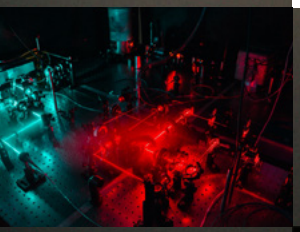
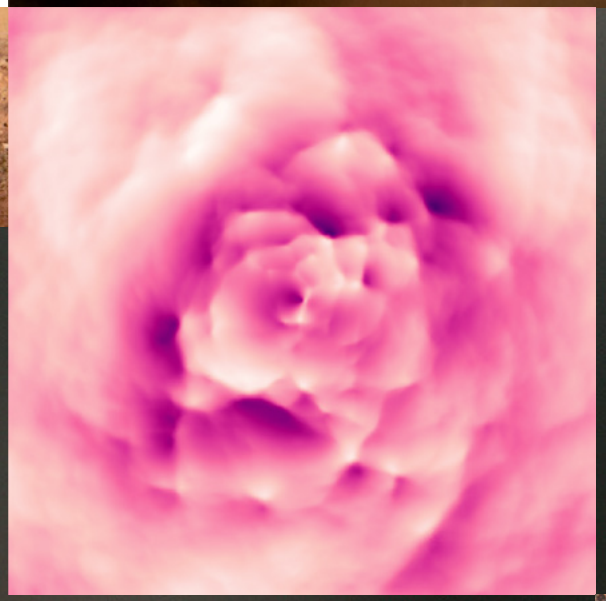
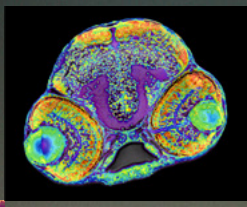
Danmarks
Grundforskningsfond
Danish National
Research Foundation

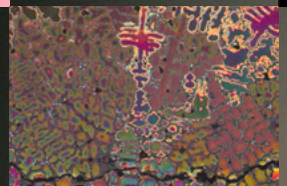
ANNUAL REPORT

2020









KEY FIGURES

	2020	2019	2018	2017	2016
Grants and distributions					
Total grants at year-end, centers, DNRF Chairs and Niels Bohr professors	49	47	53	59	58
Annual distributions, million DKK	335.2	414.4	409.3	384.8	381.3
Return on investment					
Bonds and cash, million DKK	104.1	140.2	-12.6	128.6	218.6
Equities, million DKK	251.5	484.4	-179.1	293.4	192.5
Total return, million DKK	355.5	624.6	-191.7	422.0	411.2
Administrative costs					
Administrative costs including depreciation, million DKK	12.3	13.9	13.2	11.3	12.2
Administrative costs compared to distributions, %	3.7	3.4	3.2	2.9	3.2
Administrative costs per grant, million DKK	0.3	0.3	0.2	0.2	0.2
Capital					
Net capital at year-end, million DKK	5,846.0	5,841.0	5,468.5	6,086.2	6,064.2

CONTENT

PREFACE

2020 was the year when the immeasurable importance of science became evident to us all as the coronavirus pandemic ripped through the world with a devastating impact on health care systems and the economy. Politicians around the world put their faith in scientists in the hope that a vaccine could be developed. The scientists prevailed as vaccines were developed faster and with more efficiency than anyone could have hoped for.

In Denmark, as around the world, scientific experts in epidemiology and the social sciences have advised our politicians on how to best control the spread of the virus and minimize its effects on the economy. Scientists' and lab technicians' excellent skills and facilities in sequencing have provided a much more detailed knowledge about the distribution of variations in the virus among infected persons in Denmark than in most places in the world – all science-based knowledge, which has been paramount in minimizing the strains of COVID-19 on society.

DNRF center leader Jens Lundgren, a specialist in infectious disease and personalized medicine, is one of the countless scientists who have worked around the clock since the outbreak. On pages 12-14 he shares his thoughts in the feature 2020 – Science and the Coronavirus.

A year out of the ordinary

For the DNRF, as for everyone else, the year 2020 was marked by the coronavirus pandemic. Much to our regret, we were unable to hold the DNRF annual meeting in the fall. To a large extent, the pandemic also prevented us from having physical follow-up meetings with the Centers of Excellence and Niels Bohr Professors as we normally would each year. Instead, we met with our grantees online, and in this way, we were able to follow their scientific progress and discuss opportunities and challenges with them.

Despite the challenges related to the coronavirus situation, the DNRF grantees have continued to push for scientific breakthroughs in all fields of science. Throughout the year, we published news about their results in the DNRF newsroom and via the foundation's newsletter.

Some of the centers' research projects have been delayed due to the coronavirus situation. To alleviate the challenges related to this, the DNRF has offered to extend the centers' grant period for up to six months.

> 2020 was the year when the immeasurable importance of science became evident to us all.

New funding instrument
In 2020, the DNRF launched a new funding instrument: the DNRF Chair. The objective of the DNRF Chair grant is to support and boost the start-up research activities of potential or newly recruited outstanding tenured professors at Danish universities right from the beginning of their employment.

On pages 7-11 you can read about the DNRF Chair instrument and meet the first four DNRF Chair grantees.

Continued implementation of the Pioneer Center initiative
In close collaboration with the Carlsberg Foundation, the Lundbeck Foundation, the Novo Nordisk Foundation, the Villum Foundation, and the Ministry for Higher Education and Science, we continued to implement the Pioneer Center initiative in 2020.

We are looking forward to announcing new grants for Pioneer Centers in 2021.

Stories from the Scientific Frontier
In 2020, the foundation published the book Stories from the Scientific Frontier – Conversations with 25 Contemporary Researchers in Denmark in collaboration with the Royal Danish Academy of Sciences and Letters. The book was written by Professor Stine Falsig Pedersen, who takes the reader on a journey through 25 portraits of some of the current and previous DNRF heads of centers conducting basic research in Denmark and at the same time provides an insight into what drives each of them.

Starting in January 2021, the DNRF is publishing one chapter of the book each month on dg.dk. On pages 21-22 you can read more about the book.

The DNRF's focus on "the next generation"
Many tenure-track assistant professors and young associate professors at Centers of Excellence establish independent groups and are successful in attracting larger grants such as Sapere Aude, Villum Young Investigator, and ERC starting or consolidator grants. For all, it is challenging to build one's own group and research platform; it requires hard work and a multitude of competencies.

The next generation was a specific focus point for the follow-up meetings in 2020, and the discussion with the centers led to a decision to establish an annual networking retreat for this specific career level.

You can read more about this on pages 15.

The DNRF photo competition 2021
For the fourth year in a row, the foundation has invited all branches of the Danish research community to participate in the DNRF's photo competition, which is based on a photograph's potential as documentation and communication of scientific research. Again in 2020, it was inspiring to see the creative, enlightening, and beautiful contributions submitted to the competition. The winners are portrayed on pages 23-28, and more examples and more detailed information about the competition can be found on the DNRF's website.

Looking ahead
The year 2021 will likely offer opportunities to hold physical meetings again. We are looking forward to seeing participants in the research community at the DNRF annual meeting on September 3, 2021.

Around this date, we hope to be able to present 2-4 Pioneer Centers within the two selected research areas: artificial intelligence and energy/climate.

One date is set in stone: June 1, 2021 is the deadline for outline proposals for the DNRF's 11th application round for Centers of Excellence.

We strongly encourage the best scientists from all research fields to send in outline proposals. Excellence is the overall criterion.

Professor Jens Kehlet Nørskov
Chair of the board of the DNRF

Professor Søren-Peter Olesen
CEO of the DNRF

THE DNRF CHAIR INSTRUMENT AND AWARDED GRANTS

In 2020, the DNRF launched the first round of its new funding instrument: the DNRF Chair.

With the overall purpose of strengthening and enriching Danish research communi ties, the aim of the DNRF Chair grant is to motivate and support Danish universities to attract and recruit particular outstand ing researchers from abroad, including Danes wishing to return from an interna tional position.

The objective of the DNRF Chair grant is to support and boost the start up research activities of potential or newly recruited outstanding tenured professors at Danish universities right from the beginning of their employment.

The foundation welcomes applications within and/or across all research areas: Humanities, Life Sciences, Natural Sciences, Social Sciences, and Technical Sciences.

Open calls
There are three annual calls.

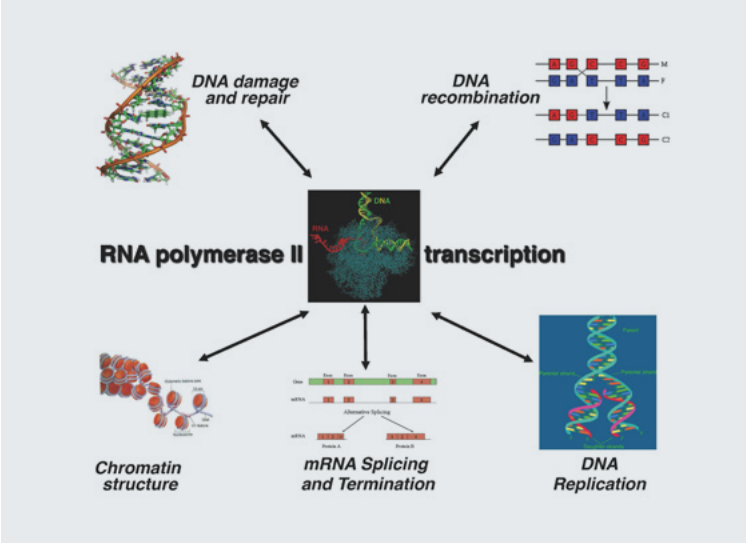
In 2021, the first deadline was on February 1. The following two calls in 2021 will have deadlines of June 1 and October 1, at noon.

Each Danish university can submit two applications for each of the three annual application rounds. This means that each university can submit a total of six appli cations in 2021.

You can read more about the funding instrument on the DNRF website.

On the next pages, you can meet the first four DNRF Chair grantees.

> “ The DNRF is not involved in the recruitment, but is pleased to help these outstanding scientists get a flying start in Denmark with a significant start up package to be spent during the first 3 years.
>
> Jens Kehlet Nørskov, Chair of the board of the DNRF



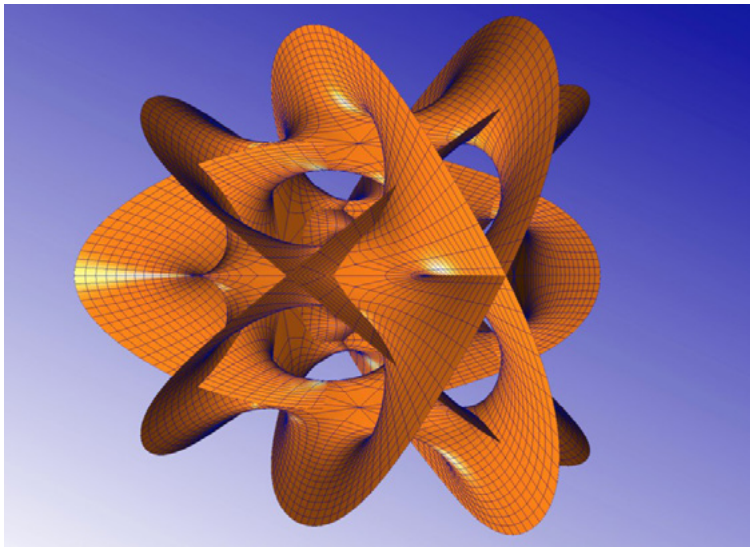
DNRF CHAIR

JESPER SVEJSTRUP

DNRF Chair: Jesper Svejstrup
Period: September 1, 2020 – August 31, 2023
Grant: 15 MDKK
Host institution: University of Copenhagen
Website: icmm.ku.dk/english/research-groups/svejstrup-group

The Svejstrup laboratory studies transcription-associated processes. They use genetic, cell biological, biochemical and modern 'omic' approaches to achieve a cell-, genome- and proteome-wide understanding of RNA polymerase II transcription and its interface with other molecular processes in human cells.

> We are extremely pleased that Jesper Svejstrup has chosen to continue his fantastic research at the Department of Cellular and Molecular Medicine. At the Faculty of Health Sciences, we have great ambitions to be part of the research front on under standing basic cell biological mechanisms in health and disease. We are very proud to be able to attract a researcher like Jesper in this particular area.
>
> Ulla Wewer, Dean of the Faculty of Health Sciences



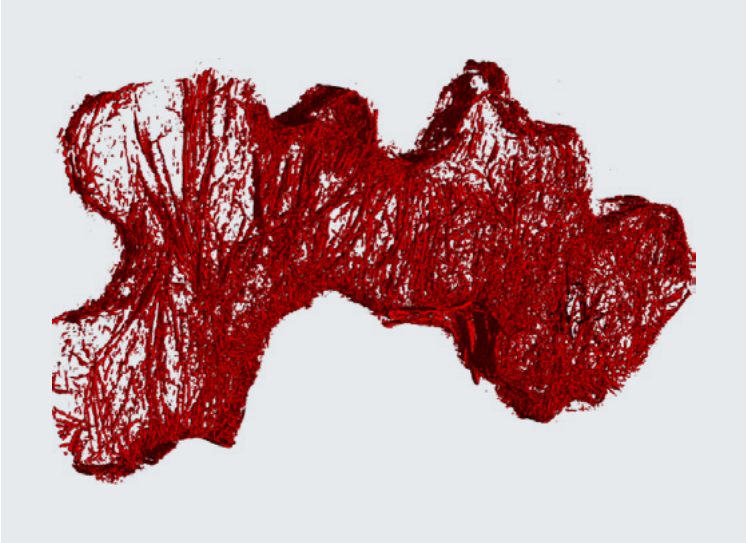
DNRF CHAIR

PETER JØRGENSEN

DNRF Chair: Peter Jørgensen
Period: August 1, 2021 – July 31, 2024
Grant: 7.9 MDKK
Host institution: Aarhus University
Website: projects.au.dk/homologicalalgebra

Calabi-Yau categories encode a number of deep symmetries found in algebra, combinatorics, and geometry. They play a key role in mathematical physics through the so-called homological mirror symmetry conjecture. The DNRF Chair seeks to understand invariants and symmetries of Calabi-Yau categories with the ultimate goal of classifying these objects.

> The arrival of Peter Jørgensen at the Department of Mathematics at Aarhus University has provided a shot of adrenaline to the pure mathematics group. We are very pleased that the Danish National Research Foundation has decided to award Peter a DNRF Chair. This will enable him to build a research group and continue the high level research he pursued in his previous position as professor of mathematics at Newcastle University in the UK. In addition to being an exceptional research mathematician and supervisor, Peter is also an excellent teacher and communicator. His impact will be felt across the board in the activities of the department.
>
> Head of Department Jacob Schach Møller



DNRF CHAIR

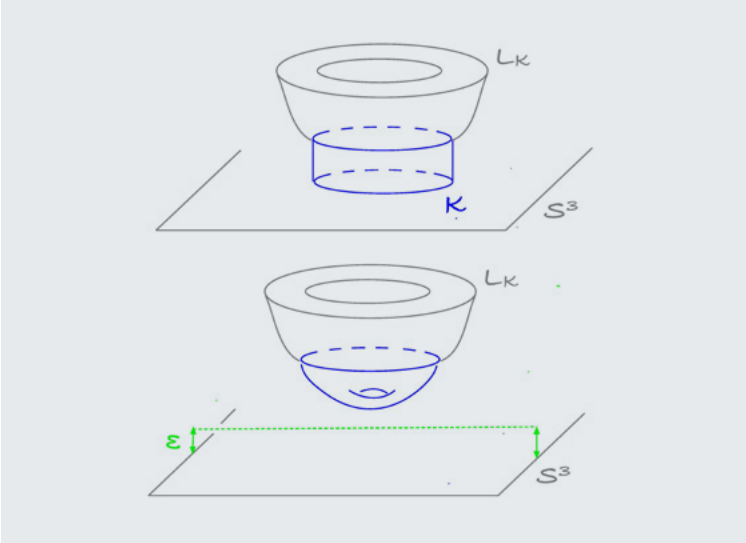
STAFFAN PERSSON

DNRF Chair: Staffan Persson
Period: July 1, 2021 – June 30, 2024
Grant: 8 MDKK
Host institution: University of Copenhagen
Website: plen.ku.dk/english/research/glyco/cellulose-synthesis

Photo of Staffan Persson: Zinet Ritschel

Our aim is to use the DNRF Chair grant to strengthen the intersection of plant biology, cell biology and biophysics. In this context, we will address important questions in plant cell biology, such as estimating protein-protein interaction strengths and establish how cell walls are produced and rebuilt during environmental stress.

> “ The DNRF Chair offers some exciting opportunities, and the Department of Plant and Environmental Sciences welcome the collaboration with the Niels Bohr Institute, as it is through collaboration and inter disciplinarity that we achieve new and exciting results. Furthermore, it is a benefit for the collaboration that it is led by Prof. Staffan Persson. His experience work ing in the cross field between biology and physics, combined with his international experience, helps to strengthen the research.
>
> Head of Department Svend Christensen



DNRF CHAIR

VIVEK SHENDE

DNRF Chair: Vivek Shende
Period: August 1, 2021 – July 31, 2024
Grant: 8 MDKK
Host institution: University of Southern Denmark
Website: portal.findresearcher.sdu.dk/en/persons/vivek-shende

Photo of Vivek Shende: Laura Schaposnik

Professor Shende's vision is within the Centre for Quantum Mathematics, SDU, to continue to do ground-breaking results with impacts not only in Mathematics but also in Theoretical Physics. He works within the field of quantum mathematics, more precisely he is specializing on topological and geometric aspects of string theory.

> We are very excited that Vivek Shende is awarded this prominent DNRF Chair. He is a fantastic re searcher – a true world star, and I am really happy to have attracted Vivek to the Centre for Quantum Mathematics at SDU, where we are building an elite research environment within quantum mathematics.
>
> Centre Director Jørgen Ellegaard Andersen, former DNRF Center of Excellence Director

2020 — SCIENCE AND THE CORONAVIRUS

For Professor and CoE leader Jens Lundgren the year 2020 turned out to be the year of chaos, pressure and exhaustion. But also the year when science and medicine greatly proved its ability to help society through a crisis.

As scientists we had anticipated and prepared for a pandemic but we had projected it would most likely be caused by an influenza virus, said Professor Lundgren when asked how he first became aware that a pandemic was on the rise at the beginning of 2020.

A report in late December 2019 indicated that pneumonia caused by a coronavirus was of concern. But since SARS did not have pandemic potential (patients only transmit the SARS virus when very sick and hence isolation curtails transmission), and since 80% percent of this new virus's genetic make-up resembled that of SARS, the initial thought was to be "less concerned."

This all changed when a report from an encounter in Munich, Germany, at the end of January indicated that infected persons were able to transmit the virus while still asymptomatic. Such a feature is a clear and present danger for a pandemic, and this news definitely set the warning bells ringing. Soon after, the pandemic was real.

Professor Jens Lundgren

Starting in the middle of 2020, Professor Jens Lundgren has been the principal investigator of an enormous global trial, called ACTIV-3, which is testing up to 45 types of medicine developed specifically to target COVID-19. The trials are being run from the National Institutes of Health (NIH) and the National Institute of Allergy and Infectious Diseases (NIAID), both in the US.

Since 2015, Lundgren has been the center leader of the DNRF Center for Personalized Medicine of Infectious Complications in Immune Deficiency (PERSIMUNE).

Lundgren is also the Director of CHIP - Centre of Excellence for Health, Immunity and Infections.

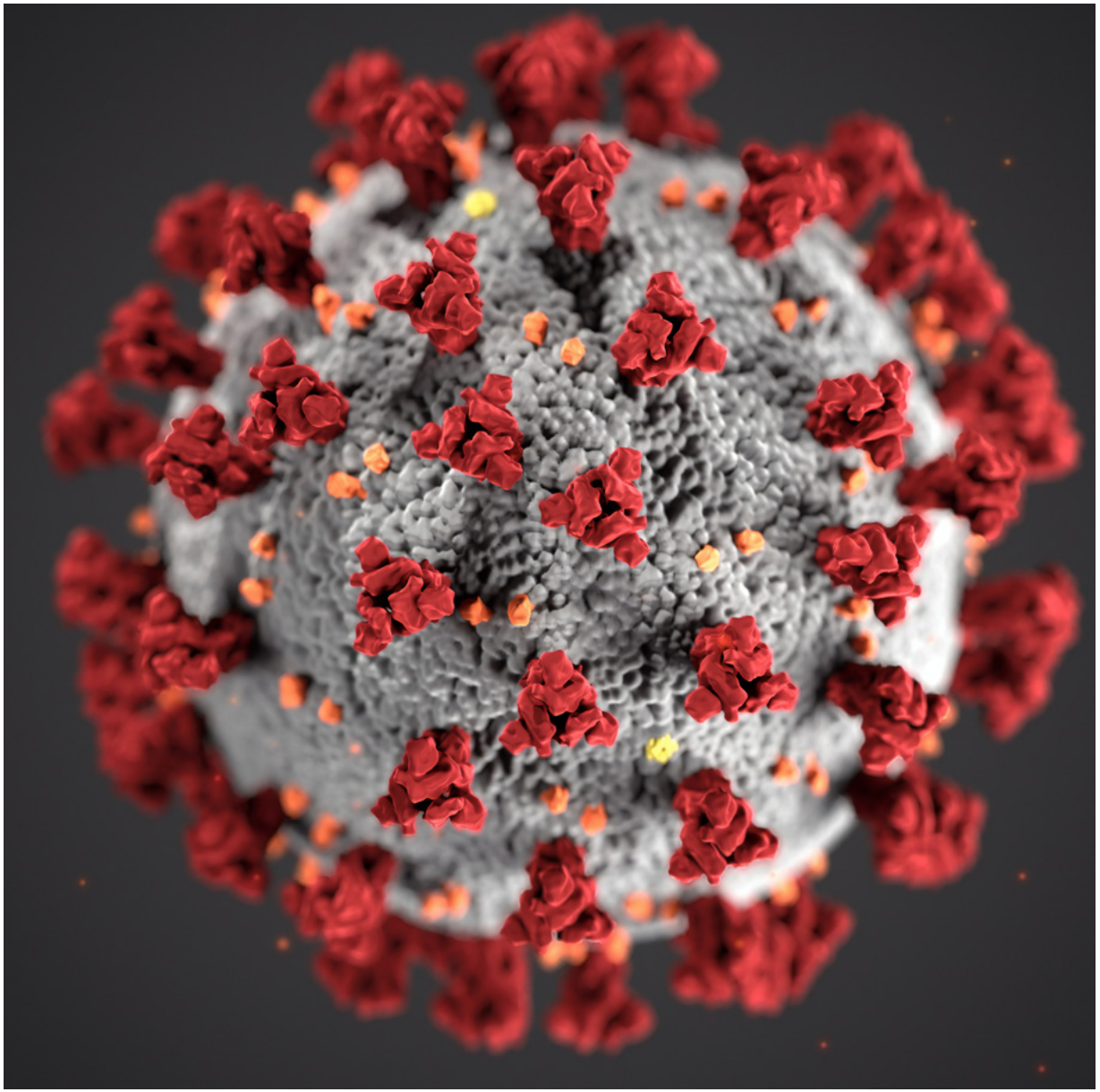


Foto af CDC på Unsplash

Available know-how, infrastructure and network

Professor Lundgren's basic research field is personalized medicine. The overarching aim at his DNRF Center of Excellence, PERSIMUNE, is to understand the mechanisms explaining the variation in risk using a diverse set of methodologies, including pattern recognition from big data from routine care, studies of host and microbial genetics, imaging, and immunological characterization.

We asked him how his expertise helps inform his work related to COVID-19 during the pandemic.

Science in general was prepared for this unknown. Quickly, several paths were activated. The key focus was vaccines and immunity, therapeutics, and diagnostics; and the key deliverable was safe and effective interventions.

This is only possible to evaluate during an ongoing transmission and most helpful if it is clarified quickly so that new knowledge can be applied to curbing the pandemic. Hence, speed was of the essence, and consequently, it was essential to swiftly apply, rely and expand on existing and available know-how, infrastructure and networks.

> Speed was of the essence, and consequently, it was essential to swiftly apply, rely and expand on existing and available know-how, infrastructure and networks.

Professor and center leader Jens Lundgren

CHIP and PERSIMUNE fulfilled those features – existing and available know-how, infrastructure and network – and were already acknowledged internationally. We have had a long-standing productive collaboration with the National Institute of Allergy and Infectious Diseases, in Bethesda, Maryland (with director Anthony Fauci and clinical director Cliff Lane). Consequently, CHIP became front and center in delivering. Our focus was to identify effective antivirals – being a viral disease this made intuitive sense. I became global principal investigator for ACTIV-3, a research platform able to assess several antivirals.

We had experienced with other infectious diseases that susceptibility to a worse clinical course and potential benefit from the use of antivirals vary markedly across the population. This is certainly also true for COVID-19. And since all were infected with the exact same virus, any variation in outcome must be due to varied vulnerabilities of the host. As such, and comparable with the vision and working hypothesis of PERSIMUNE, treatment of this disease is also progressively becoming personalized.

This process – the development of personalized medicine – is driven by an emerging understanding of which underlying biological pathways are perturbed by the infection. It is always a revelation to see patterns emerge from computational analyses of complex data.

Science's potential in crisis

The year 2020 will be imprinted in my brain forever as the year of chaos, pressure and exhaustion, but also the year when science and medicine greatly proved its ability to help society through a crisis. It has been a distraction to have the entire population fully engaged in continuously inspecting the "research machine room," but this has also led to a profound upswing in public understanding of what we do. Who knew what a phase 3 trial or messenger-RNA was in 2019?

I said in a live interview on the Danish Broadcasting Corporation (DR) in March 2020 that this was the moment for science to prove itself – in a way also to place pressure on myself and face up to the overwhelming challenges. After 11 months, I am proud to say this promise was delivered on. But we are far from done – rather we are at "the end of the beginning" as Churchill said. Creative and critical thinking, good research methodology and hard work are still and will remain much needed commodities.

THE DNRF'S FOCUS ON THE NEXT GENERATION

Training the next generation is a key element in a Center of Excellence, and the centers are expected to provide optimal environments for training the next generation of first-rate scientists.

Centers are often excellent at training post-docs and Ph.D.s. Through the years, we have seen many good examples of this.

At the follow-up meetings during 2020, the DNRF took a special interest in the center leaders' and center members' most visionary ideas about how centers can function as launch pads for tenure-track assistant professors and young associate professors to become the next independent principal investigators (PIs) of large grants.

Becoming independent
Many researchers at the level of tenure-track assistant professors and young associate professors at Centers of Excellence establish independent groups and are successful in attracting larger grants such as Sapere Aude, Villum Young Investigator, and ERC starting or consolidator grants during the CoE grant period.

For all, it is challenging to build one's own group and research platform. The step from doing your own research to guiding others' research is highly non-trivial. It requires a new perspective on yourself as a scientist, hard work and a multitude of competencies.

Senior PIs at the centers are often capable of conveying many of the needed skills to the middle generation. So the DNRF's interest was in learning whether we could further stimulate this transfer of leadership knowledge between generations and centers.

Launching the next generation
Under the headline *Centers of Excellence as optimal launch pads for the next generation of independent PIs*, we discussed a number of issues with the centers.

You can read about what we learned and the initiative this led to on the next five pages.

1

NEXT GENERATION'S SKILLS AND AREAS OF FOCUS

The transition from working in the lab as post-docs to managing a research group challenges the new PIs on several levels. The transition involves the use of a broad skill set and many additional tasks aside from doing research, it includes among other things dealing with conflicts, ensuring motivation, raising larger funds, and planning research more strategically.

At the follow-up meetings we asked which skills are required for tenure-track assistant professors and young associate professors to become independent, successful PIs. The answers we got represent – beyond compare – the longest list of suggestions among the four sub-topics.

Skills related to personality:
Excited by scientific discovery / Not daunted by taking responsibility / Creative / Persistent / Resilient / Confident / Determined / Team player mentality / Self-knowledge / Well-organized / Inspiring to colleagues/charismatic / Data Quality-focus.

Acquired skills/people management skills:
Leadership / Project and budget management / Mentoring and motivating Ph.D.'s and post-docs / An eye for spotting and developing talent / Networking nationally and internationally / Collaboration / Communication / Writing and public speaking / Writing strategic grant applications / Productive: publish! / Efficiency in course preparation and execution / Efficiency in general / Elitist in ambitions and egalitarian in social tone / Ability to "read" an organization.

Of course, one person is not likely to be perfect at all the skills listed, but the long list is indicative of what is required to become the next generation of PIs of large grants/ leaders of large groups.

It is also worth mentioning that the best researchers do not always become the best leaders, and that the qualifications to become the PI of large grants/leaders of large groups do not manifest at the same age in everybody.

> "There is no simple recipe for how a given young researcher can be trained to become successful in developing an independent group, fund it and become hired as a permanent researcher.
>
> Hans Kjeldsen, Stellar Astrophysics Centre (SAC)

CHALLENGES AND OPPORTUNITIES AT CENTERS OF EXCELLENCE IN RELATION TO BECOMING THE NEXT PI OF LARGE GRANTS

The DNRF also acknowledges the importance of personal grants to people at the level of tenure-track assistant professors and young associate professors as part of having a flourishing growth of subfields.

However, the DNRF specializes in the funding instrument Centers of Excellence: large, long-term grants. It is a clear expectation that the DNRF centers function as launch pads for the next generation.

At the follow-up meetings we asked if people at the level of tenure-track assistant professors and young associate professors have best practice examples of how to leverage being at a Center of Excellence to further their path to becoming the next generation of PIs of large grants. We asked: what are the opportunities and challenges at Centers of Excellence to becoming the next generation?

Opportunities:
Centers provide: Environments where it is possible to acquire additional skills besides doing good research; administrative and organizational skills / Platforms for individual/ independent projects / Platforms for international visibility and collaboration / Collaboration / synergy and cross-pollination between center sub-groups / critical mass and momentum / Opportunities to pursue higher-risk / higher-gain projects that make it possible to define an individual research path / Opportunity to take responsibility for organizing conferences and supervising Ph.D.s and post-docs / Shared lab facilities and infrastructure / Administrative support / Networking activities and inspiration / Opportunities to be part of leadership teams / opportunities for key note invitations passed on from center leader.

Challenges:
Finding the balance between being a part of the center's research goal and maintaining an independent research profile and research program. Developing a strategy for publishing independently / Lack of permanent positions.

From the lists it is quite clear that the opportunities outweigh the challenges. In our experience, center leaders are very aware of the many extra skills required to become the next PI of large grants. Their work is very focused on providing the next generation at their centers with opportunities to acquire the different skill sets.

The impact of these focused initiatives is reflected in statistics such as the percentage of grants, such as Sapere Aude, Villum Young Investigator, and ERC starting or consolidator grants, that are awarded to people from the DNRF CoEs.

3

BALANCING INDEPENDENCE AND CENTER MISSION

Centers of Excellence (CoE) consist of units located at research institutions (the vast majority at universities) sharing a common idea or vision and an overall and clearly defined set of research objectives.

To obtain large grants such as CoE grants, the PI must present an overarching research idea that is ambitious, highly creative, truly novel, scientifically daring, and potentially groundbreaking.

But how do the current center leaders balance giving the next generation independence research-wise and financially while at the same time ensuring that everybody is working toward the same overall research idea and goal supporting the center identity?

Here is one best practice example:
One center had 8 independent PI projects starting up and running until 2023/2024 with ERC, Sapere Aude grants etc. Instead of kicking these new PIs out of the center, the center leader reorganized the original center based on integration of the projects (top-down decision made by the center leader), but with contributions from the new PIs (bottom-up process).

The key to succeeding with this reorganization was a focused search for the best balance between the new PIs' ambitions on behalf of the specific project (independence) and understanding that the already built-up center structure represents a critical resource for implementing the very same PI projects.

Also key is a flexible, pragmatic, and open-ended definition of center identity. Even though CoEs have strong center identities and well-defined research missions, they are not something "one and done" to adapt to; rather, they are units that are shaped during the development process that naturally takes place during the 10-year grant period.

4

THE GO-GETTERS ARE DOING IT FOR THEMSELVES

Applying for large grants is one of the most competitive businesses one can be in. Even if it is an advantage for people to be affiliated with a center, the individuals who hope to be the next PIs have to do the heavy lifting themselves.

At the follow-up meetings we asked: what can tenure-track assistant professors and young associate professors do themselves to acquire the necessary skills?

The tenure-track assistant and associate professors can:
Express a desire to become a PI / Seek advice and grasp opportunities / Learn from successful leaders; exploit their network and their experience with grant committees / etc. / Develop a network / Take the lead on various activities: for example / journal clubs / Ph.D. courses; writing funding applications; chairing lectures and workshops; giving talks; engaging in high-quality teaching / Alter their mindsets – from star post-doc to junior PI. Shift the focus to the development of others as well as yourself / Develop resilience / Be realistic – recognize the demands and standards required to be a leader / Most importantly / focus on producing high-impact research.

> “ Soft skills are hard, but not magic! It requires deliberate practice, not divine inspiration or unique genes.
>
> Anders Nykjær, Center Leader, Center for Proteins in Memory (PROMEMO)

5

DNRF INITIATIVES – GROWING NETWORKS AND MENTORSHIP

Opportunity to grow network among peers
The DNRF has recently established two initiatives that provide the next generation with the opportunity to grow their network among peers.

Annual networking retreat
In 2020, the DNRF planned to conduct its first retreat for the next generation of top researchers. Due to the coronavirus the foundation was unable to hold the retreat in 2020, but it will be an annual event in the coming years. The purpose of the retreat is to establish a network between researchers at the level of assistant and associate professors.

During the retreats, we will focus on sharing experiences with some of the key issues pertaining to the process of becoming the next generation of top researchers/PIs of large grants, such as CoE and similar grants.

The retreat is for members of active CoEs, and the participants (one from each center annually) are selected by the center leader. Speakers at the retreat will mainly be former center leaders who are also willing to act as mentors for the participants following the retreat.

Both mentorships and networking between people at the same career level, but not necessarily within the same research field, were a recurring recommendation from both center leaders and center members during the follow-up meetings in 2020.

The DNRF Center Conferences
The DNRF Center Conference initiative was started in 2018 and is intended for new Centers of Excellence. The conferences are organized jointly by the Danish National Research Foundation and the centers and funded by the foundation.

The idea behind the Center Conferences is to gather leading international scientists within the centers' research fields to discuss the foremost challenges and to form a basis for collaboration and the exchange of Ph.D. students and post-docs. The conferences are also an opportunity for the next generation to grow their international network within their research fields.

The DNRF annual meeting 2021
The next generation – the transition from young assistant or associate professor to top research leader was the topic for the DNRF's annual meeting 2020, which we had to postpone due to the coronavirus.

On September 3, 2021, at the DNRF's annual meeting, we will revisit the topic together with this year's topic: *Where is the culture of academia heading?*

STORIES FROM THE SCIENTIFIC FRONTIER

– CONVERSATIONS WITH 25 CONTEMPORARY RESEARCHERS IN DENMARK

Author of *Stories from the Scientific Frontier* Professor Stine Falsig Pedersen

In 2020, the Danish National Research Foundation published *Stories from the Scientific Frontier – Conversations with 25 Contemporary Researchers in Denmark* (In Danish: Fortællinger fra Grundforskningens Grænseland – samtaler med 25 nutidige forskere i Danmark) in collaboration with the Royal Danish Academy of Sciences and Letters.

The book was written by Professor Stine Falsig Pedersen, who takes the reader on a journey through 25 portraits of some of the researchers who are conducting excellent basic research in Denmark in 2020 and, at the same time, provides insight into what drives each of them.

"In society at large, and even within academia, our image of the excellent researcher and the path to become one tends to be quite stereotypical. The 25 uniquely different personal stories, paths, and personalities in this book show that reality is much more complex. Passion and drive are shared traits, but there are numerous right ways of doing great science. I think that the better we get at recognizing this, the better decisions we can make." Stine Falsig Pedersen, Professor, Department of Biology, University of Copenhagen.

What characterizes an excellent contemporary scientist?

What is a researcher? Is he or she a special type of person? Or is he/she basically like everyone else? These are some of the questions that prompted the DNRF to commission Stine Falsig Pedersen to investigate the questions and write the book.

Through portraits of some of the researchers conducting basic research in Denmark in 2020, the book *Stories from The Scientific Frontier – Conversations with 25 Contemporary Researchers in Denmark* provides insight into what drives a researcher and what some of their personality traits are.

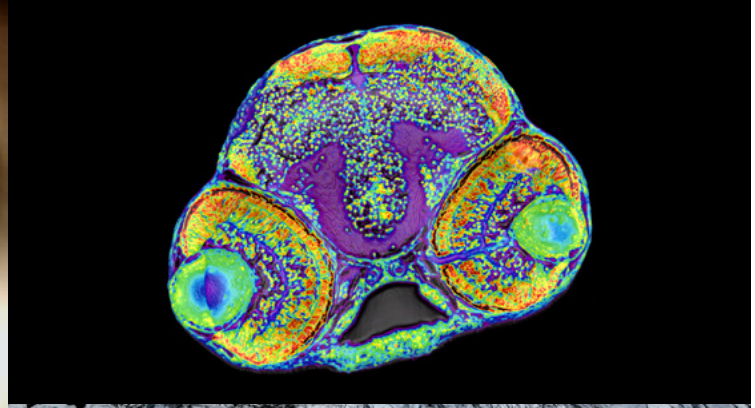
The DNRF meets with its grantees on a regular basis, and they are indeed inspiring people. With the book, we are happy to share these talented, enthusiastic, and hard-working researchers with all of you through the portraits, which form a prism for the question: *What is a researcher?*

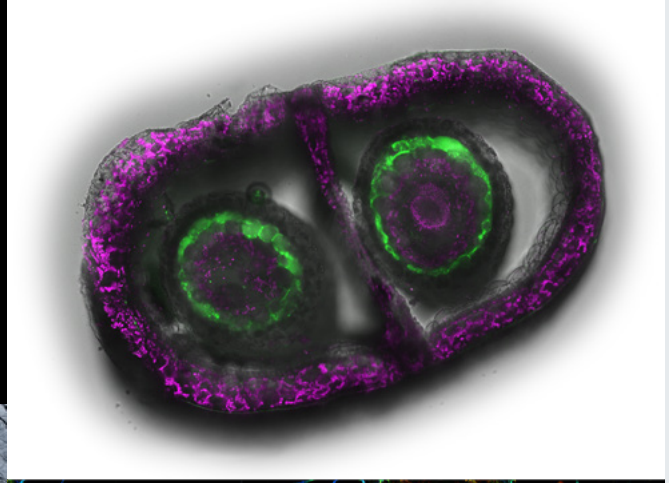
The book will also be published on the DNRF's website: starting in January 2021, one chapter is being published each month. You can follow the publication of the book by signing up for the foundation's newsletter here or read the first chapters here.

> We know a great deal about many of the most talented researchers from the last few hundred years. Based on that knowledge, we have built up some myths about what a researcher is, what drives a researcher, and what kind of traits a researcher has. It is much easier to see when we look back. With this book, we wanted to provide insight into the personal visions and complex set of competencies necessary to lead the way to new pivotal discoveries in our current society.
>
> Søren-Peter Olesen, CEO of the DNRF

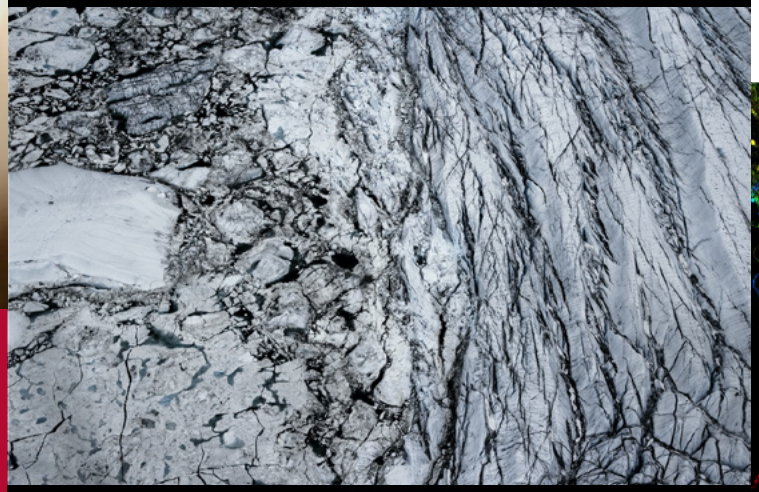
Stories from The Scientific Frontier – Conversations with 25 Contemporary Researchers in Denmark is published by the Danish National Research Foundation in collaboration with the Royal Danish Academy of Sciences and Letters. Copies of the book can be picked up free of charge at the DNRF's office.

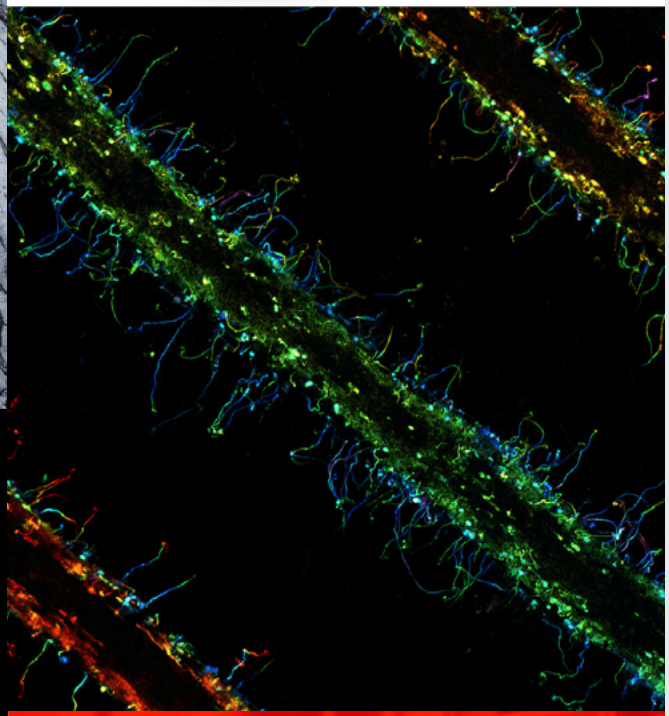
Photo: DG / Forside illustration: Jesús Herrera Martínez.

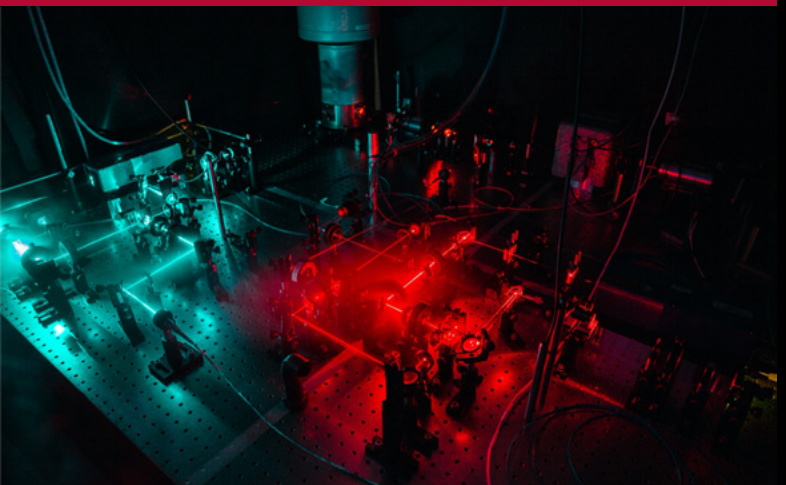


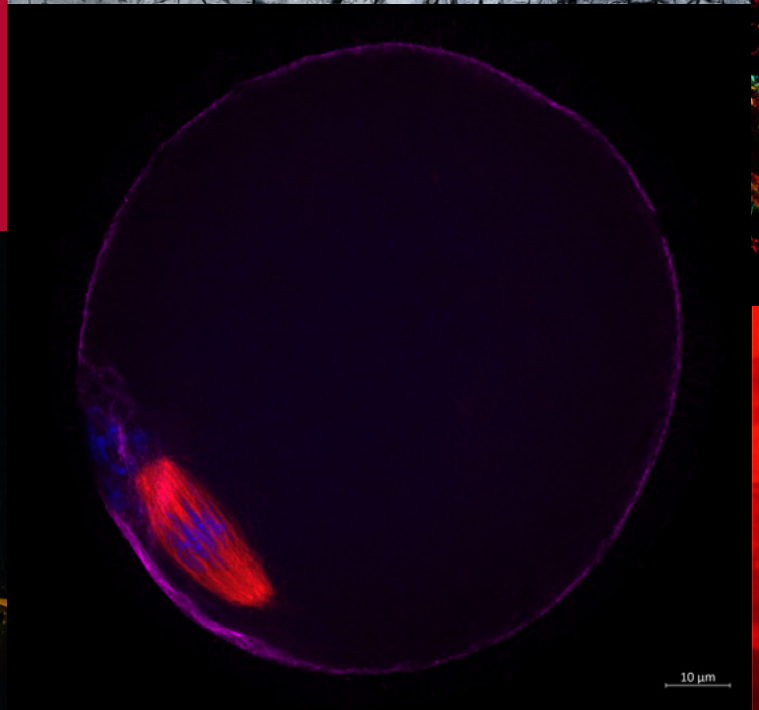


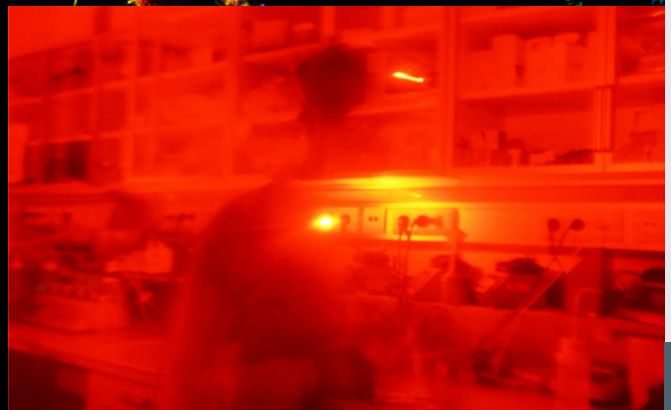
THE DNRF PHOTO COMPETITION











THE DNRF PHOTO COMPETITION

Photos have the ability to uncover the world of science in a surprising and inviting way, by revealing its beauty and fascinating appeal. The DNRF would like to share with a broader audience how, each day, scientific discovery advances our knowledge of ourselves and the world we live in.

We do this by telling the stories of scientific advances or discoveries with a photo as a visual entry point.

To this end, each year the foundation launches a photo competition based on the photograph's potential as documentation and communication of scientific research.

In 2020, the competition invited the research community at large to submit photos.

The selection criteria were as follows:

- Degree to which the photo evokes emotions in the observer
- Degree to which the photo works as a visual entry point to the story behind the specific research result
- Aesthetic quality of the photo

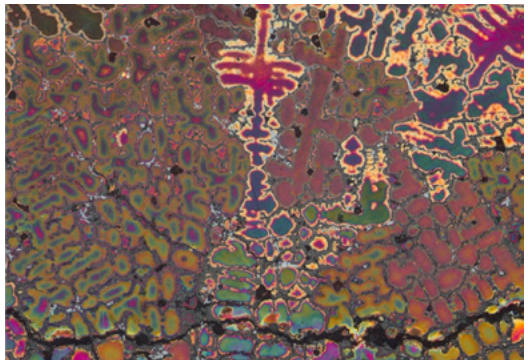
The selection panel, consisting of Christine Buhl Andersen, Chair of the New Carlsberg Foundation; Louise Wolthers, Research manager/curator at the Hasselblad Foundation; and Minik Rosing, Professor at GLOBE Institute, vice chair of the DNRF board and member of the board of the Louisiana Museum of Modern Art, — chose the following photographs for first, second, and third prize:

First prize: "Knowledge"
By Morten Skovdal

The selection panel's argument:
This is an interesting picture that clearly shows that research involves citizens. The local people of Zimbabwe go from being research objects to being active contributors. The easy access to photography means that locals can document their everyday lives and, in this case, how the radio can be used to create knowledge about HIV, or potentially COVID-19, which can be shared in areas where access to other media does not exist. The image evokes memories of the pioneers of color art photography like Eggleston and is beautiful and evocative without pretension.

Second prize: "The Race"
By Carsten Egevang

The selection panel's argument:
This image is immediately captivating, and only on closer inspection does it reveal that the objects are dog sleds on the ice. The motif seems familiar, without your being able to see clearly what it represents: Are they ducks on a lake? Birds in flight? Or plow furrows in a windswept snowy landscape? The image is extremely well composed and gives an immediate impression of speed across the field. The underlying research project is fascinating in its interdisciplinary breadth.



Third prize: "Perfect Cast"
by Heide W. Nørgaard

The selection panel's argument:
The image, with its colorful abstract topography, is immediately captivating. It illustrates the professionalism of a bronze caster 3000 years ago and, at the same time, provides a microstructural insight into the materiality of the bronze. It challenges our notion that today's technological prowess is necessarily higher than that of the past. This project emphasizes that the past can show the way to the solution of today's problems, but that today's technology is necessary to understand the past. Past and present thus meet in this photo.

This photo was taken by an 18-year-old man in Zimbabwe who calls himself Knowledge. As part of a participatory qualitative study, he was invited to take photos of people, places, and things that affect his engagement with HIV prevention methods. Knowledge took this photo of a radio because "it conveys messages and information to recipients very well." He continues: "Radio programs about male circumcision for HIV prevention have encouraged me to get circumcised." The photo is a reminder of the power of radio for health communication while simultaneously illustrating the absence of other media. What does that mean for COVID-19?

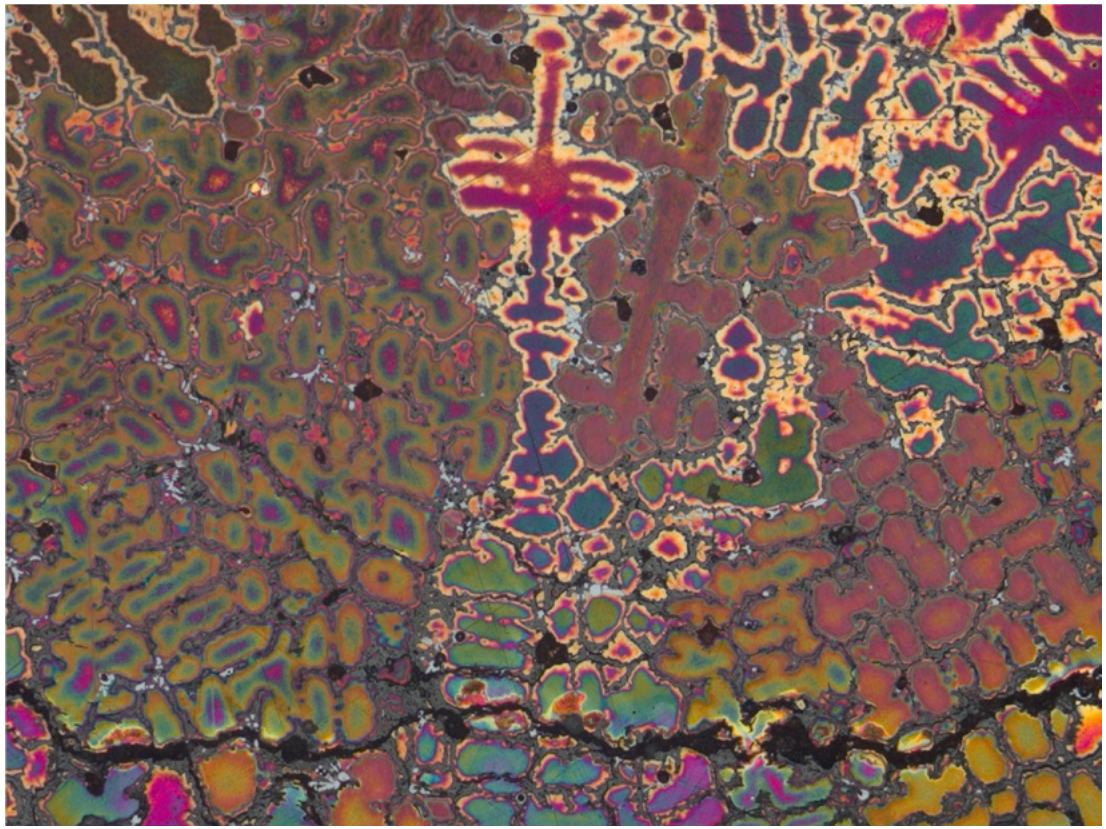
First prize: "Knowledge"
Morten Skovdal, Associate Professor, University of Copenhagen, Department of Public Health, Section for Health Services Research

The multi-disciplinary research project QIMMEQ focused on the Greenland sled dog. The project included groundbreaking DNA research on the origin of the sled dog, along with anthropological, archeological, veterinary, and biological research to provide a holistic, comprehensive, and detailed picture of its history and modern-day importance. The project furthermore produced outreach products, such as exhibitions, short films, books for a Greenland primary school, and a coffee table photo book. An important part of the project was to document the modern use of the sled dog using photography, such as the sled dog races that are increasingly popular in Greenland.

The image was shot in Ilulissat, Greenland, in March 2018 during the annual national sled dog race. Here, the QIMMEQ project — a research project under the auspices of the University of Greenland and the Globe Institute of the University of Copenhagen — held one of many workshops, collected DNA samples, and interacted with the local mushers.

Second prize: "The Race"
Carsten Egevang, Researcher at Greenland Institute of Natural Resources

The image shows the crystallographic structure of a perfectly cast 3000-year-old bronze figure from the Sardinian Nurage culture recorded with a light microscope at the Curt Engelhorn Center in Germany as part of a research project at the Moesgaard Museum, Aarhus. The metallographic structure of a millimeter-thin bronze sample is visualized by chemical substances that apply a thin layer to the polished sample. The local chemical reaction in the different microstructural features is visible due to their different abilities to reflect light. This allows the researcher to reconstruct the manufacturing process. The spruce-like shapes occur when the metal slowly cools down after casting.



Third prize: "Perfect Cast"
Heide W. Nørgaard, Archaeometallurgist/post-doc researcher, Moesgaard Museum

ONGOING ACTIVITIES

CENTERS OF EXCELLENCE ESTABLISHED IN 2009/2010

Center on Autobiographical Memory Research (Con Amore)

Location:	Aarhus University
Center leader:	Professor Dorthe Berntsen
Total grant:	84.1 million DKK

Center for GeoGenetics

Location:	University of Copenhagen
Center leader:	Professor Eske Willerslev
Total grant:	100.9 million DKK

Center for Permafrost Dynamics in Greenland (CENPERM)

Location:	University of Copenhagen
Center leader:	Professor Bo Elberling
Total grant:	99.7 million DKK

Center for Quantum Devices (QDev)

Location:	University of Copenhagen
Center leader:	Professor Karsten Flensberg
Total grant:	111.3 million DKK

Center for Financial Frictions (FRIC)

Location:	Copenhagen Business School
Center leader:	Professor David Lando
Total grant:	80.0 million DKK

CENTERS OF EXCELLENCE ESTABLISHED IN 2012

Centre for Medieval Literature (CML)

Location:	University of Southern Denmark
Center leader:	Professor Lars Boje Mortensen
Total grant:	60.0 million DKK

Center for Dynamic Molecular Interactions (DynaMo)

Location:	University of Copenhagen
Center leader:	Professor Barbara Halkier
Total grant:	81.7 million DKK

Center for Nanostructured Graphene (CNG)

Location:	Technical University of Denmark
Center leader:	Professor Antti-Pekka Jauho
Total grant:	90.1 million DKK

Center for International Courts (iCourts)

Location:	University of Copenhagen
Center leader:	Professor Mikael Rask Madsen
Total grant:	70.0 million DKK

Stellar Astrophysics Centre (SAC)

Location:	Aarhus University
Center leader:	Professor Jørgen Christensen-Dalsgaard
Total grant:	91.7 million DKK

Copenhagen Center for Glycomics (CCG)

Location:	University of Copenhagen
Center leader:	Professor Henrik Clausen
Total grant:	103.5 million DKK

CENTERS OF EXCELLENCE ESTABLISHED IN 2015

Center for Chromosome Stability (CCS)

Location:	University of Copenhagen
Center leader:	Professor Ian D. Hickson
Total grant:	110.0 million DKK

Center for Stem Cell Decision Making (StemPhys)

Location:	University of Copenhagen
Leader:	Professor Joshua Brickman
Total grant:	55.0 million DKK

Center for Music in the Brain (MIB)

Location:	Aarhus University
Center leader:	Professor Peter Vuust
Total grant:	98.2 million DKK

Centre for Carbon Dioxide Activation (CADIAC)

Location:	Aarhus University
Center leader:	Professor Troels Skrydstrup
Total grant:	85.0 million DKK

Center for Urban Network Evolutions (UrbNet)

Location:	Aarhus University
Center leader:	Professor Rubina Raja
Total grant:	105.0 million DKK

Center for Neuroplasticity and Pain (CNAP)

Location:	Aalborg University
Center leader:	Professor Thomas Graven-Nielsen
Total grant:	85.2 million DKK

Center for Bacterial Stress Response and Persistence (BASP)

Location:	University of Copenhagen
Center leader:	Professor Kenn Gerdes
Total grant:	34.8 million DKK

Center for Intelligent Oral Drug Delivery and Sensing using Microcontainers and Nanomechanics (IDUN)

Location:	Technical University of Denmark
Center leader:	Professor Anja Boisen
Total grant:	96.0 million DKK

Center for Silicon Photonics for Optical Communications (SPOC)

Location:	Technical University of Denmark
Center leader:	Professor Leif Katsuo Oxenløwe
Total grant:	100.6 million DKK

Center for Hyperpolarization in Magnetic Resonance (HYPERMAG)

Location:	Technical University of Denmark
Center leader:	Professor Jan Henrik Ardenkjær-Larsen
Total grant:	55.0 million DKK

Center for Autophagy, Recycling and Disease (CARD)

Location:	The Danish Cancer Society
Center leader:	Professor Marja Jäättelä
Total grant:	95.4 million DKK

Center for Personalized Medicine Managing Infectious Complications in Immune Deficiency (PERSIMUNE)

Location:	Rigshospitalet
Center leader:	Professor Jens Lundgren
Total total grant:	100.1 million DKK

NIELS BOHR PROFESSORSHIPS ESTABLISHED IN 2016/2017

Professor Rita Felski, University of Virginia

Location:	University of Southern Denmark
Total grant:	28.0 million DKK

Professor Matthew Collins, The University of York

Location:	University of Copenhagen
Total grant:	30.9 million DKK

Professor John McGrath, University of Queensland

Location:	School of Business and Social Science, Aarhus University
Total grant:	29.9 million DKK

Professor Thomas Pohl, Max Planck Institute for the Physics of Complex Systems

Location:	Aarhus University
Total grant:	25.3 million DKK

Professor Morten Bennedsen, INSEAD

Location:	University of Copenhagen
Total grant:	29.9 million DKK

Professor Professor Enrico Ramirez-Ruiz, University of California

Location:	University of Copenhagen
Total grant:	21.7 million DKK

CENTERS OF EXCELLENCE ESTABLISHED IN 2017/2018

Center for Proteins in Memory (PROMEMO)

Location:	Aarhus University
Center leader:	Professor Anders Nykjær
Total grant:	62.0 million DKK

Center for Economic Behavior and Inequality (CEBI)

Location:	University of Copenhagen
Center leader:	Professor Claus Thustrup Kreiner
Total grant:	57.0 million DKK

Center for Cellular Signal Patterns (CellPAT)

Location:	Aarhus University
Center leader:	Professor Jørgen Kjems
Total grant:	61.0 million DKK

Center for Electromicrobiology (CEM)

Location:	Aarhus University
Center leader:	Professor Lars Peter Nielsen
Total grant:	56.0 million DKK

Center for Microbial Secondary Metabolites (CiMiSt)

Location:	Technical University of Denmark
Center leader:	Professor Lone Gram
Total grant:	58.0 million DKK

Center for Privacy Studies (PRIVACY)

Location:	University of Copenhagen
Center leader:	Professor Mette Birkedal Bruun
Total grant:	50.0 million DKK

Center for Hybrid Quantum Networks (Hy-Q)

Location:	University of Copenhagen
Center leader:	Professor Peter Lodahl
Total grant:	62.0 million DKK

The Cosmic Dawn Centre (DAWN)

Location:	University of Copenhagen
Center leader:	Professor Sune Toft
Total grant:	66.2 million DKK

Center for Functional Genomics and Tissue Plasticity (ATLAS)

Location:	University of Southern Denmark
Center leader:	Professor Susanne Mandrup
Total grant:	65.0 million DKK

Center for Macroscopic Quantum States (BigQ)

Location:	Technical University of Denmark
Center leader:	Professor Ulrik Lund Andersen
Total grant:	63.0 million DKK

National Science Foundation (NSF)

(2.5 million DKK, which is included in the above mentioned center grants).

CENTERS OF EXCELLENCE ESTABLISHED IN 2020

Center for Evolutionary Hologenomics (CEH)

Location:	University of Copenhagen
Center leader:	Professor Marcus Thomas Pius Gilbert
Total grant:	67.7 million DKK

Center for the experimental-philosophical study of discrimination (CEPDISC)

Location:	Aarhus University
Center leader:	Professor Kasper Lippert-Rasmussen
Total grant:	62.6 million DKK

Danish center for Hadal research (HADAL)

Location:	University of Southern Denmark
Center leader:	Professor Ronnie Nøhr Glud
Total grant:	54.6 million DKK

Center for visualizing catalytic processes (VISION)

Location:	Technical University of Denmark
Center leader:	Professor Stig Helveg
Total grant:	85.8 million DKK

Center for Nanophotonics (NanoPhoton)

Location:	Technical University of Denmark
Center leader:	Professor Jesper Mørk
Total grant:	62.5 million DKK

Center for High Entropy Alloys Catalysis (CHEAC)

Location:	Technical University of Denmark
Center leader:	Professor Jan Rossmeisl
Total grant:	61.1 million DKK

Center for Interstellar Catalysis (InterCat)

Location:	University of Copenhagen
Center leader:	Professor Liv Hornekær
Total grant:	67.4 million DKK

Copenhagen Center for Geometry and Topology (GeoTop)

Location:	University of Copenhagen
Center leader:	Professor Nathalie Wahl
Total grant:	60.2 million DKK

Center for Complex Quantum Systems (CCQ)

Location:	Aarhus University
Center leader:	Professor Thomas Pohl
Total grant:	66.6 million DKK

DNFR CHAIR ESTABLISHED IN 2020

Professor Jesper Svejstrup

Location:	University of Copenhagen
Total grant:	15.0 million DKK

Professor Steffan Persson

Location:	University of Copenhagen
Total grant:	8.0 million DKK

Professor Peter Jørgensen

Location:	Aarhus University
Total grant:	7.9 million DKK

Course activities for center leaders/ outreach program for centers

Total grant:	11.2 million DKK

TOTAL ASSETS AND RETURN ON INVESTMENT

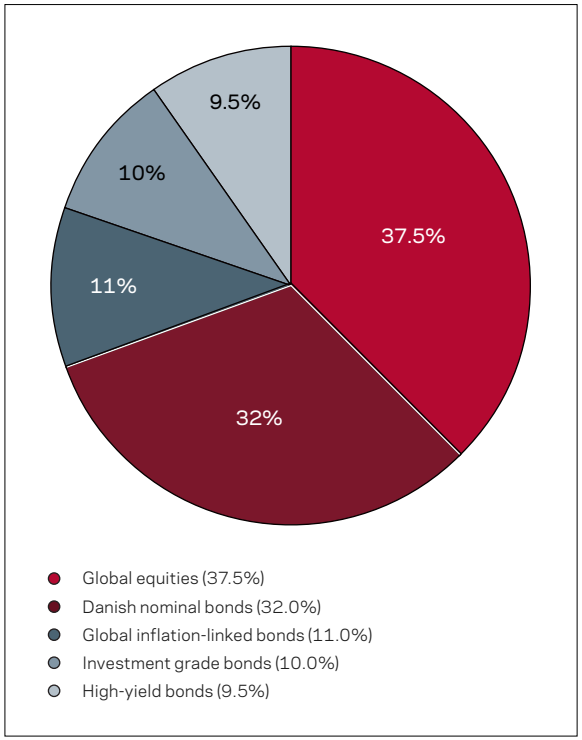
In 2020, the foundation realized a return on investment of 6.4%, and total return on investment was 356 million DKK. Broken down into asset classes, return on equities amounted to 252 million DKK and return on the fixed income portfolio amounted to 104 million DKK. Administrative expenses, including depreciation, were 12.3 million DKK in 2020.

The net capital end of 2020 was 5,846 million DKK, compared to the net capital of 5,841 million DKK at the end of 2019.

The foundation distributed 335 million DKK to its grant holders in 2020, which is lower than the goal of an average distribution level in the Act on the DNRF of 475 million DKK (in 2020 prices). The reason for this is the grant holder's lower-than-expected level of activity in 2020 due to the consequences of COVID-19. For the same reason, the grant holders were offered a six-month extension of the grants, and most of them have done so.

335 **mill. DKK**

Distributed to the grant holders in 2020



At the end of 2020 the board decided to change the strategic asset allocation effective in 2021, whereby the equity exposure was increased to 37.5% from 35% and the exposure to high-yield bonds was increased to 9.5% from 7%. Correspondingly, the exposure to Danish nominal bonds was reduced by 5 percentage points, to 32%. The changes were implemented at the start of 2021; the new asset allocation is presented in the pie chart.

Total return

Calculated as a time-weighted return, the total return on investment in 2020 was 6.4%, which was higher than the benchmark return of 5.7%. The main reason for the outperformance of the benchmark was the higher return from the developed markets equities mandates compared to the benchmark, since the consequences of not investing in companies that do not live up to the foundation's ESG policy affected the return positively. From a five-year perspective, covering the period 2016 to 2020, the foundation's return of 5.6% p.a. was higher than the annual benchmark return of 5.3% p.a.

Return on investment	2020	2019	2018	2017	2016
Bonds and cash, million DKK	104.1	140.2	-12.6	128.6	218.6
Equities, million DKK	251.5	484.4	-179.1	293.4	192.5
Total return, million DKK	**355.5**	**624.6**	**-191.7**	**422.0**	**411.1**
Foundation return, % [1]	6.4	11.1	-3.1	7.1	6.8
Benchmark, %	5.7	10.7	-3.3	6.9	6.9
Foundation 5 years p.a. return, % [2]	5.6	4.6	4.2	6.0	6.7
Benchmark 5 years p.a. return, % [2]	5.3	4.5	4.1	6.0	6.6

[1] The annual return on the total investment is a weighted average of each portfolio's return.
[2] The geometric mean.

Return on equities

The foundation's equity portfolio consists of a combination of equities in developed countries and emerging markets countries. The emerging markets countries include China, South Korea, Brazil, Mexico, Taiwan, India and others. The split between the developed and emerging countries in the portfolio follows the breakdown in MSCI's benchmark for global equities (MSCI ACWI).

The return from the developed markets equity portfolio was 7.3% compared to a benchmark return of 5.9%. The developed markets equity portfolio is invested in the following passively managed funds: Danske Invest Global Indeks, klasse DKK W d, Northern Trust World Custom ESG Equity Fund, Northern Trust World Custom ESG EUR hedged Equity Fund, and Nykredit Invest Globale Aktier Basis.

Eighty percent of the exposure to USD and JPY in the developed markets equity portfolio is hedged to EUR except for the investment in the Northern Trust World Custom ESG EUR hedged Equity Fund, where all the currency exposure is hedged to EUR.

Both the USD and the JPY weakened against the DKK and EUR during 2020, which resulted in a positive return from the currency hedging. The return on the developed

markets equity portfolio, including the currency hedge, was 12.2%.

The emerging markets equity portfolio represented an average of 4.3% of the total assets during the year. This investment took place through the mutual fund GW&K Trilogy Emerging Markets Fund. The return on the emerging markets equity portfolio in 2020 was 9.4%, which is significantly better compared to the benchmark (MSCI emerging markets) return of 8.1%. The reasons for the overperformance were due to strong stock selection.

Return on bonds

Danish government and mortgage bonds, with 37% of the strategic allocation in 2020, represent the largest part of the fund's assets. The portfolio is managed by Nykredit Asset Management (Nykredit) and the portfolio gave a return of 2.0%, which was higher than the benchmark of 1.5%. The overweight of callable mortgage bonds with both low and high coupons added positively to the performance of the portfolio relative to the benchmark. An EU tender regarding the Danish nominal bond portfolio was completed in 2020, wherein Nykredit Asset Management was reappointed as portfolio manager of Danish nominal bonds.

The strategic allocation to global inflation-linked bonds is 11% and is managed by Danske Bank Asset Management. The non-EUR currency exposure is hedged to EUR. The portfolio's return in 2020 was 4.9% compared to the benchmark return of 4.1%.

The return on the European corporate bond portfolio in 2020 was 3.0% versus the benchmark return of 2.5%. The allocation to European corporate bonds is 10% and the benchmark is Barclays Capital Euro Major Corporate Index. The portfolio is managed by Danske Bank Asset Management.

The US high-yield bond portfolio represents 7% of the strategic allocation in 2020, which was increased to 9.5% in 2021. The portfolio is managed by the American investment company Columbia Threadneedle. During 2020, the high-yield bond portfolio gave a return of 3.3%, which is lower than the benchmark return of 4.3%. The benchmark for the high-yield portfolio is ML US High-Yield Bonds, constrained (hedged to DKK). The portfolio manager of the high-yield bond portfolio underperformed the benchmark, primarily due to the management cost.

Responsible investment policy

The DNRF's responsible investment policy is available on the website.

The responsible investment policy and the goal of acting as a responsible investor are an integral part of the foundation's overall investment principles and strategy.

The DNRF acts as a responsible investor by investing in companies that live up to common internationally accepted principles and norms for treating environmental, social, and governance (ESG) issues and by not investing in companies involved in the production of controversial weapons.

The guidelines are based on well-recognized principles, guidelines, conventions and international ESG standards. When investing, the portfolio managers of equities and credit bonds must:

- strive to live up to the United Nations Global Compact principles and/or OECD Guidelines for Multinational Enterprises.
- not invest in companies that violate broadly accepted international weapons-related conventions.
- not invest in producers of nuclear weapons, who act in violation of the Treaty on Non-Proliferation of Nuclear Weapons.

Furthermore, when investing, most of the portfolio managers of equities and credit bonds live up to the following:

- The ILO conventions on labor rights.
- Exclusion of companies with high extraction of thermal coal.

The individual portfolio managers may have other criteria they use when investing.

The responsible investment policy for each of the DNRF's investment mandates or mutual funds varies. For example, some of the DNRF's mutual fund/portfolio managers do not invest in companies involved in the production of tobacco, while others do. An overview of the portfolio managers' responsible investment policies is in the table.

Investment committee
The investment committee's tasks are to give the board recommendations about the investment strategy, risk management, portfolio managers, the responsible investment policy, and the long-term forecast. The members of the investment committee are CIO Per Skovsted (chair), Professor Peter Løchte Jørgensen and CEO Torben Möger Pedersen. The committee held three meetings in 2020.

Portfolio/mutual fund	Danske Invest	Nykredit Invest	Northern Trust	GW&K Investment Management	SEB Invest	Danske AM
Asset type	Equities	Equities	Equities	Emerging markets equities	High-yield bonds	Investment grade bonds
UN Global Compact	✓	✓	✓	✓	✓	✓
UN Guiding Principles on Business and Human Rights	✓	✓	✓	✓	✓	✓
OECD Guidelines for Multinational Enterprises	✓	✓	-[4]	✓	✓	✓
The ILO conventions on labor rights	✓	✓	-	✓	✓	✓
Weapons-related conventions	✓	✓	✓	✓	✓	✓
Exclude tobacco producers	✓	-	✓	-	-	✓
Exclude producers of nuclear weapons and depleted uranium weapons	✓[1]	✓[2]	✓	✓	✓	✓[1]
Exclusion of companies with high extraction of thermal coal	✓	✓[3]	✓	✓	✓	✓
Exercises voting privileges	✓	✓	✓	✓	N/A	N/A
Engages	✓	✓	✓	✓	N/A	N/A

[1] Danske Invest does not automatically exclude depleted uranium weapons but does exclude companies directly involved in R&D, the production of nuclear warheads, or related activities.
[2] Nykredit Invest excludes companies in violation with the Non-Proliferation-Treaty.
[3] Nykredit Invest exclude several companies involved in production of thermal coal producers, however not all companies are excluded.
[4] Northern Trust comply with OECD Guidelines in terms of Human rights, Employment and industrial relations, environment, combating bribery, bribe solicitation and extortion and consumer interests.

Donation of 500,000 DKK from the J.H. Schultz Foundation
The board of the J.H. Schultz Foundation generously decided to donate 500,000 DKK to the DNRF in 2020.

THE BOARD

In 2020, the board conducted ten regular meetings and was represented at 34 follow-up meetings with the grant holders. The composition of the board March 2021 was as follows:

Jens Kehlet Nørskov (Chair)

Professor, Technical University of Denmark

Appointed by the Minister for Higher Education and Science (01.01.19-31.12.24)

Bart De Moor

Professor, KU Leuven

Appointed by the Minister for Higher Education and Science (01.11.13-30.11.21)

Eero Vuorio

Professor and Chancellor emeritus, University of Turku

Nominated by the Independent Research Fund Denmark (01.11.13-30.11.21)

Minik Thorleif Rosing (Vice Chair)

Professor, University of Copenhagen

Nominated by the Joint Committee of Directors at the Governmental Research Institutes (01.01.16-31.12.23)

Christina Moberg

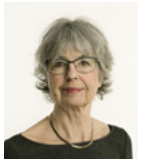
Professor, Royal Institute of Technology, KTH

Nominated by the Independent Research Fund Denmark (01.11.13-30.11.21)

Morten Overgaard Ravn

Professor, Department of Economics, University College London

Nominated by Universities Denmark (01.01.16-31.12.23)



Anne Scott Sørensen

Professor, University of Southern Denmark

Nominated by the Independent Research Fund Denmark (01.01.16-31.12.23)

Clivia M. Sotomayor Torres

Professor, Catalan Institute of Nanoscience and Nanotechnology

Nominated by Danish Academy of Technical Sciences (01.09.2018-30.11.21)

Vigdis Broch-Due

Professor, University of Bergen

Nominated by the Royal Danish Academy of Sciences and Letters (01.01.20-31.12.23)

STATEMENT BY MANAGEMENT ON THE ANNUAL REPORT

The board and the CEO have today considered and approved the annual report of the Danish National Research Foundation for the financial year 2020.

The annual report is presented in accordance with the Consolidated Act on the Danish National Research Foundation, the Danish Executive Order on the Administration of the Funds of the Danish National Research Foundation, the Royal Decree on the Charter of the Danish National Research Foundation and the provisions of the Danish Financial Statements Act with the adjustments resulting from the special nature of the Danish National Research Foundation.

In our opinion, the annual accounts give a true and fair view of the foundation's financial position at December 31, 2020 and of the results of its operations for the financial year January 1 to December 31, 2020. In addition, we believe that the management commentary contains a fair review of the affairs and conditions referred to therein.

Finally, it is our opinion that the established administrative procedures and internal controls covered by the financial statements comply with the appropriations granted, statutes, other regulations, agreements and usual practice, and that sound financial management is exercised in the administration of the funds and activities covered by the financial statements.

Copenhagen, March 19, 2021.

Søren-Peter Olesen (CEO)

Board members:

Jens Kehlet Nørskov (Chair)

Minik Thorleif Rosing (Vice chair)

Anne Scott Sørensen

Bart De Moor

Christina Moberg

Clivia M. Sotomayor Torres

Eero Vuorio

Morten Overgaard Ravn

Vigdis Broch-Due

INDEPENDENT AUDITOR'S REPORT

TO THE BOARD OF THE DANISH NATIONAL RESEARCH FOUNDATION — REPORT ON THE FINANCIAL STATEMENTS

Opinion
We have audited the financial statements of the Danish National Research Foundation for the financial year 01.01.2020 - 31.12.2020, which comprise the accounting policies, income statement, balance sheet, statement of changes in net capital and notes. The financial statements are prepared in accordance with the Danish Financial Statements Act subject to the adjustments caused by the special nature of the Foundation.

In our opinion, the financial statements give a true and fair view of the Foundation's financial position at 31.12.2020 and of the results of the Foundation's operations for the financial year 01.01.2020 - 31.12.2020 in accordance with the Danish Financial Statements Act subject to the adjustments caused by the special nature of the Foundation.

Basis for opinion
We conducted our audit in accordance with International Standards on Auditing (ISAs) and additional requirements applicable in Denmark as well as the standards on public auditing as the audit was conducted in accordance with the provisions of section 9(2) of the Danish Auditor General's Act. Our responsibilities under those standards and requirements are further described in the Auditor's responsibilities for the audit of the financial statements section of this auditor's report. The auditor general is independent of the Foundation in accordance with section 1(6) of the Danish Auditor General Act and the approved auditor is independent of the Foundation in accordance with the International Ethics Standards Board of Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark, and we have both fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Management's responsibilities for the financial statements
Management is responsible for the preparation of financial statements that give a true and fair view in accordance with the Danish Financial Statements Act subject to the adjustments caused by the special nature of the Foundation, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Foundation's ability to continue as a going concern, for disclosing, as applicable, matters related to going concern, and for using the going concern basis of accounting in preparing the financial statements unless Management either intends to liquidate the

Foundation or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements
Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark as well as the standards on public auditing, will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark as well as the standards on public auditing, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Foundation's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.

- Conclude on the appropriateness of Management's use of the going concern basis of accounting in preparing the financial statements, and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Foundation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Foundation to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures in the notes, and whether the financial statements represent the underlying transactions and events in a manner that gives a true and fair view.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Statement on the management commentary
Management is responsible for the management commentary.

Our opinion on the financial statements does not cover the management commentary, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the management commentary and, in doing so, consider whether the management commentary is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Moreover, it is our responsibility to consider whether the management commentary provides the information required under the Danish Financial Statements Act subject to the adjustments caused by the special nature of the Foundation.

Based on the work we have performed, we conclude that the management commentary is in accordance with the financial statements and has been prepared in accordance with the requirements of the Danish Financial Statements Act subject to the adjustments caused by the special nature of the Foundation. We did not identify any material misstatement of the management commentary.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Statement on compliance audit and performance audit
Management is responsible for the transactions covered by the financial statements complying with the appropriations granted, statutes, other regulations, agreements and usual practice, and for ensuring that sound financial management is exercised in the administration of the funds and in the operation of the activities covered by the financial statements.

As part of our audit of the financial statements, it is our responsibility to perform compliance audit procedures and performance audit procedures on selected subject matters in accordance with the standards on public auditing. In our compliance audit, we test selected subject matters to obtain reasonable assurance about whether the transactions covered by the financial statements comply with appropriations granted, statutes, other regulations, agreements and usual practice. In our performance audit, we make an assessment to obtain reasonable assurance about whether the systems, processes or transactions examined support the exercise of sound financial management in the administration of the funds and in the operation of the activities covered by the financial statements.

If, based on the procedures performed, we conclude that material critical comments should be made, we are required to report this.

We have no material critical comments to report in this respect.

Copenhagen, 19.03.2021

The auditor general (Rigsrevisionen)
Head of division
Henrik Lange

Special adviser
Vagn Bokelund

Deloitte
Statsautoriseret Revisionspartnerselskab
Business Registration No 33 96 35 56

Jens Sejer Pedersen
State-Authorised Public Accountant
Identification No. (MNE) 14986.

Jacob Medard Frederiksen
State-Authorised Public Accountant
Identification No. (MNE) 44110.

ACCOUNTING POLICIES

The annual report is presented in accordance with the Consolidated Act on the Danish National Research Foundation, the Danish Executive Order on the Administration of the Funds of the Danish National Research Foundation, the Royal Decree on the Charter of the Danish National Research Foundation and the provisions of the Danish Financial Statements Act governing reporting class C enterprises (large) with the adjustments resulting from the special nature of the foundation.

The provisions of the Danish Financial Statements Act governing reporting class C enterprises (large) prescribe preparation of a cash flow statement. Due to the nature of the foundation's activities, the cash flows cannot reasonably be broken down by cash flows from operating, investing and financing activities, for which reason the cash flow statement has been omitted, referring to Section 11(3) of the Danish Financial Statements Act. In addition, the foundation has decided to derogate from the format requirements laid down by the Danish Financial Statements Act for the income statement in order to illustrate the special nature of the foundation.

The accounting policies applied are consistent with those applied last year.

INCOME STATEMENT

Interest income
Interest income from bonds and bank deposits are accrued so it relates to the financial year under audit.

Dividend
Dividend received on shares is included in the income statement at the time of distribution.

Realized capital gains and losses on and market value adjustments of securities
Realized capital gains and losses on and market value adjustments of securities (bonds and equities) are included in the income statement.

Other income
Other income comprises general donations from private donors. The funds are recognized when transferred to the foundation.

External expenses for the scientific activities of the Foundation
Such expenses comprise expenses for the foundation's scientific activities, including expenses for the consideration of applications and evaluation of grants.

Income tax
The foundation is not liable to tax.

BALANCE SHEET

Fixed assets
Leasehold improvements are recognized in the balance sheet at cost less accumulated depreciation. Fixed assets are depreciated straight-line over their estimated useful lives of five years.

Office equipment and furniture is recognized at cost less accumulated depreciation. Office

equipment and furniture is depreciated straight-line over their estimated useful lives, meaning three years for IT hardware and software and five years for other office equipment.

Assets costing less than DKK 25,000 per unit are expensed in the year of acquisition.

Securities
Listed securities (bonds and equities) are measured at fair value (quoted price) at the balance sheet date.

Bonds redeemed at the time of presentation of the annual accounts are recognized at par value.

Other investments are measured at the lower of the value at the date of acquisition and fair value.

Net capital
Distributions by the foundation mainly take the form of multiannual total grants awarded over a number of years concurrently with, and conditional on, the actual completion of the research projects. An amount corresponding to the unpaid share of such total grants is recognized as predisposed capital under the net capital. Other net capital is classified as non-predisposed capital. An amount corresponding to the total grants provided during the year is transferred from the non-predisposed capital to the predisposed capital. The grants paid during the year are deducted from the predisposed capital.

Foreign currency translation
Foreign currency transactions are translated into DKK applying the exchange rate at the transaction date.

Realized and unrealized gains and losses are recognized in capital income in the income statement.

Bank deposits and securities denominated in foreign currencies are translated into DKK applying the balance sheet date exchange rate. Realized and unrealized foreign exchange gains and losses are recognized in capital income in the income statement.

Derivative financial instruments
The Danish National Research Foundation only applies derivative financial instruments to hedge the currency and interest rate risks involved in the portfolio of securities.

Changes in the fair value of derivative financial instruments classified as and complying with the requirement for hedging the fair value of a recognized asset or a recognized liability are recorded in the income statement together with changes in the value of the hedged asset or the hedged liability. In doing so, symmetrical recognition of gains and losses on the item hedged and the hedging instrument, respectively, is ensured.

Premiums received or paid as well as forward premiums and discounts are recognized in the income statement over the terms of the instruments.

The fair value of derivative financial statements classified as and qualifying for hedging of an instrument to hedge a recognized asset or liability is recognized in the balance sheet along with the asset or liability to which hedging relates.

INCOME STATEMENT
JANUARY 1 – DECEMBER 31

	Note	2020	2019
Return on investment			
Realized gains and losses, bonds		59,901,055	50,900,992
Unrealized gains and losses, bonds		44,335,859	89,482,349
Realized gains and losses, equities		92,386,723	111,638,245
Unrealized gains and losses, equities		159,070,551	372,786,399
Interest, bank deposits		-181,340	-169,863
Return on investment, total		**355,512,848**	**624,638,122**
Other receipts, net	1	**500,000**	**1,000,000**
Costs			
Custody and bank fees etc.	2	-3,489,784	-2,308,678
Salaries etc.	3	-8,833,171	-9,165,507
Office expenses	4	-536,558	-578,306
Premises	5	-1,005,158	-1,019,307
Accountant/attorney remuneration etc.	6	-1,071,503	-1,191,758
External expenses, research activities	7	-408,910	-1,251,983
Other expenses	8	-332,570	-546,293
Depreciation	9	-102,432	-133,989
Costs, total		**-15,780,086**	**-16,195,821**
Result for the year		**340,232,762**	**609,442,301**
Predisposed capital:			
Predisposed capital, January 1		972,116,449	1,230,846,116
Distribution disbursed in the year	14a	-335,205,231	-414,416,791
Grants transfered from non-predisposed capital	14a	825,516,697	155,687,124
Predisposed capital, December 31		**1,462,427,915**	**972,116,449**

BALANCE SHEET
AS OF DECEMBER 31

	Note	2020	2019
ASSETS			
Fixed assets			
Tangible fixed assets	10		
Leasehold improvements		160,630	180,840
Office equipment and furniture		39,043	79,765
		199,673	260,605
Fixed asset investments			
Deposits		258,652	255,104
		258,652	255,104
Fixed assets, total		458,325	515,709
Current assets			
Receivables			
Accrued interest		13,769,528	13,816,408
Other receivables		557,195	20,164,538
Deferred charges		186,844	78,463
		14,513,567	34,059,409
Liquid assets			
Securities, bonds	11	3,719,381,050	3,729,426,782
Securities, equities	12	2,075,469,061	2,062,569,957
Bank deposits	13	38,493,796	19,081,620
		5,833,343,907	5,811,078,359
Current assets, total		5,847,857,474	5,845,137,768
ASSETS, TOTAL		**5,848,315,799**	**5,845,653,477**
EQUITY AND LIABILITIES			
Net capital		5,845,990,185	5,840,962,654
Payables			
Short-term payables			
Payables and back costs		2,325,614	4,690,823
Payables, total		**2,325,614**	**4,690,823**
EQUITY AND LIABILITIES, TOTAL		**5,848,315,799**	**5,845,653,477**
Distribution obligations	14c		
Contingent liabilities	15		

STATEMENT OF CHANGES IN NET CAPITAL FOR 2020

	Non-Predisposed capital	Predisposed capital	Total Net Capital
Net Capital at January 1, 2020	4,868,846,205	972,116,449	5,840,962,654
Result for the year	340,232,762	0	340,232,762
Distribution disbursed in the year	0	-335,205,231	-335,205,231
Grants transferred from non-predisposed capital	-825,516,697	825,516,697	0
Net Capital at the end of the year	**4,383,562,270**	**1,462,427,915**	**5,845,990,185**

According to the Danish Executive Order no. 325 of March 29, 2016 on the financial management of the funds of the Danish National Research Foundation, the foundation's net capital consists of the capital contributed at the formation of the Danish National Research Foundation, the return on this capital and public grants less subsequent spending and losses.

The predisposed capital includes the commitments given to the grantees of the Danish National Research Foundation to carry out the operating activities, which have not yet been paid at the balance date; see the specification in note [14a].

NOTES 1-4

	2020	2019
1 OTHER RECEIPTS, NET		
Private donation	500,000	1,000,000
Other receipts, total	**500,000**	**1,000,000**
2 CUSTODY AND BANK FEES, ETC.		
Bonds	3,259,165	2,105,783
Equities	207,416	180,122
Fees, portfolio managers	**3,466,581**	**2,285,905**
Bank	7,937	9,917
Other	15,266	12,856
Custody and bank fees, total	**3,489,784**	**2,308,678**
3 SALARIES ETC.		
CEO and board members	2,678,404	2,933,061
Salaries, other employees	5,321,560	5,458,428
Wage reimbursement	-8,837	-312
Pension costs	776,827	737,879
Danish Labor Market Supplementary Pension Scheme (ATP)	65,217	36,451
Salaries etc., foundation staff, total	**8,833,171**	**9,165,507**
Average staff number, accounting year	11	11
4 OFFICE EXPENSES		
Office supplies	17,106	28,000
Postage and freight	12,551	4,219
Telephone, Internet	148,099	189,314
Minor acquisitions	90,782	109,141
Journal, books, etc.	17,829	34,309
Servicing contracts etc.	250,191	213,323
Office expenses, total	**536,558**	**578,306**

	2020	2019
5 PREMISES		
Rent of office	775,956	765,312
Electricity, heating	68,518	74,794
Cleaning	148,012	147,429
Repairs and maintenance	12,672	31,772
Premises, total	**1,005,158**	**1,019,307**
6 ACCOUNTANT/ATTORNEY REMUNERATION ETC.		
Accountant remuneration, Deloitte	239,375	225,000
Accountancy consultation, Deloitte	2,312	-10,000
Attorney's remuneration	419,172	597,250
Other consultancy services	410,644	379,508
Accountant/attorney remuneration etc., total	**1,071,503**	**1,191,758**
7 EXTERNAL EXPENSES, RESEARCH ACTIVITIES		
Peer review expenses	203,065	733,389
Preparation of publications	133,750	211,891
Research presentations, meetings etc.	7,643	246,728
European Science Foundation, Science Europe membership fee	64,452	59,975
External expenses, research activities, total	**408,910**	**1,251,983**
8 OTHER EXPENSES		
Travelling and accomodation	118,431	294,440
Advertising	2,681	0
Entertainment expenses, gifts	510	25,955
Courses	50,738	19,665
Insurance	89,929	91,043
Cost of staff and board	70,281	115,190
Other expenses, total	**332,570**	**546,293**
9 DEPRECIATION		
Leasehold improvements, see note 10	61,710	89,612
Office furniture and equipment, see note 10	40,722	44,377
Depreciation, total	**102,432**	**133,989**

	Leasehold improvements	Office equipment and furniture	Total
10 TANGIBLE FIXED ASSETS			
Acquisition cost, January 1, 2020	2,285,992	1,275,321	3,561,313
Additions	41,500	0	41,500
Disposals	0	0	0
Acquisition cost, December 31, 2020	**2,327,492**	**1,275,321**	**3,602,813**
Depreciation, accumulated, January 1, 2020	-2,105,152	-1,195,556	-3,300,708
Depreciation for the year	-61,710	-40,722	-102,432
Reversed depreciation, disposals for the year	0	0	0
Depreciation, accumulated, December 31, 2020	**-2,166,862**	**-1,236,278**	**-3,403,140**
Book value at year-end	**160,630**	**39,043**	**199,673**

	2020	2019
11 SECURITIES, BONDS		
Asset classes		
Danish bonds	2,101,684,215	2,134,714,423
European corporate bonds	547,607,262	555,708,939
Global inflation-linked bonds	643,043,448	625,820,353
US High yield bonds *	427,046,125	413,183,067
Bonds, total	**3,719,381,050**	**3,729,426,782**

* Option adjusted duration, December 31, 2020: 3.54 (December 31, 2019: 2.86)

Danish bonds

Distribution by type of security:		
Mortgage bonds	2,071,940,060	2,059,798,933
Government bonds	29,006,509	71,745,165
Other bonds	737,646	3,170,325
	2,101,684,215	**2,134,714,423**

Option adjusted duration December 31, 2020: 3.50 (December 31, 2019: 3.78)

	2020	2019
11 SECURITIES, BONDS (CONTINUED)		
European corporate bonds **Distribution by rating category and forward currency contract:**		
AA	38,968,648	21,502,077
A	124,623,051	0
BBB	383,720,778	534,136,428
Collateral	294,785	70,434
	547,607,262	**555,708,939**

Rating category according to Standard & Poor's Long-Term Credit Rating.
Option adjusted duration, December 31, 2020: 5.20 (December 31, 2019: 5.13).

Global inflation-linked bonds **Distribution by country and forward currency contract:**		
Denmark	0	2,962,714
Canada	14,707,210	3,732,655
Germany	24,314,744	2,926,159
France	76,247,716	70,197,848
Great Britain	75,559,689	74,798,630
USA	416,815,498	445,852,780
New Zeeland	21,886,564	2,679,958
Sweden	3,319,483	0
Australia	5,128,163	20,758,553
Forward currency contracts	5,064,381	1,911,056
	643,043,448	**625,820,353**

Adjusted duration, December 31, 2020: 2.71 (December 31, 2019: 2.63).

	2020	2019
12 SECURITIES, EQUITIES		
Nykredit Invest Globale Aktier Basis	110,527,251	134,728,980
NT World Custom ESG Equity Fund	547,610,812	564,954,478
NT World Custom ESG EUR HDG EQY	553,109,475	566,467,269
Danske Invest Global Indeks, klasse DKK W d	566,447,900	535,506,365
GW&K Trilogy Emerging Markets Fund	288,131,743	252,603,735
Forward currency contracts and swaps	9,641,880	8,309,130
Equities, total	**2,075,469,061**	**2,062,569,957**

13 LIQUID ASSETS		
Cash	2,422	3,239
Current bank accounts	373,190	769,817
Portfolio accounts	38,118,184	18,308,564
Liquid assets, total	**38,493,796**	**19,081,620**

14a DISTRIBUTION OBLIGATIONS

2020 distributions and total grants, DKK thousand

Grant No		Grant 1st period	Grant 2nd period	Changes in 2020	Grants total	Disbursed 2020	Residual disbursement, expected
Closed grants		3,465,880	2,489,004	0	5,954,884	0	0
Course activities for center leaders/outreach program							
88.	Management course/communication	3,550	7,600		11,150	557	3,505
Centers established in 2009/2010							
89.	Center on Autobiographical Memory Research	42,085	42,000		84,085	605	0
94.	Center for Geogenetics	50,210	50,743	-52	100,901	-52	0
Centers established 2012							
98.	Centre for Medieval Literature	36,000	24,000		60,000	4,894	7,698
99.	Center for Dynamic Molecular Interactions	49,000	32,700		81,700	8,003	8,821
100.	Center for Permafrost dynamics in Greenland	60,242	39,500		99,742	10,437	10,187
101.	Center for Quantum Devices	64,408	46,900		111,308	10,343	23,523
102.	Center for Financial Frictions	48,000	32,000		80,000	8,413	9,224
103.	Center for Nanostructured Graphene	54,138	36,000		90,138	8,604	8,840
105.	Center for International Courts	42,000	28,000		70,000	7,105	10,707
106.	Stellar Astrophysics Centre	55,000	36,700		91,700	6,696	13,217
107.	Copenhagen Center for Glycomics	62,000	41,507		103,507	8,241	13,511
Centers established in 2015							
115.	Center for Chromosome Stability	65,000		45,000	110,000	12,459	50,333
116.	Center for Stem Cell Decision Making	54,986			54,986	6,746	6,013
117.	Center for Music in the Brain	52,207		45,946	98,153	10,733	51,150
118.	Center for Carbon Dioxide Activation	60,000		25,000	85,000	9,847	28,092
119.	Center for Urban Network Evolutions	65,000		40,000	105,000	8,601	41,314
120.	Center for Bacterial Stress Response and Persistence	34,814			34,814	866	1,106
121.	Center for Neuroplasticity and Pain	60,242		25,000	85,242	8,686	28,289
To be carried forward		4,424,762	2,906,654	180,894	7,512,310	131,784	315,530

14a DISTRIBUTION OBLIGATIONS

2020 distributions and total grants, DKK thousand

Grant No		Grant 1st period	Grant 2nd period	Changes in 2020	Grants total	Disbursed 2020	Residual disbursement, expected
Brought forward		4,424,762	2,906,654	180,894	7,512,310	131,784	315,530
Centers established in 2015 (continued)							
122.	Center for Intelligent Oral Drug Delivery and Sensing using Microcontainers and Nanomechanics	56,000		40,000	96,000	8,161	43,901
123.	Center for Silicon Photonics for Optical Communications	59,000		41,594	100,594	8,396	43,513
124.	Center for Hyperpolarization in Magnetic Resonance	55,000			55,000	6,622	12,161
125.	Center for Autophagy, Recycling and Disease	50,000		45,372	95,372	9,385	45,872
126.	Center for Personalized Medicine Managing Infectious Complications in Immune Deficiency	60,000		40,055	100,055	11,038	40,877
Niels Bohr Professorships established in 2016-2017							
127.	Rita Felski, University of Southern Denmark	27,997			27,997	4,217	3,068
128.	Matthew Collins, University of Copenhagen	30,860			30,860	5,740	8,189
129.	John McGrath, Aarhus University	29,948			29,948	4,599	7,479
130.	Thomas Pohl, Aarhus University	29,976		-4,721	25,255	6,263	1,404
131.	Morten Bennedsen, University of Copenhagen	29,909			29,909	6,670	9,744
132.	Enrico Ramirez-Ruiz, University of Copenhagen	29,959		-8,293	21,666	3,571	1,104
Centers established in 2017 and 2018							
133.	Center for Proteins in Memory	62,000			62,000	8,947	35,985
134.	Center for Economic Behavior and Inequality	57,000			57,000	9,111	38,084
135.	Center for Cellular Signal Patterns	61,000			61,000	11,043	28,536
136.	Center for Electromicrobiology	56,000			56,000	9,037	22,238
137.	Center for Microbial Secondary Metabolites	58,000			58,000	9,201	39,351
138.	Center for Privacy Studies	50,000			50,000	10,162	25,312
To be carried forward		5,227,411	2,906,654	334,901	8,468,966	263,947	722,348

14a DISTRIBUTION OBLIGATIONS

2020 distributions and total grants, DKK thousand

Grant No		Grant 1st period	Grant 2nd period	Changes in 2020	Grants total	Disbursed 2020	Residual disbursement, expected
Brought forward		5,227,411	2,906,654	334,901	8,468,966	263,947	722,348
Centers established in 2017 and 2018 (Continued)							
139.	Center for Hybrid Quantum Networks	62,000			62,000	9,715	30,328
140.	The Cosmic Dawn Centre	66,173			66,173	7,038	50,723
141.	Center for Functional Genomics and Tissue Plasticity	65,000			65,000	9,915	38,143
142.	Center for Macroscopic Quantum States	63,000			63,000	12,173	33,978
Centers established in 2020							
143.	Center for Evolutionary Hologenomics	67,654			67,654	8,895	58,759
144.	Center for the experimental-philosophical study of discrimination			62,626	62,626	1,669	60,957
145.	Danish center for Hadal research			54,612	54,612	903	53,709
146.	Center for Visualizing Catalytic Processes			85,826	85,826	1,959	83,867
147.	Center for Nanophotonics			62,496	62,496	3,725	58,771
149.	Center for High Entropy Alloys Catalysis	61,056			61,056	3,972	57,084
150.	Center for Interstellar Catalysis			67,382	67,382	4,075	63,307
151.	Copenhagen Center for Geometry and Topology			60,169	60,169	2,399	57,770
152.	Center for Complex Quantum Systems			66,576	66,576	865	65,711
DNRF Chair established in 2020							
153.	Jesper Svejstrup, UCPH			15,000	15,000	3,955	11,045
155.	Steffan Persson, UCPH			8,000	8,000		8,000
156.	Peter Jørgensen, AU			7,928	7,928		7,928
Grant and distribution, total		**5,612,294**	**2,906,654**	**825,516**	**9,344,464**	**335,205**	**1,462,428**

The number of grants listed in the key figures includes the Centers of Excellence, DNRF Chairs and Niels Bohr Professors, listed on pages 29-33.

14b ANNUAL DISBURSMENTS

Annual disbursments, DKK thousand

Year	Disbursed	Expected disbursements to activities listed above	Total
1993	19,133		
1994	141,708		
1995	154,509		
1996	176,194		
1997	200,876		
1998	247,751		
1999	243,346		
2000	224,484		
2001	228,789		
2002	256,877		
2003	239,916		
2004	173,489		
2005	195,185		
2006	195,225		
2007	242,803		
2008	321,277		
2009	274,998		
2010	387,270		
2011	358,754		
2012	390,990		
2013	423,039		
2014	435,944		
2015	424,512		
2016	381,286		
2017	384,769		
2018	409,291		
2019	414,417		
2020	335,205		
2021		453,027	
2022		407,755	
2023		313,826	
2024		184,052	
2025		80,772	
2026		22,996	
	7,882,037	**1,462,428**	**9,344,465**

The disbursements specified above are distributed according to the expected year of disbursement.

Disbursements are made on the basis of the grant holders' revised budgets. In consequence, the final presentation of accounts to the foundation may result in adjustments of the disbursements for the following years.

14c EXPECTED DISTRIBUTIONS 2021-2025

In addition to the distribution obligations listed in notes 14a and 14b, new grants are expected to be established as a result of application rounds for Centers of Excellence, DNRF Chair and Pioneer centers. Total (including given and planned) distributions are expected to be as follows:

Year	Million DKK
2021	475
2022	488
2023	484
2024	427
2025	559
	2,433

15 CONTIGENT LIABILITIES

The foundation has to give six months' notice to terminate the tenancy agreement. The obligation amounts to DKK 394,598

The foundation has entered into forward currency contracts and swaps for the purchase and sale of the following currencies (amounts calculated in the currencies in question):

		2020
Currency	Purchase	Sale
USD	3,167,108	177,951,768
JPY	35,646,319	1,362,697,815
CAD	0	3,075,000
EUR	175,899,068	4,128,631
GBP	97,000	9,280,000
NZD	0	4,990,000
AUD	1,571,000	2,675,000
DKK	0	9,900,000
SEK	52,000	4,517,000

		2019
Currency	Purchase	Sale
USD	2,699,732	164,382,106
JPY	65,020,744	1,426,957,604
CAD	9,000	746,000
EUR	173,257,204	3,936,842
GBP	100,000	8,541,000
NZD	0	600,000
SEK	45,000	4,447,000
DKK	15,308,035	14,944,000

The market price of the forward currency contracts and swaps as of December 31 is set at the value of the securities in question, see notes 12 and 13.

The foundation has entered into interest-rate futures for the purchase and sale of the following, calculated in the currencies in question:

		2020
Currency	Purchase	Sale
EUR	0	0

		2019
Currency	Purchase	Sale
EUR	4,300,000	1,700,000

The market price of the interest-rate futures as of December 31 is set at the value of the securities in question, see note 12.

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Audit
The Office of the Auditor General and a chartered accountant shall audit the foundation's annual accounts. The board appoints the chartered accountant for a three-year term and the chartered accountant has to be approved by the Minister for Higher Education and Science. Jens Sejer Pedersen (Deloitte), State Authorized Public Accountant is appointed for the period May 1, 2019 to Maj 31, 2022.

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