

THE DANISH NATIONAL RESEARCH FOUNDATION
2021 PUBLICATION

Where is the Culture of Academia Headed?

Theme reports from the Danish National Research Foundation – An inside view on conditions of research

Close contact with its grant holders continues to be part of the Danish National Research Foundation's DNA. Annual follow-up meetings at the sites of each grant holder are a way of supporting the ambitious research centers through continual dialogue. At the meetings, the DNRF takes the opportunity to interview the center staff about how they view the broader issues that are directly consequential to the continued well-being of research and researchers. Themes emerging from these interviews are collected in the annual meeting publications. In this way, researchers' perspectives become available to other actors in the research landscape who share the ambition of promoting Danish research and innovation.

What is the Danish National Research Foundation (DNRF)?

The DNRF funds Danish basic research in all academic fields with the potential of becoming world leading. This is achieved mainly through flexible, long-term funding in the form of Centers of Excellence led by top scientists.

Previous theme reports



Transformative Research

2019



Diversity and Excellence

2018



Open Access to Data

2017

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Where is the Culture of Academia Headed?

Complemented Lotus

The Lotus japonicus plants in the picture lack a receptor and therefore cannot establish root nodule symbiosis with nitrogen-fixing bacteria. We created variants of the missing receptor and express it, along with a yellow fluorescent protein, in the root. The new receptor, which is produced in the bright yellow-fluorescing roots but not in the darker, non-fluorescent roots, complements the plant - it restores the ability to perceive the beneficial bacteria and to build root nodules. To take the picture, I illuminated the plants with blue light and equipped my smartphone with an orange filter. *From the DNRF photo competition 2021.*

Credit: Christina Krönauer, Aarhus University



For the past year, the DNRF has conducted an enquiry among its grant holders to get an inside view of the direction of the culture of academia. In this annual meeting publication, the main themes that emerged are presented, following a brief general introduction to the topic.

The relevance and timeliness of the foundation's question to the researchers – "Where is the culture of academia headed?" – are a function of, first, the increased attention to a healthy academic culture as a pillar of long-term academic success and well-being; second, the fact that academia, broadly speaking, is under continual and substantial change that has consequences for the culture and conditions of academia and, in turn, for the success of academia and the well-being of academic staff.

Academic express

Academic culture has gone through quite extraordinary changes over the past several decades, i.e., within the span of an academic career. Some of these changes have improved the possibility for academia to deliver on its purpose, whereas others may have done the opposite – some, indeed, both.

Add to this a remarkable technological development exemplified by, e.g., gene sequencing and editing, which has allowed researchers to take genetic research to an entirely new level. Or consider more general developments including email, cell phones, chat functions, virtual meetings, and social media, and changes that have allowed for the globalization of research, in parallel to other parts of society, for instance, in terms of the feasibility of collaborating on large research initiatives spread out over various locations nationally or internationally despite geographic distance.

It is fair to say that the pace of academic change, over the several past decades, has accelerated well beyond Moore's law.

Looking back over 40 years:

External research funding has increased

International collaboration has increased

International competition for positions has increased

The use of and focus on research quality measurements have increased

Digitalization and large-scale data generation and use have intensified

The pace of the dissemination of scientific knowledge has increased

The number of positions, especially for young researchers, has increased, and an increasing proportion of these are financed with temporary funds

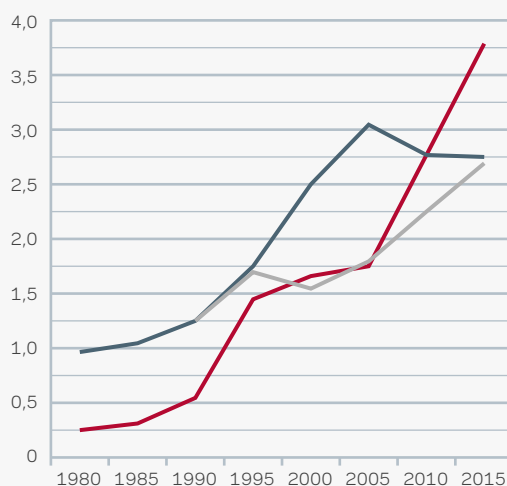
The average publication rate of researchers has increased.



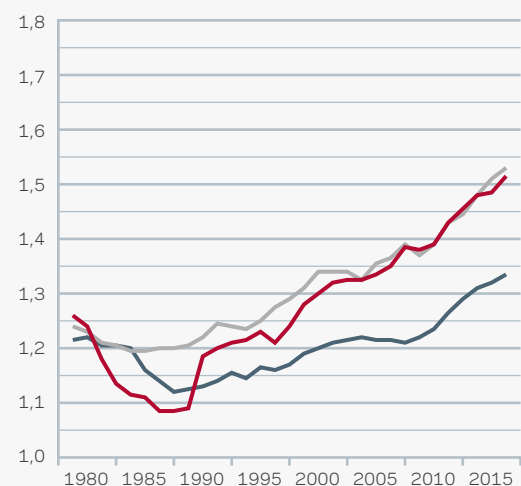
Since 1980 Danish research has gone through tremendous changes, here illustrated by

- 1) The growth in the number of young researchers finishing their Ph.D. compared with population size (2020: 3,2 Ph.D. degrees per 10.000 people);
- 2) The growth in the impact of Danish research as reflected in the finding that the number of citations of Danish research publications has increased steadily to have on average in 2012 1.5 or 50 percent more citations than would normally be expected (average for 2015-2019: 1.8).

Number of graduated Ph.D.'s per 10.000 people in population



Development in citations measured in MNSC



Links between research policy and national academic performance A comparative study of Denmark, Sweden and the Netherlands (2016). Background report, [World Class Knowledge](#). The Danish Council for Research and Innovation Policy. [Tal om Danske Universiteter 2020](#). Danske Universiteter [Universiteternes Statistiske Beredskab](#).

■ Denmark
■ Sweden
■ Netherlands

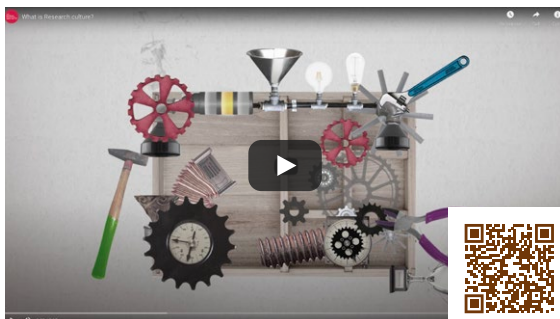
A healthy academic culture: A pillar of long-term academic success

Producing high-level research and training skilled students are core ambitions of academia, and in Denmark – as in other countries – output measures such as publication rate and quality, patent filings, counseling, and employment rate are central indicators of the success of academia. Excellence in research continues to be a highly esteemed value.¹

It is obvious that there is a strong connection between what is produced and how it is produced. This “how” points to the


importance of the values, norms, and, more generally, conditions of academia that are regularly referred to as the culture of academia, of research, or of science.

Hence, it is unthinkable that the developments spurring the successful growth of Danish research over the past several decades, reflected in some of the changes mentioned above, have happened without changes in academic culture. In some areas, Danish research leads the field.



What is research culture? See the animated video from Royal Society

¹ “Excellence” can be defined as “a general striving for the supreme on an individual and societal level. The motive for this striving is the assumption that excellence in research benefits not just the specific research field but the entire research system – and the country.” (DFIR, 2016 (our translation)).



“ The relentless drive for research excellence has created a culture in modern science that cares exclusively about what is achieved and not about how it is achieved.

Jeremy Farrar, director of the Wellcome Trust

The culture of academia may encompass such issues as ambition, pressure, expectations, organizational and management decisions, work and employment conditions, or the perceived fairness of review, recruitment, and reward systems. Some of these issues are in obvious ways connected with the changes mentioned above; some are continuous.

Over the past decade, a discussion has increasingly brought to the fore the contention that if academia is, in the longer term, to deliver on its ambitious goals, it requires an increased focus on values such as openness, inclusion and collaboration.

According to director of the Wellcome Trust, Jeremy Farrar, who has launched the engagement initiative “Reimagine Research”:

“The relentless drive for research excellence has created a culture in modern science that cares exclusively about what is achieved and not about how it is achieved. As I speak to people at every stage of a scientific career, although I hear stories of wonderful support and mentorship, I’m also hearing more and more about the troubling impact of prevailing culture.”²

Current discussions about the culture of academia warn us that a counterproductive culture may – both directly and indirectly – have a substantial negative impact on

academic production³: directly, e.g., by pushing researchers to become protective of their data, or even tempting them to cut corners as a way of surviving the fierce competition; and indirectly, e.g., by creating hostile or in other ways unattractive environments.

This also demonstrates how a counterproductive academic culture is not just bad for science; it can also be bad – even unhealthy – for scientists. The Wellcome Trust initiative demonstrates widespread issues in UK academia related to, e.g., stress, fairness and trust.⁴

Reports of stress related to obtaining funding and permanent positions in academia are also common in Danish research communities. At the same time, many experienced researchers look back at a carefree approach and an acknowledgement of serendipity when they made a career in academia in times when there were very few academic positions and next to no external funding.⁵

“How may a counterproductive culture damage academic output and staff well-being?”

Rachael Ainsworth, astrophysicist



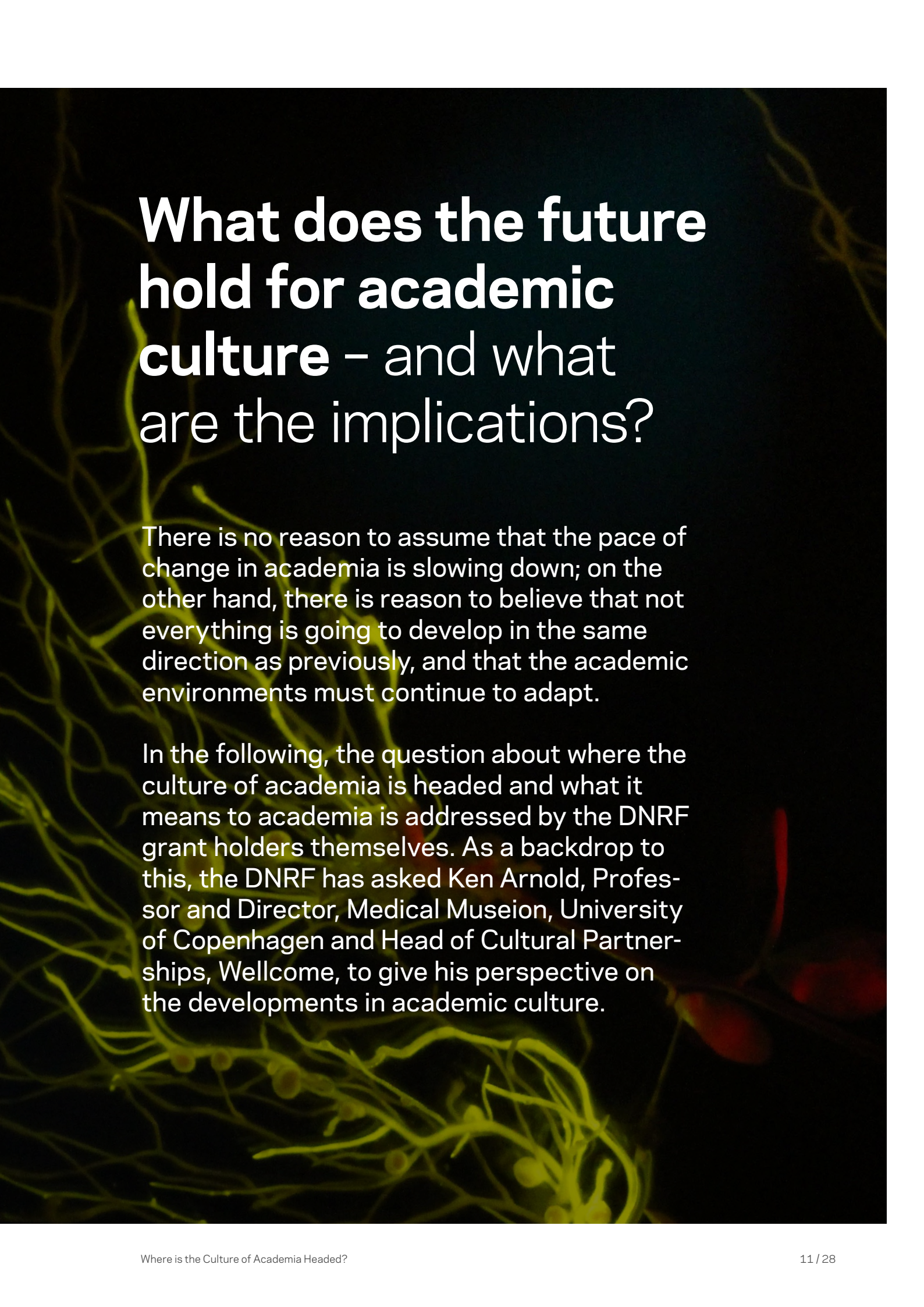
In this TEDx talk, astrophysicist Rachael Ainsworth gives examples of the detrimental effects of the prevailing academic culture and gives a personal account about her experiences with a particularly toxic scientific environment.

² Why we need to reimagine how we do research. Opinion. Jeremy Farrar at [Wellcome.org](https://wellcome.org)

³ See discussions at [Royal Society](https://royalsociety.org), [Wellcome Trust](https://wellcome.org), [Nuffield Council](https://nuffieldcouncil.org.uk)

⁴ What researchers think about the culture they work in. Report summary at [Wellcome.org](https://wellcome.org)

⁵ The DNRF publication *Fortællinger fra Grundforskningens Grænseland* (2020) tells the personal stories of the lives and career paths of 25 different DNRF center leaders (in Danish).



What does the future hold for academic culture – and what are the implications?

There is no reason to assume that the pace of change in academia is slowing down; on the other hand, there is reason to believe that not everything is going to develop in the same direction as previously, and that the academic environments must continue to adapt.

In the following, the question about where the culture of academia is headed and what it means to academia is addressed by the DNRF grant holders themselves. As a backdrop to this, the DNRF has asked Ken Arnold, Professor and Director, Medical Museion, University of Copenhagen and Head of Cultural Partnerships, Wellcome, to give his perspective on the developments in academic culture.

Branches and bridges, or pipelines and pressure-cookers?



Ken Arnold is Director of Medical Museion and Professor at Copenhagen University, focused on public and stakeholder engagement with medicine. He also continues as Head of Cultural Partnerships at Wellcome, where he's worked since 1992.

He writes and speaks widely, mainly on museums and interactions between the arts, humanities and sciences.

We live in a knowledge-based world, into which companies and countries around the globe pour vast resources. But increasing concerns are being voiced both about the wellbeing of researchers and indeed the health of academia itself. How much room is there left for values like creativity and collaboration? The progress of science during the next decade relies on us understanding and grappling with these issues.

The topsy-turvy changes of the last quarter century have illuminated a raft of interconnected trends: the growth of private and decline of government funding; the uptake of basic research in new sectors; increasing competition, but also collaboration, between institutions and nations; demands for transparency and public involvement; and, of course, a tsunami of technological innovations.

In the midst of mounting pressures created by such tectonic shifts lies a less well understood, or even acknowledged, aspect of research: its internal culture. This is what emerges between external guidelines and structures and internal behaviours and attitudes. Collectively they shape the experience and ultimately the wellbeing of individual researchers. Far from uniform, constellations of symptoms vary considerably between nations, institutions, teams and individuals. Grappling with all this is undoubtedly difficult, but vital for the existential condition of research.

A recent flurry of interest – much of it emerging from the UK – has unveiled a far from healthy picture. At least in parts, rot has clearly set in. A series of reports from the likes of

the Royal Society and Wellcome (where I am half-based) has shone fierce light on the hypercompetitive pursuit of rather a narrowly defined excellence, guided by blinkered measures of success. A culture in which disgruntlement, demotivation and downright harm are far from uncommon.

The challenges are substantial. But early signs suggest that the personal satisfaction associated with a career in research – a return to the (quite possibly romanticised) idea of a carefree pursuit of truth – can be rekindled. What are the grounds for such optimism? Well, the very fact that problems are being voiced and openly discussed – in this report, for example – are a healthy start. After all, we know from therapeutic contexts that recovery often begins with processes of acknowledgement.

Furthermore, a range of influential people and organisations are clearly prepared to think differently and adopt bold, corrective measures, and this across the entire arc of research from funding through to publishing and public engagement. The UK Government, for example, have recently set out a strategy to promote a more inclusive and positive research environment. Some believe that systemic reforms could well emerge from an ‘open science movement’, where methods, data, peer review, access and attitudes are all thoroughly reimaged.

Encouraging too have been the realistic appraisals of just how much time and effort is needed. For transformations to reach all parts of research, years and possibly



Bacteriological researchers at work, including vaccinologist Gaetano Salvioli and pathologists Alessandro Lustig (holding a test tube) and Guido Vernoni (with microscope). The possibly romanticised image depicts colleagues eagerly collaborating – a key attribute of healthy research cultures.

Colour print after R. Fantuzzi, 1926. From Wellcome Collection. Credit: [Wellcome Collection](#).

decades are required. Time during which monitoring and more investigation is pursued, crucially at micro- as well as macro-levels, and from within as well without the research environment.

This last point is worth emphasising. The study of research culture must, of course, be based on evidence, statistical analysis and hypothesis testing. But a formulaic reliance on scientific methods risks overshadowing the issue's more qualitative and subjective features. After all, hopes,

passions and dreams are at stake here too. If we retain open minds, we can also expect to learn much from biographic, ethnographic, and even artistic perspectives. Researchers feel the culture in which they work just as powerfully as they know it. Our fullest comprehension of it is likely to emerge precisely where various approaches and voices intersect.

Starting with individuals then, a different set of insights could also profoundly influence the evolution of research culture. Three aspects of

these more personal truths seem especially significant: creativity, collaboration and connectivity.

Much recent debate has focused on dichotomies between blue-sky freedom and instrumental translation. The dominance of these by now familiar discussions has, arguably, distracted us from a proper exploration of what turns out to be the most cited feature of an ideal research environment: creativity. Many mourn its absence in their working lives. Collaboration is something else researchers are eager to embrace and enhance, but also to be rewarded for. Many see in it a way potentially to lighten the more toxic effects of competition. And a third c-word: connection. Here generic policies for outreach and social impact are gradually yielding authentic practices to involve 'lay stakeholders' in the design, critique and ultimately the conduct of research. What these three factors gesture towards, at the end of a winding road, is a more porous research culture, built on increasingly mobile and flexible careers, and flanked on either side by disciplines with softened boundaries.

So what might a better research culture look like in a decade? Here are four predictions. Conversations about it will become commonplace, mentioned in job interviews and on academic websites. Diversity and inclusivity will substantially alter across the community, and not just in publicity images but actually in workplaces. Strides will be made to open up narrowly entrenched aspects of academic publishing, which currently stifle creative opportunities to share. And fourth, experimental efforts to collaborate across silos will become mainstream. And from them emerges a hopeful speculation, that better research experiences might well lead to unexpected scientific findings: that what's good for scientists will be good science.

We are these days highly sensitised to the significance of metaphors. Signs of genuine progress might therefore surface in the words used to describe research; when, for example, we find ourselves talking as readily about branches and bridges as pipelines and pressure-cookers.

Wellcome's Reimagine Research Culture Festival

In March 2021, Wellcome ran a [Reimagine Research Culture Festival](#). It brought together the research community to discuss how more positive and inclusive research cultures can be fostered: exploring what's already working, new approaches and how organisations can change.



The DNRF enquiry

Photomicrograph of a hepatic spheroid

From a single liver cell suspended in a three-dimensional hydrogel matrix a big round hepatic spheroid has grown. Liver cells obtain enough nutrition over four weeks to grow into huge spherical colonies where each colony stem from a single liver cell, by submerging the hydrogel matrix with liver cells in cell medium, replenished two times a week. 30 confocal laser scanning microscopy images in depth together capture the surface of a big spheroid and a slight image of another spheroid lying behind it. From the DNRF photo competition 2019.

Credit: Morten Leth Jepsen & Andreas Willumsen, DTU.

Four main themes emerging from the DNRF enquiry are presented below. The grant holders presented their views at the annual follow-up meetings with the DNRF over the course of 2020 and 2021, based on broader discussions in the research groups.

The DNRF has been curious to understand how researchers in a Danish context experience the academic culture, in particular, how they perceive the substantial changes that have taken place over the past 40 years, and how they see the continuing changes and their associated consequences. The following questions were sent to grant holders by the DNRF as an inspiration:

- Where are the research environments heading if today's development continues?
- If curiosity, open minds and contemplation are prerequisites for groundbreaking scientific discoveries, and if the greatest discoveries are made in the scientists' youth, what then are the consequences of the widespread stress among researchers below the level of professor?
- Lack of money and positions in the system: is it absolute or relative to the large number of scientists competing for these items?
- Are there limits to the benefits of internationalization?
- What are the consequences if the shift from public to private funding in academia continues and also if salaries for "tenured" staff become dependent on soft money?

Theme 01

Globalization

Research has always been a strongly international endeavor, and these days, it is increasingly so. It is the nature of academia to find inspiration, to recruit, and to find peers and partners in the same specialized field and to seek funding and to publish in an international setting. Plus, young researchers are expected to spend some of their training abroad.

To funders, whether public or private, international collaboration has become a top priority. This globalization has a tremendous impact on core dynamics in academic culture.

According to DNRF grant holders, globalization is changing, e.g., the way research is done, organized and led, and how researchers are recruited. Globalization is felt as an increased competitive pressure and a cause of stress, especially among young researchers.

DNRF grant holders describe a development whereby research groups become still larger, more collaborative and more interwoven internationally. Some find that internationalization has been the single most forceful driver of change in academic culture over the past several decades.

As in other parts of society, certain technological advances are main drivers or catalysts of the globalization in academia. Digitization and data use move health researchers – in the words of one center leader – “from bench to computer,” thus allowing research to be carried out independent of geographical location, physical laboratories or site visits; research groups work smoothly together across borders.

Globalization has also made an enduring mark on recruitment and competition. Some grant holders report that the move toward

“ ... the move toward international recruitment means improved possibilities to recruit top-level researchers at all academic levels.

international recruitment means improved possibilities to recruit top-level researchers at all academic levels. On the other hand, it is evident from the DNRf enquiry that especially young researchers feel an increased competitive pressure, for instance, when having to compete for post-doc or tenure positions with candidates from the entire world.

The dependence on international activity has been felt in a very direct way due to the pandemic, which has put a temporary stop to travelling. Yet, some grant holders report

that the crisis has in some ways promoted international collaboration and cohesion. For instance, the concurrent move – also nationally – of meetings and discussion forums to virtual platforms allowed for a more inclusive culture where all members, regardless of geography and experience, were able to take part on an equal footing.

What does the future hold?

The general feeling among grant holders is that the trend toward globalization is going to continue unimpeded. As a result, competition for funding and positions will also intensify further. One researcher imagines that we will increasingly see more international and fluid forms of research group organization and leadership in large research projects, where specialists from different countries get together to address a complex common problem – underpinned by ever more sophisticated virtual platforms for meetings and analysis.



“The disciplines that interact become more numerous and specialized. It is important that we develop models of flexible leadership.”

**Zoom interview with Jelena Radulovic.
Professor at Center for Proteins in Memory**

Theme 02

Attracting and retaining talent and promoting diversity

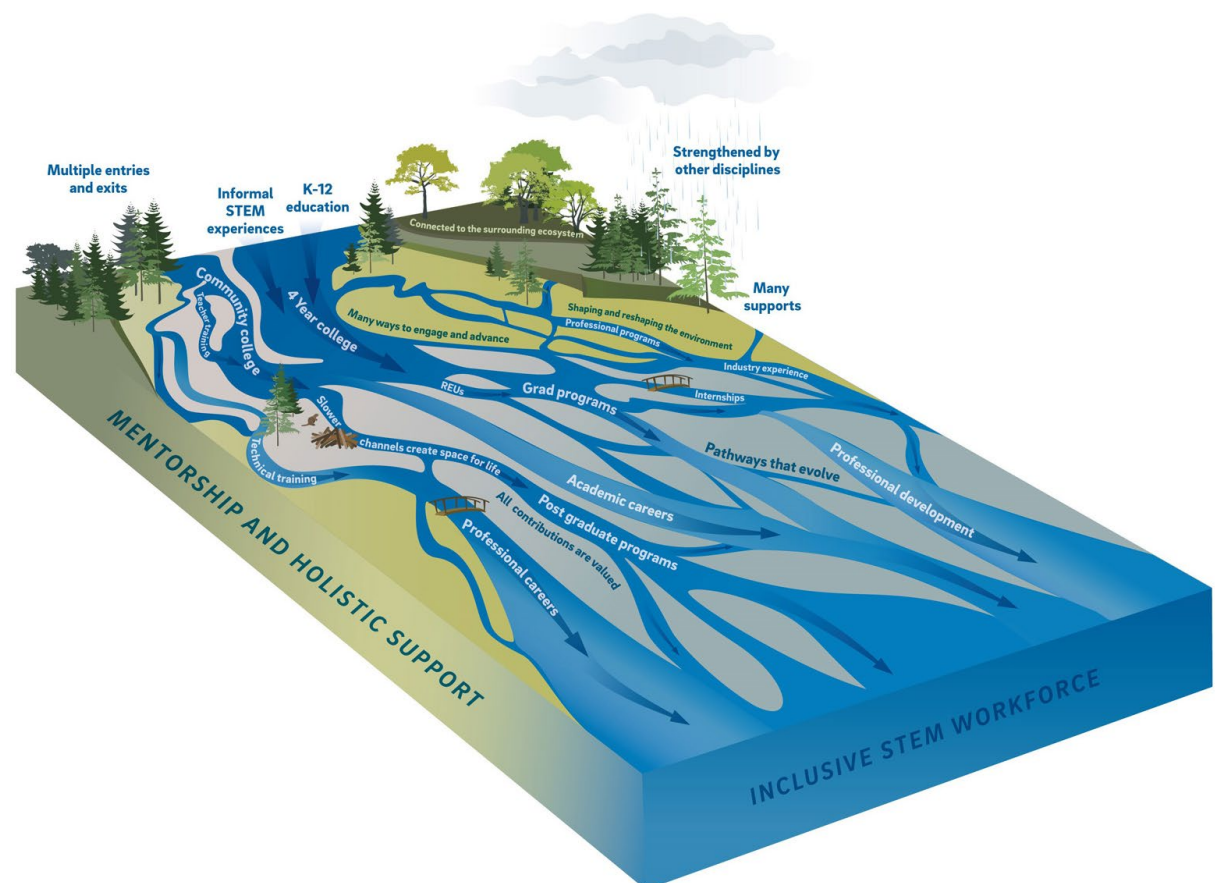
Talent has foundational importance in an ambitious agenda for research and higher education, and much effort has historically been put into recruitment and maintenance measures that make it attractive for talented researchers to pursue or stay in a career in academia in Denmark.

The past several decades have seen a remarkable increase in the number of young researchers, while the number of tenured positions has been stable. This means that research talent flows from university to industry and other workplaces. It also means that competition for academic positions has become still fiercer. Finally, it is well-known that the proportion of women decreases the further up the academic career ladder one goes, reflecting a talent leakage problem at universities.

The DNRF enquiry points to several developmental factors that lower the attraction of an academic career, including stress due to publication pressure and competition, and job security. Despite these issues, the young researchers at the DNRF centers find an academic career attractive.

DNRF grant holders have experienced a development whereby:

- Careers have become still more dependent on the ability to publish well, e.g., while working toward a Ph.D., so as to be able to compete for post-docs;
- The competition for tenure has become still fiercer;
- Careers are still more dependent on "soft money" from grants;
- The time for real contemplation has become scarce;
- The focus on diversity has increased;
- The mentoring of young researchers has become professionalized.



Should we think about the flow of talent from universities as a leaky pipe or a braided river – or both?

Figure from Batchelor et. al (2021); image by Jennifer Matthews, University of California San Diego. Batchelor, R. L., H. Ali, K. G. Gardner-Vandy, A. U. Gold, J. A. MacKinnon, and P. M. Asher (2021), Reimagining STEM workforce development as a braided river, Eos, 102, <https://doi.org/10.1029/2021E0157277>. Published on 19 April 2021.



“The young work force must be much more mobile – they must travel the world according to the available possibilities”

Zoom interview with Morten Bennedsen,
Niels Bohr-professor (in Danish)

While the grant holders acknowledge that it is unrealistic – given the increasing proportion of soft money – that universities should be able to offer tenure positions to all talented young researchers, they point out that a major “leak” of talent happens when grants run out. Others point out that leakage should not be equated with waste. One grant holder suggests viewing the flow of talent as a braided river with multiple entry and end points, rather than as a pipe that leaks. In other words, that talent “leaks” to industry should at the outset be seen as beneficial. When it comes to the proportion of women, however, the leaky pipe metaphor seems more appropriate, and so the increased focus on diversity should also promote the retention of talent.

To young researchers, the perceived job insecurity in an academic career is an important consideration. An increasingly competitive and stressful academic environment is, however, not seen by all as a narrowly bad thing but also as a motivating factor.

What does the future hold?

The expectation among grant holders is that the competition and the trend toward more soft money during the past decades is not about to change. This implies a flow of young researchers from academia to other sectors. Although many young researchers are positive about this, they frequently request a more systematic career guidance system.



Photo: Shutterstock

“ One grant holder suggests viewing the flow of talent as a braided river with multiple entry and end points, rather than as a pipe that leaks. In other words, that talent “leaks” to industry should at the outset be seen as beneficial.

Theme 03

Quality, quantity and recognition

The increased focus on measuring research quality and quantity is one of the changes that preoccupy grant holders the most. Concepts like journal impact factor or H-index, which were hardly in use 40 years ago, have grown to prominence and are today often central in connection with highly consequential processes like recruitment and funding.

In this way, metrics have become an important currency that academics at all levels depend on for career progress. The increased use of metrics has played a significant role in the ability of public and private funders and politicians to follow this development and not least to benchmark institutions, groups and individual researchers against each other.

Over the past 40 years, the productivity of researchers, and not least the publication in high-prestige scientific journals, has increased, and we have witnessed the rise of Asian research, still more specialized journals, and a tremendous increase in global research output.

DNRF grant holders report that

- Competition has intensified;
- There has been an increasing interest in measuring their productivity;
- Measurements have increasingly focused on quantity using “simple” parameters like journal impact factor and H-index;
- Outreach and communication efforts, including the use of social media, have become important as a way of promoting openness and conveying research to the general public, and increasingly also as an important way of “staying relevant” in scholarly competition.

A common view among grant holders is that a perceived over-focus on “simple metrics” is unfair and often counterproductive. One grant holder called to mind the words of sociologist W. B. Cameron (1963): “Not everything can be counted and not everything that counts can be counted.”

“... researchers’ hunt for quantity and short-term impact increasingly deters them from producing quality research.

The view that current recognition systems are too arbitrary is widespread. One example is the lack of clarity regarding the conditions for authorship of journal articles; in the natural and medical sciences the number of authors and even first authors on each article has skyrocketed.

Some grant holders observe, moreover, that researchers’ hunt for quantity and short-term impact increasingly deters them from producing quality research that thrives with long-term thinking and contemplation time. Akin to this, some note that the focus on individual merit offers disincentives for collaborative behavior – say, in the context of preparing a grant proposal – even though collaboration is encouraged and would be preferable from a scientific point of view.

Some suggest that quality assessments should be reoriented to focus less on individual and more on collective efforts and merits and on productive environments, or that CVs should be redacted in research applications.

What does the future hold?

While no one believes that the focus on metrics or the international competition is fading, some grant holders hope that improved metrics and recognition systems that capture research quality in better ways will be developed.



“When we start working across disciplines with much larger studies and internationally, the traditional metrics will be too unfocused to capture quality in research”

Zoom interview with Eva Hoffmann, professor, Center for Chromosome Stability (in Danish)

Theme 04

Funding and academic freedom

Still more research is taking place in large international consortia where researchers from disparate disciplines work together on interdisciplinary projects that revolve around a common scientific challenge. This development produces new academic possibilities and constraints.

Major changes during the past several decades include the increased availability of funding from private foundations, though in some areas more than others; and the tendency of funding to center on specific themes – often with the aim of addressing societal challenges – or other constraints. Ambitious programs that promote excellence with comparatively large budgets and extensive time horizons have become widespread in Denmark and abroad since the DNRF was founded in 1991.

DNRF grant holders note that programs that allow for more long-term funding attract and develop talent and allow for the development of highly productive and creative environments that produce excellent research. For instance, some observe that long-term funding provides the necessary time for researchers from different disciplines and specialties to develop a common language that, over time, produces truly innovative research.

“... programs that allow for more long-term funding attract and develop talent and allow for the development of highly productive and creative environments that produce excellent research.

Some warn that short-term thinking in parts of the funding system continues to impair forms of research that require long-term planning, and that narrowly formulated funding themes increase bureaucracy and impede creativity.

Some grant holders observe that still fewer researchers attract still more of the funding, thus creating A and B teams in the sense that some researchers are relieved of teaching duties.

Concern about the proportionality between internal and external funding is widespread, and this is already seen as a major barrier to the possibility that researchers and universities can influence the research agenda.

What does the future hold?

From the perspective of some researchers, the tendency toward large theme-centered grants will increase further.



“For the past 20 years we have prioritized both large longterm research projects with considerable funding that has created international interest and research that has not had excellence as a purpose”

Zoom interview with Jens Lundgren, professor, Centre for Personalised Medicine of Infectious Complications in Immune Deficiency (in Danish)

A fast-changing culture of academia – what do the researchers think?

It is obvious that there is a strong connection between what is produced in research and how it is produced. This “how” points to the importance of the values, norms, and, more generally, conditions of academia that are regularly referred to as the culture of academia, of research, or of science.

Academia has gone through quite extraordinary changes over the past decades, for instance regarding:

External research funding

International collaboration

International competition for positions

The use of and focus on research
 quality measurements

Digitization and large-scale
 data generation and use

The pace of the dissemination of
 scientific knowledge

The number of positions

In this year’s annual publication, an enquiry with perspectives on this development from DNRF grant holders is presented.

Image from virtual meeting at Center
 for Dynamic Molecular Interactions

