# NOVO nordisk fonden Benefiting people and society

# Benefiting people and society

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### Theme: New foundations





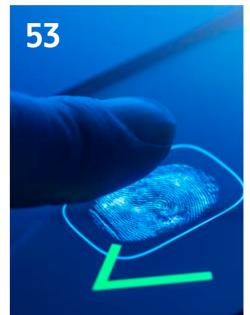
Policy on grant-giving

### Theme: Supporting all career stages





### Data ethics





Grants and payouts in 2020

# **Extraordinary year** in the shadow of the COVID-19 crisis

2020 was an extraordinary year for the Novo Nordisk Foundation. We once again increased our total payout in 2020 for purposes that benefit society and, for the second year in a row, we received a record number of applications from applicants throughout Denmark and the other Nordic countries.

The Foundation awarded grants totalling DKK 5.5 billion and paid out DKK 4.6 billion for scientific, humanitarian and social purposes, the highest annual payout amount in the Foundation's history.

We supported more than 750 new projects within such areas as the medical sciences, natural and technical sciences, biotechnology, diabetes treatment, education, innovation and humanitarian and social causes. This reflects the breadth of the Foundation's grants.

We support the best projects and hope that these will lead to new scientific breakthroughs and the creation of new knowledge and new solutions benefitting society.

New initiatives in 2020 included grants for several research projects on the green transition, a high priority for the Foundation. The largest of these grants was DKK 750 million awarded to the Novo Nordisk Foundation Center for Biosustainability at the Technical University of Denmark, a global leader in developing new knowledge and technology that can promote sustainable solutions, especially in biomanufacturing.

### **Establishing new foundations**

Other significant initiatives in 2020 included

establishing two independent commercial foundations: the BII Foundation and the LIFE Foundation. The purpose of the BII Foundation is to ensure that the efforts to promote excellent research and new ideas within the life sciences are translated into new scientific discoveries, into new products and solutions to benefit people and society. The purpose of the LIFE Foundation is to strengthen interest and education in the natural sciences among children and young people. Both foundations stem from large ambitious projects we started years ago and they now have optimal framework conditions to fulfil their missions and goals as independent foundations.

### **COVID-19 initiatives**

In March 2020, the Foundation launched the first of a series of COVID-19-related initiatives based on our desire to help to mitigate the consequences of the pandemic. We did this as a supplement to our usual and already planned grant-giving activities.

We also provided grants for TestCenter Denmark and supported global initiatives in areas with humanitarian crises.

In total, we allocated DKK 420 million during 2020 across 85 COVID-19-related projects.

### The companies behind the increase in grants

In 2020, Novo Holdings A/S, the Foundation's wholly owned investment and holding company, recorded income and returns of DKK 29 billion, with just under half coming from the stake in Novo Nordisk A/S and Novozymes A/S, and just over half coming from Novo Holdings' investments in other companies and financial assets. The financial results of Novo Nordisk A/S and Novozymes A/S and the successful investments of Novo Holdings A/S enable the Foundation to continue to increase its grant-giving activities and thereby providing opportunities to scientific, humanitarian and social purposes.

### **Continued support**

In the coming years, the Foundation will continue to support research, education, innovation and hospital activities as well as social and humanitarian causes that can improve people's lives and contribute to the sustainable development of society. We will continue to support more initiatives that can help mitigate the consequences of the COVID-19 pandemic, which is not over yet.

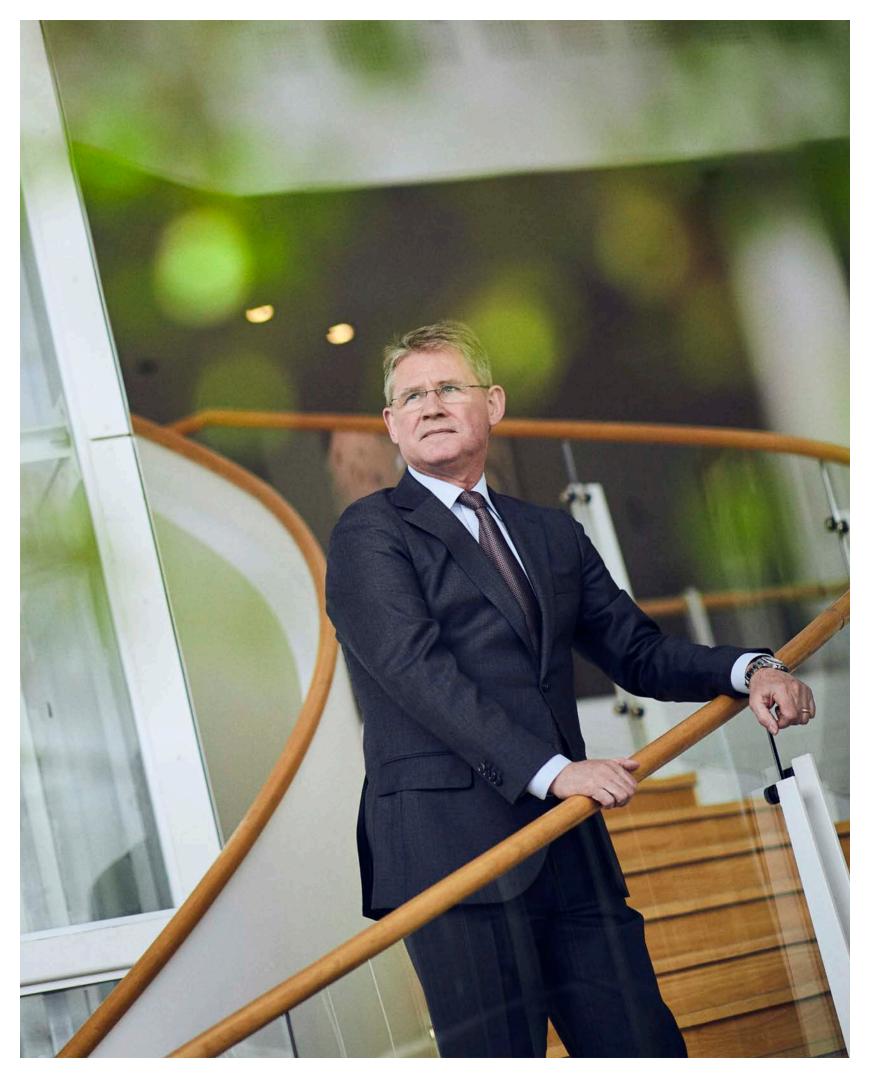
We will also further strengthen all our other grant areas.

This report contains information about our grant activities in 2020, including examples of the projects supported, our grant-giving policy and an overview of our scientific committees that assess the applications for grants submitted to the Foundation.

I hope you enjoy reading it.

Harok Schen

Lars Rebien Sørensen Chairman of the Board



# The 2019–2023 strategy

The Novo Nordisk Foundation Strategy 2019– 2023 presents the Foundation's grant-giving areas, development targets and prioritized actions. Read more about our strategy on our homepage: www. novonordiskfonden.dk

The Foundation's pay-out has increased from DKK 3.6 billion in 2019 to DKK 4.6 billion in 2020. The annual amount of grant-awarding has increased from DKK 4.9 billion in 2019 to DKK 5.5 billion in 2020.

### The NNF vision

The vision of the Novo Nordisk Foundation is to contribute significantly to research and development that improves the lives of people and the sustainability of society.

### The grant-giving areas and long-term goals



## Biomedical and health science research and applications

Enable people to live healthier and better lives by facilitating research that advances knowledge of human health and disease, solves health challenges and develops the healthcare system.

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### Patient-centred and research-based care

Make Denmark a global leader in delivering care for people with diabetes and facilitate development of patient-centred and researchbased care within diabetes comorbidities and other endocrine disorders.



## Life science research and industrial applications promoting sustainability

Act for and inspire the development of a more sustainable world by supporting research that translate into life science solutions to benefit people and the environment.



## Natural and technical science research and interdisciplinarity

Catalyze natural and technical science research, particularly in fields with potential interdisciplinary application to the life and health sciences and industrial biotechnology



### Education and outreach

Support general science education and cultivate scientific and technical competencies and engagement.



### Innovation

Create and promote a life science ecosystem that increases the capacity for research institutions, clinics and start-ups to mature and trans-late scientific discoveries into products and solutions for the benefit of people and society.



### *Social, humanitarian and development aid* Improve lives and prospects of vulnerable

children and youth through education, competency development and health initiatives.

Read more about the strategies www.novonordiskfonden.dk/da/strategiogmaal/

# The **decisions** of the Board of Directors on grants

The Board of Directors decides the Foundation's strategy, vision, payout ambition, the annual grant giving budget and the grants. The decisions on grants are decided directly by the Board of Directors, or on behalf of the Board of Directors by 28 expert committees, the Chairmanship and the Executive Office that implement the Boards' decisions. You can read more on the decision-making process at the Foundation's homepage: https://novonordiskfonden.dk/en/about-thefoundation/the-decisions-of-the-board-ofdirectors-on-grants/



# Themes in grant-giving areas

### Specific focus themes in the strategy period:

## Biomedical and health science research applications

Health-related data science

- Development and exploitation of healthrelated data for research and development of new diagnostics and treatments.
- Combining data-science with clinical experience and designing new validation models for personalized/precision medicine interventions.

### Innovative therapies

- Innovative therapies based on cutting edge biomedical/biotechnical research.
- New therapeutic strategies based on e.g. gene editing techniques, and a suggested national infrastructure to support cell-based therapies.

Coherence in health care

- Focus on research into cohesive health care and research into implementation of new research-based solutions.
- Focus on how changes in demography and partially curative treatments change the composition of the future patient population in Denmark.

## Breadth in biomedical research-commitment and integration

 Program for recruitment of research leaders, thematic calls in existing instruments in open competition, and collaborative medical projects, and instrument for grantees to pursue unexpected findings.

# Life science research and industrial applications promoting sustainability

Industrial Biotechnology

• Solve fundamental challenges within bio-based production and technologies.

### Plant Science and Agriculture

 Provide more productive and resilient plants by addressing challenges related to development and cultivation of plants.

### Food Biotechnology

- Develop sustainable and safe food products feeding the growing population.
- Environmental Biotechnology and Ecosystems research
- Develop biological tools and solutions with a global impact on the environment.

### Education and outreach

STEM education

- Promote excellent and inspiring education for children and young people in natural science and technology by strengthening teaching resources and methods – from day-care through upper-secondary education.
- Enhance competencies of pedagogues and teachers of STEM disciplines.

### LIFE

 Support LIFE as the overarching strategic initiative within education.

### Research in science education

 Identify and promote national and international best teaching practices within natural sciences and technology.  Facilitate knowledge-sharing and dissemination of research results to guide science teachers and policy makers.

### Vocational education and training

 Increase the skills and output of well-qualified and motivated graduates for vocational occupations, related to biotechnical and biomedical disciplines as well as IT and technology in general.

Science communication and informal learning environments

- Raise awareness, knowledge and appreciation of science and technology among children, families and the general population.
- Support humanities research related to new technologies.
- Help to secure fact-based, constructive societal debates around science and technology and build a stronger voice for the importance of research.

### Research in art and art history

- Support research which challenge existing dogmas, inspire new ideas and improve people's life.
- Support cross-disciplinary research within art and natural science which may put science matters into perspective.

### Social, humanitarian and development aid

Overweight and obesity among children and youth in Denmark

- Reduce overweight among children, primarily through prevention among pre-school children.
- Strengthening learning opportunities among vulnerable children in Denmark
- Improve learning opportunities for vulnerable children through early interventions.

### Youth education and empowerment in Jordan, Lebanon and potentially Syria

 Improve the prospects and possibilities of young refugees from Syria through quality education and other learning opportunities.

Non-Communicable Diseases in eastern Africa, Jordan, Lebanon and potentially Syria

• Reduce NCD mortality by supporting prevention and treatment in developing countries and humanitarian settings.

### Patient-centred and research-based care

Implementation of Steno Diabetes Centres

 Improve quality of life, prevent complications of diabetes and create longer life expectancy for diabetes patients.

### Steno DK

 Enhancing collaboration across the Steno Diabetes Centres network, the Copenhagen Bioscience Cluster, Steno Collaborative Grants and other relevant activities.

### Steno Diabetes Centre Greenland

• Improve public health and quality of life for patients with diabetes and other lifestyle-related diseases in Greenland.

Co-morbidities to diabetes

 Integrated care for diabetes patients with comorbidities.

Endocrinology other than diabetes

• Improve quality of clinical practice for patients with endocrine disorders other than diabetes.

# Natural and technical science research and interdisciplinarity

### Nat-X

 Significant breakthroughs in understanding the fundamental mechanisms governing life, health and biotechnology achieved by joining forces between biologists, chemists, physicists, engineers, and computational scientists.

### Q-Life

 Solve complex and important problems in biology, chemistry and medicine - problems which are currently unsolvable - through the realization of quantum simulators and novel quantum technologies.

### Dat-Mat core

 Develop tomorrow's ground-breaking algorithms for handling and understanding Big Data with applications in artificial intelligence, machine learning and bioinformatics through a strengthening of fundamental and applied research in mathematics and computer science.

### Tech-med

 Transform tomorrow's therapies and diagnostics and significantly progress human health and society through advances in the technical sciences and engineering technologies.

### Innovation

Support the talent base

 Attract international talents and develop the skill set among students, researchers, and clinicians, to increase their potential to explore and perform activities translating discoveries.

### Support infrastructure

 Support access to Research Infrastructure, Test Facilities and Expert Teams in Innovation to increase the translational potential of a project.

### **Open Innovation**

• Create new models which change the way academia and industry are interacting, ultimately accelerating innovation.

### Attract capital and investors

 Stimulate a larger number of investors from the public and private space to fund research driven discoveries.

### **BioInnovation Institute**

• Support BII as the overarching strategic initiative within innovation.

# Supporting the **research, education** and **innovation** environments

# The Novo Nordisk Foundation provides support for high quality research and research talents

The support is offered through a range of different funding instruments. The Foundation wishes to strengthen research in Denmark and the Nordic countries, while contributing to knowledge creation and growth that may pave the way to societal development and sustainable solutions that benefit people and society.

As a significant contributor of research funding to universities and research hospitals, the Novo Nordisk Foundation adopts a long-term perspective. Scientific research involves risk-taking and achieving results can be time consuming.

The Foundation has a wide range of grants that target the needs of the universities and researchers. The Foundation supports large as well as small research centres, research programmes and projects at the Danish universities, hospitals and other research institutions.

### The Novo Nordisk Foundation supports research environments and institutions to fulfil their own research ambitions and plans

Through its funding, the Foundation offers a supplement to public research, and our ambitions is to improve the quality of scientific research and contribute to a strong and dynamic research environment. We respect the universities' own strategies and priorities and engage in a dialogue with the institutions.

We support researchers in all career stages – from PhD students and postdocs to associate professors and professors. The Foundation also contributes to education, dissemination of knowledge, commercialization, research-based innovation and infrastructure at the research institutions. We support the whole value chain that creates solutions for people and society.



Read more about the Foundation's initiatives in this area on the following pages.

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### Theme: New foundations



### Two new foundations will strengthen innovation and boost education in Denmark

In December 2020, the Novo Nordisk Foundation established two new independent commercial foundations, the BII Foundation and the LIFE Foundation (next page). These foundations have very different objectives but are both driven by the ambition of strengthening Denmark in important areas.

# Bll Foundation – boosting research, entrepreneurship and company creation

The BioInnovation Foundation (BII Foundation) was created based on a desire to translate more research discoveries within the life sciences into new products and solutions to benefit people and society. Life science research in Denmark and the other Nordic countries is of a high international calibre, but many ideas and results are never developed into actual products because of a lack of development facilities, experienced personnel and access to risk capital.

In December 2017, the Novo Nordisk Foundation awarded a grant of DKK 392 million to establish the BioInnovation Institute (BII) in Copenhagen. Here, talented researchers and entrepreneurs can receive financial support and help to develop research projects until they can obtain funding on market terms.

The Novo Nordisk Foundation awarded the grant over a 3-year period with the aim of spinning off the BII as an independent foundation once the project was firmly established. In 2019, the Novo Nordisk Foundation awarded an additional DKK 73 million to the BII to accommodate the tremendous interest expressed by researchers and entrepreneurs in its services.

Over the past 2 years, more than 85 research projects and innovation projects have thus received support through the BII for developing new products and solutions within the life sciences, including for developing new drugs, health technologies and biotechnological solutions that can contribute to the green transition.

### **Optimal framework**

Following the successful start-up phase, the Novo Nordisk Foundation's Board

of Directors decided in November 2020 that the time was ripe to launch BII on December 1st, 2020 as an independent international non-profit foundation to ensure long-term and ambitious development within the life sciences and biotechnology.

As an independent foundation, the BII Foundation now has its own Board of Directors and a more flexible and stronger framework to be able to fulfil its purpose. Sten Scheibye chairs the Board of Directors, which includes many experienced and highly competent members with entrepreneurial backgrounds.

"The BioInnovation Institute has received a fantastic reception from researchers and entrepreneurs. This is why we have now established it as an independent foundation, so we can ensure a targeted and long-term effort to advance outstanding research and new ideas to become solutions that benefit society," says Birgitte Nauntofte, CEO, Novo Nordisk Foundation.

Jens Nielsen, former professor at Chalmers University of Technology and scientific director at Center for Biosustainability, DTU, who has led the development of BII since 2018, is the CEO.

The Novo Nordisk Foundation intends to provide funding of up to DKK 3.5 billion to the BII Foundation over a 10-year period. Establishing it as a commercial foundation also enables other organizations and foundations to take part in its long-term funding, ensuring that it can become an even stronger catalyst for developing new discoveries and solutions to benefit people and society.

### Theme: New foundations



# LIFE Foundation – long-term initiative in the natural sciences

The LIFE Foundation is an independent non-profit foundation with corporate interests that has been established to strengthen children and young people's knowledge and fascination with science. Innovation in science and technology is crucial for developing new solutions to many of society's challenges, and young people therefore need to be inspired to educate themselves and choose a career in the field in the long term.

LIFE (Learning, Ideas, Fascination and Experiments) develops and provides inspiring learning courses within the natural sciences for use in teaching in primary and secondary schools throughout Denmark. Schools can use the courses free of charge.

On 1st December 2020, similar to the BII Foundation, the LIFE Foundation was spun off an existing project under the Novo Nordisk Foundation, which in April 2018 awarded a grant of DKK 123 million to establish LIFE and to pay for LIFE's start-up costs over its first 2 years.

In these 2 years, LIFE has developed and tested several courses that have been used since August 2020 at more than 135 schools throughout Denmark. Students use the LIFE courses to work based on research with case-based issues from the real world that also support achieving the Sustainable Development Goals. The courses include actual hands-on experiments and digital learning activities and equipment and materials called LIFE kits, which can be ordered free of charge from LIFE.

### **Close collaboration**

LIFE courses have been developed in close collaboration with schools, companies and research institutions. All LIFE courses fulfil the Common Objectives in primary and lower-secondary schools or the learning objectives for upper-secondary schools.

LIFE has also designed a mobile laboratory, the LIFE Mobile Lab, which is fully equipped with advanced laboratory equipment that schools do not necessarily

have available themselves. The truck travels around and visits schools across Denmark and is staffed by LIFE employees who can lead the experimental work in collaboration with the class teacher. In the long term, LIFE intends to have five such mobile laboratories.

Finally, a large physical learning laboratory for visiting school classes is being established in Kgs. Lyngby and is expected to open in 2021.

### **Experienced Board of Directors**

After the first 2 successful years, in November 2020 the Novo Nordisk Foundation's Board of Directors decided to establish LIFE as an independent foundation.

The LIFE Foundation has a Board of Directors with extensive experience from the education sector and the natural sciences. Jesper Fisker, Managing Director of the Danish Cancer Society and a former State Secretary of Denmark's Ministry of Children and Education, chairs the Board.

Christine Antorini, Denmark's former Minister of Children and Education, who has led the development of LIFE since 2018, is the CEO.

"As an independent foundation, LIFE has an optimal framework for becoming a nationwide, long-term and sustained educational initiative that can enhance education and research in the natural sciences and contribute to strengthening the knowledge of and fascination for science among children and adolescents," says Birgitte Nauntofte, CEO, Novo Nordisk Foundation.

The Novo Nordisk Foundation intends to award the LIFE Foundation grants of up to DKK 1.9 billion in the first 10 years. Other foundations and actors may also support the LIFE Foundation.

# Facts and figures 2020



# **Overall grants in 2020**

5,540 DKK million awarded

4,634 DKK million paid out

4,410 applications received

756 grants awarded

# 20%

Share of applications awarded a grant in open competition

# Amount granted in 2020 by grant-giving areas (DKK million)



# Grants awarded by administrative region in Denmark, 2020 (DKK million)

\*) Excludes unsolicited applications

Granted amount (DKK million)

Share awarded a grant

24

14%

15%

148

22%

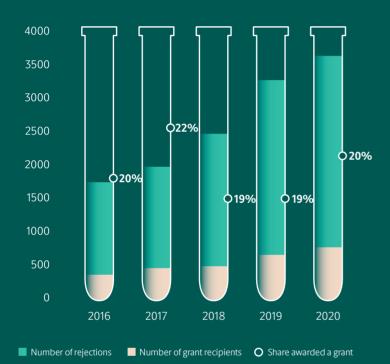
440

19%

North Denmark Region Number of applications* Number of grants Share awarded a grant Granted amount (DKK million)	543 104 19% 671			•		
<b>Central Denmark Region</b> Number of applications* Number of grants Share awarded a grant Granted amount (DKK million)	642 132 21% 786		n n	-	<b>Capital Region of Denmark</b> Number of applications* Number of grants Share awarded a grant Granted amount (DKK million)	1,923 432 22% 3,681
<b>Region of Southern Denmark</b> Number of applications*	291					
Number of grants Share awarded a grant Granted amount (DKK million)	50 17% 223				Region Zealand Number of applications* Number of grants Share awarded a grant Granted amount (DKK million)	89 17 19% 114
Grants awarded outside Denma 2020 (DKK million) Number of applications* Number of grants	ark, Finland 123 19	Norway Swede 63 255 9 56	n Other in collaboration with Danish organization 104 19			

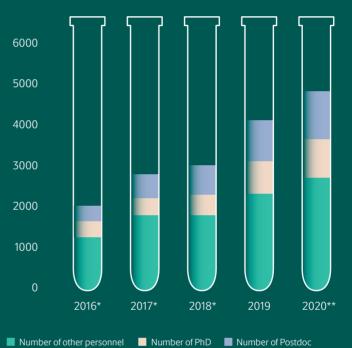
## **Development in grant-awarding activities, 2016-2020**

\*Excludes unsolicited applications

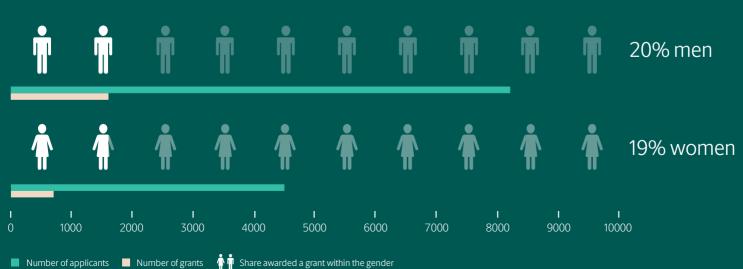


# Number of employees either fully or partly funded by the Foundation, 2016-2020

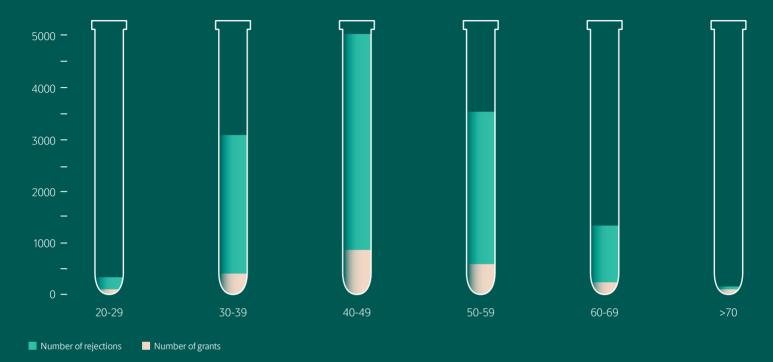
\*Number of employees does not include employees at the five Steno Diabetes Centres in Denmark \*\*) Preliminary estimate



## Grant recipients by gender, 2016–2020

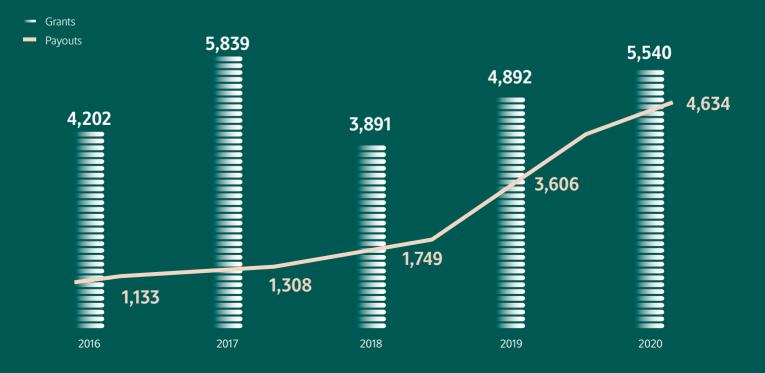


# Grant recipients by age, 2016-2020



# The Foundation's grants and payouts, 2016–2020

\*DKK million



# **Policy** on grant-giving

The Board has established a policy on grant-giving. The objective is to support projects of the highest quality in accordance with the Foundation's strategy and national and international standards for assessment, evaluation and grant-awarding practices.

### **Grant-awarding principles**

The Board has set out the following overarching grant-awarding principles for what the Foundation will emphasize and seeks to uphold in all its grant-awarding activities.

### Excellence

The Foundation pursues the highest standard of quality in all it does and supports. The Foundation is committed to excellence and quality in all its activities. Only by setting a high standard will real, sustainable impact be achieved. The Foundation will strive for excellence and expects the same of the people and institutions it supports and with which it collaborates, nationally and internationally. The Foundation is prepared to take risks in areas in which it sees excellence and support promising projects to create the basis for breakthroughs.

### Interdisciplinarity

The Foundation facilitates connectivity across disciplines to generate new ways to discovery. The Foundation believes that interdisciplinary research will drive future waves of discovery and innovation. It advocates and supports the removal of barriers between traditional disciplines and fields of research. It seeks to find new and more effective ways to solve complex problems at the intersection of various disciplines and to apply interdisciplinary approaches in the search for solutions to significant global and societal problems.

### Collaboration

The Foundation facilitates inclusiveness and

collaboration to catalyze advances in national and international partnerships. The Foundation celebrates the coming together of unique and differing ideas and perspectives to tackle challenges and develop solutions in new ways. The Foundation fosters collaboration between people and organizations to improve results, including across universities, hospitals, schools and geographical borders. The Foundation supports strategic international collaboration and partnerships.

### Innovation

The Foundation acknowledges and values the potential of new ideas. The Foundation supports new ways of addressing challenging problems facing people and society.

### Supplementarity

The Foundation sponsors activities that complement and supplement current systems. The Foundation aims to create impact by supplementing existing activities, systems and funding.

### Respect

The Foundations supports free and independent research. The Foundation respects other people's ideas and understands that producing landmark results that benefit society can take time. It is prepared to listen to other people's views and advice, and to take time to explain the reasons for its priorities and decisions. The Foundation respects the freedom of research and does not claim rights to the results.

### Accessibility

The Foundation champions broad dissemination and access to scientific knowledge and results. Making the scientific knowledge and results available to other people is pivotal to catalyzing further advances in any field. The Foundation believes in the value and importance of this and promotes this in all its grant-awarding activities.

### Diversity

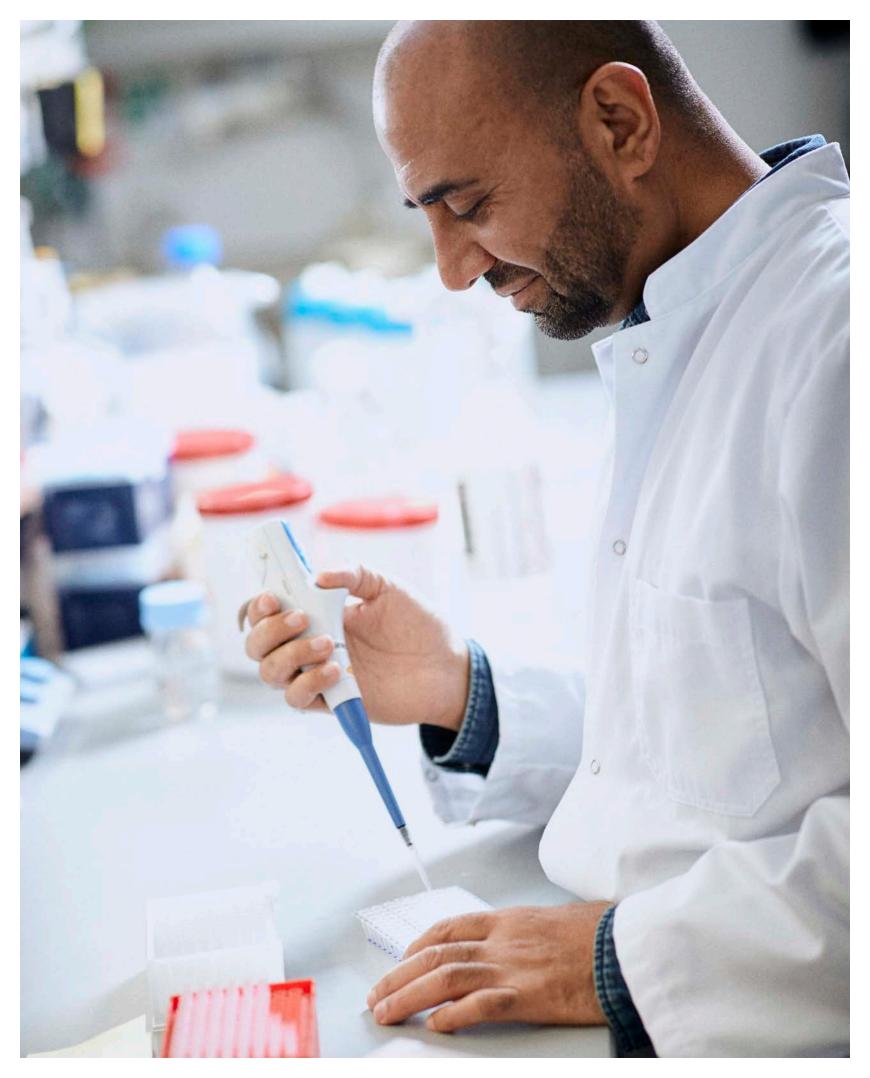
The Foundation will promote an inclusive culture through the formulation of specific expectations not only to ourselves but also to all key stakeholders, including research institutions, to explain how they and their organization promote diversity and inclusion. The individual applicant will not need to explain this in the application process.

### **Center of gravity**

The primary geographical focus of the Foundation's grant-awarding activities will be Denmark, followed by the Nordic countries.

To strengthen research quality within the center of gravity the Foundation supports internationalisation efforts via support of collaborative research programmes and partnerships between Danish and international institutions.

To support the center of gravity, the Foundation will foster mutually beneficial relationships with partners internationally such as universities, international organisations and foundation peers.



# The **four** grant-giving models

Applications and grants awarded are divided into the following four grant-awarding models.

### Open competition

- Fellowships
- Research programmes
- Project grants
- Symposia
- Prizes

### Research centers, infrastructures and strategic awards

- Metabolism, stem cells, biosustainability, proteins
- Biobank, Genome center, MicroMAX
   Stand-alone grants

### Health sector and partnerships

- Steno Diabetes
   Centers in all 5 regions
   World Diabetes
- Foundation
- UNICEF - Danish Refugee
- Council

### Own initiatives for the benefit of society

- The BII Foundation
- The LIFE Foundation
- Healthy Weight Initiative (HWI)

### Grants in open competition

The Foundation awards grants in open competition within:

- I. Biomedical and health science research,
- II. Patient-centred and research-based care,
- III. Life science research and industrial applications prompting sustainability,
- IV. Natural and technical science research and interdisciplinarity,
- V. Education, outreach and art research,
- VI. Innovation,
- VII. Social, humanitarian and development aid.

In 2020, the Foundation awarded in open competition DKK 2,834 million and paid out DKK 2,032 million.

All grants awarded in open competition are peer reviewed by committees. Committee members are internationally recognized experts in their field, who ensure that the grants are awarded for the projects of the highest quality and with the most potential in accordance with the international peer-review standard. Grants are not awarded if the applications received do not meet the highest scientific and quality standards. Grants awarded in open competition generally follow a fixed annual cycle and are announced through open calls.

### Strategic one-off grants, research centres and Copenhagen Bioscience Cluster activities

The Foundation supports strategic one-off initiatives, research centres, infratsructure and the Copenhagen Bioscience Cluster. National and international research experts assess the submitted project applications. All the applications submitted in the following grantgiving areas: humanitarian and social support, education, outreach and innovation are assessed partly by national and international experts and partly by the Secretariat's internal experts. All research applications are evaluated by external experts. Based on the expert assessments of applications or of strategic one-off initiatives, the Board decides whether to support the projects and partnerships. In 2020, the Foundation awarded in this category DKK 1,845 million and paid out DKK 1,410 million.

# Grants for health sector and public-private partnerships

The Foundation supports research hospital activities within diabetes in Denmark and Greenland which part of the Kingdom of Denmark. Between 2016 and 2018, Steno Diabetes Centers were established in Copenhagen, Aarhus, Aalborg, Odense and in Region Zealand. In 2020 the Foundation supported the establishment of a Steno Diabetes Center in Greenland. These public-private partnership grants awarded by the Foundation's Board will lift treatment to a high international level, increase research activities and support the construction work. The Foundation also supports partnerships with humanitarian aid organisations in Jordan and Tanzania. In 2020, the Foundation awarded in this category DKK 546 million and paid out DKK 1,023 million.

### Own initiatives for the benefit of society

The three own development initiatives BioInnovation Institute (BII Foundation), LIFE Foundation and Healthy Weight Initiative (HWI) have been developed by the Foundation's Board in 2018-2020. The BII initiative and the LIFE initiative have developed considerably during 2020 and became independent foundations in December 2020. HWI has also been developed during 2020 and DKK 25 million has been awarded in 2020 to develop this initiative.

The BII Foundation (BioInnovation Institute) was established on 1st of December 2020. BII Foundation is a continuation of the Foundation's BII initiative since 2018. BII Foundation helps talented researchers to translate more research discoveries within life science into new products and solutions to benefit people and society.

The LIFE Foundation was also established on 1st of December 2020. The LIFE Foundation is a continuation of the Foundation's LIFE initiative since 2018. LIFE, being a new major not-for-profit learning initiative, provide science education resources free of charge to schools throughout Denmark. During 2020, the LIFE initiative has matured and developed its learning packages that address real-world problems closely related to UN's Sustainable Development Goals. The learning packages are being developed based on input from and collaboration with public and private research environments.

The Center for Healthy Weight under Development was initiative was established in

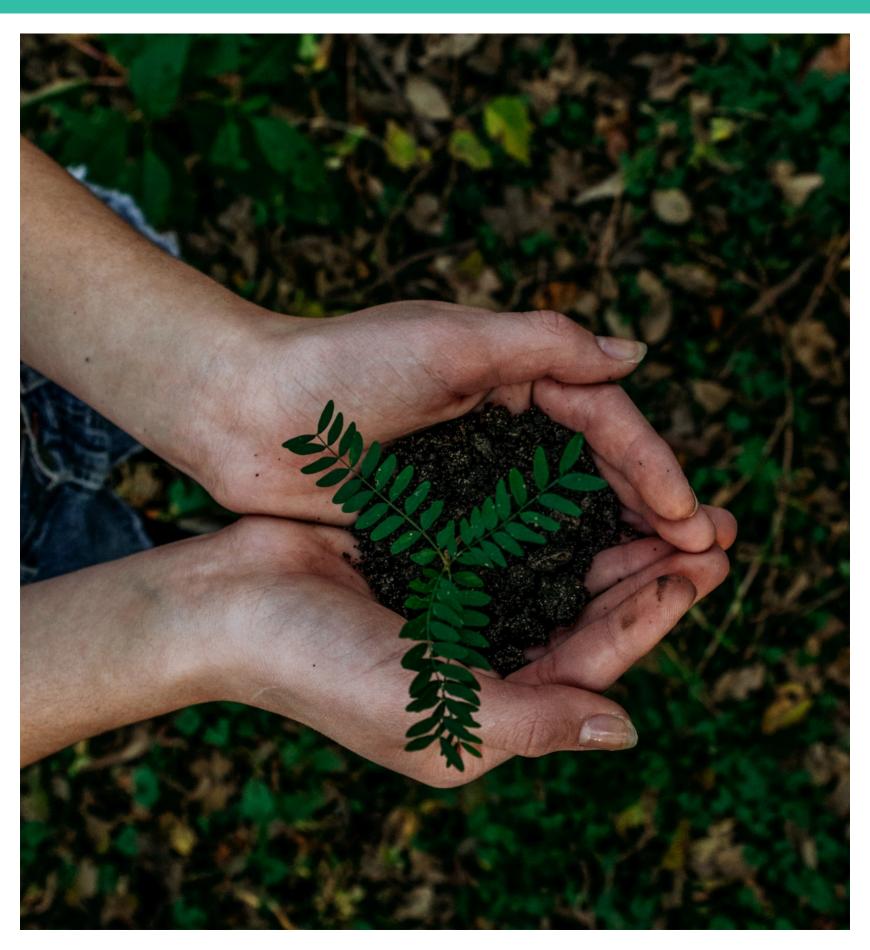


late 2020 by the NNF's Board of Directors as a continuation of the foundation's Healthy Weight Initiative (HWI). An important ambition for the centre is to reduce prevalence of overweight among children in Denmark. This novel centre will help to ensure healthy weight in children and

their families through the establishment of strong partnerships with research and implementation partners, as well as other partners in Denmark.

In 2020, the Foundation awarded in this category DKK 315 million and paid out DKK 171 million.

### Theme: Biotech



# Promoting a sustainable society

Achieving a sustainable society requires that our production of energy, food and materials does not burden the environment or climate more than the level the Earth's natural resources can withstand. Intensive and targeted research is therefore required to achieve this goal.

The Foundation gives priority to sustainability as a key grant area and supports research that can create knowledge and technological innovations that produce new solutions to some of society's major challenges and accelerate the green transition. Our grants are based on global challenges as described by such organizations as the Intergovernmental Panel on Climate Change, the International Energy Agency and the Food and Agriculture Organization of the United Nations.

In 2020, the Foundation's grants within biotechnology and the green transition totalled more than DKK 1.3 billion.

The green transition is considered to be one of the greatest challenges of the 21st century. The green transition includes reducing human-made greenhouse-gas emissions, introducing sustainable solutions in industrial production and creating sustainable agriculture. CO2 and other greenhouse gases must also be removed from the atmosphere.

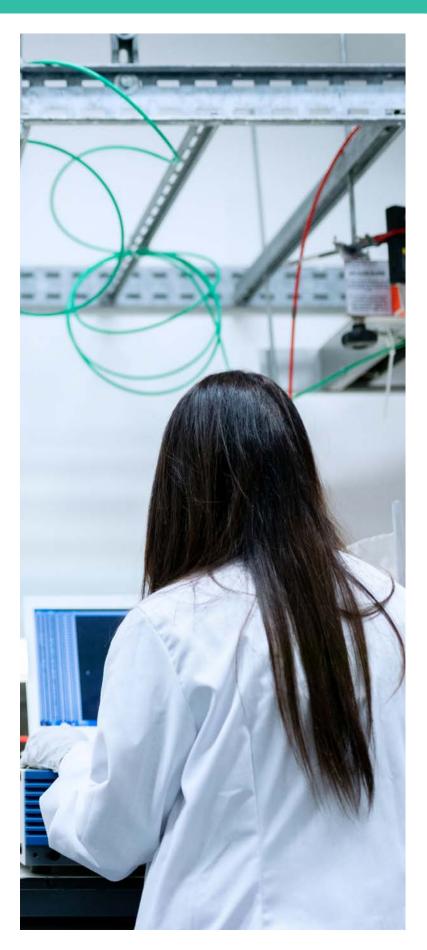
Many essential materials such as plastic, fuel and medicines are currently manufactured using oil-based processes that strain the climate and deplete the world's natural resources. If we are to leave a greener footprint on the planet, producing these and other products using sustainable biotechnological processes is vital. This is at the heart of research at the Novo Nordisk Foundation Centre for Biosustainability in Kgs. Lyngby (Copenhagen). The Centre is a world leader in developing new knowledge and technology that, among other things, can help to minimize the use of oil-based products in production and can instead promote sustainable production by using microorganisms. In 2020, the Foundation awarded a grant of DKK 750 million to the Centre to enable it to continue and develop its research. The grant is one of several major initiatives the Foundation took in 2020 with a focus on the green transition. Read more about the Center on the next page.

The Foundation's 2020 grants also included DKK 179 million earmarked for research on biodiversity, allocated across three new major projects. The grants were awarded under the Foundation's Challenge Programme, which focuses on global challenges in health and technology, and comprise the largest total grant given so far for research on biodiversity in Denmark. The grants will be used to find research-based solutions on how to ensure that, in the future, agriculture and forestry produce an ever-increasing amount of food, energy and various types of materials while strengthening ecosystems to benefit biodiversity.

"The world is facing enormous challenges in the green transition. We believe that science and research can provide a major part of the solution while also creating a sustainable society that interacts with nature instead of, as now, only exploiting it. Our grants support a broad spectrum of research in the area, enabling us to discover new opportunities and getting society to adopt them," says Claus Felby, Senior Vice President and head of the Foundation's grants within sustainability.

*Read more about some of the projects supported by the Foundation on the following pages.* 

### Theme: Biotech



# Collaboration between research and industry will strengthen sustainable production in Denmark

Kalundborg is a large bioindustrial cluster internationally recognized for industrial sustainability and circular production and home to more than 5,000 industrial jobs across several of Denmark's largest companies.

However, the cluster is challenged by a limited influx of newly trained specialists and a lack of research infrastructure because of its location and other factors.

A new education and research project will help to change this situation. It will attract new students and add innovation strength and sustainable solutions to specific business problems, thereby strengthening the industry 4.0 transformation and green transition in Denmark. In addition, companies will for the first time have access to a local research community.

The physical hub of the initiative is the Biomanufacturing Project House, which will be run by Absalon University College. From there, students from universities in Denmark and abroad will carry out applied research in bioproduction, circular production, industry 4.0 and related areas in collaboration with local industrial actors. The plan is to complete 75 Master Thesis in the first project period, which runs from 2021, when construction begins, to 2026. The first students will begin their work on the thesis in early 2022.

Several actors are contributing a total of DKK 120 million to the project. The Novo Nordisk Foundation is awarding DKK 65 million to fund equipment, personnel and the operation of the Biomanufacturing Project House in the initial project period. New programmes will promote sustainability and the green transition More green solutions and products that benefit society

In 2020, the Foundation established two new grant programmes, through which the Foundation plans to distribute a total of DKK 200 million annually for research on sustainability and the green transition.

One programme focuses on research on agriculture and sustainable food of the future. The ambition is for research to provide knowledge that can help to solve the challenges related to climate, the environment and food, which will only become more pressing as the world's population grows.

The other programme focuses on accelerating the green transition in the industrial and environmental sectors. Grants will be awarded under this programme for research that can contribute to finding sustainable solutions that, among other things, can phase out fossil resources in industry and mitigate climate change.

In 2020, the new programmes awarded a total of DKK 81 million to 29 grants (23 project grants and 6 post doc grants).

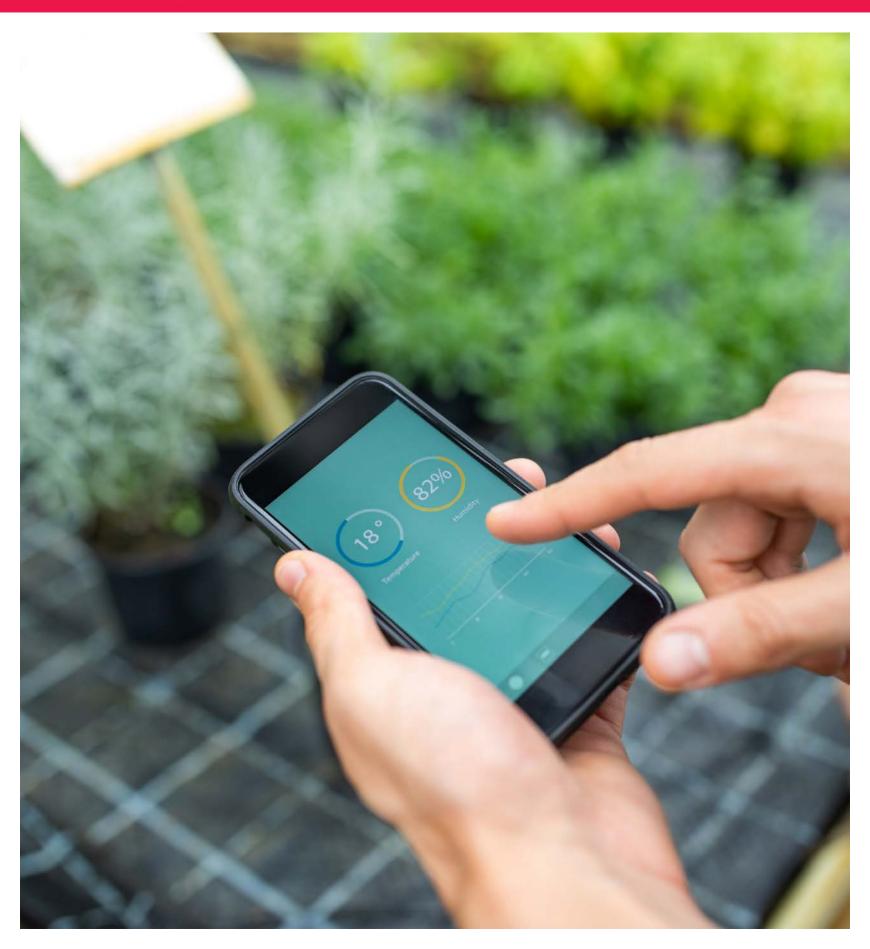
The Novo Nordisk Foundation Centre for Biosustainability at the Technical University of Denmark is an interdisciplinary research centre that develops new knowledge and technology to support sustainable production of a wide range of products using microbial production hosts known as cell factories.

The Centre was established at the Technical University of Denmark in 2011 based on a grant of DKK 700 million from the Foundation. Since then, the Foundation has supported the Centre with additional funding several times, including for internationalizing and expanding the activities of the centre, most recently in 2020, when the Foundation awarded DKK 750 million over 5 years.

The Novo Nordisk Foundation Centre for Biosustainability will focus on three main areas over the term of the new grant: sustainable chemicals, biobased products and new microbial foods and food ingredients. Research in these areas should help to promote more sustainable lifestyles and to use biology as a tool to create more environmentally sound production of such products as medicines, food ingredients and specialty chemicals. This vision supports the 17 Sustainable Development Goals, with which the Technical University of Denmark works strategically.

Today, the Centre has more than 300 employees with researchers from all parts of the world and, based on its own research discoveries, has created 11 spin out companies that can strengthen Denmark as a whole and create new green jobs. Since 2010, the Foundation has awarded a total of DKK 2.1 billion to the Centre.

### Theme: Pioneering research



# Pioneering research

Scientific disciplines such as mathematics, physics, chemistry and data science are essential for developing new solutions to several societal challenges, including health and sustainability.

In recent years, the Novo Nordisk Foundation has therefore increased its funding for research in the natural and technical sciences, which has the potential to support the development of new breakthroughs in such fields as medical science and sustainable technology.

The Foundation focuses especially on data science, quantum-based technology and new medical technologies.

Since many major scientific breakthroughs take place at the interfaces between scientific disciplines, the Foundation focuses on promoting collaboration between the disciplines. When researchers from several fields work together, synergy and new opportunities, perspectives and breakthroughs often emerge that the individual disciplines cannot produce separately.

"Long-term investments in the natural and technical sciences are crucial for Denmark to continue to be an international leader in such fields as climate change, economics, living standards and health for future generations," says Lene Oddershede, Senior Vice President and responsible for the grants the Foundation awards in this area. One major Foundation initiative in 2020 is the Data Science Initiative, which aims to strengthen research on data science and to help to educate future generations of specialists in this field. Data science is an important driver in all modern research, including developing more sustainable agricultural production and new climate solutions, designing and discovering new materials and disseminating pioneering health technology. In 2020, the Foundation awarded its first 12 grants in open competition under the Initiative, for which it has allocated a total of DKK 140 million.

In 2020, the Foundation also awarded the first grants through its NERD (New Exploratory Research and Discovery) research programme. Dedicated and innovative researchers receive a 7-year grant, giving them the opportunity to immerse themselves, explore new scientific fields and pursue wild and creative ideas, thereby enabling pioneering new research. In total, the Foundation has allocated DKK 300 million for NERD.

Furthermore, since 2014, the Foundation has awarded grants through its Interdisciplinary Synergy Programme and Exploratory Interdisciplinary Synergy Programme, totalling more than DKK 496 million for cross-disciplinary collaboration between organizations and across national borders to solve important interdisciplinary challenges in core areas supported by the Foundation.

*Read more about some of the projects supported by the Foundation on the following pages.* 

### Theme: Pioneering research

# Next generation of batteries

Batteries have revolutionized the world and enabled everything from mobile phones and laptop computers to Tesla cars. However, batteries are far from perfect, since they contain toxic substances and have a relatively short life span, and batteries therefore continue to need further development to improve them significantly in the future.

With a grant of DKK 13 million from the Foundation, Dorthe Ravnsbæk from the University of Southern Denmark has set out to lay the foundation for the next revolution in battery research. Her project focuses on developing new and better materials for rechargeable batteries and characterizing these materials using several new techniques. The goal is to improve scientific understanding of the processes that create disorder in the electrodes of the batteries, which is important for developing the environmentally sound and efficient batteries of the future.

"The grant means a lot, because I can now set some high-risk goals in my research and I can try and carry out some very difficult tasks. A 7-year time frame enables me to set very high ambitions, and I plan to do just that," explains Dorthe Ravnsbæk, Associate Professor, Department of Physics, Chemistry and Pharmacy, University of Southern Denmark.

The grant awarded to Dorthe Ravnsbæk is part of the Foundation's new NERD (New Exploratory Research and Discovery) research programme in which the Foundation supports wild and creative research ideas within the natural and technical sciences. In 2020, the Foundation awarded eight grants totalling DKK 98 million through NERD.



# Upgrading knowledge through data science research

# Interdisciplinary synergy

Most of us are familiar with machine learning in connection with analysing pictures, text and speech through services that many large technology companies have made commonplace. Despite the great potential, machine learning has not yet achieved the same traction within the life sciences. A grant from the Novo Nordisk Foundation's Data Science Collaborative Research Programme will therefore develop fundamental machine learning algorithms and methods that will be especially well-suited to the life sciences. For example, they must be able to manage the uncertainty inherent in noisy data and be able to process personal data responsibly.

The Foundation awarded a grant of DKK 30 million to Ole Winther, Department of Biology, University of Copenhagen, one of the 12 projects that received grants in 2020 as part of the Foundation's new Data Science Initiative.

Data scientists are in great demand from both the public and the private sector because they often have the key to improving the understanding of complex data. For example, big data and artificial intelligence can provide new knowledge on where to plant crops to optimize their growth and provide insight into pathogenic agents, which can lead to new therapies.

The Foundation has launched its Data Science Initiative: to strengthen data science; to support the establishment of ambitious research programmes and new national infrastructure; to offer attractive career paths; and to educate more data science specialists. Another goal is to strengthen the research community that will educate future generations of specialists within data science and strengthen cross-disciplinary research.

The Foundation has allocated DKK 410 million to the Data Science Initiative over 3 years and awarded the first 12 grants totalling DKK 138 million in 2020.

The ability to create sound and speech is the most important form of communication of mammals and birds and crucial to human identity and artistic expression. However, we have limited understanding of voice control and speech development, from the neural activity to the complex motor control of the larynx, and this hinders the treatment of voice disorders and associated diseases.

In a cross-disciplinary project, researchers at the University of Southern Denmark, the University of Maine and Emory University in the United States, will integrate physics-based calculation models with new experimental paradigms within neuroscience and biomechanical models, including songbirds, to map the entire motor control system and the causal mechanisms involved in generating sound. This project will provide methods and tools to transform understanding of voice motor control among both healthy and sick people and to strengthen the clinical use of computer-assisted vocal cord surgery for people.

The Foundation awarded a grant of just over DKK 11.2 million for the project as part of its Interdisciplinary Synergy Programme, which supports interdisciplinary research. The Foundation awards grants totalling up to DKK 75 million annually through its Interdisciplinary Synergy Programme and grants totalling up to DKK 50 million through its Exploratory Interdisciplinary Synergy Programme.

### Theme: Supporting all career stages



# Supporting researchers at all stages of their careers

The Novo Nordisk Foundation's largest grant area is public research at universities and hospitals in Denmark and the Nordic countries.

By supporting high-quality research, we want to contribute to creating new knowledge that leads to pioneering discoveries by researchers at all stages of their careers to benefit people and society.

In 2020, the Foundation awarded DKK 5.2 billion through 662 grants to researchers employed at public institutions.

The research we support is very wide ranging. This includes biomedicine and health sciences in the broadest sense: molecules, people and treatment systems; biotechnological research focusing on sustainability; and research in the natural and technical sciences that has the potential to support the development of new breakthroughs in fields such as medical science and sustainable biotechnology. We also support art history research, educational projects and innovation.

We have enlisted independent experts from Denmark and abroad to help us assess which applications are best. Each research area has its own permanent group of independent experts that meet in committees, which typically comprise 5–10 members.

We support both large and small projects in open competition. The largest grants the Foundation awards in open competition are DKK 60 million through

its Challenge Programme. These grants are awarded for major, long-term collaborative projects that address global issues.

At the other end of the scale, the Foundation awards grants of DKK 0.3–3 million in open competition. for many small research projects with a typical duration of 1–3 years. These projects are often the bedrock of major innovative developments and discoveries.

The Foundation supports researchers at all stages of their careers – including PhD students, postdoctoral fellows, assistant professors, associate professors and professors. One initiative we have established is the Novo Nordisk Foundation Research Leader Programme, with an annual budget of DKK 480 million, which provides grants to younger talented researchers in the early establishment phase, research leaders mid-career and established professors at a high international level.

"We want to support all elements of a researcher's development, so that we ensure that excellent research talent is used optimally. Because the established researchers also spend time teaching the new talented researchers, this also has the advantage of providing a very important spillover effect in boosting the quality of education," says Birgitte Nauntofte, CEO, Novo Nordisk Foundation.

Read more about some of the projects supported by the Foundation on the following pages.

Theme: Supporting all career stages

# Help to 50,000 Danes who have chronic obstructive pulmonary disease

# Viruses as an alternative to antibiotics

Up to 400,000 people in Denmark have chronic obstructive pulmonary disease (COPD), and up to 50,000 of these are severely ill, with frequent hospitalization and a considerably increased risk of dying.

The people with COPD as a whole need new treatment approaches, and researchers and doctors in Denmark are now seeking to meet their needs. Over the next 5 years, doctors at the Section of Respiratory Medicine of Herlev & Gentofte Hospital together with colleagues in COP:TRIN, a nationwide respiratory medicine research collaboration, are conducting several trials that will ultimately result in new international guidelines for treating people with COPD and optimized treatments for various subgroups of people with COPD.

"At our research unit, we try to make life more bearable for people with COPD by focusing on two key things: offering better treatments that can control the disease in a novel way and providing treatments with as few side-effects as possible," explains Jens Ulrik Stæhr Jensen, Chief Physician, Section of Respiratory Medicine, Herlev & Gentofte Hospital.

The Foundation has supported the research project through a Novo Nordisk Foundation Research Leader Programme grant of DKK 10 million.

What if viruses could be an alternative to antibiotics? Bacteriophages – derived from Greek for bacteria eaters – are viruses that infect bacteria but are harmless to humans. Multidrug-resistant bacteria are one of the greatest threats to global health. Every year about 700,000 people die globally from antibiotic-resistant infections, almost 2,000 every day. According to projections from various think tanks, these numbers will increase to 10 million dying per year by 2050 unless we manage to solve the problem of antimicrobial resistance. In addition to developing new antibiotics, alternatives need to be explored.

At the University of Southern Denmark, researchers will study a newly discovered mechanism by which Pseudomonas aeruginosa bacteria defend against bacteriophage attack. In the long term, the mission is to develop new drugs that will block this bacterial defence mechanism and improve the activity of therapeutic bacteriophages against pathogenic bacteria.

In 2020, the Foundation awarded a grant of DKK 2.1 million for this project, one of 36 projects within bioscience and basic biomedicine receiving the Foundation's smaller project grants totalling DKK 80 million.



## Investing in advanced research infrastructure to create a platform for new knowledge

The ability to carry out research of international calibre increasingly requires that researchers have access to state-of-the-art research infrastructure such as advanced scientific equipment, biobanks, scientific facilities and information technology tools.

The Foundation awarded grants to nine research infrastructures in 2020 that will enable researchers to establish laboratory facilities equipped with state-of-the-art technology.

One infrastructure will establish a screening facility that will meet an urgent need of Denmark's biomedical community. The new facility will enable hundreds or even thousands of individual genes to be studied simultaneously using CRISPR technology, also known as genetic scissors.

Another infrastructure will aim to improve knowledge of the resource use of field-grown crops by studying the root zone of plants. A plant trench will be constructed in a field to enable the researchers to observe and collect samples of the root zone in all soil layers up to 3 metres deep for up to six experimental crops.

These research infrastructures are expected to help to create state-of-the-art technology hubs, providing added value and new knowledge that will both advance insight on basic research questions and help to develop innovative solutions that can be used in industry.

In 2020, The Foundation is supporting research infrastructure projects through open competition grants totalling DKK 161 million. All the projects' infrastructure will be open and thus available to other researchers.

# Impact assessment

#### The Foundation follows output, outcome and the impact of the grant recipients' projects.

#### Reporting

Our research on the outcomes and impact of the Foundation's grants builds on extensive analysis of several data sources. First, we analyse data on the activities, outputs and outcomes of the grant recipients systematically collected through our two online data collection and reporting systems: researchfish® and Foundgood. In researchfish®, we have collected data on research grants since 2015, whereas Foundgood has been used for nonscientific project grants since 2019. The two systems enable us to systematically monitor the activities of our grant recipients and the results of their work. Since all grant recipients report annually, we have data on the full population with no attrition.

It is mandatory for all grant recipients to use the Foundation's web-based survey systems for reporting on activities and results relevant to their grant. The grant recipients report annually for the duration of the project and 1–5 years after the project ends.

#### Impact assessment and evaluation

Based on reporting of the grant recipients, the Foundation assesses the outcome and impact of the grants through monitoring and evaluations. In addition, the Foundation use the reporting of the grant recipients to make informed decisions in exante and expost evaluation.

Logical Impact Model: For each Grant-giving area, we develop chains of Critical Success Factors from inputs to impacts that link the grants, step-by-step, to the long-term objectives of our strategy

Inputs The resources used to implement activities Activities The processes or actions taken to achieve outputs and make progress towards outcomes Outputs The most immediate sets of accomplishments leading to outcomes and impacts Outcomes Observable and measurable progress which serve as steps towards the impact that we want

#### Impacts

Ultimate sustainable societal changes in accordance with our long-term objectives

Impact Assessment Framework: Based on the Logical Impact Model, we conduct three types of analyses:



#### Monitoring our progress

We develop a set of Key Performance Indicators (KPIs) linked to the inputs, activities, outputs and outcomes of our grant recipients



#### **Evaluating our impact**

We conduct in-depth evaluations on the distinct impacts of the Foundation activities to assess whether we fulfil the objectives of our strategy



#### Informing our decisions

We create novel data-driven insights to support evidence-informed decision making. The list of these analyses is continuously updated in an analysis pipeline

#### 9 principles for societal impact

The Foundation has established a framework for how to measure its key achievements to society. It is based on 9 principles for the Foundation's contribution to society.

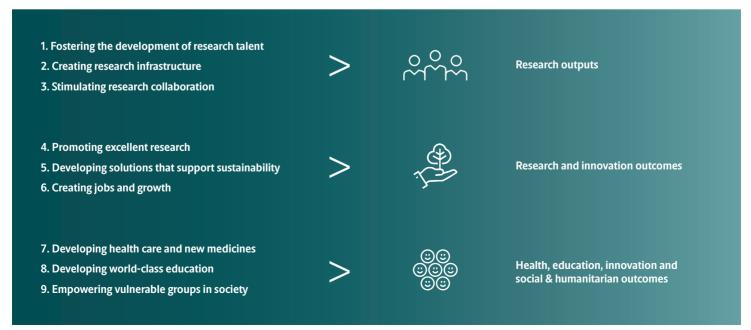
For large grants, such as research centres and hospital centres, the Foundation uses the reporting to produce an annual impact report for each centre. The annual centre report is the basis for an annual dialogue on progress between the centre leadership and the Foundation.

The Foundation uses data in evaluating types of grant and funding instruments – what works and what does not work – to support the Board in its decisions on grant policy and grant-awarding.

Finally, the Foundation provides an overview of how grant-awarding activities support the Foundation's grant-awarding objectives in its strategy and the subsequent effects on society on research, education, and health and collaboration activities between researchers and industry. The Foundation's annual impact report documents the grant recipients' overall reporting of output and outcome and their impact on society.

**Read more** on impact assessment at https://impact.novonordiskfonden.dk/

#### Novo Nordisk Foundation's contribution to society



Theme: Covid-19

# The Novo Nordisk Foundation's response to the coronavirus pandemic

Grants have been awarded in the areas of scientific research, education and outreach, patient care, diagnostics as well as for social and humanitarian efforts.

Establishment of TestCenter Danmark: DKK 257.3 million

Emergency production of ethanol: DKK 8.75 million

Emergency grants for COVID-19 projects in the Danish Realm: **DKK 75.5 million** 

Grants for other COVID-19 research: DKK 34.8 million

Research into the long-term health consequences of COVID-19 illness: **DKK 40.0 million** (for distribution in 2021)

Humanitarian grants: DKK 38.3 million

Educational support for vulnerable children after the lockdown: **DKK 4.7 million** 

# An extraordinary situation calls for collaboration

With the coronavirus pandemic, Denmark was plunged into a health crisis as well as an economic crisis that required – and continues to require – an extraordinary effort from the whole of society. The crisis is not over yet, but with vaccines on the way, there is light at the end of the tunnel, and hopefully we can begin to see a return to normal life in the course of 2021.

In March 2020, the Novo Nordisk Foundation launched the first in a series of COVID-19 related initiatives, wishing to do our part in mitigating the consequences of the coronavirus pandemic. This was done in addition to our normal and already planned grant activities for 2020.

As an independent foundation with corporate interests, the Novo Nordisk Foundation has been able to provide grants for concrete projects while contributing to larger, national initiatives such as TestCenter Danmark.

Moreover, the companies which the Foundation co-owns have contributed significantly to a fruitful cooperation between public and private actors in Denmark. Especially Novo Nordisk and Novozymes have provided resources and expertise in the common fight against COVID-19.

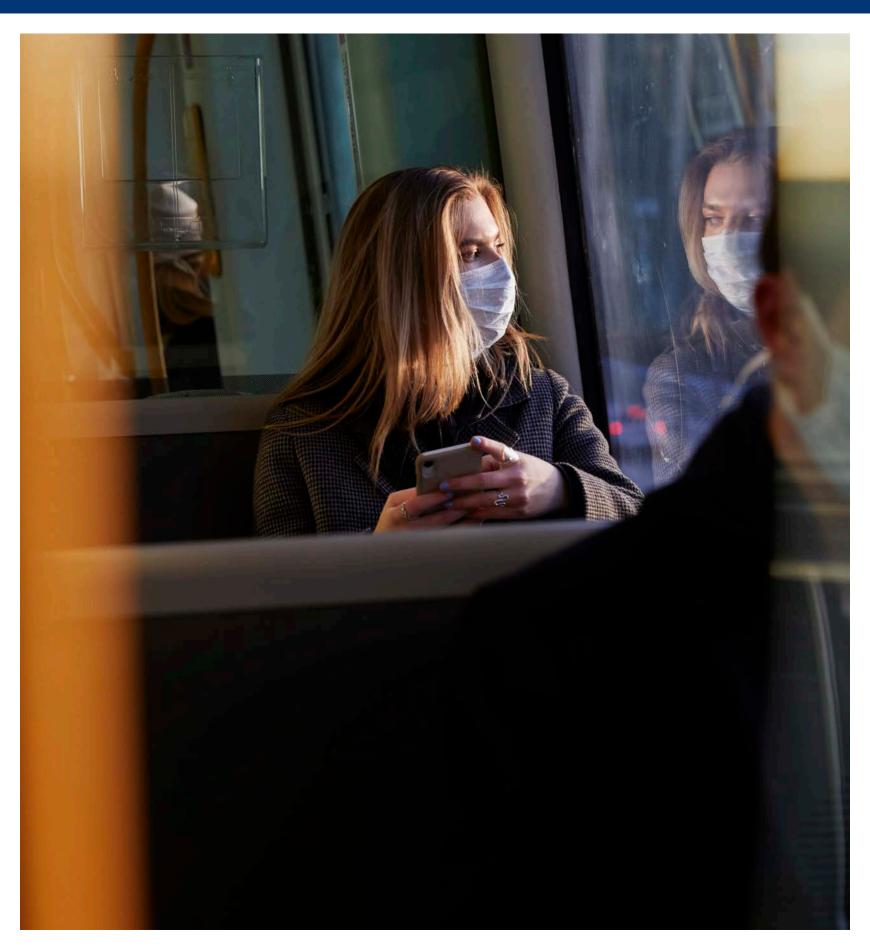
"While carrying out our normal activities, the Foundation has had to adapt to the exceptional circumstances, processing grant applications on a rolling basis and at a much faster rate than Foundation have been used to. When awarding grants for extraordinary COVID-19 activities, The Foundation have prioritized projects that addressed an urgent need, were of a high quality and would benefit people and society in the short term. The coronavirus pandemic has more than anything else highlighted the importance of cooperation, both nationally and internationally. In Denmark, it has been positive and encouraging to see how public and private

actors as well as foundations are able to join forces in a coordinated effort.", says Birgitte Nauntofte, CEO, Novo Nordisk Foundation.



Read more about the supported projects at the Foundation's homepage: https://novonordiskfonden.dk/wp-content/uploads/DK\_200x264\_ Coronai\_brochure\_TR\_FINAL\_digital\_version.pdf

#### Theme: Covid-19



# New antibody tests for monitoring the spread of COVID-19

When people with COVID-19 symptoms are tested using diagnostic tests, it is to see if they are currently infected with the coronavirus. By testing for antibodies, it is possible to see if a person has had the coronavirus at an earlier stage.

However, the antibody tests available on the market in the spring 2020 were not sufficiently sensitive to determine whether an individual has COVID-19 antibodies or not. Consequently, researchers from Rigshospitalet and the University of Copenhagen have collaborated with Novo Nordisk A/S in developing two new antibody tests with higher sensitivity. The first test measures the presence of antibodies in the blood, while the researchers can use the other test to map the types of antibodies found in persons who have tested positive. The tests may become an important tool in monitoring the spread of the COVID-19 pandemic and the development of antibody levels, both in individuals and in society.

The tests have been developed with support from the Carlsberg Foundation and the Novo Nordisk Foundation, which has granted DKK 4.8 million for the project.

#### New antibody tests used in a major trial

The new antibody tests have been put to use in a large-scale research project examining the transmission of COVID-19 among people in the labour market in Denmark.

All Danish-based employees of Novo Nordisk A/S, Novozymes A/S, Novo Holdings A/S and the Novo Nordisk Foundation as well as their partners and adult children have been invited to participate in the study, where three blood samples are taken from each participant in the course of a year. The purpose of the study is partly to map the prevalence of antibodies and thereby of people who have previously been infected with COVID-19, and partly to trace how the presence of antibodies develops over time in the body.

The project is a collaboration between researchers at Rigshospitalet, Herlev Hospital and the University of Copenhagen, Aarhus University, Statens Serum Institut and Novo Nordisk A/S. The Novo Nordisk Foundation has awarded a grant of DKK 20 million for the project.

#### Theme: Covid-19



### TestCenter Danmark

In April 2020, TestCenter Danmark was established with active support and funding from the Novo Nordisk Foundation and the Foundation controlled company Novo Nordisk A/S to ensure free access for all Danish citizens to COVID-19 testing. TestCenter Danmark is comprised of a number of regional testing stations and a national test laboratory at Statens Serum Institut (SSI), where the initiative is also anchored.

From when the decision was taken, it took less than a month before the test centre was a reality, including the white testing tents that shot up across the country, where members of the public can get tested.

Crucial to the start-up phase was a unique collaboration between public partners in the state, regions, response and preparedness system as well as hospitals, and private partners, which apart from the Foundation consisted of the pharmaceutical companies Novo Nordisk A/S and Novozymes A/S which are controlled by the Foundation. During this emergency situation, Novo Nordisk and Novozymes contributed with equipment and laboratory expertise. TestCenter Danmark is the first of its kind, in Denmark as well as internationally.

The feedback from all the involved parties has been that the initiative has shown how much you can accomplish within a short time when public and private actors join forces, each contributing with what they are best at.

The Novo Nordisk Foundation's grant of up to DKK 250 million has helped to procure the testing equipment needed for carrying out the thousands of test every day.

## Emergency production of ethanol

D uring the spring of 2020, hand sanitizers were at the top of people's shopping lists. Soon, the shops ran out of the product, which mainly consists of ethanol. And since there was no large-scale production of ethanol in Denmark, the country was facing a shortage of disinfectants.

Therefore, the Novo Nordisk Foundation and the Carlsberg Foundation jointly granted DKK 17.5 million for the establishment of a consortium consisting of the Danish state, Carlsberg, Ørsted and Ree Holding. The parties in the consortium should not make any profit from the production of ethanol.

The task was to set up an emergency production of ethanol, thus ensuring general access to hand sanitizers and other disinfectants in order to curb the spread of COVID-19 in society.



#### Theme: Covid-19

## Informational COVID-19 insert in two Greenlandic papers

### Emergency accommodation for socially disadvantaged citizens

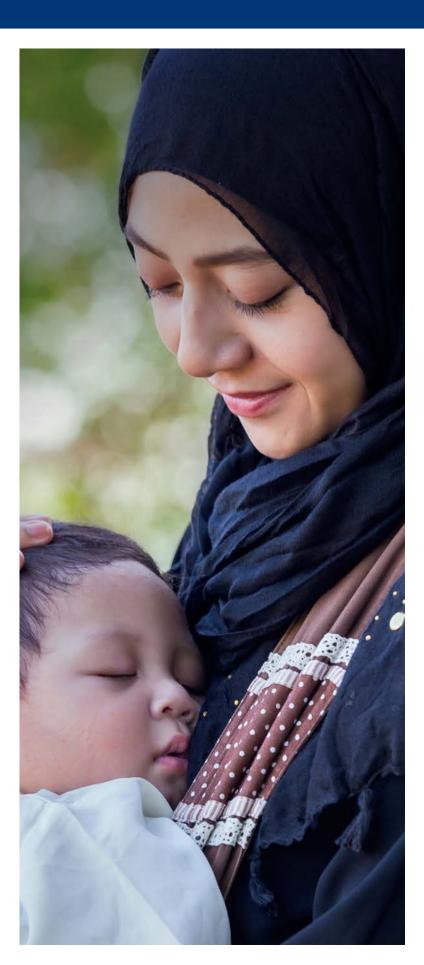
The media company Sermitsiaq.AG has published a bilingual informational insert on COVID-19. The insert appeared in Greenland's two national newspapers Sermitsiaq and AG and will also be available online. Thus, the information will be accessible to everyone in both the rural and urban areas of Greenland. The Novo Nordisk Foundation has awarded a grant of DKK 242,000 for the project, which has been carried out in collaboration with Greenland's Ministry of Health. In the spring, several municipalities and organizations established emergency overnight accommodation to mitigate the health effects of the COVID-19 pandemic among socially disadvantaged people. The aim was partly to provide self-isolation facilities and care for homeless people with COVID-19, and partly to support individuals who have been affected by restrictions imposed at shelters and social drop-in centres. The Novo Nordisk Foundation has awarded a total of DKK 7 million to four projects that target socially disadvantaged citizens in Odense, Slagelse, Copenhagen and Aarhus.





## Coronavirus-safe childbirth in Myanmar

In Myanmar, COVID-19 presents major challenges to the health sector, e.g. causing changes in the priority-setting for healthcare personnel and the closing of outpatient services, including maternity clinics. The Maternity Foundation will disseminate knowledge and facilitate access to COVID-19 recommendations in connection with pregnancy and childbirth through digital health solutions. The project also offers training to midwives and skilled birth attendants on how to prevent COVID-19 among pregnant women. The Novo Nordisk Foundation has supported the project, which is expected to directly benefit more than 15,000 pregnant women and children, with a grant of DKK 966,877.



# **Diversity** Policy

The Foundation believes that diversity and inclusion is key to achieving our vision to improve the lives of people and sustainability in society. The Foundation continuously monitors the diversity in our activities and strives to improve the way we work.

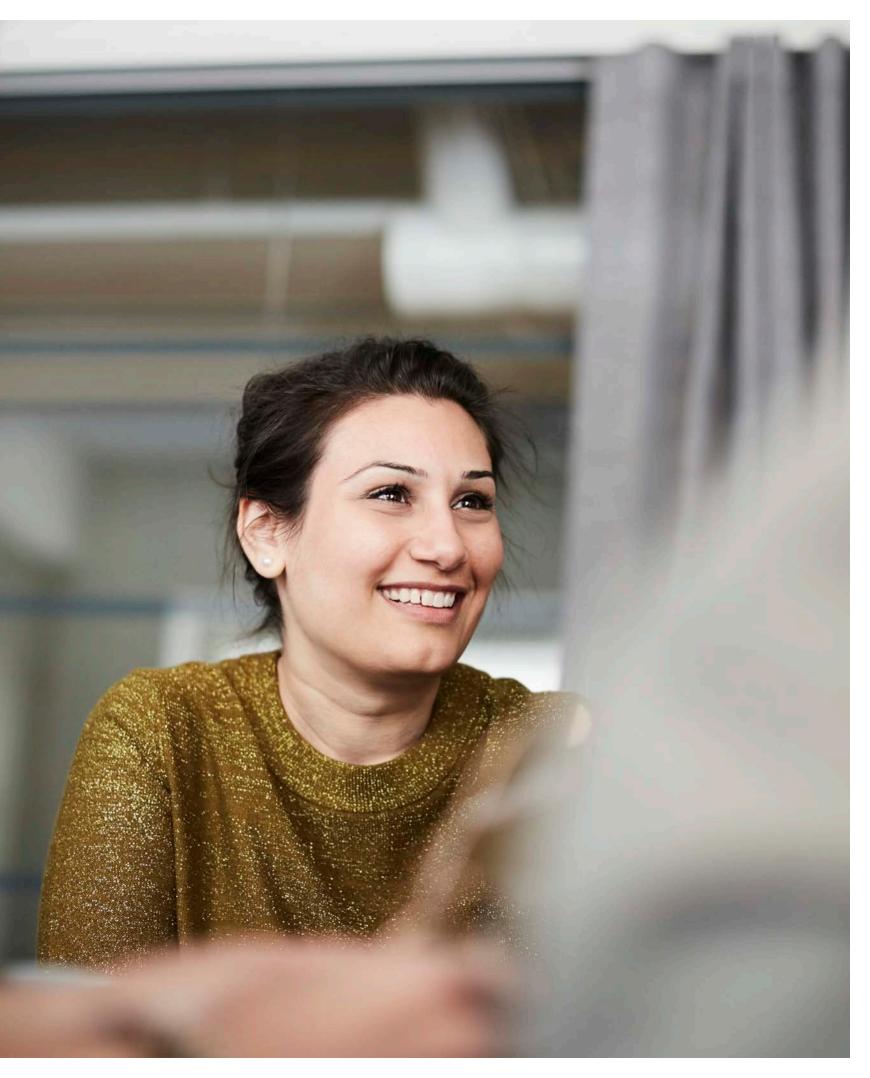
The Novo Nordisk Foundation will follow international best practice and procedures, and in some cases take a lead in this work.

As part of its diversity policy, it is a guiding principles to ensure fair processes: Irrespective of gender, nationality, cultural background, religion, age, sexual orientation etc., all applicants, employees and grant holders must always be treated and evaluated on a fair and equal basis in all processes.

It is also a guiding principle to promote an inclusive culture: We will formulate specific expectations not only to ourselves but also to all key stakeholders, including research institutions, to explain how they and their organization promote diversity and inclusion. The individual applicant will not need to explain this in the application process.

The Foundation has formulated a diversity policy which is fully described at our homepage: www.novonordiskfonden.dk/diversity





# Code of **Conduct**

#### Purpose

Novo Nordisk Foundation-affiliated persons must protect and comply with the principles covered by the Foundation's Code of Conduct, and they must be able to work in a safe and nurturing working environment. To support this, the Foundation promotes an organization-based culture of integrity driven by respectful and ethical behaviour among the Novo Nordisk Foundation, its affiliated persons and the activities it funds.

#### Scope

The Code of Conduct applies to the Novo Nordisk Foundation (the "Foundation") and all persons associated with the Foundation, namely, members of the board of directors and employees in the Foundation, all grant recipients and personnel funded by grants from the Foundation, members of the Foundation's committees, individuals, institutions and organizations collaborating with the Foundation, the BioInnovation Institute and LIFE (hereinafter, the "Novo Nordisk Foundationaffiliated persons").

The Code of Conduct is part of the Foundation's grant terms and conditions and must be adhered to, together with the conditions in a specific grant agreement and the general terms and conditions for grants.

Read more on: www.novonordiskfonden.dk/en/code-ofconduct/



# Standards for **good research** practice

To be eligible for grants, applicants must comply with recognized standards for good research practice, national and international rules on the safety and rights of clinical trial patients and health volunteers, animal welfare and bribery and corruption.

#### Labour practice

The employees on the projects may not be discriminated against and must be treated with respect and dignity.

The employees must be paid in accordance with collective bargaining agreements, have working hours and holidays in accordance with the national rules and have the right to organize and negotiate collectively to the extent that this is standard practice or legally permitted.

#### Working environment

The institution hosting a project must provide a safe and healthy workplace.

#### Environment

The projects must minimize adverse impact on the environment to the greatest possible extent.

#### In case of non-compliance

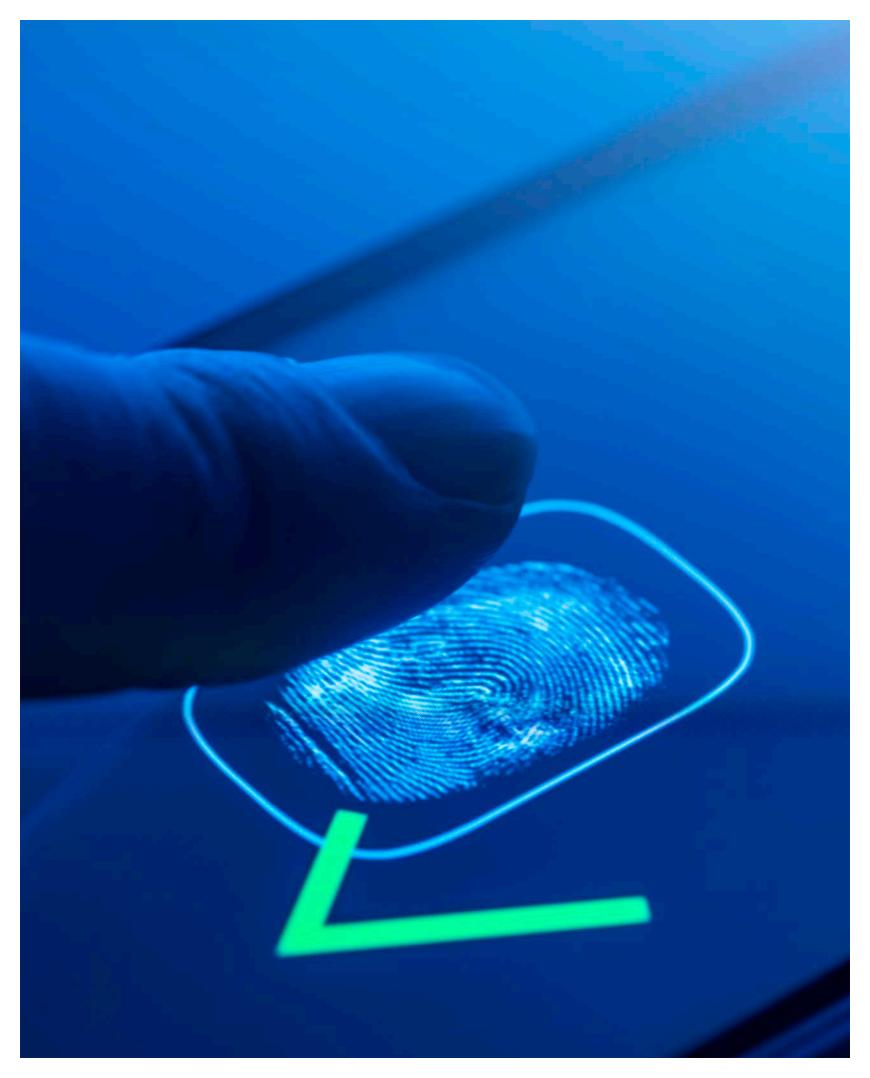
If the Foundation learns that the standards have been violated, the grant recipient will be asked to respond.

If the Foundation deems that the standards have been violated, the Foundation may discontinue payments and may require the repayment of funding already disbursed. Moreover, the Foundation may decide to deny future funding. Application process for grants awarded in open competition

- Applicants submit their application through the Foundation's web-based application system.
- II) The committee members individually read and score the applications on a scale from 1 to 6.
- III) The committee members meet to discuss the applications (interviews can occur) and decide which applications to recommend for funding and which to reject. The Board of Directors approves grants.
- IV) The Foundation sends the applicant a letter accepting or rejecting the application (or invites the applicant for a second assessment round).

#### Read more on:

www.novonordiskfonden.dk/en/aboutthefoundation/standards-for-goodresearch-practice



# Data ethics

The Novo Nordisk Foundation complies with both Danish and EU law on data and privacy protection. We recognizes that the fast pace of technological development, along with evolving risks and benefits from large scale data use, require thoughtful and responsible decisionmaking where existing laws and regulations do not necessarily provide clear ethical guidance.

To cope with these challenges the Foundation has developed a policy on data ethics based on 6 principles. The policy complements the rules and principles for handling of personal and other data that appears in the data agreement all employees sign in connection with the employment.

#### The six principles of the Novo Nordisk Foundation's (NNF's) policy on data ethics and responsible handling of personal data.

- 1) Respect for the privacy of grant recipients, applicants and employees is a fundamental value for NNF.
- 2) NNF perceives data ethics considerations as more far reaching than compliance with the law.
- 3) NNF priorities openness and transparency in the ongoing challenges that handling both personal data and non-identifiable data entails. The aim is that companies, organizations, and authorities can learn from each other's experiences.
- 4) All NNF employees who access personal data, proprietary knowledge, trade secrets etc., have signed a declaration of confidentiality. Any such data is always kept to a minimum in order to fulfil the purpose, is stored securely, kept accurate, retained for no longer than necessary, and is only used for a specific and legitimate business.

- 5) NNF only discloses the applicants' data to authorities if there is an obligation to do so according to legislation and authority decisions.
- 6) Machine learning, artificial intelligence, analyzes, impact measurements and the use of algorithms must be used to help and position NNF's grant applicants or grant recipients better, and to promote openness and transparency about NNF's activities and social impact.

### Use of computer programs, artificial intelligence and algorithms

- We use computer programs, artificial intelligence and algorithms in analysis and evaluations aimed solely at supporting our work to become a better partner for our grant recipients and applicants and to be transparent about the Foundation's societal impact.
- Artificial intelligence and similar technologies are widely used by consumers, businesses and authorities. We use these technologies to improve the Foundation's decision-making processes, to make evaluations of applications and outputs of grants, and to analyze the societal effects of the Foundation's activities.
- We will use new technologies, databases and research methods to help grant recipients and applicants for the Foundation's grants better, by reduced processing time, and tailormade solutions for applicants and committee members. For committee members when evaluating applications and results of grants and for applicants by help to grant applications. Grant recipients and applicants must always be assured that actual decisions made under the auspices of the Novo Nordisk Foundation (for

example, rejection or awarding of a grant) are always carried out by members of the Board of Directors or its delegated persons.

 The Danish authorities will be able to access and check applied algorithms upon request to verify that these are not programmed to deliver discriminatory or "biased" results.

### Read more about the Foundations policy on data ethics here:

https://novonordiskfonden.dk/wp-content/ uploads/Novo-Nordisk-Fonden-Policy-ondata-ethic.pdf

#### Read more about out data policy related to impact assessment: https://impact.novonordiskfonden.dk/grantreporting/

# Rules for eligibility

#### Eligibility for receiving a grant

People disqualified from applying or receiving grants

- A) Employees of the Novo Nordisk Foundation, Novo Holdings A/S, Novo Nordisk A/S, Novozymes A/S and other companies in which the Novo Nordisk Foundation directly or indirectly has a formal or actual controlling interest, as well as employees of the BioInnovation Institute Foundation and the LIFE Foundation, BII Holdings A/S and LIFE A/S and other companies in which the BioInnovation Institute Foundation or the LIFE Foundation directly or indirectly has a formal or actual controlling interest.
- B) Members of the Board of Directors of the Novo Nordisk Foundation, the BioInnovation Institute Foundation and the LIFE Foundation, their spouses and children residing in the family home.
- C) Members of the Novo Nordisk Foundation's committees. However, committee members may serve as collaborative partners or advisers on an application. Committee members may also be an applicant or co-applicant on an application submitted to a committee other than the one or ones on which they serve.
- D) Applicants who cooperate with or have received grants from the BioInnovation Institute Foundation or the LIFE Foundation are eligible to apply for or receive grants from the Novo Nordisk Foundation, provided that such grants will not be awarded or distributed to the BioInnovation Foundation or the LIFE Foundation.

#### Ineligibility for assessing grant applications

A) Members of the Board of Directors of the Novo Nordisk Foundation, committees and external assessors ("members") shall be considered disqualified if a member has a: i) personal, ii) professional, or iii) financial interest in the outcome of an application: for example, if the member supervises the applicant; is employed in the scientific unit of which the applicant is a leader; or if the member has a family relationship to the applicant. In this context, family relationships are defined as: i) children, grandchildren, etc., ii) parents, brothers, sisters, nieces, nephews, etc., and iv) spouses, partners, cohabitants and their parents, brothers, sisters, children, etc.

- B) A member shall be prohibited from participating in assessing any application from an applicant with whom the member has collaborated on research or has co-published a book, scientific article, report or the like within the previous 5 years. Nevertheless, the type and closeness of the collaboration shall determine whether this collaboration is deemed a conflict of interest.
- C) A member who is ineligible in relation to an application shall also be ineligible in relation to other applications that compete with the application in question. However, this shall only apply in situations in which the pool of applications amounts to five or less. If a final decision is made on the application or applications to which the member's ineligibility is linked and this application or these applications are thereby no longer being assessed, the member in question may participate in assessing the remaining applications.

#### Procedure in case of ineligibility

A) After receiving an application for assessment, committee members and external reviewers

must notify the chair of the committee and the Novo Nordisk Foundation's Secretariat of any ineligibility or potential conflict of interest within 10 working days after receiving the applications to be assessed. In case of doubt, the chair of the committee shall consult with representatives of the Novo Nordisk Foundation.

- B) If a member has a potential conflict of interest in connection with an application that is to be assessed, the committee shall decide by simple majority whether the conflict of interest disqualifies the member. A member to whom this applies may not participate in assessing the question of ineligibility and shall leave the room during the assessment and voting on the question of ineligibility. In case of a parity of votes, the chair shall hold the casting vote.
- C) In cases of ineligibility, members shall be prohibited from participating in assessing an application, including any interviews, and shall leave the room in which the assessment is taking place.
- D) If a committee is not quorate or if the composition of a committee and its ability to assess applications may give rise to serious misgivings, the committee shall refer the assessment to the Board of Directors of the Novo Nordisk Foundation.

#### Read more on:

novonordiskfonden.dk/en/about-thefoundation/ rules-for-eligibility

# Research **funding** and **costs** covered by NNF grants

The Novo Nordisk Foundation grants can stretch over a long period of time giving the universities certainty and manoeuvrability. The Foundation supports a wide range of projects across research areas and using different instruments that are developed through ongoing dialogue with the research community. We also support activities other than research, such as teaching, infrastructure, knowledge-sharing, innovation, symposiums and maternity/paternity leave.

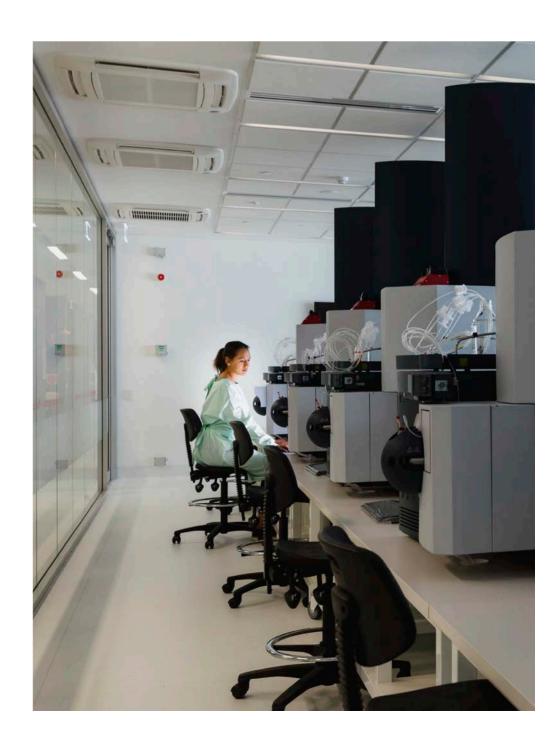
The Foundation covers costs related to research projects, depending on the type of grant. We support short-term (2-4 years) as well as longer term (4-7 years) research grants at universities, hospitals and other institutions.

The Foundation covers the costs directly related to the research activities.

The indirect costs covered by the Foundation may include bench fees, service contracts, operating and maintenance costs for equipment, IT costs, office expenses and other services. All costs must be specified and relate to the specific project.

In addition to the amount allocated to research, applicants may apply for up to 5% of this amount to cover financial management and follow-up of the grant, based on the Foundation's requirements for administering and reporting on the grant.

An example of the Foundations support for both direct and indirect research costs is our project and programme grants and our centre grants for advanced research infrastructure at Denmark's universities and hospitals. In general, the supported infrastructure facility or equipment must be made available to the general scientific environment, including from other institutions, SMEs and incubators.



# Grants and payouts in 2020

The Novo Nordisk Foundation's grant-awarding activities lead to actions that support 15 of the 17 UN Sustainable Development Goals (SDGs). Most grants have relevance for up to three SDGs each.





# Committees

The Board of Directors' decisions on grants, symposia and honorary awards are decided directly by the Board of Directors, or on behalf of the Board of Directors by 28 expert assessment, the Chairmanship and the Executive Office that advice and implement the Boards' decisions.

### Biomedical and health science research applications

- Committee on Endocrinology and Metabolism Supports basic and clinical research within endocrinology and metabolism in the Nordic countries. The grant-awarding was managed by the board of Nordisk Insulinlaboratorium and Nordisk Insulin Foundation until 1989.
- Committee on Clinical and Translational Medicine

Supports fellowships, clinical trials, and project grants in clinical, translational and general practice medicine research in Denmark.

#### Committee on Bioscience and Basic Biomedicine

Supports fundamental bioscientific or biomedical research projects in Denmark relevant for understanding the human organism and/or the basal mechanisms underlying health and disease.

#### • Committee on the Novo Nordisk Foundation Challenge Programme

These grants aim to develop and strengthen Denmark's research community within biomedicine and biotechnology. The focus is on in-depth research on specific challenges within annually selected research themes: - In 2020 the theme within Biomedicine and Health Sciences is Neurodegenerative Diseases in an Aging Population.

- Committee on the Novo Nordisk Prize
   Novo Nordisk Prize should be awarded to an active scientist that has provided outstanding international contributions to advance medical science for the benefit of people's lives. The prize is awarded for a predominantly European contribution.
- Committee on Nursing Research
   Supports projects and fellowships within
   nursing research in Denmark.

#### **Patient Care**

- Committee on Steno Research Collaboration These grants target clinical research collaboration between research communities at the newly established Steno Diabetes Centers and research communities outside the Centers. The grants support clinical research, health promotion research, and education research in relation to patients and healthcare personnel.
- Committee on Non-Diabetic Endocrinology New from 2020. The grants support clinical

research in relation to patients and health care personnel. And are aimed at clinical research collaboration between research environments at the Danish hospitals and research environments outside the hospitals.

### Life science research and industrial applications promoting sustainability

 Committee on Biotechnology-Based Synthesis and Production Research

Supports project grants and postdoctoral fellowships for basic and applied research within biotechnology-based synthesis and production.

#### Committee on the Novo Nordisk Foundation Challenge Programme

These grants aim to develop and strengthen Denmark's research community within biotechnology and biobased production. The focus is on in-depth research on specific challenges within annually selected research themes. In 2020:

- Biodiversity & productivity of managed ecosystems
- Microbial secretome and the plant cell wall
- Committee on the Novozymes Prize The Novozymes Prize is awarded in recognition of outstanding research or

technology contributions that benefit the development of biotechnological science for innovative solutions. The prize is awarded for researchers based in Europe.

#### Committee on International Research Leader Grants

Laureate Research Grants and Young Investigator Awards are aimed at promising research leaders who want to establish their research group in Denmark to carry out visionary research within biomedicine or biotechnology.

#### Committee for Plant Science, Agriculture and Food Biotechnology

The programme fund excellent research within plant science, agriculture and food biotechnology which contributes to solutions for a sustainable of society andenvironment. The support includes both research projects and post docs.

#### Committee for Industrial Biotechnology and Environmental Biotechnology

The program fund excellent research within industrial biotechnology and environmental biotechnology which contributes to solutions for a sustainable society and environment. The support includes both research projects and post docs.

### Natural and technical science research and interdisciplinarity

- Committee on Interdisciplinary Research Evaluates applications for postdoctoral fellowships at Stanford Bio-X and the Interdisciplinary Synergy Programmes supporting novel, cross-disciplinary research initiatives with high risk and high gain.
- Committee on Nature and Technical Science Supports project grants in the Natural and Technical Sciences, and for the NERD – New Exploratory Research and Discovery programme. New from 2020.
- Ad hoc Committee on Data Science
   Support the open competition programmes
   within the NNF Data Science Initiative:
   The Data Science Collaborative Research
   Programme, the Data Science Research

Infrastructure Programme, and the Data Science Investigator grants. New from 2020.

• Committee on the Novo Nordisk Foundation Challenge Programme

Evaluates grants aiming to develop and strengthen Denmark's research community within natural and technical sciences. The focus is on in-depth research on specific challenges within annually selected research themes: - In 2020 the theme within Natural and Technical Sciences was Quantum simulators for unravelling complex processes in nature.

#### Innovation

- Committee on Exploratory Pre-Seed Grants This initiative targets the research community in the Nordic countries and aims to accelerate the commercialization of application-oriented research findings and ideas within biomedicine and biotechnology that have the potential to be turned into new diagnostic methods, therapies, medical devices and technologies.
- BioInnovation Institute Board of Directors The BII Board of Directors approves all grants and convertible loans for projects in the Venture Lab, the Creation House and the BII Faculty Programme,

#### **Education and Outreach**

• Committee on Research in Art and Art History Supports projects within art history research and fellowships in art history, art and curating for researchers affiliated with a research institution in Denmark.

#### Committee on Science Education and Outreach

Supports projects within natural science education, research on science education and science outreach.

 Committee on Science Communication and Debate

Supports grants for projects within science communication and debate using novel communication platforms. New from 2020.  Committee on the Novo Nordisk Foundation Teaching Prizes

The Prizes are awarded in recognition of an extraordinary effort among early childhood educators, primary and secondary schoolteachers and teachers at colleges of social education and teacher training.

 Ad hoc Committee on Advancement of children and young people's knowledge of possibilities and solutions within science and technology

These grants aim to strengthen open school collaborations and increase the science capital of children and young people by showing them education and career possibilities within Science, Technology, Engineering, and Mathematics (STEM) and increasing their understanding of how science and technology improve the lives of people and the sustainability of society. New in 2020

LIFE Real estate Foundation Board of Directors

#### Social, Humanitarian and development Aid Internal committees Susanne Schouv

Humanitarian and Development Aid Advisory
Panel

The Panel will advise the Foundation on strategic matters relating to the implementation of its humanitarian and development aid strategy. The Foundation's humanitarian focus areas are the improvement of young refugees' prospects and possibilities and the reduction of noncommunicable diseases' morbidity and mortality. New for 2020

#### Ad hoc Committee on Children, Health and Movement

To support public institutions, non-profit organizations and researchers in evidencebased and innovative approaches across sectors to increase children's movement, physical activity and sports.

#### Ad hoc Committee on Youth Empowerment in Jordan

To support initiatives and actions to enhance the social and economic empowerment and self-reliance of young Syrian refugees and other conflict-affected and vulnerable youth in Jordan.

# Tables on Committee members

The Chairmanship			
Title	Members	Country	Joined
Chair of the Board	Lars Rebien Sørensen (Chair)	Denmark	1 July 2018
Vice Chair	Marianne Philip	Denmark	1 July 2018
Executive Management			
Title	Members	Country	Joined (resigned)
CEO - NNF	Birgitte Nauntofte	Denmark	3 August 2009
Deputy CEO - NNF	Niels Peder Nielsen	Denmark	(20 October 2020)

Committee on Nomination			
Title	Members	Country	Joined
Chair of the Board	Lars Rebien Sørensen (Chair)	Denmark	23 Marts 2018
Board member	Lars Munch	Denmark	23 Marts 2018

Novo Nordisk Fondens Scientific Advisory Group			
Title	Members	Country	Joined
Board member	Lars Fugger	United Kingdom	15 June 2019
Board member	Liselotte Højgaard	Denmark	15 June 2019

Title	Member	Country	Joined
CEO - NNF	Birgitte Nauntofte	Denmark	15 May 2012
Board member	<b>Lars Fugger</b> Nuffield Department of Clinical Neurology, John Radcliffe Hospital, University of Oxford	United Kingdom	15 June 2013
Board member	<b>Liselotte Højgaard</b> Nuclear Medicine & PET, Rigshospitalet, and Professor of Medical Technology, Faculty of Health Sciences, University of Copenhagen	Denmark	1 April 2018
Director	<b>Paul Gilna</b> Oak Ridge National Laboratory	United States	1 January 2019
Professor	Joy Bergelson University of Chicago	United States	1 January 2019
Professor	Dame Anne Glover University of Strathclyde, Glasgow	United Kingdom	1 January 2016
Director	<b>Ivo Gut</b> Centro Nacional de Analisis Genomico, CNAG-CRG, Center for Genomic Regulation	Spain	1 January 2019
Professor	<b>Stephen O'Rahilly</b> University of Cambridge	United Kingdom	1 January 2020
Professor	Anne Husebekk University of Tromsø	Norway	1 January 2020
Senior Vice President - NNF	Dagnia Karen Looms	Denmark	15 May 2012

Humanitarian and Development Advisory Panel (HUMDAP)			
Title	Member	Country	Joined
Senior Vice President - NNF	Hanna Line Jakobsen (Chair)	Denmark	1 January 2020
Board member	Lars Munch	Denmark	1 January 2020
Professor	Flemming Konradsen Center for Clinical Metabolic Research, Karolinska Institute, Sweden and Karolinska University Hospital	Sweden	1 January 2020
State Secretary	<b>Trine Thygesen</b> State Secretary for Development Policy, Ministry of Foreign Affairs	Denmark	1 January 2020
	Lise Kingo Independent Board Director	Denmark	1 January 2020
Executive Director	Kenneth Roth Human Rights Watch	USA	1 January 2020
CEO	Bassem Saad Queen Rania Foundation	Jordan	1 January 2020

### **Assesment committees**

#### Biomed

Title	Members	Country	Joined
Professor	Anna Christina Krook (Chair) Department of Physiology and Pharmacology, Karolinska Institutet	Sweden	1 January 2014
Professor	<b>Eystein Husebye</b> Department of Clinical Science, University of Bergen, Haukeland University Hospital, Bergen, Norway	Norway	1 January 2019
Professor	<b>Lena Eliason</b> Department of Clinical Sciences, Lund University Diabetes Centre	Sweden	1 May 2018
Professor	<b>Laszlo Hegedüs</b> University of Southern Denmark, Denmark and Department of Endocrinology and Metabolism, Odense University Hospital	Denmark	1 January 2014
Professor	<b>Mikael Rydén</b> Center for Clinical Metabolic Research, Karolinska Institute, Sweden and Karolinska University Hospital	Sweden	1 January 2017
Professor	<b>Lea Sistonen</b> Department of Biosciences, Åbo Akademi University	Finland	1 January 2010
Professor	<b>Taneli Raivio</b> Department of Physiology, Faculty of Medicine, The University of Helsinki and pediatric endocrinologist at the Children's Hospital, Helsinki University Central Hospital, Helsinki Finland	Finland	1 January 2019
Professor	Henriette Pilegaard Department of Cell Biology and Physiology, Biological Institute, University of Copenhagen	Denmark	1 January 2020
Professor	Benedicte Alexandra Lie Department of Medical Genetics, University of Oslo	Norway	1 January 2020

Title	Members	Country	Joined
Professor	<b>Jens Otto Lunde Jørgensen (Chair)</b> Department of Endocrinology and Internal Medicine, Aarhus University Hospital	Denmark	1 October 2015
Professor	<b>Anders Juul</b> Consultant, Head of department, Department of Growth and Reproduction & EDMaRC, Rigshospitalet, Denmark	Denmark	1 August 2019
Professor	<b>Jørgen Frøkiær</b> Department of Nuclear Medicine and PET Center, Aarhus University Hospital	Denmark	1 January 2017
Professor	<b>Jan Gerstoft</b> University of Copenhagen, Denmark and Department of Infectious Diseases, Righshospitalet	Denmark	1 January 2017
Professor	<b>Kaare Christensen</b> Clinical Epidemiology, University of Southern Denmark and Odense University Hospital	Denmark	1 August 2019
Professor	<b>Lene Hjerrild Iversen</b> Department of Surgical Gastroenterology, Aarhus University Hospital, Denmark	Denmark	1 August 2019
Professor	<b>Lars Køber</b> Department of Cardiology, Heart Centre, Rigshospitalet	Denmark	1 October 2017
Professor	<b>Claus Nerlov</b> MRC Weatherall Institute of Molecular Medicine, John Radcliffe Hospital, University of Oxford	United Kingdom	1 January 2018
Professor	<b>Henrik Toft Sørensen</b> Department of Health Research and Policy, Stanford University, USA and Aarhus University Hospital	Denmark	1 January 2017
Professor	Lou Brundin Department of Clinical Neuroscience, Karolinska Institute	Sweden	1 January 2020
Professor	<b>Jørgen Vestbo</b> Division of Infection, Immunity & Respiratory Medicine, University of Manchester	Denmark	1 August 2019

Title	Member	Country	Joined
Professor	Birthe B. Kragelund (Chair)	Denmark	1 January 2017
	Department of Biology, University of Copenhagen		
Professor	Thomas Lars Andresen	Denmark	1 January 2017
	Nanotech, Department for Micro- and Nanotechnology, DTU		
Professor	Susanne Ditlevsen	Denmark	1 January 2017
	Department of Mathematical Sciences, University of Copenhagen		
Professor	Ole Nørregaard Jensen	Denmark	1 January 2017
	Department of Biochemistry & Molecular Biology, University of Southern Denmark		
Professor	Marja Jäättelä	Denmark	1 January 201
	Cancer Biology and Research Director, Cell Death and Metabolism Unit, Danish		
	Cancer Society Research Center		
Professor	Anders Krogh	Denmark	1 August 2018
	The Bioinformatics Centre, Department of Biology, University of Copenhagen		
Professor	Søren Kragh Moestrup	Denmark	1 January 201
	Department of Biomedicine, Aarhus University, Denmark and Institute of Molecular		
	Medicine, University of Southern Denmark		
Professor	Malin Parmar	Sweden	1 January 201
	Wallenberg Neuroscience Center and Lund Stem Cell Center, Lund University		
Professor	Jens Stougaard	Denmark	1 January 201
	Department of Molecular Biology, University of Aarhus		
Professor	Tim Tolker-Nielsen	Denmark	1 January 201
	Department of Immunology and Microbiology, University of Copenhagen		
Professor	Helle Waage Petersen	Denmark	1 January 201
	Department of Drug Design and Pharmacology, University of Copenhagen		
Professor	Christian Aalkjær	Denmark	1 January 201
	Department of Biomedicine, Aarhus University and Copenhagen University		

Ad hoc Committee on the Novo Nordisk Foundation Challenge Programme 2020 – Biomedicine and Health Sciences			
Title	Member	Country	Joined (resigned)
Professor	Dag Aarsland (Chair) Stavanger University Hospital	Norway	(30 November 2020)
Professor	Alexander Drzerga University of Cologne	Germany	(30 November 2020)
Professor	<b>Alexandre Durr</b> Institut du Cerveau et de la Moelle épinière (ICM), Pitié-Salpêtrière Hospital, Sorbonne Université, Paris.	France	(30 November 2020)
Professor	Anne Eckert University of Basel	Switzerland	(30 November 2020)
Professor	Paul Matthews Imperial College London	United Kingdom	(30 November 2020)
Assistant Professor	Paula I Moreira University of Coimbra	Portugal	(30 November 2020)

Committee on the Novo Nordisk Prize			
Title	Member	Country	Joined
Professor	Jørgen Frøkiær (Chair) Aarhus University, Denmark and Department of Nuclear Medicine and PET Center, Aarhus University Hospital	Denmark	1 May 2016
Board member	<b>Lars Fugger</b> Nuffield Department of Clinical Neurology, John Radcliffe Hospital, University of Oxford	United Kingdom	1 June 2013
Board member	<b>Liselotte Højgaard</b> Nuclear Medicine & PET, Rigshospitalet, and Professor of Medical Technology, Faculty of Health Sciences, University of Copenhagen	Denmark	1 June 2019
Professor	Harriet Wallberg Department of Physiology and Pharmacology, Karolinska Institute	Sweden	1 June 2020
Professor	<b>Jaakko Kaprio</b> Genetic Epidemiology, University of Helsinki	Finland	1 June 2020
Professor	May-Britt Moser Kavli Institute for Systems NeuroscienceKavli Institute for Systems Neuroscience	Norway	1 June 2020
Professor	Rolf Reed Department of Biomedicine, University of Bergen	Norway	1 June 2020
CEO - NNF	Birgitte Nauntofte	Denmark	1 August 2009
Senior Vice President - NNF	Niels-Henrik von Holstein-Rathlou	Denmark	1 January 2020

Committee on Nursing Research			
Title	Member	Country	Joined
Professor	Kirsten Lomborg (Chair) Department of Clinical Medicine, Aarhus University	Denmark	1 January 2014
Professor	<b>Ingrid Egerod</b> Faculty of Health and Medical Sciences, University of Copenhagen, Denmark and Trauma Centre, Copenhagen University Hospital, Rigshospitalet	Denmark	1 January 2014
Adjunct Professor	<b>Mary Jarden</b> Department of Public Health, University of Copenhagen and Center for Integrated Rehabilitation for Cancer Patients (CIRE), Rigshospitalet	Denmark	1 January 2017
Professor	<b>Tone Rustøen</b> Department of Research and Development, Emergency Department, Oslo University Hospital, Norway and Faculty of Medicine, University of Oslo	Norway	1 January 2017
Assistant Professor	<b>Thóra Hafsteinsdóttir</b> Department of Public Health, Healthcare Innovation & Evaluation and Medical Humanities, University Medical Center Utrecht	The Netherlands	1 January 2020

#### Biotech

Title	Member	Country	Joined (resigned
Professor	Henrik Callesen (Chair)	Denmark	(30 June 2020
	Department of Animal Science, Aarhus University		
Professor	Vincent G. H. Eijsink	Norway	(30 June 2020
	Department of Chemistry, Biotechnology and Food Science,		
	Norwegian University of Life Sciences		
Professor	Sara Snogerup Linse	Sweden	(30 June 2020
	Department of Biochemistry and Structural Biology and		
	Department of Chemistry, Lund University		
Professor	Merja Elisa Penttilä	Finland	(30 June 2020
	VTT Technical Research Centre of Finland Ltd		
Professor and	Stephen George Oliver	United Kingdom	(30 June 2020
Director	Department of Biochemistry, University of Cambridge, United		
	Kingdom and Cambridge Systems Biology Centre		
Professor	Jan K. Schjørring	Denmark	(30 June 2020
	Department of Plant and Environmental Sciences, Faculty of		·
	Science, University of Copenhagen		
Professor	David Robert Spring	United Kingdom	(30 June 2020
	Department of Chemistry, University of Cambridge	0	(

Committee on the Novo Nordisk Foundation Challenge Programme on Biodiversity & productivity of managed ecosystems				
Title	Member	Country	Joined (resigned)	
Professor	<b>Jürgen Bauhus (Chair)</b> Department of Forest Science, University of Freiburg	Germany	(31 December 2020)	
Professor	<b>Bengt-Gunnar Jonsson,</b> Department of Natural Sciences, Mid Sweden University	Sweden	(31 December 2020)	
Professor	<b>Ingolf Steffan-Dewenter</b> Department of Animal Ecology and Tropical Biology, University of Würzburg	Germany	(31 December 2020)	
Professor	<b>Nancy Dise</b> UK Centre for Ecology and Hydrology	United Kingdom	(31 December 2020	
Professor	Sara Cousins Department of Physical Geography, Stockholm University	Sweden	(31 December 2020	
Professor	<b>Stéphanie Manel</b> PSL Research University Montpellier	France	(31 December 2020)	

	Member	Country	Joined (resigned)
Professor	Diethard Mattanovich (Chair)	Austria	(31 December 2020)
	Professor, University of Natural Ressources and Life Sciences,		
	Wienna		
Professor	Antonio Molina	Spain	(31 December 2020
	Centre for Plant Biotechnology and Genomics, The Technical		
	University of Madrid/ National Institute for Agronomic Research		
Professor	François Buscot	Germany	(31 December 2020
	Department of Soil Ecology, Helmholtz Centre for Environmental		
	Research		
Professor	Claudia Crestini	Italy	(31 December 2020
	Department of Molecular Science and Nanosystems, Ca' Foscari		
	University of Venice		
Professor	Timothy Bugg	United Kingdom	(31 December 2020
	Department of Chemistry, University of Warwick		
Professor	Neil Bruce	United Kingdom	(31 December 2020
	Department of Biology, Centre for Novel Agricultural Products,		
	University of York		
Professor	Mirjam Kabel	The Netherlands	(31 December 2020
	Department of Agrotechnology and Food Sciences, Wageningen		

Committee on the Novo	Committee on the Novozymes Prize				
Title	Member	Country	Joined		
Professor and Honorary Professor	<b>Bernard Henrissat (Chair)</b> Department of Glycogenomics, AFMB lab, University of Marseille, France and Department of Cellular and Molecular Medicine, University of Copenhagen	Denmark	1 January 2018		
Professor	Johanna Buchert Luke Natural Resources Institute Finland	Finland	1 January 2019		
Professor	Henrik Callesen Department of Animal Science, Aarhus University	Denmark	1 October 2014		
Professor	Gunnar von Heijne Department of Biochemistry and Biophysics, Stockholm University	Sweden	1 October 2018		
Professor	<b>Michael Broberg Palmgren</b> Department of Plant and Environmental Sciences, University of Copenhagen	Denmark	1 October 2014		
CEO - BII	Jens Nielsen	Denmark	1 May 2017		
CEO - NNF	Birgitte Nauntofte	Denmark	1 October 2014		
Senior Vice President - NNF	Claus Feldby	Denmark	1 January 2020		

Title	Member	Country	Joined
Professor	Søren Kragh Moestrup (Chair) Department of Biomedicine, Aarhus University, Denmark and Institute of Molecular Medicine, University of Southern Denmark	Denmark	1 January 2017
Professor	Henrik Callesen Department of Animal Science, Aarhus University, Denmark	Denmark	9 May 2012
Professor	Vincent G. H. Eijsink Department of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences	Norway	1 January 2018
Professor	<b>Jens Otto Lunde Jørgensen</b> Department of Endocrinology and Internal Medicine, Aarhus University Hospital	Denmark	1 January 2017
Professor	Anna Christina Krook Department of Physiology and Pharmacology, Karolinska Institutet	Sweden	1 January 2016
Professor	<b>Mette Marie Rosenkilde</b> Department of Neuroscience and Pharmacology, University of Copenhagen	Denmark	1 January 2015

Title	Member	Country	Joined
Professor	Jan K. Schjørring (Chair)	Denmark	1 July 2020
	Department of Plant and Environmental Sciences, Faculty of Science, University of		
	Copenhagen		
Professor	Henrik Callesen	Denmark	1 July 2020
	Department of Animal Science, Aarhus University, Denmark		
Professor	Stefan Jansson	Sweden	1 July 202
	Department of Plant Physiology Units, Umeå University		
Professor	Marcel van der Heijden	Switzerland	1 July 2020
	University of Utrecht, the Nederlands, Agroecology and Environment, Agro-scope,		
	Schwitzerland		
Professor	Bente Jessen Graae	Norway	1 July 2020
	Department of Biology, Norwegian University of Science and Technology		
Professor	Marina Heinonen	Finland	1 July 202
	Department of Food and Nutrition, University of Helsinki		
Professor	Remko Boom	The	1 July 202
	Department of Agrotechnology and Food Sciences, Wageningen University and	Netherlands	

Title	Member	Country	Joined
Professor	Vincent G. H. Eijsink Department of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences	Norway	1 July 2020
Professor	<b>Merja Elisa Penttilä</b> VTT Technical Research Centre of Finland Ltd	Finland	1 July 2020
Professor	<b>Sara Snogerup Linse</b> Department of Biochemistry and Structural Biology and Department of Chemistry, Lund University	Sweden	1 July 2020
Professor	<b>David Robert Spring</b> Department of Chemistry, University of Cambridge	United Kingdom	1 July 2020
Professor	<b>Per Halkjær Nielsen</b> Department of Chemistry and Bioscience, Aalborg University	Denmark	1 July 202
Professor	<b>Victor de Lorenzo</b> Molecular Environmental Microbiology Laboratory, Centro Nacional de Biotecnología	Spain	1 July 2020

#### Nat-Tech

Title	Member	Country	Joined (resigned)
Professor	Ole Nørregaard Jensen (Chair)	Denmark	(31 December
	Department of Biochemistry & Molecular Biology, University of Southern Denmark		2020)
Professor	Anna Christina Krook	Sweden	1 January 2016
	Department of Physiology and Pharmacology, Karolinska Instituttet		
Professor	Ralf Metzler	Germany	1 April 2019
	Theoretical Physics, Institute for Physics & Astronomy, University of Potsdam, Germany		
Professor	Asger Mortensen	Denmark	1 April 2019
	SDU NanoOptics, Southern University of Denmark, Denmark		
Teacher	Sine Lo Svenningsen	Denmark	1 April 2019
	Section for Biomolecular Sciences, Department of Biology, University of Copenhagen, Denmark		
Professor	Jens Otto Lunde Jørgensen	Denmark	1 January 2018
	Department of Endocrinology and Internal Medicine, Aarhu <b>s</b> University Hospital		
Professor	Thomas Lars Andresen	Denmark	(31 Decembe
	Department for Micro- and Nanotechnology, Technical University of Denmark		2020
Professor	Maija Tenkanen	Finland	1 June 2020
	Department of Food and Nutrition, University of Helsinki		
Professor	Lars Fugger	United	(31 May 2020
	Nuffield Department of Clinical Neurosciences, John Radcliffe Hospital, University of Oxford	Kingdom	

Title	Member	Country	Joined (resigned)
Professor	Bjørk Hammer (Chair)	Denmark	1 January 2020
	Department of Physics and Astronomy, Aarhus University		
Professor	Alexandra Boltasseva	USA	1 January 2020
	Department of Electrical and Computer Engineering, Purdue University		
Professor	Bo Albinsson	Sweden	1 January 2020
	Department of Chemistry and Chemical Engineering, Chalmers University of Technology		
Professor	Julia Yeomans	United	1 January 2020
	Department of Physics, University of Oxford	Kingdom	
Teacher	Knud Jørgen Jensen	Denmark	1 January 2020
	Department of Chemistry, University of Copenhagen		
Professor	Lars Kai Hansen	Denmark	1 January 2020
	Department of Applied Mathematics and Computer Science, Technical University of Denmark		
Professor	Matthias Arenz	Switzerland	1 January 2020
	Department of Chemistry and Biochemistry, University of Bern		
Professor	Daniel E. Otzen	Denmark	1 January 202
	Department of Molecular Biology and iNANO, Aarhus University		
Professor	Jochen Guck	Germany	(30 June 2020
	Max Planck Institute for the Science of Light	-	

Title	Member	Country	Joined (resigned
Professor	<b>Gunnar von Heijne (Chair)</b> Department of Biochemistry and Biophysics, Stockholm University	Sweden	(31 December 2020
Professor	<b>Olli-Pekka Hallioniemi</b> Science for Life Laboratory, Karolinska University Hospital	Sweden	(31 December 2020
Professor	<b>Björn Usadel</b> Department for Biological Data Science, Heinrich Heine University Düssel-dorf and Research Center Juelich	Germany	(31 December 2020
Professor	<b>Isabel Rocha</b> Department of Systems and Synthetic Biology Laboratory, Universidade Nova de Lisboa	Portugal	(31 December 2020
Honorary Professor	<b>Volker Tresp</b> Department of Data Management and Analytics, Ludwig Maximilian Uni-versity of Munich and Siemens AG	Germany	(31 December 2020
Professor	<b>David T Jones</b> Department of Computer Science, University College London	United Kingdom	(31 December 2020
Professor	<b>Alexandre Tkatchenko</b> Faculty of Science, Technology and Medicine, University of Luxembourg	Luxembourg	(31 December 2020
Professor	<b>Markus Ralser</b> Molecular Biology of Metabolism Laboratory, Francis Crick Institute	Germany	(31 December 2020
Professor	<b>Thomas Schön</b> Department of Information Technology, Uppsala University	Sweden	(31 December 2020
Professor	<b>Tim Hubbard</b> Department of Medical and Molecular Genetics, King's College London	United Kingdom	(31 December 2020
Reader	Andreas Bender Centre for Molecular Science Informatics, University of Cambridge	United Kingdom	(31 December 2020
Professor	<b>Regina Barzilay</b> Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology	USA	(31 December 2020
Associate Professor	<b>Vassily Hatzimanikatis</b> Chemical Engineering and Bioengineering, École Polytechnique Fédérale de Lausanne	Switzerland	(31 December 2020

Title	Member	Country	Joined (resigned
Professor	Tommaso Calarco (Chair)	Germany	(31 December 2020
	Head of Institute, Quantum Control, Forschungszentrum Jülich		
Professor	Daniel Loss	Switzerland	(31 December 2020
	Department of Physics, University of Basel		
Professor	Enrique Solano	Spain	(31 December 2020
	Department of Physical Chemistry, University of the Basque Country, Bilbao		
Reader	Vivien Kendon	United	(31 December 2020
	Department of Physics, Durham University	Kingdom	
Feacher	Hugues de Rietmatten	Spain	(31 December 2020
	Institute of Photonic Sciences, Barcelona		
Professor	Winfried Hensinger	United	(31 December 2020
	Department of Physics and Astronomy, University of Sussex	Kingdom	

### Patient Care

Committee on Non-Diabetic Endocrinology			
Title	Member	Country	Joined
Professor	Laszlo Hegedüs (Chair) Department of Endocrinology, Odense University Hospital	Denmark	1 January 2020
Professor	<b>Franz Jakob</b> Orthopedic Department and Chair for Functional Materials in Medicine and Dentistry, University of Wuerzburg	Germany	1 January 2020
Professor	Graham Williams Department of Metabolism, Digestion and Reproduction, Imperial College London	United Kingdom	1 January 2020
Professor	<b>Angelica Lindén Hirschberg</b> Department of Women's and Children's Health, Karolinska University Hospital	Sweden	1 January 2020
Professor	Andrea Isidori Department of Experimental Medicine, Sapienza University	ltaly	1 January 2020

Title	Member	Country	Joined
Professor and	Bo Ahrén (Chair)	Sweden	1 January 2017
Vice Rector	Lund University		-
Professor	Paul W. Franks	Sweden	1 January 2017
	Department of Clinical Sciences, Lund University		
Professor	Per-Henrik Groop	Sweden	1 January 201
	University of Helsinki, Finland and Division of Nephrology, Helsinki University		
	Central Hospital		
Professor	Mona Landin-Olsson	Denmark	1 January 201
	Department of Clinical Sciences		
Professor	Linda Mellbin	Sweden	1 January 201
	Coronary artery disease and Coronary Care Unit, Department of Cardiology,		
	Karolinska University Hospital		
Professor	Tommy Olsson	Norway	1 January 201
	Faculty of Medicine, Umeå University		
Professor	Aslak Steinsbeek	Norway	1 August 201
	Department of Public Health and Nursing, NTNU, Norwegian University of Science		
	and Technology		
Professor	Frode Vartdal	Norway	1 January 201
	University of Oslo, Norway and Faculty of Medicine, University of Oslo		

## Innovation

Committee on Exploratory Pre-seed Grants				
Title	Member	Country	Joined	
CEO	Ulrik Nielsen (Chair) CEO of Tidal Therapeutics	USA	1 January 2020	
Professor	<b>Jakob Eyvind Bardram</b> Department of Mathematics and Computer Science, Technical University of Denmark, Lyngby, Denmark	Denmark	1 January 2019	
Professor	<b>Ole Thastrup</b> Department of Drug Design and Pharmacology (SUND)., University of Copenhagen, Denmark	Denmark	1 January 2019	
Professor	<b>Simon Glerup</b> PhD in molecular biology,Associate Professor, Dept. of Biomedicine, Aarhus University, Denmark	Denmark	1 January 2019	
Associate	<b>Joâo Ribas</b> Novo Seeds (Novo Holdings)	Denmark	1 January 2019	
Senior Associate	Camilla Petrycer Hansen Novo Seeds (Novo Holdings)	Denmark	1 January 2018	
Principal	Morten Graugaard Døssing Novo Seeds (Novo Holdings)	Denmark	1 January 2017	

BioInnovation Institute - Board of Directors under establishment				
Title	Member	Country	Joined	
Board member	Sten Scheibye (Chair)	Denmark	1 July 2018	
Professor	Bo Ahrén (Vice Chair) Lund University	Sweden	1 July 2018	
CEO	<b>Martin Bonde</b> Biorigin	Denmark	1 July 2018	
CEO	Hans Schambye Galecto, Biotech AB	Denmark	1 July 2018	
EVP	Thomas Schäfer Chr. Hansen A/S	Denmark	1 July 2018	
PhD	<b>Robert Urban</b> Board member	USA	1 February 2019	
Managing Partner	Regina Hodits Wellington Partners Life Sciences	Germany	1 July 2020	

## Education & Outreach

Title	Member	Country	Joined
Professor	Jacob Wamberg (Chair) School of Communication and Culture, Aarhus University	Denmark	1 January 2012
Associate Professor	<b>Maria Fabricius Hansen</b> Department of Arts and Cultural Studies, University of Copenhagen	Denmark	1 January 2016
Professor	<b>Ulla Gertrud Maria Sandqvist</b> Malmö Art Academy	Sweden	1 January 2019
Associate Professor	<b>Øystein Sjåstad</b> Department of Philosophy, Classics, History of Art and Idea, University of Oslo	Norway	1 January 2019
Senior Research Curator	<b>Marianne Torp</b> The Collection & Research Department, National Gallery of Denmark	Denmark	1 January 2016
Adjunct Professor	Mads Øvlisen	Denmark	Permanent member

Committee on Natural S	Science Education and Outreach		
Title	Member	Country	Joined
Principal	Hanne Hautop (Chair) Rosborg Gymnasium & HF	Denmark	1 July 2018
Professor	<b>Anja Cetti Andersen</b> Niels Bohr Institute, University of Copenhagen	Denmark	1 July 2018
CEO	<b>Desiré Christoffersen</b> Skive College	Denmark	1 July 2018
CEO	Hanne Serine Finstad Science Factory	Norway	1 July 2018
Associate Professor	<b>Sonja Merethe Mork</b> The Norwegian Centre for Science Education, University of Oslo	Norway	1 July 2018
Associate Professor	Jan Alexis Nielsen Department of Science Education, University of Copenhagen	Denmark	1 July 2018
Associate Professor	Jan Sølberg Department of Science Education, University of Copenhagen	Denmark	1 July 2018
Professor	Lars Brian Krogh VIA University College Aarhus	Denmark	1 October 2019

Committee on the Novo Nordisk Foundation Teaching Prizes				
Title	Member	Country	Joined	
Professor and Director	<b>Claus Michelsen (Chair)</b> Denmark and Laboratory for Coherent Learning and Education, University of Southern Denmark	Denmark	1 January 2018	
Associate Professor	<b>Thorleif Frøkjær</b> University College Copenhagen	Denmark	1 January 2018	
Teacher	<b>Marianne Johansson</b> Nordsjællands Grundskole og Gymnasium	Denmark	1 January 2019	
Teacher	<b>Helle Houkjær</b> Teacher, Krogårdskolen	Denmark	1 January 2019	
Vice Principal	Nynne Afzelius Gefion Gymnasium	Denmark	1 October 2019	

Ad hoc Committee on Advancement of children and young people's knowledge of possibilities and solution within science and technology				
Title	Member	Country	Joined (resigned	
Chair of the Board at Bornholms Erhvervsfond	Charlotte Rønhof (Chair)	Denmark	(31 December 2020	
Professor	Anders Vestergaard Thomsen Absalon Projessionshøjskole	Denmark	(31 December 2020	
Principal	Hanne Hautop Rosborg Gymnasium	Denmark	(31 December 2020	
Associate Professor	<b>Jan Sølberg</b> Department of Science Education, University of Copenhagen	Denmark	(31 December 2020	
Coordinator	<b>Ole Stahl</b> Science City Lyngby, and Employer Branding Specialist, Haldor Topsøe	Denmark	(31 December 2020	

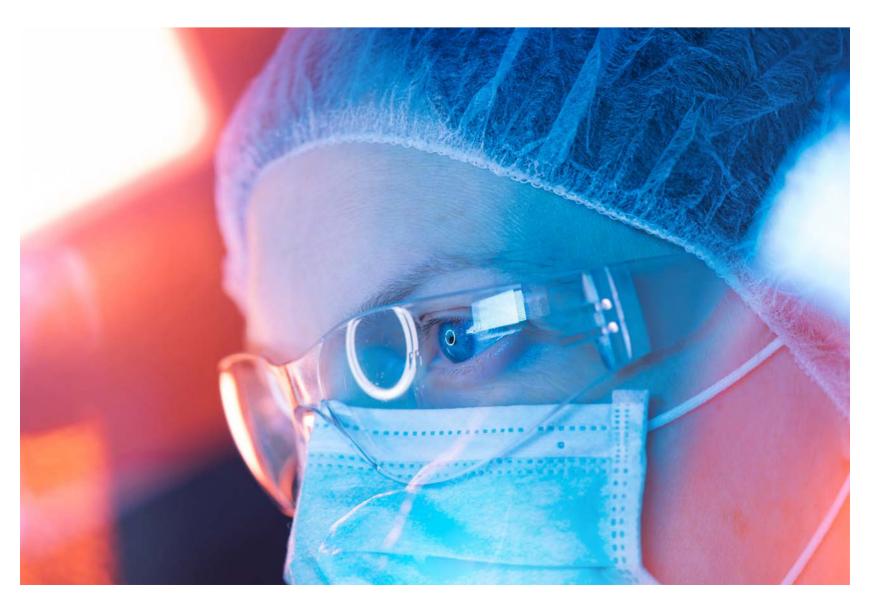
Committee on science communication and debate using novel communication platforms				
Title	Member	Country	Joined	
Professor	<b>Anja Cetti Andersen (Chair)</b> The Niels Bohr Institute, University of Copenhagen	Denmark	1 January 2020	
Professor	Minik Thorleif Rosing University of Copenhagen	Denmark	1 January 2020	
Author and editor	<b>Peter Hesseldahl</b> Ugebrevet Mandag Morgen	Denmark	1 January 2020	
Former director of corporate affairs, NNAS and senior advisor	Mike Rulis	Denmark	1 January 2020	
Journalist	Gunver Lystbæk Vestergård Weekendavisen	Denmark	1 January 2020	

## Social & Humanitarian

Ad hoc Committee on Youth Empowerment in Jordan				
Title	Member	Country	Joined (resigned	
Head of department	Mette Thygesen (Chair) Head of Department, Ministry of Foreign Affairs	Denmark	(31 December 2020	
Senior Research Editor	Dina Mansour-Ille Overseas Development Institute	United Kingdom	(31 December 2020	
Consultant	<b>Ita Sheehy</b> Independent Consultant	Ireland	(31 December 2020	
Director	<b>Morten Kjærum</b> Raul Wallenberg Institute of Human Rights and Humanitarian Law	Sweden	(31 December 2020	
Associate Professor	<b>Dana Burde</b> International Education Program, Steinhardt School of Culture, Education and Affiliated Faculty	USA	(31 December 2020	

Ad hoc Committee on Children, Health and Movement				
Title	Member	Country	Joined (resigned)	
Associate Professor	<b>Thomas Skovgaard (Chair)</b> Sports Science and Clinical Biomechanics, University of Southern Denmark	Sweden	(31 December 2020)	
Professor	Kenneth Aggerholm Department of Physical Performance	Norway	(31 December 2020)	
Director	<b>Peter Bentsen</b> Center for Clinical Research and Prevention, Bispebjerg and Frederiksberg Hospital	Denmark	(31 December 2020)	
Founder	<b>Maja Pilgaard</b> Active R	Denmark	(31 December 2020)	
Muncipal Director	Anne Marie Zacho-Broe Frederecia Municipality	Denmark	(31 December 2020)	

# Grants and payouts in 2020



Main scientific orientation	Field of science & technology (OECD)	Amount awarded (DKK million)	Share of awarded amount	Payouts (DKK million)	Share of total payout	# of grants in 2020
Scientific purpose						
Agricultural biotechnology	Agricultural science	59.5	1%	68	1%	17
Art and architectural sciences	Humanities	29.1	1%	34	1%	19
Basic medicine	Medical and health science	633.2	11%	710.2	15%	76
Biochemistry	Natural science	45.8	1%	82.6	2%	7
Chemical sciences	Natural science	46.1	1%	3.3	0%	9
Clinical medicine	Medical and health science	816.2	15%	832.7	18%	237
Computer and information sciences	Natural science	141.7	3%	29.1	1%	16
Economics and business	Social science	0	0%	14.9	0%	0
Educational science	Social science	266.2	5%	84.5	2%	64
Industrial biotechnology	Engineering and technology	403.3	7%	95.2	2%	32
Interdisciplinary science	N/A	219.9	4%	49.1	1%	19
Medical biotechnology	Medical and health science	354.8	6%	250.4	5%	27
Other health science	Medical and health science	96.8	2%	546.3	12%	44
Other natural science	Natural science	892.5	16%	58.8	1%	16
Other purposes	Other scientific purposes	185.5	3%	235	5%	26
Pharmaceutical science, Pharmacology and Medicinal chemistry	Medical and health science	64.5	1%	27.6	1%	7
Physics (incl. Biophysics)	Natural science	101.1	2%	36	1%	18
Public health medicine and public health	Medical and health science	862.1	16%	1258	27%	28
Scientific purposes total		5,218.1	94%	4,415.8	95%	662
Non-scientific purposes						
Non-scientific purposes	International humanitarian purposes	208.4	4%	173	4%	53
Non-scientific purposes	Social purposes	113.6	2%	47.4	1%	41
Non-scientific purposes Total		322	6%	220.4	5%	94
Grand total		5,540.1	100%	4,636.1	100%	756

# Scientific and non-scientific purposes

Source: Novo Nordisk Fonden annual reporting to Statistics Denmarks

Innovation			
Grant type	Grant instrument	Number of grants	Amount awarded (DKK M)
	NOME initiative	1	13.5
Conferences, Symposia	2020 iGEM competition (SDU, DTU & UCPH)	3	0.3
and Workshops	Nordic Innovation Fair	1	9.2
	Sponsorship	1	0.2
	CBS-Bio	2	6.5
	ODIN - Open Discovery Innovation Network	1	54.5
Project	Exploratory Pre-seed grants (XPS)	39	26.9
	School of Health Innovation	1	10.2
	Pre-seed grants (BII)	10	35.0
	Innovation Fellowship Programme	5	30.0
	Proof of Concept Programme	10	9.9
Programme	Business Acceleration Academy (BII)	7	1.9
	Creation House (BII)	6	53.0
	Faculty (BII)	8	19.5
Cuppert	Bio Innovation Institute	2	174.6
Support	Danish-Israeli Healthcare Innovation and Data Initiative 2020	1	0.5

Patient care			
Grant type	Grant instrument	Number of grants	Amount awarded (DKK M)
Prizes and	EASD	1	6.0
prize symposium	EFSD/Novo Nordisk Foundation Future Leaders Awards	4	20.0
Programme	Non-Diabetic Endocrinology	3	44.7
	Komorbiditeter til Diabetes	6	60.0
	Steno North American Fellowships	4	1.7
Project	Steno Collaborative Grants (Patient Care)	6	49.1
Partnership	Steno Diabetes Center Grønland	3	382.2
	Steno DK	1	21.0

Nat-Tech			
Grant type	Grant instrument	Number of grants	Amount awarded (DKK M)
Infrastructure	Research Infrastructure	4	53.7
PhD scholarship	Research Education: Copenhagen Bioscience PhD Programme - CPR	1	8.4
Postdoctoral scholarship	Visiting Scholar / Visiting Postdoc Fellowships at Stanford Bio-X	1	4.0
	Exploratory Interdisciplinary Synergy Programme	10	49.6
Programme	Interdisciplinary Synergy Programme	5	70.6
	NERD - New Exploratory Research and Discovery	8	98.0
	Challenge Programme	2	108.6
	Data Science Collaborative Research Programme	2	30.3
Investigator grant	Data Science Investigator - Ascending, Distinguished & Emerging	6	47.3
Conferences, Symposia and Workshops	Crossing the disciplinary boundaries	1	0.5
Project	Project Grants in the Natural and Technical Sciences	22	59.2
Recruitment grant	Start Package grants for faculty recruitment	3	15.1

Social & Humanitarian			
Grant type	Grant instrument	Number of grants	Amount awarded (DKK M)
Programme	Education, social and humanitarian interventions	18	38.9
	Social interventions	25	96.8
	Pathways to Youth Empowerment and Self-Reliance	3	15.9
Project	Social & Humanitarian COVID-19	39	62.0
	Humanitarian interventions	5	8.7
Partnership	Humanitarian partnerships	5	101.9

Grant type	Grant instrument	Number of grants	Amount awarded (DKK M)
Conferences, Symposia	Conference for the Natural Science Teacher Prize recipients	1	0.2
	EUD Workshop	1	0.2
	Big Bang Konference 2021-2025	1	7.5
and Workshops	Naturvidenskabsfestival 2021-2025	1	5.0
	Nobel Laureate Lectures	1	2.5
	World Ecomonic Forum		5.8
	Formidling til Planetariekuplen	1	4.0
	Copenhagen Honours College i Sygepleje	1	44.4
Education Programme	Aarhus International School	1	15.0
	LIFE	2	103.2
Investigator grant	Investigator Grant in Art History Research	2	8.0
PhD scholarship	Mads Øvlisen PhD Scholarship	5	10.0
Postdoctoral scholarship	Mads Øvlisen Postdoctoral Fellowship	4	5.6
Prizes and prize symposium	Teachers prizes	10	2.2
Recruitment grant	NNF Visiting Professorship in Art and Art History	2	2.5
	Project Grants for Art History Research	6	3.0
	Young Scientists 2021-2025	1	15.0
Project	Project Grants for Natural Science Education and Informal Learning Environments	23	74.6
	Project Grants for Natural Science Communication and Debate using Novel Communication Platforms	16	35.0
	Project Grants for the Advancement of Children and Young People's Knowledge of Possibilities and Solutions within Science and Technology	11	39.6
	COVID-19 Education and Outreach	6	6.2
	SCOPE - Science Capital among Children and Young People in Denmark (intern bevilling)	1	0.
Support	learning centre at Tranhuset Nordatlantens Brygge	1	14.7
	August og Marie Krogh - en biografi	1	1.5
	LEX-SUND – Formidling af sundhedsvidenskabelig viden på platformen lex.dk	1	6.4

Grant type	Grant instrument	Number of grants	Amount awarded (DKK M
Conferences, Symposia	Novo Nordisk Foundation Symposia	29	11.
and Workshops			
Infrastructure	DanStem	1	140.
	Research Infrastructure	8	114
-	Ascending Investigator Grant - Endocrinology & Metabolism	3	29.
	Clinical Ascending Investigator	3	28.
	Clinical Emerging Investigator	4	36.
	Clinical Distinguished Investigator	3	29
	Data Science Investigator - Ascending	1	ç
	Data Science Investigator - Emerging	1	9
	Distinguished Investigator - Endocrinology & Metabolism	2	20
nvestigator grant	Distinguished Investigator - Bioscience and Basic Biomedicine	2	20
	Excellence Emerging Investigator Grant - Endocrinology & Metabolism	4	38
	Hallas-Møller Ascending Investigator	4	39
	Hallas-Møller Emerging Investigator	5	49
	Laureate Research Grant	3	134
	Research Stipends in general practice	1	1
	Start Package grants for faculty recruitment	2	9
	Young investigator award	4	100
letwork	Coherence in Health Care - Scoping and Networking	1	1
hD ach a lavahin	PhD Scholarships in Nursing Research	3	6
hD scholarship	Research Education Copenhagen Bioscience PhD Programme	2	14
	Postdoc Fellowship for Research Abroad	4	15
ostdoctoral scholarship	Postdoc Fellowships in Nursing Research - Denmark	3	6
re-graduate scholarship	Pre-graduate Scholarhips	28	3
	The Hagedorn Prize	1	1
	August Krogh Distinguished Lectureship	2	0
rizes and prize	Jacobæus Prize and Prize Symposium	1	1
ymposium	Novo Nordisk Foundation Lecture	2	1
	Strategic award	3	0
	Investigator Initiated Clinical Trials	10	79
-	Data Science Collaborative Research Programme	1	14
rogramme	Nursing Research Programme	1	7
-ogramme	Global Medicine and Health Research - joint call	5	
	Tandem Program	3	30
	Endocrinology and Metabolism - Nordic countries	48	80
	Project grant for Bioscience and Basic Biomedicine	36	80
	Project grant of Dioscience and Dasic Diomedicine Project Grants in Clinical and Translational Medicine	24	59
	Project Grants in Clinical and Hanslauonal Medicine Project Grants in Nursing Research	7	3
	Project Grants in Nursing Research	9	
	Project grants for health care responses to the COVID-19 epidemic in	28	19 55
	Denmark		
roject	Immunometabolism - MeRIAD	3	41
	Surveillance of infections and contagious diseases in Denmark (COVID-19)	1	10
	Novo cohort antibody project (COVID-19)	1	20
	TestCenter Danmark	2	257
	BRIDGE - Translational Excellence Programme	1	84
	The Danish Multigeneration Register	1	37
	Danish Cardiovacular Academy	1	150

Grant type	Grant instrument	Number of grants	Amount awarded (DKK M)
Investigator grant	BioSAP Ascending Investigator	4	38.8
	BioSAP Distinguished Investigator	4	39.8
	BioSAP Emerging Investigator	4	39.5
PhD scholarship	Research Education: Copenhagen Bioscience PhD Programme - CFB	2	11.1
Postdoctoral scholarship	Industrial Biotechnology and Environmental Biotechnology & Plant Science, Agriculture and Food Biotechnology	6	12.0
Recruitment grant	Professorship in Bioengineering	1	8.0
Research centre	Novo Nordisk Foundation Center for Biosustainability	1	750.0
Infrastructure	Infrastructure	2	20.8
Due is at Current	Industrial Biotechnology and Environmental Biotechnology	10	30.0
Project Grant	Plant Science, Agriculture and Food Biotechnology	13	39.4
Programme	Challenge Programme	4	239.1
	Establishing a biomass research platform at DTU Bioengineering	1	15.0
Stand alone	National Biologics Facility	1	20.0
	Establishing a Biomanufacturing Project House in Kalundborg	1	65.0
Strategic award	Sponsorship	2	1.1
	Emergency production of ethanol - COVID-19	1	8.8
Support	Making distant futures actionable	1	7.5

A detailed list of grants and grant recipients is at our homepage:

https://novonordiskfonden.dk/wp-content/uploads/Grant-recipient-listings.pdf

### The Novo Nordisk Foundation in 2020

Novo Nordisk Foundation is a Danish foundation with corporate interest that operates independently of other interests than those described in its Articles of Association.

Strategy period:	2019-2023
• Vision:	To contribute significantly to research and development that improves the lives of people and the sustainability of society
Grant-giving themes:	Biomedical and health sciences, research hospitals, natural and technical sciences, interdisciplinary sciences, art research, education and outreach, innovation, humanitarian and social purposes
• Grant awarded in 2020:	DKK 5.5 billion
Payout in 2020:	DKK 4.6 billion
<ul> <li>Total amount of grants since 2010:</li> </ul>	DKK 31 billion
Accessible capital:	DKK 134 billion by end 2020. Accessible capital equals total assets minus statutory ownership of and reserves for Novo Nordisk A/S and Novozymes A/S minus grant-giving reserves. The grant payout ambition is 3-5% of 5 year average of accessible capital - based on the last two realized years, expected for the current year and forecast for the coming two years.
• Staff (head counts):	211 academic and non-academic employees
Organization:	An executive office and 15 departments
• CEO:	Birgitte Nauntofte
Chairman:	Lars Rebien Sørensen
• Vice Chair:	Marianne Phillip
Board of Directors:	6 members elected under the Foundation's Article of Association and 3 employee elected board members. The Chair and the Vice Chair are elected by the Board.

The Grant Report 2020 is part of the Novo Nordisk Foundation Group's report to comply with Section §77 of the Danish Financial Statements Act.

The Novo Nordisk Foundation is subject to the Act on Commercial Foundations, and the Danish Business Authority therefore supervises the Foundation. In addition, the Foundation must comply with the recommendations of the Committee on Good Foundation Governance.

The Foundation organizes its commercial and grant-awarding activities separately.

The Novo Nordisk Foundation is responsible for awarding grants, and the Foundation's Board decides the strategy for the grants and which grants to award.

Novo Holdings A/S manages the commercial activities within the overall financial strategy set by the Foundation's Board, which has also laid down the Charter for the Novo Nordisk Foundation Group. Through its ownership of Novo Holdings A/S, the Foundation's Board approves the annual report of Novo Holdings A/S' and the appointment of members to its Board. The Foundation funds its grants from income that primarily comprises dividends from Novo Holdings A/S. The Foundation's Board ensures reasonable consolidation through suitable appropriation of funds, possibly in Novo Holdings A/S. This is to enable the Foundation to participate as necessary in future capital increases of Novo Nordisk A/S and Novozymes A/S or other companies in which Novo Holdings A/S has a substantial ownership stake.

Novo Nordisk Foundation Tuborg Havnevej 19 DK-2900 Hellerup, Denmark +45 3527 6500 CVR 24257630 www.novonordiskfoundation.com

