

Annual report 2022

**Danish Institute
for Advanced Study**

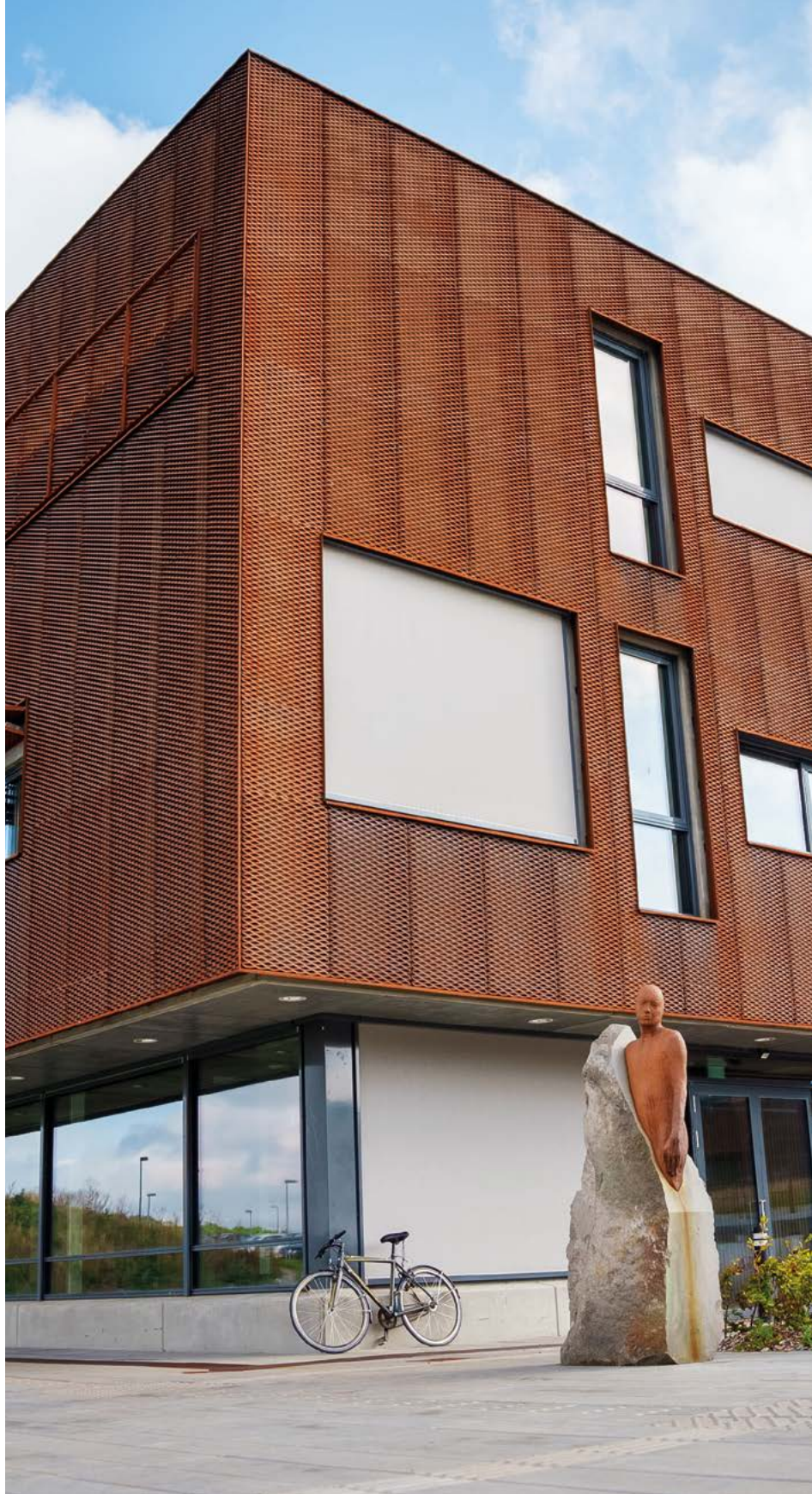


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Director's

Note

*By Marianne Holmer,
Director of DIAS*

In 2022, DIAS came back after a long shutdown during Covid-19 and well-known activities such as lectures and retreats were started again. In addition, new activities in different formats were tested. When I look back at 2022, there has been a lot of activity in DIAS and although travel is lower than before Covid-19, there has been a lot of international input for DIAS in the form of high-quality online lectures. There is no doubt that lectures on Wednesdays are the backbone of DIAS. This is where we are inspired by captivating speakers and this is where we meet across disciplines. These meetings often give rise to new insights and ideas for new research. Series of lectures on a specific topic have been a major success, as here you are introduced to the topic over a longer period of time and you get the topic explained from different viewpoints by the

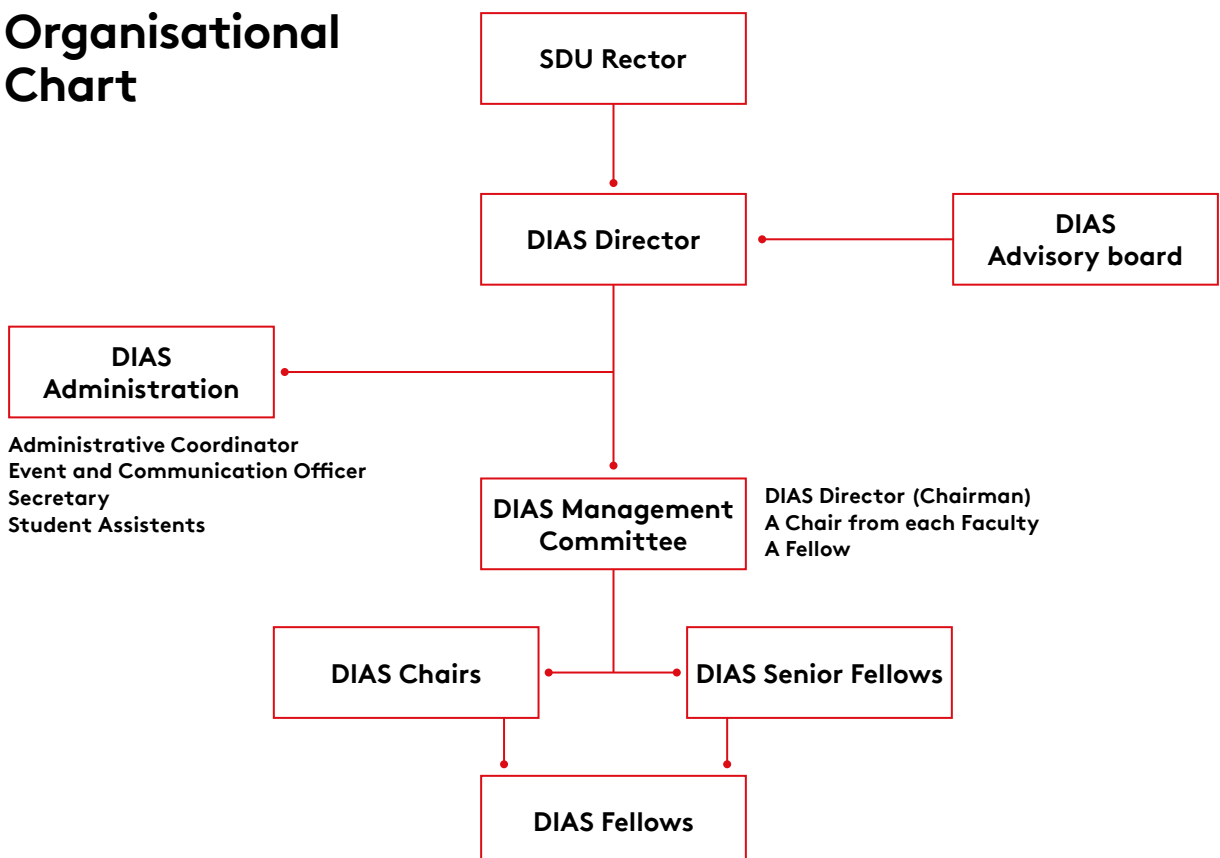
speakers. This means that you end up with a larger insight into a subject. The responsible DIAS researchers have managed to create series which have been exceptionally interesting. Another success has been discussions of #hot topics, in which DIAS affiliates have been deeply engaged. This applies, for example, to debates about dogmas in research and academic freedom, topics that are on all of our minds. A great success was the meeting with SDU's honorary doctors at the annual party to discuss "Where is Academia heading". They shared their long experience in research and their paths through ongoing changes in academia, where some were more optimistic about the future than others.

In addition to lectures, DIAS researchers make extensive use of the suitable facilities in the DIAS house for all kinds of activities, including conferences, workshops, Ph.d. defense and outreach activities. They are well supported by the DIAS secretariat, which has developed different concepts in relation to the different types of events, including supporting hybrid events and recording lectures for YouTube and branding on social media.

brid events and recording lectures for YouTube and branding on social media.

Finally, it is so great to see how the collaboration across DIAS is on the rise. There are many projects underway – supported by seed money from DIAS – and they range from workshops to research projects. Some projects have obtained external funding to continue the work. In 2022, we agreed on a vision for the establishment of Clusters in DIAS – an initiative that we are very much looking forward to, as it can bring together researchers across SDU and reach out to external partners. The idea is to get together on specific topics, e.g. climate change, emerging technologies, the welfare state and work interdisciplinarily in the broadest sense. This is precisely where DIAS has a strong hold, as DIAS brings together subject disciplines far more broadly than in other organisations, and not least brings together researchers with a great interest in working interdisciplinarily. During 2022, DIAS has built a solid foundation for developing the interdisciplinary research in the coming years.

Organisational Chart



Advisory Board

DIAS is supported by an Advisory Board established in 2020 with representation from national and international recognised professors within the disciplines of DIAS.

The DIAS Advisory Board is responsible for ensuring the objectives of the institute are being achieved through the provision of guidance and the development of recommendations to support the vision and mission of DIAS.





Former President of the European Research Council enters DIAS' Advisory Board

Jean-Pierre Bourguignon, Nicolaas Kuiper honorary professor at IHES, is a new member of the Danish Institute of Advanced Study's advisory board

DIAS is proud to present the newest Advisory Board member: Jean-Pierre Bourguignon, mathematician, former director (1994-2013), and now Nicolaas Kuiper honorary professor at IHES, Institut des Hautes Études Scientifiques, now affiliated with Université Paris-Saclay. He was the President of the European Research Council from 2014-2019 and President ad interim from July 2020 until August 2021.

As a mathematician, among other things his research has focused on differential geometry, especially its relations with partial differential equations and mathematical physics. His work on the Ricci curvature from the mathematical point of view and its role in general relativity has also been a recurrent focus of his research. Most of his career he has been a fellow of the Centre National de la Recherche Scientifique. He also held a professor position at École Polytechnique from 1986 to 2012. He is presently Chairman of the University Council of the Ludwig-Maximilians-Universität München.

Jean-Pierre Bourguignon was President of the Société Mathématique de France (1990-1992) and of the European Mathematical Society (1995-1998). He joined the CNRS Science Ethics Committee in 1999 and was its chair from 2007 to 2011. In June 2022, Jean-Pierre Bourguignon was appointed as a Foundation Fellow of the ISC, the International Science Council.

DIAS advisory board members - an overview



Bente Klarlund Pedersen

Clinical Professor of Integrative Medicine at the Department of Clinical Medicine, University of Copenhagen and Adjunct Professor at the University of Southern Denmark.

Klarlund is Chief Physician and Centre Director of the Centre for Physical Activity Research (CFAS) at Rigshospitalet. Due to her background and award-winning research, she is one of the most frequently used researchers in the media within topics on health, diet, exercise and Danes' health.



David Nirenberg

Director and Leon Levy Professor at the Institute for Advanced Study.

At the University of Chicago, Nirenberg served as Dean of the Division of the Social Sciences; Deborah R. and Edgar D. Jannotta Distinguished Service Professor of Social Thought, History, Divinity, Romance Languages and Literatures, and the College; Executive Vice Provost; and Interim Dean of the Divinity School. A historian and author, Nirenberg is recognized for wide-ranging scholarship on the interaction of Christians, Jews, and Muslims in medieval Europe and the Mediterranean.



Henrik Tvarnø

Cand.phil. in History and and Former Director for the A.P. Møller Foundation (A.P. Møller og Hustru Chastine Mc-Kinney Møllers Fond til almene Formaal).

With a background as a historian, culture and roots have been a dominant aspect of Tvarnø's academic occupation, and he has written multiple books about Rome and European history. Furthermore, he is a member of the board in Fonden Videnscenter, former director of Folketinget (2001-2008), and former rector at SDU (1993-2001).



Peter Baldwin

Professor of History at UCLA and Global Distinguished Professor at NYU, Chair of the Board of the Center for Jewish History and a member of the Board of Trustees of the New York Public Library.

Baldwin is especially interested in the historical development of the modern state – a broad field that has led him in many different directions. He is the author of many books which has dealt above all with France, Germany, Britain, Sweden, Denmark and the United States.



Tobias Ekholm

Eisenbud Professor at Mathematical Sciences Research Institute, Berkeley, California and Director at Institut Mittag-Leffler, Sweden.

Ekholm is the editor in chief of Acta Mathematica, a position he has held since 2018, and is also member of the board of the Wallenberg Center for Quantum Technology, member the Royal Society of Sciences Uppsala, Editor of Algebraic and Geometric Topology and former president of the Swedish Mathematical Society.



DIAS Research



DIAS research programmes

One of the most important objectives in DIAS is to increase interdisciplinary research at SDU. The DIAS research programme was developed in 2020 to encourage interdisciplinary research in DIAS. The DIAS research programme provides seed funding to develop new interdisciplinary activities with focus on the DIAS fellows. The funding allows the inclusion of researchers from outside DIAS, especially international researchers. The project must have at least two fellows from two faculties to ensure participation of young researchers and an activity with interdisciplinary scope.

In 2022 six initiatives were granted between 87,600 to 250,000 DKK with participation and participation from all faculties at SDU.

The activities included lecture series (open for all in DIAS), workshops (selected participation or open for all) and research on medical data. One project has achieved external funding from the Region of Southern Denmark to continue the research at a larger scale and one project has received funding from the Danish Independent Research Foundation and others have submitted or are planning proposals.

The following sections provide further information on the specific research programmes at DIAS from 2022.

**To see all DIAS research programmes,
visit the DIAS website under → Research
→ Research Programmes**

Pilot study on feasibility of interdisciplinary project on adherence to colorectal cancer

Project description

Population-based colorectal cancer (CRC) screening programmes using faecal occult blood tests (FOBT) have been shown to reduce CRC-related mortality with various effectiveness (Gini et al., 2020).

In 2014 the Danish National CRC Screening Programme was implemented free of charge to all residents aged 50-74 years.

The adherence to the screening programme has been shown to be lower in demographic groups with higher risk of cancer and poor survival (Egeberg et al., 2008, Frederiksen et al., 2009), such as males, individuals having lower income and/or living alone (Njor et al., 2018, Larsen et al., 2017).

Previous research indicated a strong presence of multiple economic, social and cultural factors influencing adherence to screening (Nielsen et al., 2021, Dressler et al., 2021). Understanding factors behind poor compliance among societal groups with increased risk of cancer development and poor survival prognosis can reduce inequalities in access to healthcare.



Therefore, this project aims to answer following research question: What are the barriers for and facilitators of adherence to CRC screening programmes among societal groups with low social-economic status and educational attainment?

Herewith we propose an interdisciplinary project which combines innovative tools across different disciplines in a comprehensive study of factors behind non-participation.

First, we will use classical and extended twin designs to identify familiar clustering of (non)adherence among twins and their relatives and to estimate relative contribution of genetic and environmental factors (including co-habitation) on participation in screening.

Second, we will implement a concept of health capital (Schneider-Kamp, 2020, Schneider-Kamp & Askegaard 2022) to understand how cultural, social, and financial resources determine individual's participation in cancer screening. For the first time, this concept will be applied in the twin settings, where the genetic homogeneity and shared early life exposure among discordant twins will allow us for a more focused and precise analysis.

Finally, we will combine the obtained knowledge to improve our general understanding of non-participation practices with the goal to increase adherence among relevant societal groups.

The proposed methodology is unique and innovative and aims to combine quantitative methods of genetic epidemiology and twin research with qualitative methods of social science and consumer culture theory. With the overarching aim to reduce health inequality in access to the Danish healthcare system, our research is very well aligned with the other SDU initiatives such as Human Health and SDU's work on Sustainable Development Goals (SDGs). More specifically, the proposed project address goal 3 (ensure healthy lives and promote well-being for all at all ages) and goal 10 (reduce inequality) of the SDGs.

Participants:



Maria Timofeeva
(DIAS Fellow of Health
Science)



Kaare Christensen
(DIAS Chair of Health
Science)



Søren Askegaard
(DIAS Chair of Business
and Social Sciences)

Climate future fiction: A Citizen Science Project

Building on the DIAS Citizen Science project ‘Write your Future’, this pilot aims to explore whether a similar project is possible involving high schools. The Write Your Future project asked university students to compose short fiction texts (fewer than 1200 words) set four years into the future. The resulting stories expressed the authors’ concerns, hopes, and overall impressions about the near future and the potential impacts of COVID-19 (and related government measures) on society. These stories are research data for the exploration of scientific literacy, climate anxiety for young adults and confronting social issues.

This pilot builds on this previous project’s success by expanding the scope of the experiment to cover potentially several different high schools in the area and their students. It will investigate whether it’s possible to design and run a big scale project potentially for all Danish high schools. For this pilot, students will write short stories and analytical essays on the future impact of climate change on their personal lives as well as on society as a whole. The aim is a co-created Citizen Science Project in dialogue with teachers and high school students that teaches high school students to express and make sense of topics that are important for society.

In addition, the project will provide potentially unique data to researchers and can serve as a bridgebuilder for recruiting motivated new students to the study of the humanities or related fields.

Research design and goals

Provide Scientific Literacy and Democratic Participation

This pilot programme is organized around the principle that citizens should become literate in envisioning and making sense of anticipated futures in order to (among

*Participants: Bryan Yazell
(DIAS Fellow of Humanities)
and Karl Attard (DIAS Fellow
of Marine Science)*

other things) work toward desired futures and recognize potential threats. To meet this objective, citizens must also identify and use methodologies that help to form a common will in the process of applying practical knowledge (or 'phronesis') and also develop strategies that serve the common good (Scharmer, 2016; Nonaka and Takeuchi, 2021).

Address Existing Climate Anxiety for Young People

High school students and their generational peers are in many respects uniquely aware of climate change's impact on their personal lives (and futures) when compared to previous generations of students. Young people are developing their education during a time when the consequences of carbon emissions are increasingly difficult for politicians and governments to ignore. As a result, this generation may feel especially ignored or marginalized by institutions that are supposed to represent their interests. For example, a recent Bath University survey across 10 countries showed that nearly 60% of young people (between ages 16-25) are very worried about climate change, and two-thirds remarked feeling sad, afraid, and anxious when thinking about the future (Hickman et al., 2021).

"Eco-stress" due to climate change is only now beginning to be documented (Usher, 2019), which suggests that more work needs to be done not only to understand this phenomenon but to give young people an outlet for expressing their concerns.

Confront Social Issues via Creative Writing and Analysis

The flash fiction component of this pilot programme addresses this knowledge gap in two ways. First, it provides students with a creative outlet for expressing their concerns, hopes, and anxieties regarding climate change (and its possible impact on their individual future). Each student will write a flash fiction text as well as a short story consisting of fewer than 1200 words. The premise of flash fiction is to condense potentially complex topics down to an essential core expressing the author's key insights or expectations regarding the topic. Previous studies have shown that flash fiction is an effective tool for non-experts to generate ideas about prospective scenarios and anticipated societal changes in the near and far future (Wolf et al., 2018).

Second, the pilot programme provides a catalogue of stories that, when read both individually or collectively, provide insights into feelings young people express about climate change. In short, the program amplifies and disseminates the thoughts and opinions of a population that feels underrepresented in policy debates while also equipping this group with tools for channelling their concerns into legible texts. Previous studies affirm that, with regards to climate change, the uptake of developed visions is higher when the results will impact the life of people (Selin, 2006). In connection, the project is based on Citizen Science principles of inclusion, contribution and reciprocity (Golumbic et al. 2017)

Opportunities and Challenges in an ice-free Arctic Ocean

Research question: How will an ice-free Arctic Ocean impact upon cooperation and conflict between regional stakeholders?

The Arctic Ocean covers ~14 million km² and encompasses the territories of Iceland, Russia, Canada, the United States, Norway, Greenland, and the Faroe Islands (Kingdom of Denmark).

For most of the winter, this vast region is covered by sea ice, a 1-2 m thick skin that forms on the surface of the ocean when seawater freezes. As solar irradiance and air temperature increase in spring and summer, the ice pack undergoes extensive melt and decreases to about half of its maximum winter extent by around mid-September.

Climate change, which is warming the Arctic region three times faster than the global average, is rapidly and dramatically transforming the environment. Over the past 30 years, summer sea-ice extent has declined by 12% (810 000 km²) per decade, yielding vast stretches of ice-free Arctic waters and spurring forecasts of an ice-free summer Arctic Ocean as soon as 2035. Vast regions of the Arctic, such as the East Siberian and the Chukchi Seas, are already on average



ice-free in summer, whereas other major marginal seas such as the Barents, Kara, and Laptev are expected to become ice-free within the next five years. The ice-free Arcticians of ecological, economic, social, and military significance, necessitating a multidisciplinary approach to reaching the impact of an Ice-free Arctic.

Ice-free waters would allow more sunlight to enter the Arctic Ocean, stimulating photosynthetic growth. This could increase ocean biodiversity, stimulate the uptake of CO₂ from the atmosphere, and alter fisheries yields.

The ice-free Arctic Ocean would link Asian markets to European waters via the Northwest Passage (along the coastline of Canada and the United States), and the Northeast Passage (along the coastline of a resurgent and aggressive Russia in the wake of the Ukraine Crisis). These new routes dubbed the 'Polar Silk Road' by China, significantly cut time and fuel consumption for Asia-Europe trade.

At the same time, increased activity in the Arctic will increase anthropogenic noise and will introduce new marine species, impacting the unique ecosystem. The ice-free Arctic will also urge the industry to revise procurement, manufacturing, and logistics services as new trade interests develop, and it will encourage states to bolster surveillance and defence capabilities, treading a fine line between conflict and cooperation within the world's most northerly expanse.

Participants:



*James Rogers
(DIAS Fellow of Social
Science)*



*Karl Attard
(DIAS Fellow of Marine
Science)*



*Kannan Govindan
(DIAS Chair of
Engineering)*

Quantum computing for clinical research

Participants: Shan Shan (Assistant Professor, Centre of Quantum Mathematics), Jørgen Ellegaard Andersen (DIAS Chair of Quantum Mathematics), Maja Sofie Thiele (Professor, Department of Clinical Research), Aleksander Krag (DIAS Chair of Health Science), Moustapha Kassem (DIAS Chair of Health Science) and Maria Timofeeva (DIAS Fellow of Health Science)

Big data in clinical research: The exponential growth of healthcare data – such as disease registries, electronic health records (EHRs), results of medical examinations and tests – pointed to an overwhelming need for developing methods that address the challenges of analysing and interpreting big data to build healthier societies. Technical challenges include a range of issues from data collection, visualization of high-dimensional data, simulation of clinical trials, interpretability, feature selection, robustness, prediction, optimization, uncertainty quantification, model validation and evaluation. With recent advances in machine learning, artificial intelligence, deep learning, and high-performance cloud computing, significant progress has been made in data-based clinical research to accelerate diagnoses, optimize pricing, enhance patient experiences, and improve healthcare practitioner work lives. However, given the rapid pace of data collected and generated from individuals, devices and systems, the need for greater computing power is stretching the capabilities of classical computing systems.

The promise of quantum computers: Quantum computers can exponentially advance computational power and solve problems that cannot be tackled by classical machines. In health and biomedical research, quantum computers have the potential to enable numerous computation-intensive applications, such as super-sonic drug design, in silico clinical trials simulation, medical imaging analysis. However, recent efforts in the field have mainly focused on the problems of protein folding and protein design using either a quantum annealing approach and the quantum gate approach. The quantum annealing approach recasts the research question as a Quadratic Unconstrained Binary Optimization (QUBO) programme and solves the reformulated problem on an adiabatic quantum device (e.g.,

The Advantage quantum computer developed by D-Wave). The quantum gate approach maps the classical algorithm to its corresponding quantum circuit and runs the circuit on a universal quantum computer, of which we are starting to see the first few prototypes in existence now and the technological development is expected to strongly accelerate over the coming years.

Advantage of Gaussian Boson Samplers: There has been little work that addresses other aspects of the abovementioned challenges in healthcare research in the era of big data, nor using other emerging quantum technologies, such as Gaussian Boson Samplers (GBS). GBS is a photonic quantum model that has been demonstrated with quantum advantage on a special sampling task. In 2021, Zhong et al. reported a 144-mode GBS that yields a sampling rate approximately 10^4 times faster than using brute-force simulation on classical supercomputers. Compared to other leading quantum efforts, the biggest advantage of GBS is that GBS can work in room temperature, making it a promising candidate for wide use in the future. The objective of this proposal is to develop machine learning methods in clinical research based on a new quantum technology – Gaussian boson samplers (GBS). The significance of this proposal is that enabling usage of GBS in healthcare would help exploit the near-term quantum technologies to their full potential, and opens a vast and uncharted space of quantum methods in health and clinical research.

Specific Research Aims

Optimize pathways for accurate referral of fatty liver disease patients: We will develop a new GBS- based classification algorithm that identify patients with advanced liver fibrosis from three non-invasive bio-markers using simple blood tests and ultrasound-based screening tools. The new method can potentially improve and accelerate the diagnoses of advanced liver fibrosis using non-invasive tests. Improve the clinical efficacy of transplanted human bone marrow stromal cells. We will develop a new quantum-enhanced feature selection method to identify a subset from donor- and cell-related features for the ability of stem cells to form bone in vitro. We will first encode the information about the importance and correlation of features into a weighted graph, and then use GBS to find important features through clustering on the weighted graph. The proposed new feature selection technique could enhance classification accuracy and offer greater interpretability for the classification model.

Enhance the prediction accuracy for colorectal cancer risk using genetic, biochemical and clinical data from UK Biobank: We will use the method proposed to identify key features in genetic, biochemical and clinical data to improve the prediction accuracy for colorectal cancer risk. We propose a new hybrid framework that enables the quantum-enhanced feature selection method to be implementable on a super large graph. The framework consists of first using a classical trimming algorithm to filter out inactive vertices, and then using GBS to cluster the remaining active vertices.

DIAS Minds Group

The DIAS MINDS GROUP is a new initiative at the Danish Institute for Advanced Study (DIAS) bringing together scholars engaged in the study of mind, cognition, and behaviour.

Modern cognitive science emerged in the period after the second world war, an era marked by technological optimism in the face of global military challenges. Spurred on by advances in computational technology, scientists began to see the mind as a machine for solving problems. Is this view of the mind still relevant in the face of today's global challenges?

What might a programme of research for studying the mind look like if it were set up today? And how have approaches to the study of the mind already moved away from the earlier machine-based model?

In this series of talks, philosophers and cognitive scientists will respond to these questions, presenting alternative foundations for studying the mind in a manner suitable for a future in which humanity's major challenges arise from the fact that human activity has reshaped the planet, and from the fact that human activity will have to be reshaped in turn if our planet is to have a sustainable future.

Participants:



Sune Vork Steffensen
(DIAS Senior Fellow of
Humanities)



Ed Baggs
(DIAS Fellow of
Humanities)



**Anthony Vincent
Fernandez** (DIAS Fellow
of Health Sciences)

Lectures

Edward Baggs, University of Southern Denmark

The human sciences in the Anthropocene

Mark Maslin, University College London

Our Human Planet: co-evolution of human society and its environmental impact

Ted Toadvine, Pennsylvania State University

When is the Mind? Anthropocene Time and the Memory of the World

Louise Barrett, University of Lethbridge

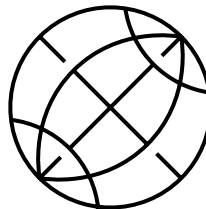
Looking forward to a beastly future: Thinking like an Animal and Rejecting the Myth of Transcendence

John Sutton, Macquarie University

Mental processes are not only in your head but interlaced with the world around you: Interdependence and vulnerability in the cognitive sciences

All the lectures can be watched online
on DIAS's Youtube channel:
[Youtube.com/@DanishIAS](https://www.youtube.com/@DanishIAS)

The abstract for the talks can be
found on DIAS's website under
→ Research Programmes → DIAS Minds Group







About the DIAS Minds Group

The DIAS Minds Group is a transdisciplinary research group based at the Danish Institute for Advanced Study (DIAS).

It brings together scholars engaged in the study of mind, cognition, and behaviour, both as a general scholarly endeavour and as the study of mindful behaviour in different social practices (e.g., in sports, health, performing arts, organisations, the market, urban environments).

To accentuate the strengths of the researchers currently engaged in such work at SDU, the DIAS Minds Group gives priority to work on social and embodied aspects of mind and cognition, including intersubjective phenomenology, ecological psychology, (radical) embodied cognitive science, distributed cognition, and activity/interactivity-based approaches.

Pilot study on barriers and facilitators of influenza vaccination for children (2-6 years) in DK

Participants: Anna Schneider-Kamp (Associate Professor, Department of Business & Management), Christine Stabell Benn (DIAS Chair of Health Science), Søren Askegaard (DIAS Chair of Business and Social Science), Gareth Millward (DIAS Fellow of Humanities) and Shriram Venkatraman (DIAS Fellow of Business and Social Science)

Project description

Currently, and as a novelty, the Danish Health Authority is recommending vaccination of children 2-6 years of age against influenza for the 2022/23 influenza season, leaning on a small risk of complications and noting children to be drivers of influenza infection in the broader society.

This recommendation was first put in place in the winter of 2021/22. The coverage was low compared with the routine childhood vaccines, with only 29.3% of the target group getting vaccinated. This coming winter, it is reasonable to likewise expect a less-than-





perfect uptake of this recommendation in the light of the confluence of two recent developments:

First, there is an increased focus on children's infection risks among parents, continuing a trend that parents increasingly perceive themselves as risk managers of their children. Second, and concomitantly, there is an increasing focus on benefits and risks of vaccine, both for all age groups in relation to COVID-19 vaccination programmes and, particularly, for children in the light hereof.

Specifically for children, the Danish Health Authority initially recommended COVID-19 vaccines to children aged 5-11 years in November 2021, but the coverage only reached ~45%. By June 2022, the Danish Health Authority stated that it had not been necessary to vaccinate the 5-11-year-old children.

This led to some strong reactions from parents who had felt pushed to vaccinate their children despite not perceiving their kids at high risk for severe COVID-19. Some have expressed that the incident has decreased their trust in all recommendations from health authorities.

Therefore, we aim to conduct an exploratory in-depth investigation into the mechanisms underlying barriers and facilitators of vaccination among parents of children 2-6 years of age. We propose a pilot project to collect qualitative data on the perception, attitudes, and strategies of parents. We plan to purposively sample informants for this investigation such that they vary according to the social, economic, and cultural resources available to them. The data collection and recruitment are interleaved with the goal of stopping the recruitment process when confidence for theoretical saturation has been reached. The data analysis employs a conceptualization of health capital that allows a deep investigation into the mechanisms underlying vaccine hesitancy.

Ultimately, the data collected, and the insights obtained have the potential to lay the foundation for developing a questionnaire-based tool for assessing vaccine hesitancy among parents using an approach inspired by the qualitative pre-test interview approach.

Thus, this pilot project serves as a basis for a joint research proposal for developing such a tool for assessing and addressing vaccine hesitancy among parents. With the overarching aim to further our understanding of the societally highly relevant topic of vaccine hesitancy, the proposed research is well aligned with other SDU initiatives such as Human Health and SDU's work on Sustainable Development Goals (SDGs). More specifically, the proposed project addresses goal 3 (ensure healthy lives and promote well-being for all at all ages) and goal 10 (reduce inequality) of SDGs.

DIAS Clusters

Vision

SDU has a special tradition of innovation, organizing its initiatives with external funded cross-cutting research centres, international programmes and networks. With the establishment of DIAS, the University of Southern Denmark took an important step towards qualifying its interdisciplinary ambitions and results with a new organization and initiatives that have brought world-leading young international researchers to SDU.

In just a few years, DIAS has become a very vibrant research environment, where there is a constant need for renewal of the Organisation of research activities to ensure the strongest talent development, the optimal collaboration between DIAS and all research environments at SDU and the most successful use of opportunities for external research funding. The vision of the cluster programme is to promote an innovative interdisciplinary collaboration and interaction of sciences as part of collaborations. The vision of the cluster programme is to develop the excellence of DIAS and attract external funding.

Aims

The cluster programme promotes interdisciplinary research and cross-fertilization of ideas. It thereby encourages the creation of new research enterprises involving SDU re-



searchers from all interested departments of SDU and external partners. The clusters seek to foster and channel interdisciplinary research initiatives by focusing on certain themes that are relevant for more than one faculty. These can be broad themes such as the historical dimension (of a problem, a scientific practice etc.), the social dimension (of a problem, a scientific practice etc.), science narratives, citizen science, visualizing science, interdisciplinary theory, but also more specific ones will be considered.

The cluster programme aims at

- Making DIAS research excellence more visible to interested partners
- Promoting research excellence in both empirical and methodological terms, by developing interdisciplinary focus, interaction and blending of theories and methods
- Strengthening interdisciplinary research by cooperation with researchers all over SDU
- Having societal impact through dissemination of research and partnerships with external institutions and stakeholders in society

Motivation

The DIAS cluster programme strengthens DIAS's possibilities to develop cutting-edge research at the highest international level and attract high-level researchers and new external funding.

Recruitment and Criteria

The cluster programme is developed bottom up where groups of interested DIAS researchers team up in clusters on research topics. Membership of the cluster programme is not mandatory for DIAS researchers. The clusters recruit their members from interested researchers at DIAS, SDU, national and international research partners. A cluster is a Formalised organisation of research activities focused on a defined research topic. Clusters are established for a period of two years with the possibility of prolonging. A cluster should have a minimum of five members. A cluster is headed by a DIAS affiliate and approved by the DIAS director and DIAS management committee.

You can find out more about the application process for the DIAS Clusters on the DIAS website under → Research → DIAS Clusters



DIAS Fellows

2022



In 2022 DIAS has recruited two fellows, one to Humanities and one to Business and Social Sciences. They both come with a strong track record from international universities.

Three of our DIAS fellows were appointed to associate professors in 2022 at the hosting departments.

They were assessed by an international assessment committee with two external members and one internal and with very positive reviews with recognition of their research and publications.

They have all attracted prestigious external grants.

You can find a full list of all DIAS affiliates on the DIAS website under → People

DIAS Fellows

The following DIAS Fellows were appointed to Associate Professors in 2022:



Aglae Pizzone, Fellow of Humanities



James Patton Rogers, Fellow of Social Science



Pantelis Pipergias Analytis, Fellow of Business and Social Sciences







Shriram Venkatraman

As of August 1st, 2022, Shriram Venkatraman joined the Danish Institute for Advanced Study as Fellow of Business and Social Sciences with Chair of Business and Social Sciences Søren Askegaard as mentor.

Shriram Venkatraman is an Assistant Professor of Business and Management (with the CCC unit) at the University of Southern Denmark (SDU) and now a Fellow of the Danish Institute of Advanced Studies. He is also an Adjunct Faculty at the Indian Institute of Management Kozhikode (IIM-K), India, and an Adjunct Professor of Anthropology at Indraprastha Institute of Information Technology, New Delhi (IIIT-D), India.

He was an Assistant Professor of Social Sciences and Humanities at Indraprastha Institute of Information Technology, New Delhi (IIIT-D). Other than several peer-reviewed journal articles, he is also the author of a monograph titled 'Social Media in South India' (UCL Press) and co-author of a comparative book 'How the World Changed Social Media' (also UCL Press).

Venkatraman has taught several courses on Digital & Economic Anthropology and Digital Research Methods both at IIIT-Delhi and at IIM-Kozhikode. He has co-taught several runs of a MOOC course on 'Anthropology of Social Media' on Futurelearn. He has a Ph.D. in Digital Anthropology from University College London, UK. Shriram is also a trained professional statistician and has held leadership positions at Walmart, USA.

Venkatraman's research interests largely fall under the theme of Consumption and Digital Technologies, more specifically social media, IoT, AI, platforms, and ecosystems. He uses multi-methods to study individuals and social groups and seeks to understand their every digital consumer behaviour in the domains of finance, healthcare, media, education, and similar others. He also has interests in developing new and innovative digital research methods from a mixed methods perspective.

Gareth Millward

As of February 1st, 2022, Dr. Gareth Millward joined the Danish Institute for Advanced Study as Fellow of Humanities with Chair of Humanities Klaus Petersen as mentor.

Gareth Millward has a Ph.D. from the London School of Hygiene & Tropical Medicine. His thesis focused on the relationship between disability voluntary organizations and the development of what we now call “disability policy” in the United Kingdom after the Second World War.

Furthermore, he has held post-doctoral positions at the London School of Hygiene & Tropical Medicine, the University of Warwick and the University of Birmingham. Here he worked on topics as diverse as vaccination policy, medical certification, and the interaction between voluntary and state institutions in Britain’s National Health Service.

By his own account, Millward was inspired to become a part of DIAS after seeing the work that was being done across the institute and SDU, especially by now-colleagues Senior Fellow of Humanities Jeppe Nevers and aforementioned Klaus Petersen.

Their work made him reflect on his own research and teaching and he realised he could do a lot more – even though Millward joins DIAS as an already accomplished scholar, with his third book *Sick Note: A History of the British Welfare State* due to be published by Oxford University Press later this year.

Happily, the feeling of anticipation and inspiration is mutual between mentor and mentee, with Petersen looking equally forward to sharing the DIAS House with a fellow interdisciplinary historian.

Gareth Millward identifies as a historian but got his Ph.D. and first post-doc in a public health school. This has forced him to engage with researchers and students with very different methodological backgrounds than his own.

He had to constantly assess how to communicate the value of his work to people who did not necessarily

speak the same academic language as his backing in the history of medicine. At DIAS he seizes the chance to centralise this interdisciplinarity in his research.

New strategies and questions to welfare states

Gareth Millward has a strong track record within the history of public health. He has a special interest in how the British welfare state developed during the twentieth and twenty-first centuries, particularly in health and social security. What fascinates him is how the design of welfare services informs and is informed by lay understanding of the expectations to welfare and the tensions caused when this common-sense idea of justice does not match the day-to-day operation of state services. He is also riveted on using and developing new methodologies around using archived internet sources to tell social, political, and cultural histories of the turn of the millennium.



At DIAS he is keen to work with others on completely new projects, using the unique freedom as a DIAS fellow to explore new ways of working and topics to explore. In its own right, he explains, the fellowship is an amazing opportunity to do innovative interdisciplinary and collaborative research.

The hope is also that it will become a steppingstone to even bigger projects in the future on the history and politics of welfare states: The subject becomes increasingly relevant to our daily lives as the effects of long-term economic contraction, globalisation and the climate crisis force us to ask new questions about what our states are and what they ought to be.

A photograph of a modern, multi-level office interior. The space features a prominent blue wall on the lower level, which serves as a backdrop for a large, colorful abstract painting. Two people are seated on a dark blue sofa in front of this wall, engaged in conversation. The upper level is accessible via a staircase and is enclosed by a glass railing. The ceiling is made of dark, horizontal slats, and the floor is a light-colored carpet. A large potted plant is visible in the foreground on the right. The overall atmosphere is professional and contemporary.

New Chairs

2022



DIAS has recruited four new chairs, where one has been promoted from senior fellow. Two chairs are from Humanities and one chair has been promoted in Climate research, a new field in DIAS, stemming from the major strategic initiative SDU Climate Cluster.

DIAS now has a total number of 28 chairs, all contributing to the activities in DIAS.



Sebastian Mernild

Chair of Climate Science, is a Professor in Climate Change and Glaciology and Head of SDU Climate Cluster. From 2020-2022 he was Pro-rector at the University of Southern Denmark (SDU), and also affiliated (20%) with University of Bergen (Geophysical Institute), as a professor. Mernild is also an IPCC Lead Author. In 2018, Mernild won the Rosenkjær Prize, and was nominated Dane of the Year, and in 2019, he was included in Kraks Blå Bog.

In 2006, he was awarded a Ph.D. degree in climate change, glaciology, and hydrology from University of Copenhagen, Denmark. In 2002 he won the University of Copenhagen Silver Medal for a Price Dissertation in Hydrology, and in 2016 he was awarded a Dr. Scient. degree also from University of Copenhagen based on a habilitation thesis in climate change, glaciology, hydrology, and sea-level change with the title: "Water balance from mountain glacier scale to ice sheet scale - with focus on Mittivakkat Gletscher, Southeast Greenland, and the Greenland Ice Sheet".

His research centers on local, regional, and global modeling using a wide variety of atmospheric and terrestrial models and observations with a specific focus on understanding and simulating climate change interactions related to snow, glacier ice mass-balance (for the Greenland Ice Sheet, Antarctic Ice Sheet, and mountain glaciers), and freshwater runoff (the water balance components) in Arctic, Antarctic, Patagonia, and the Andes. He has been leading several funded projects and expeditions to these geographical locations.

Read more about SDU Climate Cluster:

<https://www.sdu.dk/en/forskning/sdu-climate-cluster>

Anders Engberg-Pedersen

DIAS Chair of Humanities, is a Professor of Comparative Literature in the Department of Language, Culture, History, and Communication. Furthermore, he is an affiliate of the Center for War Studies at SDU where he directs the war and culture research group.

In 2012, he obtained his PhD in Comparative Literature from Harvard University and in Neuere Deutsche Literatur from Humboldt Universität (summa cum laude). Before coming to SDU in 2013, he had a postdoc in Copenhagen and received the Sapere Aude Young Elite Research Prize. From 2017-2021 he was a Carlsberg Distinguished Associate Professor, and in 2019 he was promoted to full professor. In 2021, he received the Elite Research Prize from the Danish Ministry of Higher Education and Science.

His research centres on the cultural forms of warfare from the 17th century until today. They include the fields of literature (German, French, Russian, Scandinavian), aesthetics, the history of knowledge, and technology and media. Among several volumes, his books on war and knowledge, war and aesthetics, and war and literary studies are published by Harvard University Press, Stanford University Press, and Cambridge University Press. He serves as editor of the book series 'Prisms: Humanities and War' with MIT Press.





Teresa Cadierno

Chair of Humanities, is a Professor of Second Language Acquisition at the Department of Language, Culture, History, and Communication at SDU. After receiving her Ph.D. at the University of Illinois at Urbana-Champaign (USA) in 1992, Professor Teresa Cadierno worked at the University of Aarhus (1992-1996) as foreign lector and assistant professor of Spanish. From 1996 onwards she has been employed at the University of Southern Denmark, first as associate professor of Spanish, and since 2012 as professor of second language acquisition. From 2009 to 2017 she was the leader of the Second Language Research Center (SELC) and since 2017 she has been the leader of the Center for Language Learning.

Professor Teresa Cadierno has received several research prizes, both at the international and national level, and she has participated in numerous research projects (both as PI and member) funded by international and Danish funding bodies such as NordForsk, Marie Curie Multi-Partner ITN, the Velux Foundation and the Danish Council for Independent Research. Her research falls within the fields of second language acquisition, bilingualism and foreign language pedagogy. Specifically, her main research interests include instructed second language acquisition and foreign language pedagogy, with special focus on L2 input processing and the role of formal instruction in adult L2 acquisition; linguistic relativity, i.e., how the language that we speak may influence our (linguistic) cognition, in relation to the process of learning foreign languages; child second language acquisition, with special focus on examining the role of starting age and a range of internal and external factors in the acquisition of English by Danish primary school children; and the interplay between informal and formal language learning.

Trine Flockhart

Chair of Business and Social Sciences, is a Professor of International Relations at the department of Political Science and Public Management.

Before joining SDU, Professor Trine Flockhart's more recent appointments include Professor of International Relations and Director of Research in the School of Politics and International Relations at the University of Kent; Senior Researcher at the Danish Institute for International Studies (DIIS); Senior Resident Fellow at the Transatlantic Academy (German Marshall Fund) in Washington DC. She has more than 100 publications with her main academic articles having appeared in journals such as *Review of International Studies*, *Contemporary Security Policy*, *Journal of Common Market Studies*, *European Journal of International Relations*, *International Relations* and many others. Her most recent publications include 'The Problem of Change in Constructivist Theory - Ontological Security Seeking and Agent Motivation' in *Review of International Studies* and 'The Coming Multi-Order World' published in *Contemporary Security Policy* (2016) and awarded the 2017 Bernard Brodie Prize for best article of the year (downloaded more than 5000 times since publication). Her research focuses on international order, NATO, European Security, the liberal international order (and its crisis), transatlantic relations, and major processes of change and transformation.





Publications

and altmetrics

You can find a list of all 2022 publications by DIAS affiliates on the DIAS website under → About → Annual Report.

During the period 2018-2022 DIAS researchers have published 1872 publications, where 73% are journal publications and the remaining part are published as conference papers, reviews, editorials and book (chapters) (source: Scopus and Scival research data). The type of publications varies significantly between fields in DIAS, where researchers from the faculties of Health, Science and Engineering are publishing in journals, whereas faculties of Humanities publish in books and Business and Social Sciences do both. The publications have been cited 45,977 times with a high average citation of 23,4 for each publication. Also, the Field Weighted Citation Impact of 2,46 is well above average and 27% of the publications are in the Top 10 citation percentile and 54% in the Top 10 journal percentile. The publications are dominated by international collaboration with 74% having international co-authors. The publications are highly collaborative with a median number of co-authors of 5 and a median number of collaborators of 3 (Fig. 1). Most of the publications are in medicine and life sciences (Fig. 2) reflecting both the tradition for publication and the representation of several productive and high-profile chairs from these field in DIAS.

Figure 1: The share of publications with collaboration together with the Field Weighted Citation Impact for the collaboration types for publications in DIAS for the years 2018-2022 (SDUanalytics)

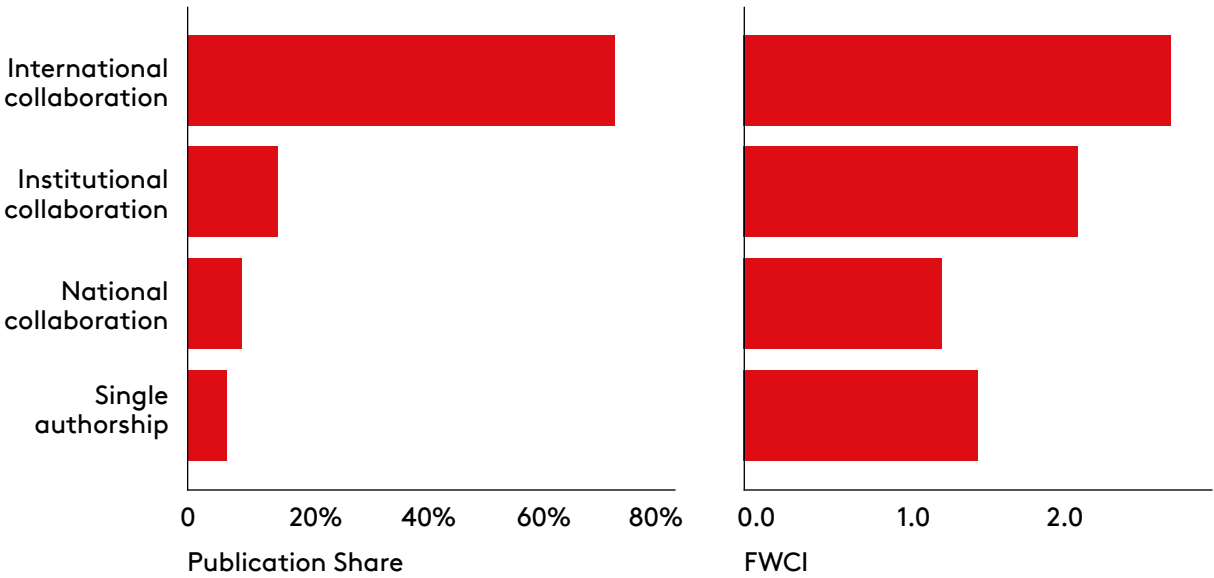
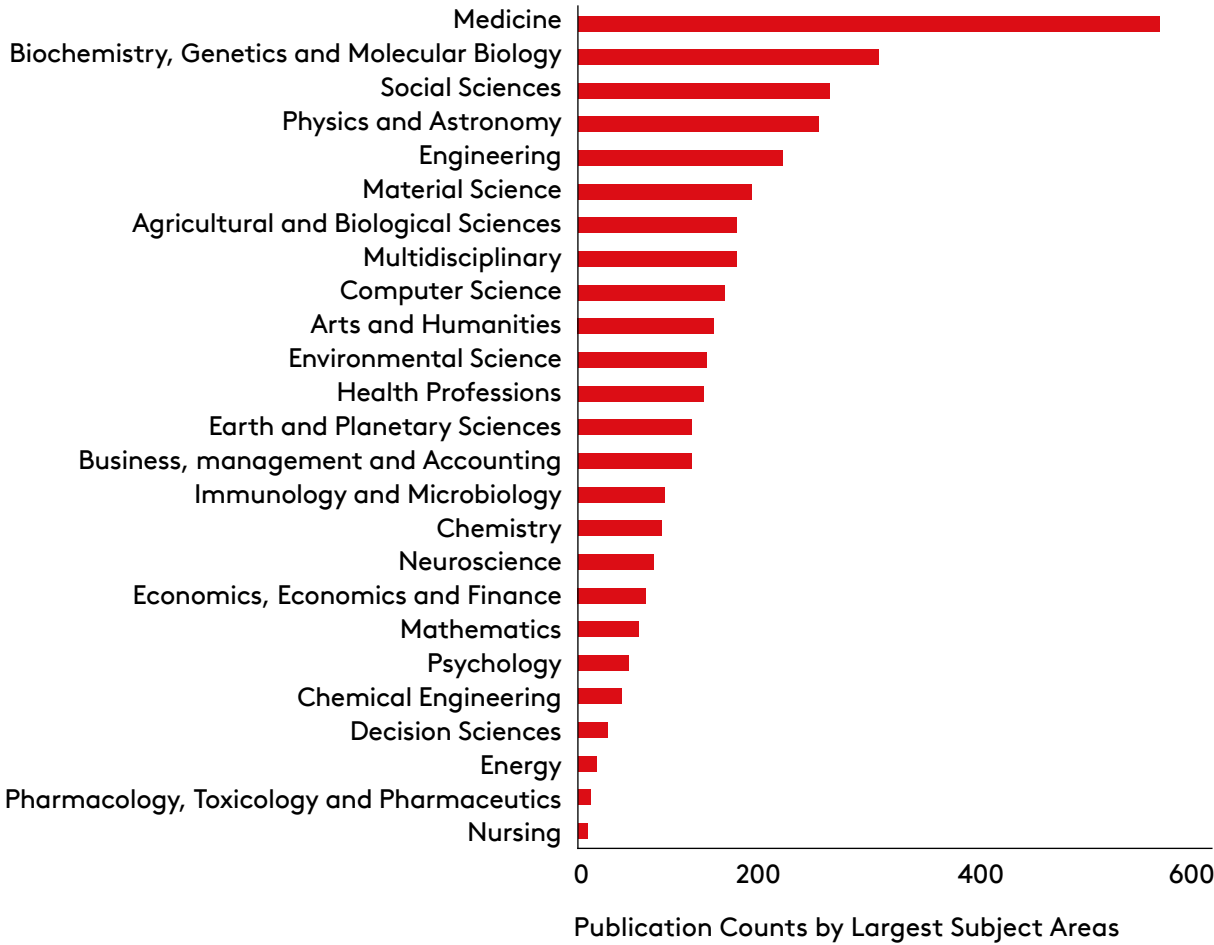


Figure 2: The main subject areas of publications in DIAS for the years 2018-2022 (SDUanalytics)



Altmetric

Altmetric gathers records of relevant online attention a publication (e.g. an article, book etc.) generates. Specifically, Altmetric measures mentions of the publication on Twitter, news, blogs, Wikipedia etc. The Altmetric Attention Score for a research output provides an indicator of the amount of attention that it has received. The score is derived from an automated algorithm and represents a weighted count of the amount of attention it has picked up for a research output. For more information on how the score is calculated, please visit Altmetric's website.



Aggregated Altmetrics DIAS Data

In 2022, DIAS researchers published 165 publications that were mentioned in sources tracked by Altmetric. The total media mentions of scientific publications from DIAS affiliates in 2022 is 9,844. Social media accounts for 8,432 (85%); News and blogs 460 (5%) and Wikipedia for 959 (10%) mentions.

Highlights (top 7 individual publications)

All the publications below are in the top 5% of all research outputs scored by Altmetric

1. Eske Willerslev (External DIAS Chair of Geogenetics) et. al., A Middle Pleistocene Denisovan molar from the Annamite Chain of northern Laos, Nature Communications May 2022;
Altmetric Attention Score: 1373
High Attention Score compared to outputs of the same age (99th percentile)
High Attention Score compared to outputs of the same age and source (99th percentile)
2. Carsten Rahbek (External Chair of Science) et. al., AVONET: morphological, ecological and geographical data for all birds, Ecology Letters February 2022;
Altmetric Attention Score: 496
High Attention Score compared to outputs of the same age (99th percentile)
High Attention Score compared to outputs of the same age and source (98th percentile)
One of the highest-scoring outputs from this source (Ecology Letters #8 of 2,932)
3. Ewa M. Roos (DIAS Chair of Health Science) et. al., Evidence of ACL healing on MRI following ACL rupture treated with rehabilitation alone may be associated with better patient-reported outcomes: a secondary analysis from the KANON trial;
Altmetric Attention Score: 473
High Attention Score compared to outputs of the same age (99th percentile)
High Attention Score compared to outputs of the same age and source (92th percentile)
4. Donald E. Canfield (DIAS Chair of Biology) et. al., Oxygen and nitrogen production by an ammonia-oxidizing archaeon;
Altmetric Attention Score: 404
High Attention Score compared to outputs of the same age (99th percentile)
High Attention Score compared to outputs of the same age and source (86th percentile)
5. Kaare Christensen (DIAS Chair of Health Sciences) et. al., Stroke genetics informs drug discovery and risk prediction across ancestries;
Altmetric Attention Score: 254
High Attention Score compared to outputs of the same age (99th percentile)
High Attention Score compared to outputs of the same age and source (79th percentile)
6. Maria Timofeeva (DIAS Fellow of Health Science) et. al., Deciphering colorectal cancer genetics through multi-omic analysis of 100,204 cases and 154,587 controls of European and east Asian ancestries;
Altmetric Attention Score: 251
High Attention Score compared to outputs of the same age (99th percentile)
High Attention Score compared to outputs of the same age and source (96th percentile)
7. Ronnie N. Glud (Chair of Biology) et. al., Independent radiation of snailfishes into the hadal zone confirmed by Paraliparis selti sp. nov. (Perciformes: Liparidae) from the Atacama Trench, SE Pacific;
Altmetric Attention Score: 242
High Attention Score compared to outputs of the same age (99th percentile)
High Attention Score compared to outputs of the same age and source (90th percentile)
One of the highest-scoring outputs from this source (Marine Biodiversity #6 of 577)





Highlights from DIAS Fellows (top 5)

1. Maria Timofeeva (DIAS Fellow of Health Science) et. al., Deciphering colorectal cancer genetics through multi-omic analysis of 100,204 cases and 154,587 controls of European and east Asian ancestries;
Altmetric Attention Score: 251
2. Angela Chang (DIAS Fellow of Health Science) et. al., The health-adjusted dependency ratio as a new global measure of the burden of ageing: a population-based study, The Lancet Healthy Longevity May 2022; Altmetric Attention
Altmetric Attention Score:: 94
3. Changzhu Wu (DIAS Fellow of Science) et. al., Copper-Containing Artificial Polyzymes as a Clickase for Bioorthogonal Chemistry, Bioconjugate Chemistry October 2022;
Altmetric Attention Score:: 64
4. Jesper Bonnet Møller (Fellow of Health Science) et. al., FIBCD1 is an endocytic GAG receptor associated with a novel neurodevelopmental disorder, EMBO Molecular Medicine August 2022;
Altmetric Attention Score: 57
5. James Rogers (Fellow of Social Science) et. al., Light footprint—heavy destabilising impact in Niger: why the Western understanding of remote warfare needs to be reconsidered, International Politics January 2022;
Altmetric Attention Score:: 44



External Funding

and Awards

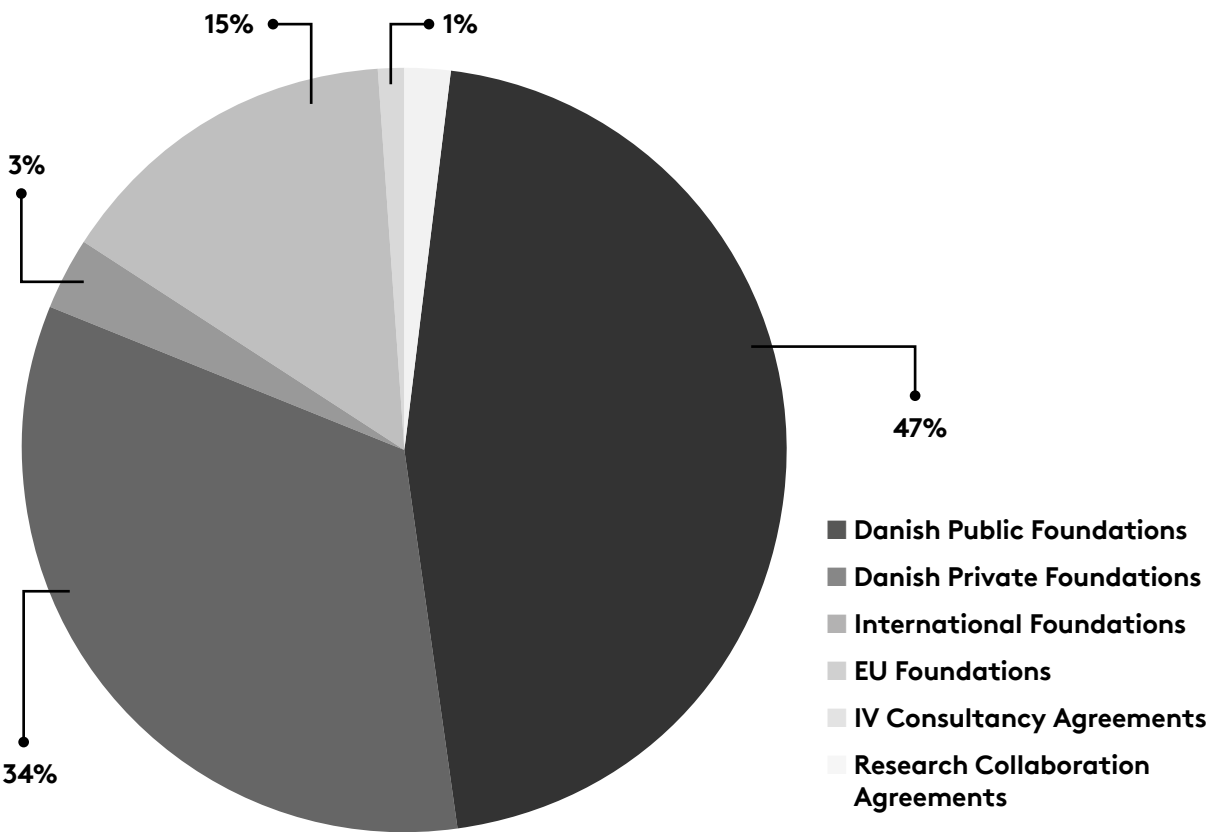
In 2022, DIAS researchers have received grants for 218 MDKK (~30 MEuro) distributed over approx. 50 different grants. The largest projects come primarily from national public (48%) and private foundations (34%), while the smaller grants are distributed among many different types of foundations. Funds from the EU also played a significant role (15%). Both fellows and chairs receive external funds and it is pleasing to see that some of the projects stem from ideas matured in DIAS. This applies, for example, to the grant from the region of Southern Denmark to Chair Alexander Krag and Jørgen Ellegaard Andersen for research in Quantum Computing for Clinical Research and to fellows James Rogers and Karl Attard from Danish Agency for Higher Education and Science with the title "Security in an ice-free Arctic". It is particularly noteworthy that several DIAS fellows have received large personal grants across all disciplines in

DIAS. DIAS fellows Aglae Pizzone (Humanities) and Changzhu Wu (Science) have received the Carlsberg Semper Arden Accelerate (4.2-5.0 Mkr) and Karl Attard (Science) and Pantelis Piperigias (Social Science) have received the DFF Sapere Aude (6 Mkr).

Chair Asger Mortensen has received a prestigious grant from DNRF to the curiosity driven research center Polima (60 Mkr), where Asger and his team are going to study the intersection between quantum optics and atomic-scale polaritonic matter. Chair Francesco Sannino has received Carlsberg Semper Arden Advanced (19 Mkr) to solve the Quantum Field Theory.

Several DIAS affiliates have received awards in 2022. Don Canfield received the Villum Kann Rasmussen Annual award for his long-term achievements in studying the Earth’s past, including naming the Canfield Ocean, a period of low oxygenation of the oceans during the development of the Earth.

Figure 3: The percent distribution of funding into foundations (Danish public and private; International (outside EU) and EU), consultancy and collaboration agreements obtained by DIAS affiliates in 2022. The total amount was 218 MDKK.





DIAS Activities





Lectures – overview, themes and titles

- 26 January:** Guest Lecture: *History of Capitalism – How social spending has worked*
by Professor Peter H. Lindert from University of California Davis
- 23 February:** Guest Lecture: *Probing black holes with electromagnetic and gravitational wave observation*
by Assistant Professors Johan Samsing and Daniel D’Orazio from Copenhagen University
- 9 March:** Guest Lecture: *Motivation for sustained behaviour change in diverse life domains*
by Professor Nikos Ntoumanis from University of Southern Denmark
- 16 March:** Guest Lecture: *Literary Reading and Mental Health*
by Professor Josie Billington from University of Liverpool
- 23 March:** Lecture: *Applied Phenomenology*
by DIAS Fellow Anthony Fernandez
- 30 March:** Lecture: *Be curious – Do Our Health Intervention Against COVID-19 Work As Intended?*
By DIAS Chair Christine Stabell Benn
- 6 April:** Lecture: *The human sciences in the Anthropocene*
by DIAS Fellow Edward Baggs
- 20 April:** Guest Lecture: *The development of clinical ethics support in Norwegian health care*
by Professor Reidar Pedersen from University of Oslo
- 27 April:** Guest Lecture: *Globalization and varieties of backlash*
by Professor Kevin O’Rourke from NYU Abu Dhabi
- 18 May:** Guest Lecture: *Our Human Planet - co-evolution of human society and its environmental impact*
by Professor Mark Maslin from University College London
- 25 May:** Lecture: *The strong force under extreme conditions* by
DIAS Fellow Benjamin Jäger

- 1 June:** Lecture: *Why do we age so differently?*
By DIAS Chair Kaare Christensen
- 8 June:** Guest Lecture: *Directed evolution for fun and profit*
by Professor Huimin Zhao from University of Illinois at Urbana-Champaign
- 15 June:** Guest Lecture: *When is the Mind? Anthropocene Time and the Memory of the World*
by Professor Ted Toadvine from Penn State University
- 22 June:** Lecture: *Do European Societies Tax Their Own Reproduction?*
By DIAS Senior Fellow Pieter Vanhuysse
- 24 August:** Guest Lecture: *The Journey of Humanity - Exploring the past to design our future*
by Professor Oded Galor from Brown University
- 31 August:** Lecture: *Genetics of Bowel Cancer. Lessons learned from the big collaborative studies and the limitations of modern science*
by DIAS Fellow Maria Timofeeva
- 7 September:** Guest Lecture: *Dylan as a poet of feeling*
by Professor Thomas Palaima from Texas University
- 14 September:** Guest Lecture: *Interdisciplinary working? Notes from a minor participant in British Humanities and Social Science (HASS) Research*
by Associate Research Fellow Martin Moore from University of Exeter
- 21 September:** Lecture: *Extremely small, incredibly fast and amazingly useful: Plasmon-enriched nanophotonics*
by DIAS Chair Sergey I. Bozhevolnyi
- 28 September:** Guest Lecture: *Research in a private company*
by M.Sc. and entrepreneur Ulf B. Christensen
- 5 October:** Guest Lecture: *Making Creativity Visible*
by Professor Fred Vallée-Tourangeau from Kingston University, London
- 12 October:** Guest Lecture: *Thinking like an Animal and Rejecting the Myth of Transcendence*
by Professor Louise Barrett from University of Lethbridge
- 2 November:** Lecture: *It's all about oxygen*
by DIAS Chair Donald E. Canfield
- 16 November:** Guest Lecture: *Mental processes are not only in your head but interlaced with the world around you - Interdependence and vulnerability in the cognitive sciences*
by Professor John Sutton from Macquarie University in Sydney, Australia
- 23 November:** Guest Lecture: *When criminals seize the state - how to get justice for murder and corruption*
by Pulitzer Prize-winning journalist Matthew Caruana Galizia
- 30 November:** Lecture: *Life and element cycling in the deepest oceanic trenches on Earth*
by DIAS Chair Ronnie N. Glud
- 7 December:** Guest Lecture: *Too much medicine and placebos in surgery*
by Professor Ian Harris from University of New South Wales, Australia
- 14 December:** Guest Lecture: *Dead Sea Scrolls*
by Professor Kaare Lund Rasmussen from University of Southern Denmark

Where is Academia Heading?

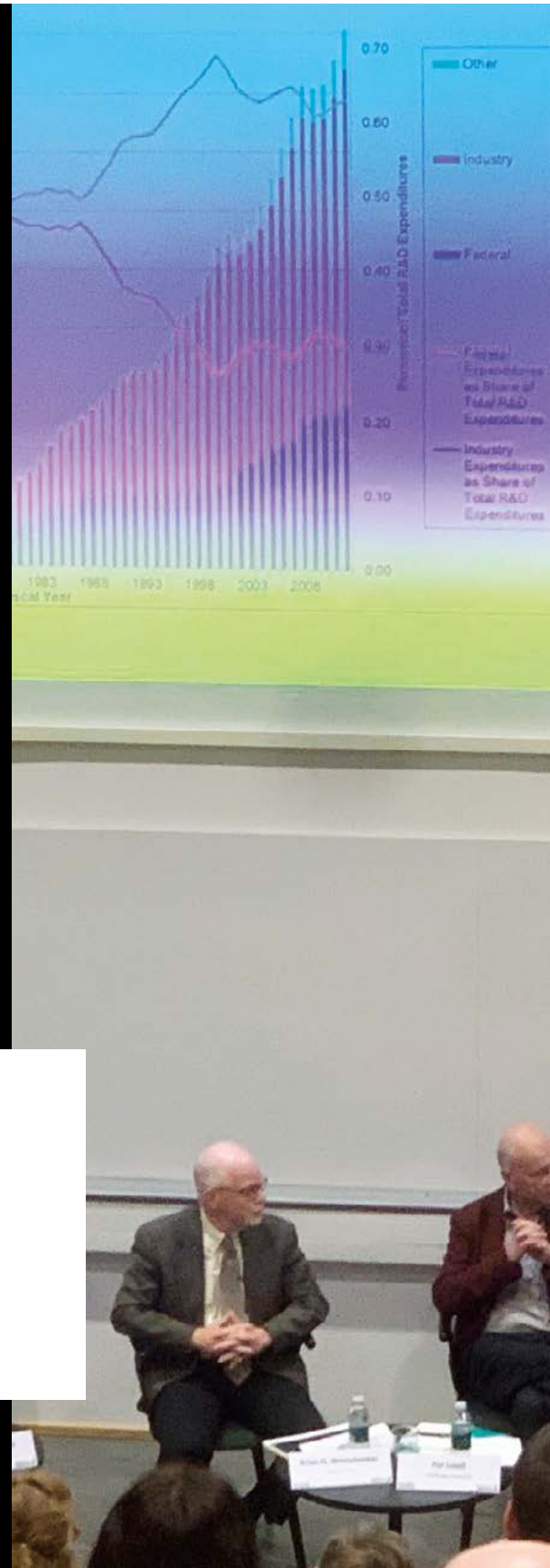
An Interdisciplinary discussion between this year's Honorary Doctors at SDU from all five faculties

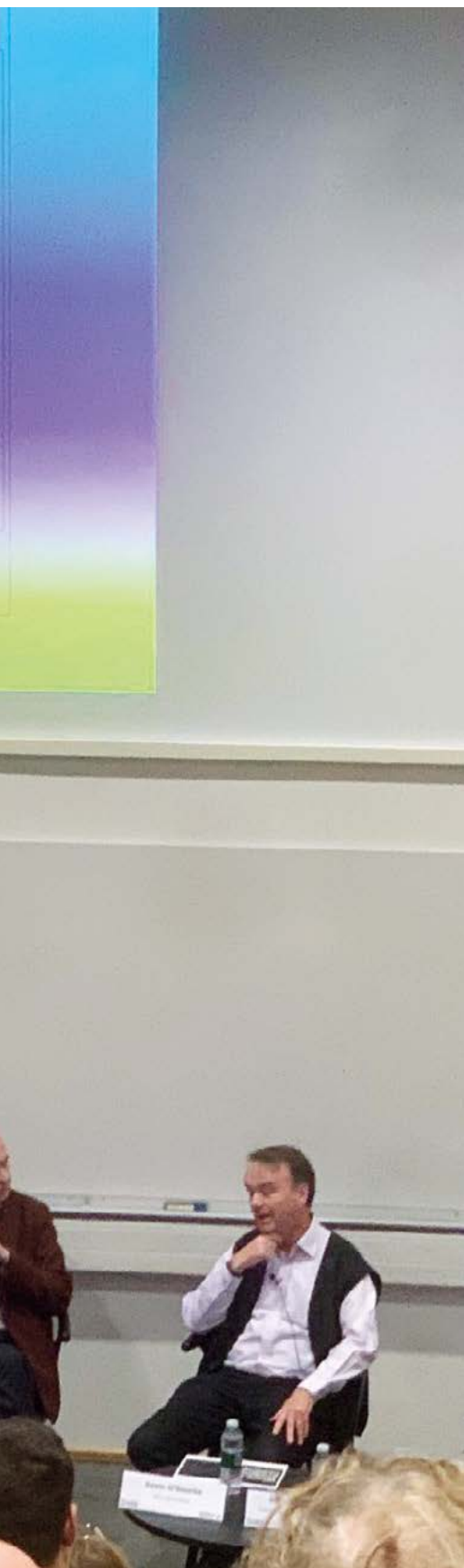
Every year each of SDU's faculties nominates an Honorary Doctor. DIAS gathers them and the one that nominated them for a joint event.

This year, "Where is Academia heading?" was debated with a following discussion from researchers from all faculties.

The discussion was organized with the following topics:

- Integrity of research
- Roles and responsibilities of the researcher
- A publication landscape under change
- Diversity in academia





Nominated by Professor Sergey I. Bozhevolnyi, DIAS Chair, Faculty of Engineering:

Mark Brongersma is a Professor in the Department of Materials Science and Engineering at Stanford University.

Nominated by M.D. and Professor Nasrin Asgari, Faculty of Health Sciences:

Brian G. Weinshenker, M.D., Emeritus, Department of Neurology, Professor of Neurology at Mayo Clinic.

Nominated by Professor Sune Vork Steffensen, DIAS Chair, and Associate Professor Sarah Bro Trasmundi, Faculty of Humanities:

Per Linell took his Ph.D. degree in general linguistics (Uppsala, 1974) and is Emeritus Professor of Language and Culture at Linköping University.

Nominated by Professor Martin Røssel Larsen, Faculty of Science:

Phillip Robinson, Professor of the Faculty of Medicine, University of Sydney; Professor of Chemistry, The University of Newcastle. Head of the Cell Signalling Unit at Children's Medical Research Institute (CMRI).

Nominated by Professor Paul Sharp, DIAS Senior Fellow, Faculty of Business and Social Sciences:

Kevin O'Rourke is a Professor of Economics at NYU Abu Dhabi. He was previously the Chichele Professor of Economic History at the University of Oxford and a Fellow of All Souls College.



Recruitment of Postdoctoral Researchers to SDU through DIAS

In the 2021–2022 academic year, DIAS fellow Anthony Vincent Fernandez established a programme to recruit postdoctoral researchers to SDU

Following an open call for visiting junior fellows, he recruited three early career researchers to spend one month at SDU, hosted by the Danish Institute for Advanced Study and the research unit Movement, Culture & Society in the Department of Sports Science and Clinical Biomechanics. The purpose of the research stay is to develop a project idea and begin drafting applications for Marie Skłodowska-Curie Postdoctoral Fellowships, which, if successful, will allow the junior fellows to return to SDU for two years to carry out their projects.

The inaugural junior fellows were Lillian Wilde (University of York, UK), Peter Stilwell (McGill University, Canada), and Veronica Cohen (University of Buenos Aires, Argentina, and University of Lille, France). All three work in applied phenomenology, an interdisciplinary approach that uses phenomenology—a philosophical study of experience and subjectivity—to advance research in fields outside of philosophy. Wilde specializes in psychological trauma and is developing a new project to better understand the efficacy of movement therapies for trauma. Stilwell specializes in the treatment of pain and is developing a project to better understand how one's sense of self alters in pain-related suffering. Cohen specializes in dance research and is developing a project to better understand the role of language in teaching dance.

The next round of DIAS-MoCS visiting junior fellowships will be announced in fall 2022 for stays in late spring 2023. Each fellowship comes with a financial award of up to DKK 26,000 (approx. €3,500 euros) to cover the costs of the research stay.

For inquiries about the fellowships, please contact Anthony Vincent Fernandez, afernandez@health.sdu.dk.

New collaboration between the Nordic Institutes for Advanced Study

An interdisciplinary approach to global issues and joint research funding are some of the possible activities for the new Nordic IAS.

The Nordic region currently hosts eight Institutes for Advanced Study – two in Denmark, three in Finland, two in Sweden and one in Norway.

Global problems call for complexity

“The contemporary world can be characterized as facing several “wicked problems”, that is complex issues which require responses from several academic disciplines. Such issues include climate change, pandemics, refugee crises and conflict situations such as the war in Ukraine.



Rather than being the domain of one academic discipline such problems require an interdisciplinary approach wherein researchers from different disciplines come together to learn from one another and postulate solutions to seemingly intractable problems. This is not merely desirable, it is necessary.”

The above is the main point from the collaboration’s necessity in the Policy Brief before the meeting developed on the prior workshops. It sums up the importance of trying to work with interdisciplinarity with a policy outcome.

“Interdisciplinarity is not given in an IAS, but all the other Nordic Countries IAS’ have that same focus” Marianne Holmer says.

To raise the awareness of IAS’s in political circles, working actively with policy is one of the focus points for the new coalition.

However, helping governments come to terms with interdisciplinarity could be developed via notions of Nordic Trust and openness.

Joint activities

The new Nordic IAS aims for a broad range of different joint activities. Including joint research funding bids with a focus on Nordic funding opportunities where collaborative efforts may bring mutual rewards.

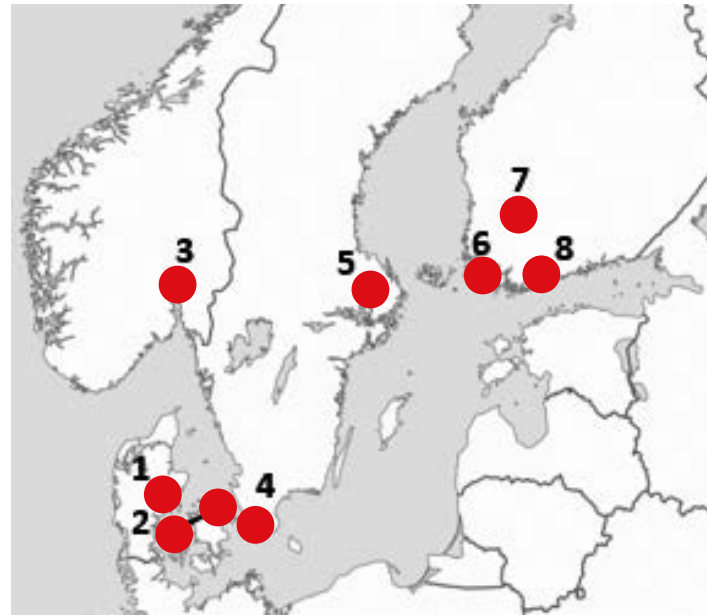
In the same term the coalition could provide network possibilities to the affiliated DIAS members due to interdisciplinary research as well as a Visiting Fellow Scheme.

Furthermore, political work such as joint responses to current events such and crises like Ukraine could have a greater impact when done together and even offering a joint programme for scholars at risk.

Collaborations on events such as conferences, public events and lecture series is also a possible outcome of the collaboration.

Knowledge sharing on review processes, the administrative level and management could also be beneficial, and lastly research on IAS effectiveness was discussed as a possible activity across the eight IASs.

“The idea is to share knowledge – what does it means to be an IAS institute? To do things together and create more visibility”, Marianne Holmer says.



Why an additional IAS collaboration?

There are already several networks between IAS’ in Europe such as NETIAS and worldwide such as UBIAS.

The founding Nordic IAS’s emphasizes that it is not the point to replace the already existing networks but rather to complement them.

Some of the activities might be easier and have greater agility in a smaller network. As well as having more things in common due to history, culture and the interdisciplinary focus area.

Next step

A memorandum of understanding is currently being signed by the partners in NORDIAS and the collaborations will continue through exchange of knowledge and shared activities.

All institutions will be looking for funding to shared activities such as workshops and research projects, whereas bilateral exchange of fellows and staff will be funded by the institutions.

Read more about NORDIAS here:

<https://sites.utu.fi/beyond-ias/nordias/>

Dogmas in Research

Be curious about the dogmas in your research field: DIAS challenges the dogmas that have a great impact on research

“It’s good for children to go to school” – right? The dogma that school is good for children, rules through society and research on various levels.

But if you break down the argument there are a lot of assumptions that are not necessarily given or backed up by research.

The above is a dogma that was presented by DIAS Chair Nina Bonderup Dohn. She and DIAS Chair Christine Stabell Benn had arranged a meeting at DIAS where the dogmas of various fields were presented and discussed.

Definition of dogma: “a principle or set of principles laid down by an authority as incontrovertibly true” (Oxford languages).

Here is a selection of the discussed dogmas:

Christine Stabell Benn: In vaccinology, it is a dogma that a vaccine only protects against the vaccine infection but does not impact on the risk of other infections, but the fact is that this has never been studied before the current vaccines were introduced and recent studies seriously question this dogma. However, it is difficult to get general acceptance of these new studies, because they are viewed through the glasses of people who grew up with the dogma and believe it is “incontrovertibly true”.

Nina Bonderup Dohn: Within education, a dogma widely held in the public is that it is good for children to go to school – “good” psychologically and socially speaking as well as in terms of knowledge acquisition. Arguably,

however, organizing learning in schools is primarily an efficient way to educate the next generation to become knowledgeable, skilful citizens (this is a further dogma). There are no large-scale studies documenting that it is actually better for children to have their childhood learning organized in this way. Some smaller-scale studies challenge the dogmas, but they are most often pushed aside precisely because they are small-scale, and because it is believed to be unethical to do large-scale studies on children's learning and well-being.

Angela Y. Chang, DIAS Fellow: "Gender equality" is what we should be thriving for in all areas, as expressed in global targets such as the sustainable development goals (SDGs). However, whether equality between the genders (and often this is depicted as women's outcomes should be at the same level as men's) is actually desired should be questioned. For example, in my research field of public health, many talk about gender equality in health because women suffer more - maternal mortality, adolescent fertility, lower quality of life — but in fact men actually live shorter than women. In labor force participation metrics, globally we aim for women to have the same level of participation rates as men without considering alternatives (for example, men to lower working hours to support family). We also see this in leadership and career advice, encouraging women to be "more like men" to get the jobs they want. This dogma is helpful and important in many aspects, but it also hinders potential for further scientific and welfare advances.

Dogmas may be true - and helpful - but as illustrated by the above examples it is not always the case - some dogmas may indeed need to be killed for science to progress.

The following questions were discussed around the dogmas at the meeting: How do we identify a dogma? They can be hard to identify as many are taken so much for granted that we do not even consider questioning them. The main question is whether a given dogma is substantiated by data? Is it presumably true or is there suspicion that it might in fact be wrong? How can we debate dogmas - how can we even get the questioning of them off the ground? Dogmas are inherently defended by the majority and may often be highly political - to the extent where questioning the dogma may inadvertently link the questioner to extremist groups in society. Is it good for a career to question dogmas? We also discussed what the difference between a dogma and a paradigm - the latter being an overarching framework building on (several) dogmas.



Christine Stabell Benn



Nina Bonderup Dohm



Angela Y. Chang





Retreats

DIAS Retreat March 2022

The DIAS Spring Retreat 2022 took place at Hotel Nyborg Strand on the 2nd- 3rd of March.

The first day was devoted to discussions on Interdisciplinary Research arranged by DIAS Chairs of Humanities Anne Marie Mai and Klaus Petersen. The second day focused on developing new ideas and ongoing research in DIAS with pitches and presentations from the 30 participants.

DIAS Retreat November 2022

The DIAS Fall Retreat 2022 took place at Hotel Sinatur Storebælt on the 7th-8th of November. The purpose of the retreat was to put focus on the role of an interdisciplinary research to support a researcher's path to excellence.

Specifically, the 25 participants engaged in round-table discussions on their own experiences and challenges related to interdisciplinary research. Following these discussions, presentations on the challenges in acquiring funding for interdisciplinary research projects and how to overcome them were held, one by DIAS Chair of Physics N. Asger Mortensen.

DIAS Online

Youtube, Twitter and LinkedIn Highlights

DIAS has established an active online presence over the years which includes the DIAS website, lectures on YouTube and promoting and sharing research on Twitter and LinkedIn.

The DIAS Website - www.sdu.dk/en/forskning/dias - has an overview of all DIAS affiliates, academic events hosted by DIAS and contains information on all DIAS research programmes. It is also the primary hub for news from the Institute.

Twitter and LinkedIn - [@DanishIAS](https://twitter.com/DanishIAS) - has more than 1,300 followers on both platforms where we advertise for DIAS academic events and seek to boost the research results and funding of DIAS researchers.

YouTube - [YouTube.com/@DanishIAS](https://www.youtube.com/@DanishIAS) - On the DIAS YouTube channel, the broad public and niche networks can find most of the excellent research presented in the DIAS House over the years - The DIAS Wednesday Lectures are livestreamed and then uploaded to the channel.

Among the most viewed lectures of 2022 are:

DIAS Chair of Health Sciences Christine Stabell Benn discussing the efficiency of health interventions against COVID-19 (4,181 views)

Guest lecture by Professor Ian Harris arguing that there is “too much medicine and placebos in surgery” (4,063 views)

Guest lecture by Professor and DIAS Advisory Board member Bente Klarlund: Exercise as Medicine and the role of myokines: a translational perspective (1,118 views)

Be inspired, visit [YouTube.com/@DanishIAS](https://www.youtube.com/@DanishIAS)

Contact info: The DIAS administration

Marianne Holmer, Director
holmer@sdu.dk

**Ane Kristine Coster,
Administrative Coordinator**
ankc@sdu.dk

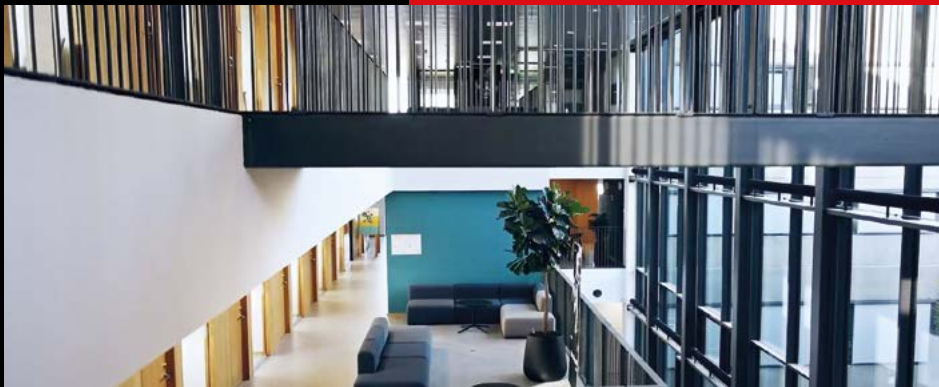
**Victoria Touveneau Petersen,
Communication and Event Officer**
vip@sdu.dk, +45 9350 7588

Barbara Piric, Secretary
bap@sdu.dk

📍 Fioniavej 34, 5230 Odense

🌐 sdu.dk/en/forskning/dias

📧 @DanishIAS





Syddansk Universitet
Campusvej 55
DK-5230 Odense

Telefon: +45 6550 1000
sdu@sdu.dk
www.sdu.dk

D·IAS