism that deregulates normal liver function.



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ABOUT THE PROJECT

Providing funding of almost € 2.5 million, the Advanced Investigator Grant from the European Research Council (ERC) supports the research of Bernard Thorens over a five-year period. The project, entitled “An Integrated Network of Glucose Sensing Cells in Glucose Homeostasis”, looks at the various facets of glucose metabolism and insulin secretion, the workings of which have become deregulated in sufferers of type-2 diabetes. Thanks to the ERC grant,

Professor Thorens has been able to hire a team of five to look into these issues.

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