

The Lundbeck Foundation gives grants worth DKK 69 million to young scientists

The grants provide 33 biomedical science researchers with funding for two to three years of work.

The Lundbeck Foundation supports young biomedical scientists by regularly awarding a number of postdoc grants.

These grants are given to particularly talented scientists, most of whom have a PhD, are hoping to specialise further and are aiming for a long research career.

The Lundbeck Foundation recently awarded the 2021 postdoc grants, and they attracted great interest:

252 young scientists applied for a grant, and all applications that met the criteria were evaluated by the Foundation's Talent Panel, consisting of 15 leading international scientists from a wide range of countries, including Denmark.

33 of the applicants were awarded a grant – 14 women and 19 men.

An international perspective is a high priority when the Lundbeck Foundation allocates postdoc grants.

This is why we allow scientists from abroad to apply for postdoc funding to conduct research at Danish universities, hospitals or specialised institutions. Similarly, Danish applicants can apply to conduct research at an overseas academic institution with the funding provided by a Lundbeck Foundation postdoc grant.

Thus, 15 of this year's 33 postdoc grants go to researchers from abroad who will move to work in Denmark, and nine researchers currently based in Denmark will spend their grant on moving from a Danish to an overseas research institution.

Anette Høye, scientific project manager at the Lundbeck Foundation and one of the key people behind the postdoc programme, stresses that, in many respects, mobility is an extremely important factor when it comes to developing research talent:

'Quite literally, this means being willing to move to where there are opportunities for learning and developing, and where there are exciting challenges. But mobility is also about being prepared to make a shift in topic – to be ready to tackle a new field of research if it gives you potential to develop. Basically, the idea behind the postdoc programme is to support people with great talent and to enable them to develop into eminent researchers, so that they can eventually head their own scientific groups. And in order to achieve this goal, you need to be mobile in every sense of the word,' says Anette Høye. She adds:

‘The many applications we received for the Lundbeck Foundation postdoc programme this year were generally of an exceedingly high professional and academic standard – and this made the Talent Panel’s process of selecting the very best projects to receive funding both difficult and time-consuming.’

These projects receive just over DKK 2 million on average, to be paid out over a two- to three-year period. This covers the recipient’s salary and funding for their research.

The Lundbeck Foundation will disburse a total of DKK 69 million to the 33 postdoc projects receiving a 2021 grant.

15 of the projects relate to neuroscience research, which is the Lundbeck Foundation’s special focus area.

The following young scientists have received a Lundbeck Foundation 2021 postdoc grant:

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University of Copenhagen:

- Chiara Bortoluzzi, PhD student, Department of Biology, has been awarded a Lundbeck Foundation postdoc grant worth DKK 1,599,854. Her research project is devoted to the study of genetic factors in songbirds and seeks to identify genetic elements that enable vocal learning in songbirds – in other words, elements that enable them to learn to sing. The question is whether the same genetic elements help regulate human linguistic ability.
- Jared Cregg, postdoc, Department of Neuroscience, has received a Lundbeck Foundation postdoc grant worth DKK 2,400,000. His research project seeks to increase our understanding of the neural networks involved in directing asymmetric movements. This knowledge could potentially be applied to therapies for Parkinson’s disease, a neurodegenerative disorder.
- Mette Habekost, postdoc, Center for Translational Neuromedicine, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.500.000. She will use animal models to investigate whether glial cells could be reprogrammed into dopaminergic cells. This could be of significance for treating Parkinson’s disease.
- Jason Halliwell, postdoc, Department of Cellular and Molecular Medicine, has received a Lundbeck Foundation postdoc grant worth DKK 2,394,379. His research project seeks to identify genetic networks involved in the chromosomal defects that can occur in a fertilised egg at an early stage of pregnancy.

- Mathias Luidor Heltberg, postdoc, Niels Bohr Institute, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.006.720. His research project seeks, using mathematical models, to demonstrate the repair dynamics of DNA damage response.
- Haidai Hu, postdoc, NNF Center for Protein Research, has received a Lundbeck Foundation postdoc grant worth DKK 1,834,644. His research project is devoted to the study of the dynamic and mechanical traits of nature's smallest nanomotor, which fuels bacterial movement.
- Stefanie Kicking, postdoc, Department of Drug Design and Pharmacology, has been awarded a Lundbeck Foundation postdoc grant worth DKK 1.998.129. Her research project investigates the potential for inhibiting a group of transport proteins which could play a role in a range of diseases, such as SARS-COV-2.
- Sinan Kilic, postdoc, NNF Center for Protein Research, has received a Lundbeck Foundation postdoc grant worth DKK 1,245,935. The aim of his project is to study the cellular response to DNA damage that facilitates repair. This could, for instance, be relevant to our understanding of neurodegenerative diseases.
- Yuewan Luo, postdoc, Biotech Research and Innovation Centre, has been awarded a Lundbeck Foundation postdoc grant worth DKK 1.638.928. Her research project aims to test a novel drug, and to investigate in the laboratory whether this drug can be used to treat bile duct cancers in the future.
- Daniela Mayer, postdoc, Biotech Research and Innovation Centre, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.329.030. Her research project aims to study the biological factors that ensure regular replacement of intestinal epithelial cells.
- Rafael Pinilla, postdoc, Department of Biology, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.500.000. His research project focuses on developing components to make the genetic scissors (CRISPR-Cas gene editing technology) more accurate.
- John Rizk, postdoc, Department of Immunology and Microbiology, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.400.000. His research project seeks to investigate methods for more precise regulation of T cells in order to optimise the body's immune system.

- Mark Smits, doctor, Department of Biomedical Sciences, has been awarded a Lundbeck Foundation postdoc grant worth DKK 1.200.000. His project focuses on obesity research and seeks to identify whether one of the body's fatty acids stimulates release of the GLP-1 hormone that has been shown to regulate appetite.
- Milena Timcenko, postdoc, Department of Biology, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.599.789. Her project seeks to acquire new knowledge about the signal molecules in the eye which enable our vision to register movement.

Aarhus University:

- Peter Agger, assistant professor, Comparative Medicine Lab, Aarhus University Hospital, has been awarded a Lundbeck Foundation postdoc grant worth DKK 1,685,360. His research project focuses on increasing scientific understanding of a rare, congenital heart defect that causes underdevelopment of the left side of the heart.
- Manish Debnath, researcher, Department of Molecular Biology and Genetics, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.400.000. His research seeks to develop a novel test involving binding of fluorescent molecules to virus, among other things. One of the aims is to use it to test for viruses such as SARS COV-2.
- Christian Jorgensen, postdoc, Department of Chemistry, has received a Lundbeck Foundation postdoc grant worth DKK 2,396,558. His research project aims to create a computer-based model of the brain's blood-brain barrier, focusing on a specific pumping function. This function plays a crucial role in distributing drugs throughout the brain.
- Kamil Kobak, PhD student, Department of Public Health, has been awarded a Lundbeck Foundation postdoc grant worth DKK 1,600,000. His research project involves the study of muscle gain in patients with the congenital heart disorder CHF. This disorder affects around 1% of the population and weakens the pumping function of the heart.
- Henrik Pedersen, PhD student, Department of Molecular Biology and Genetics, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2,498,119. His research project focuses on investigating the mechanisms underlying a risk factor for schizophrenia which are usually part of the immune system.
- Haruka Yamamoto, Department of Biomedicine, DANDRITE, has received a Lundbeck Foundation postdoc grant worth DKK 2.400.000. He will use his research project to study the development of key nerve pathways linked to our vision.

- Guifen Wu, postdoc, Department of Molecular Biology and Genetics, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.397.448. Her research project involves studies of the way in which the body's cells dispose of non-functional RNA.
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Technical University of Denmark:

- Sabiha Jahan Akhee, postdoc, DTU Bioengineering, has received a Lundbeck Foundation postdoc grant worth DKK 2,399,816. Her research project will investigate a range of molecular mechanisms linking metabolism and infection.
 - Kristoffer Haurum Johansen, PhD student, DTU Health Tech, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2,400,000. His research project seeks to identify novel T cell targets for use in connection with cancer immunotherapy. The project involves the CRISPR-Cas9 gene-editing technology (aka the genetic scissors).
 - Alexander Neergaard Olesen, researcher, DTU Compute, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2,400,000. His research project focuses on developing machine-learning methods for analysing sleep patterns. The idea is then to see whether it may be possible to identify sleep patterns linked to certain diseases.
 - Darius Adam Rohani, postdoc, DTU Health Tech, has received a Lundbeck Foundation postdoc grant worth DKK 2,399,711. In his research project, he uses artificial intelligence – AI – to develop behavioural questionnaires specifically for use in connection with psychotherapy.
 - Cecilia Romanò, postdoc, DTU Chemistry, has been awarded a Lundbeck Foundation postdoc grant worth DKK 1.599.132. Her research project focuses on developing novel vaccines for cancer immunotherapy.
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University of Southern Denmark:

- Tommi Anttonen, Department of Biology, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.376.000. With his research project, he will investigate the mechanisms underlying the ability of birds to restore their hearing after hearing loss – an ability lacking in humans.
- Katrine Pilely, researcher, Department of Molecular Medicine, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2.290.200. With her research project, she will study blood infections in kidney patients.

Odense University Hospital:

- Maria Louise Elkjær, Department of Neurology, Odense University Hospital, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2,263,800. Her research project seeks to map genetic networks in the brain which may be instrumental in inducing or repairing damage caused by multiple sclerosis (MS).

Amager and Hvidovre Hospital:

- Vanessa Wiggermann, Centre for Functional and Diagnostic Imaging and Research, has received a Lundbeck Foundation postdoc grant worth DKK 1,060,009. Her research project focuses on developing novel diagnostic methods for assessing primary progressive multiple sclerosis (PPMS).

Bispebjerg and Frederiksberg Hospital:

- Elisabeth Anne Adanma Obara, postdoc, Department of Clinical Biochemistry, Bispebjerg and Frederiksberg Hospital, has received a postdoc grant of DKK 2,350,000 from the Lundbeck Foundation. In her project, she studies the potential impact of circadian rhythm disorders on the development of cancer.

Rigshospitalet:

- Mark Bitsch Vestergaard, postdoc, Rigshospitalet, has received a postdoc grant of DKK 1,953,085 from the Lundbeck Foundation. His project is about investigating changes in brain physiology and brain metabolism in patients with multiple sclerosis (MS).

Danish Cancer Society:

- Blanca Nieto Bernáldez, postdoc, has been awarded a Lundbeck Foundation postdoc grant worth DKK 2,400,000. Her research project will investigate the malfunction that occurs in our cells' "translation machinery" (ribosomes) in connection with neurodegenerative diseases.