



Danish Cardiovascular Academy Self-evaluation report 2021 -2024

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Preface

This report provides a self-evaluation of the Danish Cardiovascular Academy (DCA) running from January 2021 until December 2024. The purpose of the evaluation is to assess whether the funding instrument (DCA) has been successful in relation to its overall objectives. Performance regarding prespecified deliverables and evaluation criteria and the four strategic objectives will be evaluated. Furthermore, the purpose is to reflect on the progress of the Academy, including the achievements and obstacles encountered up until now. The DCA Board of Directors, members of the DCA governing bodies, the International Review Committee, Training Committee, Grant Committee and Cross-Academy Committee, and current and former DCA-funded researchers contributed with input to the preparation of the report. In The report is written by the DCA Executive Management together with the Board of Directors.

signed: 29-11-2024



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The report follows the guidelines provided by the Novo Nordisk Foundation (NNF) and an abbreviated version of the annotations is provided in red italics for each subheading.

Executive Summary

Danish Cardiovascular Academy (DCA) was established in 2021 with a 6-year grant from the Novo Nordisk Foundation (150,000,000 DKK) and the Danish Heart Foundation (30,000,000 DKK).

The vision is to prevent cardiovascular disease and provide better treatment and quality of life for patients. The mission is to establish an elite academy for excellent interdisciplinary education and training to improve understanding of disease mechanisms, diagnosis, treatment, and prevention of cardiovascular disease.

The DCA secretariat is located at the Department of Biomedicine, Aarhus University, with a satellite office at the Department of Biomedical Science, University of Copenhagen. The daily operation is delegated to the secretariat, led by the Executive Management Team.

Four years into the grant period, DCA has delivered on all the outlined deliverables and succeeded in most of the Evaluation Criteria. The focus areas of the DCA are to excel on the four strategic objectives: *A) To provide grants to the best PhD students and Postdoctoral fellows; B) To provide international level research training and education; C) To create and nurture national, international, interdisciplinary, and inter-sectoral networks; D) To establish a national cohort mentality.* The DCA is continuously focused on improving within all strategic objectives.

Objective A: DCA has completed four of the granted five calls for PhD and Postdoctoral stipends and granted a total of 57 PhD scholarships and 31 Postdoctoral fellowships. The bibliometric analysis, feedback from the Grant Committee on quality of applicants, and a success rate of only 16.2% indicates that DCA has been able to select highly qualified and ambitious early career researchers. Thus, we find that DCA successfully have achieved the objective. There are minor differences in granting success rates between regions and between sectors and the evaluation instruments for the success of our grantees may be further developed.

Objective B: Since 2021, DCA has hosted or co-hosted more than 90 education-, training-, and networking events with more than 2750 participants. The average evaluation score is 4.7 on the scale to 5. By offering high-level training and educational activities with international components, the DCA has strengthened the educational and talent development in the Danish cardiovascular research community. This warrants that DCA has achieved objective B although some areas are underrepresented at DCA events and the implementation of modern teaching principles and tools has not fully been accomplished.

Objective C: DCA has positioned itself as a national academy, unifying academia, hospitals, and the life science industry. DCA has spurred new collaboration through the facilitation and creation of strong national and international networks by arranging activities, such as the International Summits, Summer- and Winter Meetings, but also through the Visiting Faculty, Visiting Professor and the Internationalisation programmes. DCA has thereby achieved the strategic objective of creating national, international, interdisciplinary, and inter-sectoral networks. However, there are some disciplines where the potential of DCA has not been fully exploited.

Objective D: DCA gives the grant recipients a sense of being a valued part of a group of peers. Through the obligatory *DCAcademy Grant Recipient Introduction Course*, initiatives as the Peer-to-Peer mentoring circles, and the annual *Ambassador Dinner*, an afternoon of workshops, networking, and celebration of their cardiovascular research, we have established a national cohort mentality among the early career researcher, and thus met objective D.

Introduction

A brief introduction to the Academy. Please provide a timeline for the establishment of the Academy (secretariat, committees, advisory bodies, collaborations, employments etc.).

In 2018, the chair of the Danish Cardiovascular Research Academy (DaCRA, 2000-2020), Prof. Thomas Jespersen, together with Prof. Christian Aalkjær, approached the Novo Nordisk Foundation (NNF) suggesting the establishment of an academy within the cardiovascular field, alike the NNF funded Danish Diabetes Academy (DDA). Danish Heart Foundation (HF) was included in the discussions and a proposal for an academy was developed. Based on this proposal Danish Cardiovascular Academy (DCA) was established in January 2021, funded for a 6-year period by the NNF and the HF. The funding from the HF is dedicated co-funding 30 full PhD stipends.

The DCA secretariat is hosted at the Department of Biomedicine, Aarhus University, with a satellite office at Department of Biomedical Science, University of Copenhagen. Since the inauguration, the DCA has successfully matured through an early-stage entrepreneurial phase, which was a phase of rapid expansion of activities, to the current state of consolidation and development. The governance bodies were established in 2021, while DCA also focused on operationalising the pre-defined missions and goals for the DCA portfolio of activities. The first call for PhD scholarships and Postdoctoral fellowships was concluded and collaborations with key stakeholders as the Graduate Schools and Danish Diabetes and Endocrine Academy (DDEA) and Danish Data Science Academy (DDSA) were established. By 2024, the secretariat comprises the Executive Management Team (EM), consisting of the CEO, the Training Manager and the COO, supported by three Course Managers, a part-time Communications Officer and two part-time Student Assistants. For timeline see appendix¹

Overall Objectives, Success Criteria and Achievements

Specify the Academy's vision, mission, and objectives as originally outlined in the grant application to the Novo Nordisk Foundation. Clearly specify the success criteria.

Vision and Mission

The DCA's *vision* is to prevent cardiovascular disease and provide better treatment and quality of life for patients.

The DCA's *mission* is to establish an elite academy for excellent interdisciplinary education and training to improve understanding of disease mechanisms, diagnosis, treatment, and prevention of cardiovascular disease.

Strategic Objectives

To accomplish the mission, four strategic objectives have been defined:

- A. To provide grants to the best PhD students and Postdoctoral fellows
- B. To provide international level research training and education
- C. To create and nurture national, international, interdisciplinary, and inter-sectoral networks
- D. To establish a national cohort mentality.

Through the strategic objectives, the DCA has bolstered the cardiovascular scientific community by providing valuable opportunities for funding, internationalisation, cutting-edge post-graduate education, and networks. An overarching goal of DCA, is to nurture cross-institutional collaborations and, for the first time ever, bring the entire Danish cardiovascular research community together. Furthermore, as a funding and training organisation for early-career researchers, we are committed to ensure the professional growth and development of scientific curiosity among our grantees.

Success Criteria

Account for and reflect on the Academy's performance regarding the success criteria and objectives.

The original application on which DCA was funded outlined specific Annual Deliverables and Evaluation Criteria (success criteria).

Annual Deliverables

The DCA has met all annual deliverables see appendix; annual reports 2021², 2022³ and 2023⁴.

Evaluation criteria

The evaluation criteria are divided between Research (four criteria) and Training and Education (three criteria).

EVALUATION CRITERIA	MEASURE	LOW SUCCES	MEDIUM SUCCES	HIGH SUCCES
Research criterion 1				
Collaborative projects between 2 or more sectors (hospitals, universities, industry)	Percentage of intersectoral projects as compared to granted projects	<60%	60-80%	>80%
<u>Evaluation and reflection:</u> Formally, the criterion has been met as all applicants for PhD's or Postdoctoral fellows must include a cross-sectorial component. However, the extend of the cross-sectorial collaboration in an individual project may vary. Although the extend of each collaboration will vary, we find that the criterion of a cross-sectorial component in all applications have been successful in nudging the community toward more collaborative projects across sectors and/or disciplines.				
Research criterion 2				
Publications with intersectoral involvement	Intersectoral publications per PhD student	0	1	2 or more
<u>Evaluation and reflection:</u> Based on the bibliometric analysis ⁵ 30% of DCA Grantees' publications is University Campus - University Hospital Collaborations (17 of 56 publications). This we consider a rather low success. The result does not showcase the actual level of collaborations, as we are not able to correct for clinical researchers with dual affiliations (hospital and campus). Based on the high number of MD's among the Grantees, we believe the result most likely is skewed towards a lower percentage.				

Research criterion 3				
Number and impact of publications from Danish research environments on cardiovascular issues from DCA supported researchers	Publications >IP5 per PhD student	0 N/A	1 N/A	2 or more N/A
<u>Evaluation and reflection:</u> The bibliometric uses the Field-Weighted Citation Impact, thus, we are not able to clearly state if the success criterion has been met. The score of 2.56, however, is very impressive and reflects that the DCA Grantees have published at a very high level. This is further supported by that more than half (57%) of the publications are in the top 10% Journal Percentiles by CiteScore.				
Research criterion 4				
PhDs continuing with a postdoctoral position abroad after finishing a DCA Elite PhD	Percentage increase compared to 2020	0% N/A	20% N/A	20-50% N/A
<u>Evaluation and reflection:</u> We are not yet able to evaluate this criterion for the Grantees.				
Training and education criterion 1				
Early career and senior scientists participating in the DCA summer camp	Number of participants compared to DCA supported fellows	100-150% N/A	150-200% N/A	>200% N/A
<u>Evaluation and reflection:</u> The idea of a DCA Summer Camp has not been realised, as we found it would be redundant to other scientific summer schools/camps held by the universities. However, we have a very high attendance of Grant Recipients at our annual Winter- and Summer Meetings.				
Training and education criterion 2				
Participation from different sectors in DCA educational activities	Distribution of researchers from academia, hospitals and industry	Severely skewed	Somewhat equal	Fairly equal
<u>Evaluation and reflection:</u> We find the distribution is severely skewed as almost 70% of participants at courses, symposia, and Summer Meetings are affiliated to a university, 20% with a hospital and only 2% with the industry (self-reported). The distribution between research areas is also somewhat skewed with only very few participants from Public Health. For distribution of participants, see appendix ⁶ .				
Training and education criterion 3				
Participation in DCA organised workshops and symposia	Number of participants compared to maximum uptake	<60%	60-80%	>80%
<u>Evaluation and reflection:</u> The DCA courses and events are of high quality and generally able to attract the early career researcher. However, some courses over the last year have been cancelled due to insufficient interest. DCA must make sure to organise courses within the target group's interest and create a plan to successfully attract attendees.				

Major accomplishments

Summarise the top three accomplishments at the Academy level. Specifically, reflect on accomplishments that were enabled by the Academy formation and to what extent does the Academy constitute “more than the sum of its parts”.

1) Delivering high-quality training and education and supporting talent development

DCA has strengthened graduate and post-graduate research training and talent development in Denmark by adding quality, strength, and internationalisation to the education. Through a focus on encouraging higher interactivity between speakers and participants, we have increased the quality and output of the cardiovascular educational programme. The DCA has been consistent in adding to the existing graduate and post-graduate training and avoiding redundancy to existing Graduate programmes at universities. Also, by granting highly skilled PhD-students and Postdoctoral fellows and providing these with highest level international education, we have significantly contributed to advancement of new talents. The DCA has thereby met the strategic objective of providing international level research training and education.

2) Creating a strong national and international network within the cardiovascular research community, embracing academia, hospitals, and life science

DCA is now recognized as a national academy, bringing researchers from different fields and sectors of cardiovascular research together. DCA has been supporting the formation of new collaborations through the focus on ensuring supervision from different fields, by establishing peer mentoring groups, by ensuring cross-sectorial and interdisciplinary educational activities, such as the International Summits, Summer- and Winter Meetings, but also through the Visiting Faculty, Visiting Professor and the Internationalisation programmes. DCA has thereby achieved the strategic objective C, of creating national, international, interdisciplinary, and inter-sectoral networks. There is still some way to go to ensure that the young researchers fully appreciate the importance of understanding the complexity of cardiovascular disease. The young researchers need to understand that as a researcher one should keep an interest not only in the questions narrowly associated with the individual project, but to be able to comprehend the full picture of the cardiovascular patient. This entails a more holistic approach, which will be a strategic goal for a consecutive academy.

3) The effective and overall competent organisation

DCA developed an agile governance model and organisation, which has a strong and very positive reputation and support from users and stakeholders. This ensures that the organisation delivers on its mission and strategic focus points. The organisation has, among others, prompted high level educational activities and established a platform for granting PhD scholarships, Postdoctoral fellowships and Visiting Professorships.

In summary the above-mentioned accomplishments only reflect some of the many achievements of the DCA in its first four years. They represent the key strengths of the DCA and supports the notion of the DCA being an important contributor to the growth and quality of the Danish cardiovascular research community. Through the combination of a strong organisation and a close collaboration with the community and key stakeholders, the DCA has been able to deliver more and at a higher level than outlined in the original deliverables and evaluation criteria, thus contributing with more than the sum of its parts.

<i>Self-evaluation – Overall Objective, Success Criteria and Achievements</i>	
Achievements	Evaluation and reflection
<p><u>Vision and Mission</u> The DCA has used the vision, and mission to formulate strategic objectives.</p>	<p>The formulated strategic objectives are valuable as guidance in the developing of the DCA, creating a red thread throughout the activities and initiatives. This includes the granting procedure and the development of training and educative activities, as well as new and innovative funding instruments, e.g. visiting faculties and the Internationalisation Programme. The DCA will continue in adjusting and improving the ongoing programmes encompassing experience from the first four years.</p>
<p><u>Success Criteria</u> The DCA have delivered on all deliverables and on some of the evaluation criteria.</p>	<p>The outlined Deliverables of the initial phase of the DCA have all been met and surpassed. Achieving the predefined Evaluation Criteria have proven difficult to assess, partly due to the relative short time DCA has existed, but also as they are somewhat outdated as to how data is gathered (bibliometrics). The DCA will seek advice from the NNF-Impact division on future success criteria</p>
<p><u>Major Highlights</u> The EM highlights education, network, and organisation as major achievements.</p>	<p>The three highlights reflect that DCA has established a viable organisation performing at high level. The DCA has also been successful in the strategic objectives B (provide international level research training and education) and C (create and nurture national, international, interdisciplinary, and inter-sectoral networks).</p>

SWOT-analysis

A comprehensive SWOT analysis of the Academy should be conducted. The different SWOT dimensions should be reflected upon.

The SWOT analysis was conducted internally within the secretariat and by the Executive Board together with the Board of Directors. The detailed SWOT is attached as appendix⁷.

Strengths

The SWOT analysis points toward the many strengths in DCA, such as:

- High scientific level and engagement from the DCAcademy grantees.
- Experience and competencies of the secretariat
- An established network with the Cardiovascular community
- In-house research competencies

The setup with two senior researchers with extensive networks in the cardiovascular environment employed by the DCA, establishes a relationship with the cardiovascular environment - particularly the basic and clinical cardiovascular areas.

Weaknesses

Among the weaknesses in DCA elucidated by the SWOT are:

- A lack of knowledge and up to date on pedagogical and didactics teaching methods
- Difficulties in reaching all areas of CVD
- A missed potential synergy in collaboration with major NNF initiatives.
- Some courses had low attendance, the decision process on which courses to organize is suboptimal
- Variable engagement of international and training committees

Opportunities

From the SWOT analysis DCA find several opportunities:

- A collaboration with relevant national strategic initiatives should be initiated
- There could be a closer cross academy integration on the cardiometabolic area
- DCA could advance the use of modern learning platforms and didactic tools
- DCA could improve in reaching the public health area.

It has been more difficult to reach out to the public health sector and the DCA is now actively working on strengthening the relationship with the public health sector by interacting more with opinion leaders in the public health sector and strengthening the public health sector expertise in the grant committee. The DCA will incorporate these opportunities in future activities.

Threats

Some of the major threats in DCA are identified by the SWOT as:

- The vulnerability of being a small secretariat
- The risk of not achieving a second grant
- The engagement of established researchers.

The risk of declining engagement by established researchers is especially a threat and a weakness to the development of the course programme. A major factor could potentially be the contribution to the academy (e.g. as lecture or course organisers) is on a voluntary basis. The DCA is therefore considering the possibility of offering an honorarium. To address the vulnerability of being a small secretariat, the EM has a steady focus on well-being and the working environment using both individual check-up meetings and arranging social events for staff.

DCA-SWOT-analysis

We find that the SWOT supports the view of DCA being successful as an institution in the Danish cardiovascular environment. The DCA is known for its high level of professional educational activities and grant evaluation. The DCA has fostered several new networks and collaborative activities both nationally and internationally. The key learnings are that the DCA has the un-exploited potential in reaching a larger part of the cardiovascular community, including the public health area and the clusters forming around major strategic initiatives and install a more profound appreciation of being interested in the full complexity of the cardiovascular patient.

Organisation and Structure

Provide an overview of the Academy's organisational structure, including the committees and other Advisory Bodies and host institutions.

Management

The BoD heads the DCA and is advised by the International Reviewing Committee (IRC) and the DCA Training Committee (TC), including a DCA-DDEA-DDSA Training Subcommittee (TS). The daily operation is delegated to the EM, comprised of CEO, Prof. Christian Aalkjær, Training Director Prof. Thomas Jespersen and COO, PhD Emil Toft Brøndum. The independent Grant Committee (GC) evaluates applications for PhD scholarships and Postdoctoral fellowships. For organogram see appendix ⁸.

Staff

The CEO is 80% employed in DCA and 20% at Institute for Biomedicine, Aarhus University and the Training Director is 50% employed in DCA and 50% professor, group leader and director of the cardiovascular PhD-programme at SUND, University of Copenhagen. The COO is full-time and holds an Industry-PhD in cardiovascular disease. The staff have backgrounds within administration, communication, and humanities, all with extensive experiences within project management. To improve the staff's ability to support the community, they have regular classes in cardiovascular physiology and disease. The different, yet relevant and synergistic, competences ensure DCA's ability to support the traditional scientific modus operandi, but also, and even more importantly, to be able to challenge and develop this modus into new, exciting, and better ways of organising, hosting, and executing education and events within the scientific communities. For list of employees, see appendix⁹.

Host Institution

The NNF and HF grants are administered by Aarhus University (AU) and formally the DCA is embedded as a research centre at AU. DCA pays a 5% overhead to AU, who in return provides administrative services and housing. The collaboration with AU is very well functioning.

<i>Self-evaluation - Organisation and Structure</i>	
Achievements	Evaluation and reflection
<u>Organisation</u> The DCA has established an organisation supported by external advisory bodies.	The delegation of decision-making on operational matters ensures a smooth and agile daily operation. The collaboration between EM and BoD is very good. The collaboration with the TC and IRC is to some extent less ideal. For the remaining period of DCA, we wish to alter the composition of the IRC by including Danish members. Reorganization of the TC must await a new version of DCA.
<u>Staff</u> The DCA has a diverse and well-functioning staff.	We find that the diversity creates synergies and adds new perspectives to the benefit of the DCA output. We believe it is of great importance for the continuing success to maintain the current staff. The physical presence in both Aarhus and Copenhagen makes it possible for the DCA to be present at more events and thus more visible to the cardiovascular communities.
<u>Host</u> The DCA has a seamless collaboration with AU on administrative support.	The collaboration with the administration at AU is highly valued, professional, and competent. The structure also warrants the DCA funding is administered according to Danish regulations, without putting redundant administrative tasks on the DCA secretariat.

Governance: Decision-making Mechanisms

Elaborate on the roles, composition and responsibilities of the various leadership/management and governing bodies.

Academy Leadership

Chair of the BoD, Anne-Mette Hvas, holds the overall responsibility of the Danish Cardiovascular Academy. The EM reports to the BoD and responsibilities are distributed among the EM-team. CEO, Prof. Christian Aalkjær, is responsible for the performance of the DCA and the staff. Training Director, Prof. Thomas Jespersen is responsible for training and education while COO, PhD Emil Toft Brøndum, is responsible for daily operations. The EM has mandate to initiate, plan, and execute training and educational activities.

Decision-making mechanisms

The EM is responsible for the annual activities being of high quality, aligned with the strategic scope, and within the annual budget as approved by the BoD. For each activity, the EM assigns a member of staff as “lead”. The lead is then responsible for organising the event within a given budget and for involving the EM. On strategic matters, the EM will confer with the BoD. The evaluation of grants is delegated to the GC. Neither the BoD nor the EM are involved in the review process.

Governing Bodies

The BoD is headed by the Dean of Faculty of Health, Aarhus University, who also is the formal grant holder, and include representatives from the cardiovascular community, the industry, and member from HF and a non-voting member from NNF. For list of BoD and their CV, see appendix¹⁰.

According to the contract, the IRC is to provide a report after 2 years and after 4 years on the status of DCA and council on further development. The IRC met with a user-panel in connection with the Summer Meeting, June 2023, and the 2-year report was delivered in November 2023. The committee report has provided some inspiration for new activities and cross-sectorial areas to explore. See appendix¹¹

The Early-career Advisory Committee was appointed in 2021 and met twice (2021 and 2022). But the format and purpose of this Committee proved to have considerable overlap with the Elite Training Committee, why these were merged into one Training Committee (TC). The TC meets approximately twice a year to discuss the educative activities and give feedback on previous events and input for new initiatives and activities. The members of this committee has proven difficult to engage.

The TS for training and education has proven to be highly valuable and vital for the successful start of the DCA and the close collaboration between the academies.

The GC has been expanded from the suggested 12 members to 20 members to accommodate the large number of applications received. Four members are affiliated to Danish universities, 16 are international and the committee is chaired by Professor Boye L. Jensen, University of Southern Denmark. The committee meets once a year to evaluate applications for PhD-scholarships and Postdoctoral- and Clinical Postdoctoral fellowships. There has only been limited substitutions in the committee. For list of members of the Governing Bodies see appendix¹².

Collaboration with the NNF and HF

The DCA and the NNF have annual formal meetings, and informal meetings every six months. The COO and NNF-Programme Officer, Jens Peter Christensen, is in continuous dialogue on operational matters.

DCA and HF have regular contact, and the Chief Scientific Officer of the HF is often involved in DCA activities. The Communications Officers at DCA and HF have monthly strategy meetings, where both institutions update

each other on joint grant recipients' research and events. This often results in joint projects (articles and social media content). DCA is also grateful to collaborate on public outreach with HF with whom we organise events such as 'Meet the Scientist', where the public can hear about cardiovascular disease in layman's terms.

<i>Self-evaluation - Governance: Decision-making Mechanisms</i>	
Achievements	Evaluation and reflection
<u>Academy Leadership</u> The EM has a clear delegation of tasks.	The delegation of the areas of responsibilities within the EM and between the BoD is very well functioning.
<u>Decision Making</u> DCA has an agile decision process.	The assignment of a course manager to be lead on organising activities is a well-functioning practice. We find that the delegation concomitant responsibility motivates the staff thus increase commitment to the DCA and quality of the end product.
<u>Governing Bodies.</u> For some of the governing bodies DCA should consider rotation in members due to lack of performance.	The BoD is well functioning, engaged and provide good leadership on strategic matters.
	The IRC was difficult to engage and seemed to have difficulties in understanding the concept of the academy. The potential of supporting the BoD's governance have not been fully exploited. This is possibly due to an unclear mandate and the final report thus ended up being more descriptive of the DCA achievements than a critical review.
	The TC meets twice a year and provides feedback on DCA activities and ideas for new educational activities. However, it is difficult for the DCA to get commitment to specific deliverables from members. This could possibly be achieved through a closer connection to the academy, possibly through part-time employments.
<u>NNF and HF collaboration</u> DCA collaborates with both NNF and HF.	The GC's review of application is external, which ensures the "arm-length" principle in evaluation, and thus, the academy cannot influence the distribution of grant. This format is highly valuable and protects the staff and EM from being miscredited by rejected applicants.
	DCA and NNF has established a well-functioning collaboration. But it is likely that a stronger formal meeting structure may enhance this interaction. There is a good and steady interaction with HF.

Educational Activities and Talent Development

Provide an overview of each type of the Academy's educational activities and compare the original grant application and the grant agreement. Account and reflect on performance in relation to the milestones and success criteria described in the application.

Educational activities

The educational activities suggested in the grant application (original application page 27) has not been considered as deliverables. Instead, they have been used as guidelines for the development of a course programme. Full list of activities can be seen in appendix¹³.

The scientific background and active presence in the scientific community of the CEO and Training Manager has been pivotal in the development of relevant and largely bottom-up initiated activities. The DCA activities are open to all early career researchers and free of charge and cover a broad span; from half-day symposia to 4-day courses, public lectures, and open seminars. All DCA activities are thoroughly screened by the secretariat before initiation to minimise redundancy to the existing PhD education provided by the Graduate Schools.

The main educative activities can be divided into three categories; 1) DCA Courses, which are courses and events developed and held by the DCA secretariat; 2) Joined Academy Courses, developed and held in collaboration with the DDEA and/or DDSA, and; 3) Joined DCA – Graduate School Courses, which are held in collaboration with the Graduate Schools at the health faculties at Danish universities. The collaboration with the Graduate Schools at the health faculties in Denmark is a source of great synergy to the benefit of the research community. The collaboration has two formats; 1) the Graduate School financially support DCA courses as per ECTS-point while the DCA is responsible for planning and execution and; 2) the DCA co-sponsoring selected activities by supporting cost of international speakers and networking events. The DCA thereby adds quality and contributes to increased outcome. For these events, Graduate School representatives are the main responsible for planning and execution. This model is very resource efficient for the DCA and a major factor of DCA being able to offer an impressive and diverse course portfolio regardless of the small secretariat.

Accomplishments

DCA has provided high-quality and high-level scientific training and education, as well as dissemination of our activities and promoting our Grant Recipients. Since the inauguration, the DCA has hosted or co-organised more than 90 events with a total of more than 2750 participants. For timeline of DCA educative milestones see appendix¹⁴.

Performance

The evaluations by participants of DCA activities are generally very positive, with an average score of 4.7 out of 5 in response to the question; "What was your overall impression of the event". However, these numbers built on less than 50% of participants responding to the evaluation schemes. Nevertheless, the consistent positive feedback highlights DCA's commitment to excellence and the success of its initiatives in meeting the expectations and needs of event attendees. Though, for some highly specialised courses we have not been able to attract sufficient numbers of participants, and it was necessary to cancel 2 courses and a workshop.

Talent Development

For the DCA Grant Recipients, it is obligatory to participate in the *DCAcademy Grant Recipient Introduction Course*, where they present their research, become part of a Peer-to-Peer mentoring circle, and are appointed

as ‘*Science Ambassadors of the DCAcademy and the Danish Heart Foundation*’, which is a way to enhance the cohort mentality and increase the awareness of being responsible for disseminating cardiovascular knowledge. Furthermore, they are strongly encouraged to participate in the annual *Project Management course*, the annual *Peer-Mentoring workshop*, and the annual *Ambassador Dinner*. Through these offers, we wish to give our Grant Recipients a sense of being a valued part of a group of peers, which is pivotal in terms of achieving strategic objective D (establish a national cohort mentality). The Grant Recipients receive the DCA ‘Grant Recipients Handbook’, describing DCA’s expectations as well as the special offers that comes along with being a DCA Grant Recipient, see appendix¹⁵.

Of other talent development activities, the DCA has launched the Visiting Professor- and Visiting Faculty Programmes. Both aim at bringing international researchers to Denmark in a context of providing Master Classes and supervision of the early career researchers. Read more about the programmes in appendix¹⁶. In 2024, DCA also initiated the Internationalisation Programme where a supervisor together with 1-3 research students visits an international research group for a minimum of five working days, including a joint symposium. The aim of the visit should be to strengthen and/or create international collaborative projects. The first two International Visits have been concluded and the feedback from both main supervisors, hosting international research groups and involved student is very positive. Read about the programme in appendix¹⁷.

<i>Self-evaluation - Educational Activities and Talent Development</i>	
Achievements	Evaluation and reflection
<u>Educational activities</u> The DCA has put together a comprehensive and broad course programme with focus on adding to the existing PhD education.	Being active researchers, the leadership of DCA has been able to contribute with direct link to the scientific community ensuring initiatives being locally anchored in the research community. The course portfolio could be more diverse towards areas as public health including rehabilitation and prevention.
<u>Performance</u> The DCA activities are rated very high in course evaluations.	Although there has been sub-optimal response rate to the electronic evaluation of courses, the DCA regards the high scorings in the evaluations as a marker of appreciation of a high standard of content and execution of events. The DCA will initiate a survey to understand how some courses have failing number of participants and elucidate the cause.
<u>Talent development</u> The development of an exclusive programme for Grant Recipients.	The introduction course and other exclusively activities for DCA Grant Recipients have proven valuable in achieving the strategic goals of creating networks and in creating cohort mentality among the Grant Recipients (strategic objective D). The majority of course participant is from the Capital Region Denmark. To some extent, this reflects a larger cardiovascular research community in Copenhagen and our close collaboration with the Graduate School of Health at University of Copenhagen. However, it also highlights a potential of attracting more participants from the other regions to DCA events.

Network and Collaboration Activities

Provide an overview of the Academy's networking and collaborative activities and describe the strategy for developing network and collaborative activities both nationally and internationally. Reflect on the collaboration with the Danish Diabetes and Endocrine Academy and the Danish Data Science Academy.

DCA networking activities

Creation of national and international networks is a key strategic objective for the DCA. Thus, establishing framework and opportunities for networking are a prioritized component of all training and educational activities. In addition, DCA organises networking events at European Society of Cardiology Conference (2024), annual Ambassador Dinners for Grantees and key partners and stakeholders, as well as support a range of small local afternoon-symposia, where young researchers meet and present their research before having sandwiches or pizza.

DCA has used networking activities as an integrated part of courses aimed at getting the participants to know each other on a personal and professional level. This is achieved through extracurricular activities aimed at generating personal bonds through shared experiences, examples ranging from morning yoga to sunset stand up paddle. On the professional level, DCA uses facilitated methods such as networking-wall, Meet-the Professor, science carousel, and physiological experiments (e.g. blood pressure in sauna vs. ice bathing). For the spurring generation of international networks, we encourage international speakers to bring students to events as participants.

DCA collaborations

DCA has been highly successful in generating networks, both national and international, and across disciplines. DCA has built a strong collaboration with the Graduate School of Health and Medical Sciences, University of Copenhagen on educational activities and to a lesser extend also with the Graduate Schools at Aarhus University, University of Southern Denmark and Aalborg University. The DCA also collaborate closely with other major institutions within the Danish cardiovascular and cardiometabolic research community such as DDEA, DDSA, Neuroscience Academy Denmark (NAD), and the Steno Diabetes Centres. HF is partner on the most successful of the DCA outreach public activities, the "Meet the Scientist" for members of HF, see appendix ¹⁸. The DCA has not established formal collaborations with international partners but are collaborating with the renowned research group of John McMurray (Glasgow, UK) on annual meetings within Clinical Research in Heart Failure. So far, DCA has granted three Internationalisation grants, hosted two Visiting Faculties and funded four Visiting Professorships. For list of key collaborators see appendix ¹⁹.

Cross-Academy collaboration

On a management level, the most valuable network is the close interaction between the DCA and the DDEA (previously known as DDA). The knowledge and experience that DDA shared with DCA has been invaluable and the single most important contributor to the high performance of the DCA. As DDSA has a broader scope than life science research, there have been fewer cross-academy activities between DCA and DDSA. To build bonds between the academies and their staff, we organize cross-academy workshops for the staff on relevant topics, such as Written Communication, Diversity, Equity and Inclusion, and Didactic Methods. The DCA also collaborates on activities with the NAD and the BRIDGE programme.

Cross-sector collaboration

The DCA has continuously placed an effort in attracting both participants and speakers from the different sectors (e.g. industry, academia, hospitals), especially for the annual DCA Summer Meeting. DCA has up til now

organised three events in collaboration with the industry. A half-day site visit with Novo Nordisk A/S, a three-day course on drug development with AstraZeneca, and a networking dinner sponsored by Novo Nordisk A/S.

<i>Self-evaluation – Network and Collaboration activities</i>	
Achievements	Evaluation and reflection
<p><u>DCA-Networking</u> The DCA has been successful in implementing networking as part of all activities and programmes.</p>	<p>The focus on creating frameworks for both personal and scientific networks for participants at DCA activities has been well received and will continue as a part of the DCA is, spurring national and international networks and collaborations, thus achieving the strategic objective B.</p>
<p><u>DCA-Collaboration:</u> The DCA has established collaborations with major stakeholders.</p>	<p>DCA has built close collaborations with the major stakeholders within Danish cardiovascular research and post-graduate education and training. This includes The Graduate Schools, the Steno Diabetes Centres, the BRIDGE programme, and prestigious international research groups. The DCA should continue seeking both national and international collaborations as these have proven highly valuable.</p>
<p><u>Cross-academy collaboration</u> Close bonds with the DDEA and DDSA as well as the NAD.</p>	<p>The Danish academies have close interactions that create synergies and new opportunities for the scientific community. The DCA must continue nurturing the collaboration with especially the DDEA on joint events within cardiometabolism.</p>
<p><u>Cross-sector collaboration</u> DCA have not been able to create tight link between academia and industry</p>	<p>Apart from above mentioned industry events, the DCA has not been successful in collaborating with the industry, nor in attracting participants from industry to DCA events or the Summer Meeting.</p>

Recruitment: Grant Activities

Provide an overview of the Academy's grant activities and describe the strategy to attract and recruit the best talents. Describe the review process and reflect on distribution of grants.

DCA PhD and Postdoctoral grants

DCA was granted funds for five calls for PhD scholarships and Postdoctoral fellowships. For each of the annual calls, a number of 1/3, 2/3, and 1/1-financed PhD-scholarships, as well as 2-year Postdoctoral Fellowships and 5-year 20% clinical Postdoctoral fellowships, have been awarded. In 2023 and 2024, DCA also offered cross-academy PhD scholarships in collaboration with DDSA and DDEA. The fifth and last call is currently open for applications. This implies that the DCA will not be opening a call in 2026, the last year of the current grant-period. Apart from the cross-academy stipends all calls have been open calls for all areas within cardiovascular research and announced for open competition through the DCA newsletter and social media platforms. The EM also encourages through direct, targeted contact to the major cardiovascular research groups to find talent and submit applications.

DCA-Programmes

The call for Visiting professorships and the International Programme is open-ended (without deadline), and applications are reviewed by the EM. The Visiting Faculty Programme is a novel concept which is not fully understood by the community and the EM is committed to increase the awareness of the programme. Thus, for the first two highly successful visiting faculties supported by DCA the EM played a major role in establishing these. The DCA also awards 100+ travel grants a year to PhD and Postdoctoral-level researchers who are presenting at international conferences or going on exchange visits to foreign laboratories. For timeline of granting, see appendix ²⁰.

Review process

The DCA uses the online platform *Efond.dk* for the application process. All applications are reviewed independently by three members of the GC and given individual scores for the project, the research environment, and the applicant. From these scores DCA calculates the weighted score (PhD: project 50%, environment 25%, applicant 25%. Postdoctoral fellow: project 40%, environment 25%, applicant 35%). The highest-ranking applications are shortlisted for presentation at the GC-meeting and distributed among all members of the committee. At the meeting, the original reviewers present their evaluation and give recommendations on whether the application is considered grant-worthy when compared to the other shortlisted applications. The thorough selection process is important to ensure the highest quality and thus achieving strategic objective A.

Distribution of grants

More than half of all applications are submitted from the Capital Region Denmark which reflects a larger cardiovascular research base in greater Copenhagen than the other regions. The small differences in success rate between the Danish regions is difficult to interpret due to the low number of applications from some regions. Approx. 45% of all applications are within Clinical Science (research area reported by the applicant) and we see an equal number of applications and equal success rate between genders.

Half of all DCA PhD scholarships are full 3-year stipends, co-financed with HF. The remaining scholarships are either 1/3 or 2/3 scholarships. Grants do not include bench fees nor overhead. The feedback from the

community is that this to some extent favors major groups, where the remaining funding is easier to find in their larger budgets. Some potential applicants from small research groups have reported that they do not apply for DCA, as they are unable to guarantee the student the remaining funding. Along these lines, the HF mainly supports clinical projects, which also makes it less appealing to small groups within basic science to apply. For statistics on all calls see appendix ²¹.

<i>Self-evaluation - Recruitment: Grant Activities</i>	
Achievements	Evaluation and reflection
<p><u>PhD and Postdoc grants</u> DCA has reviewed 544 applications, awarded 57 PhD scholarships and 31 postdoctoral fellowships leaving an overall success rate of 16.2%.</p>	<p>The feedback from the GC is that the applications have a high scientific level and that around 1/4 would be fundable. Hence the overall success rate of 16% is noteworthy and may be regarded to low compared to the scientific level of applications. This underlines that the DCA has met strategic objective A.</p> <p>The number of male and female applicants and their success rate are similar. The success rate between the Danish regions is somewhat alike, although the success rate is slightly low for the Central Region Denmark and Region of Southern Denmark, compared to other regions. We have received a very limited number of applications from Region Zealand. There is an equal distribution of grants to clinical and basic/translational research. However, only a low number of applications have been received and funded within the public health area. DCA is currently approaching the Public Health programmes at the Graduate Schools directly to encourage them to participate in activities and apply for grants.</p>
<p><u>Review Process</u> The DCA has established an application and review process that work seamlessly.</p>	<p>DCA finds the review process to be efficient and unbiased selecting the top applications. This is attributed to a well-functioning primarily international GC. The GC competences should be reviewed after the current open call, to secure their relevance compared to research areas.</p>

Scientific Output

Provide a list of publications emanating from the Academy including basic bibliometric analysis and reflect on the Academy's scientific productivity.

Main performance metrics of DCA-funded researchers' publications 2021- 2024 and benchmarking with DDA-funded researchers 2018-2020. For the full list of publications see appendix ²².

	Scholarly output (no)	Publications in top-10% Journal Percentiles by CiteScore Percentile (%)	Output in top-10% Citation Percentiles (%)	Field-Weighted Citation Impact	International Collaboration (%)	Academic-Corporate Collaboration (%)	Academic-University Hospital Collaboration (%)
DCA-funded researcher's publication reported in Researchfish 2021-2024	56	57.1	33.9	2.56	57.1	8.9	30.36
DDA-funded researchers' publications reported in Researchfish 2018-2020	59	57.6*	36.7	1.43	63.3	45.0	20.0

*Scimargo Journal Ranking

Data source: Scopus

Date last updated: 9 October 2024

Date exported: 17 October 2024

The scientific output and overall performance presented in the bibliometric analysis must be considered as preliminary as the result will change in the years to come for the following three reasons: the number of DCA grant recipients will increase, the average enrolment or employment time for current DCA-funded PhD students and Postdocs will increase, and the number of publications analysed is small. Further, a limitation of the bibliometric analysis is that the number of years since the articles were published is low and therefore makes it difficult to analyse the real research impact in terms of citations.

Retrospectively, the original Evaluation (success-)Criteria regarding publications by DCA-funded researchers should have reflected the metrics of the commonly used bibliometric scores. However, when benchmarked to the DDA 2021 self-evaluation bibliometrics the DCA grantees seems to have performed up to the expected standard.

Self-evaluation - Scientific Output	
Achievements	Evaluation and reflection
<p><u>Scientific output</u> The DCA Grant Recipients have reported activities in <i>ResearchFish</i>.</p>	<p>Using the <i>ResearchFish</i> reported data by the DCA Grant Recipients and the performance metrics of the DDA 2018 – 2021 as a benchmark, we find that the DCA and the Grant Recipients has performed to a high level. The bibliometric analysis could be used as future benchmark as the cohort of grantees grow.</p>

Outreach and Communication

Provide an overview and reflect on the Academy's outreach and communications activities and tools and describe the strategy for strengthening outreach and communication.

Communication strategy

Throughout 2021-2024, DCA has refined and strengthened its outreach and communication strategies to create awareness and visibility around DCA's activities. Milestones of communication and outreach activities are presented in appendix ²³.

In line with the communications strategy, DCA has engaged key scientific personalities from the cardiovascular research area and developed a scientifically robust network. Furthermore, DCA has shared networking-, grant specific-, and educational content across its channels. Through articles and social media posts, DCA has also disseminated the newest research to all its followers and members, across traditional boundaries in the cardiovascular field.

Outreach

Since spring 2021, DCA has shared information about educational events and courses, networking, and grant activities through its social media platforms, the newsletter and the website. As expected, most DCA followers are located in Denmark. However, DCA also reaches followers in Scandinavia, Southern Europe, North- and South America, Asia, and Australia.

Communities

The DCA uses communication as a valuable tool in generating the feeling of belonging to a community. Through articles about Midterm Symposia, Summer and Winter Meetings, Peer Mentoring Circles, Ambassador Dinners, and small stories on social media, DCA has supported the feeling of being part of a network with a cohort-mentality. Furthermore, this also shows DCA members and followers the benefit of having a platform to disseminate findings from their cardiovascular research and provide them opportunities to share their research with a unique and highly specialised network with a large outreach.

Branding

DCA is continuously aware of the importance of maintaining its brand. Through a clear and stringent visual identity, DCA strives to create a brand that is easily recognisable to all its target groups. DCA also has ambitions for the brand to be associated with quality and high international standards as well as a competent organisation. As part of the branding strategy, the DCA is visual on virtual platforms, but also uses branded merchandise such as pens, drinking bottles, note books and tote bags. All merchandise is selected from criteria such as usefulness and eco-friendly materials.

In summary, the outreach of the communication platforms for DCA are growing, and the value and appeal of the DCA brand is evident to a broad range of people who are engaged with the cardiovascular field.

<i>Self-evaluation - Outreach and Communication</i>	
Achievements	Evaluation and reflection
<p><u>Communication</u> Largely increased information sharing across 4 different channels (LinkedIn, X, Instagram, and Newsletter).</p>	<p>The past year, DCA's social media channels have grown by 40% on average, and the number of people who receive the DCA newsletter increased by more than 29% over a one-year period. The data indicate that DCA has increased its visibility, its role, and its relevance in the field. An overview of social media growth can be seen in appendix ²⁴. DCA does suspect that for some activities the awareness in the community is still not optimal.</p>
<p><u>Outreach</u> DCA has a broad appeal within the cardiovascular research field</p>	<p>Moving forward, DCA will increase its focus on expanding this broad network. DCA aims to strengthen its appeal to early career researchers. To target a younger audience, there is much to be gained from a more visible presence on networks such as Instagram.</p>
<p><u>Communities</u> Creating an academic network for early career researchers within the cardiovascular field.</p>	<p>In the future, DCA seeks to solidify the cohort-mentality and the alumni-network through a series of articles that will highlight the benefits of being involved with DCA and how it has enhanced and influenced the careers of Grant Recipients. Examples of how DCA has been a benefit for the career of its members can be seen in appendix ²⁵.</p>
<p><u>Branding</u> Creating a brand that is externally and internally recognised as having high value for the cardiovascular field.</p>	<p>DCA is regularly contacted by members, followers, and outside professionals who recognise the value of the DCA brand and network. DCA is at times asked to share other events, pieces of news, job postings, or research findings because the DCA network is held in high esteem in the field. DCA seeks to not only share content that strengthens its own brand but aims to create a sense of a cardiovascular community with a shared goal and a stronger network for all professionals in the cardiovascular field. Examples of content which is the result of collaboration can be seen in appendix ²⁶.</p>

Financial Overview

Provide a financial overview on funding from NNF and HF and other external funding.

Funding

The DCA has received the following funding from NNF and HF

Funding	2021	2022	2023	2024	2025	2026	Total
Novo Nordisk Foundation	24.922	26.948	29.295	29.295	29.195	10.345	150.000
Danish Heart Foundation	6.000	6.000	6.000	6.000	6.000		30.000
Total	30.922	32.948	35.295	35.295	35.195	10.345	180.000

Co-funding

The DCA had from its start secured considerable co-funding through the partnership with HF on PhD-scholarships and through the co-financing of 1/3 and 2/3 PhD scholarships. The DCA has therefore focused on obtaining external funding for educational activities. This has been achieved through collaborations with the Graduate School at the health faculties in Denmark on selected activities, and by minor contributions from the industry. Furthermore, the DCA Grantees pursue individual grants for their project, as reported in *ResearchFish*. DCA has not in this report included the co-funding from supervision of the DCA grantees, although this is standard for other reports to other funding agencies.

Overview of funding and co-funding as per 1/11-2024

Co-funding	2021	2022	2023	2024	2025	2026	Total
co-funding 2/3 PhD (550/year)	4.400	3.300	2.750	2.750			13.200
co-funding 1/3 PhD (550/year)		1.100		6.600			7.700
co-funding DDSA-DCA PhD				550			550
co-funding DDEA-DCA PhD			1.650	1.650			3.300
co-funding Cross-academy courses		367	325	425			1.117
co-funding Graduate Schools	400	661	808	652			2.521
co-funding grantees*		95	2.931	1.100			4.126
Sponsorships - industry				52			52
Total (1/11-2024)	4.800	5.523	8.464	13.779	-	-	32.566

*As reported by grantees in ResearchFish

Self-evaluation - Financial Overview	
Achievements	Evaluation and reflection
Funding The DCA has ensured considerable co-financing of stipends	The partnership with HF enables DCA to grant more stipends, thus increasing the impact of DCA in the Danish research community, while optimising the utilisation of the granting systems put in place by DCA.
Co-funding DCA has been successful in attracting considerable co-funding	The collaboration with the Graduate School has considerably boosted the number of activities DCA is able to host.

Impact

Reflect on the Academy's impact on the research community and on society. What is the potential legacy of the Academy in the research community and beyond

DCA has become an institution within the Danish cardiovascular research community known for grants, courses, and networking. The research grants are well received and the evaluation process respected. The networking activities are also successful and almost all courses have a high attendance and are rated highly. Although DCA is not known by the public in Denmark, the interaction with HF nevertheless ensures a societal impact of many of DCA activities. There is no doubt that DCA is building a strong legacy.

DCA and the research community

Although cardiovascular research has been tremendously successful for many years and cardiovascular mortality is reduced dramatically, cardiovascular mortality in Denmark is still high (second only to cancer mortality) and at the international level, cardiovascular morbidity and mortality is raising and is considered the most important factor for health. On this background, it is not surprising that a 2024 thematic issue on cardiovascular disease in *Ugeskrift for Læger*, concluded that there is a need for well-trained researchers that can be recruited to the clinic and to the industry. Recently, concerns have been raised about the quality of PhD projects within the health area in Denmark. This points to the need for evaluation of PhD projects at a high international level, which is what DCAs GC provides. DCA is a national strategic initiative and thus does not add more value to one university (i.e. the host institution Aarhus University) than to other universities. The 5% overhead Aarhus University receives barely covers the expenses associated with the operation of DCA out of Aarhus University.

DCA as a role model

There is no doubt that the NNF funded academies have been an inspiration for other scientific areas. Within the health domain an academy for neuroscience has been established, built on the model of the NNF funded academies. The EM has also been approached by several other research communities interested in learning from DCA. Among others these includes areas such as orthopedic surgery, gaming-addiction, kidney and liver disease. DCA is not aware that similar academies exist in other European countries and during interaction with our Scandinavian colleagues, it is apparent that they would also be interested in establishing similar platforms in their countries.

<i>Self-evaluation - Impact</i>	
Achievements	Evaluation and reflection
<u>Impact</u> DCA has achieved a position as a unifying factor	DCA's unifying position is helped by DaCRA as a forerunner of DCA, and because substantial help was obtained from DDA. There are still scientific areas within the cardiovascular domain where the awareness of DCA can be improved and thus DCA will be able to create impact.
<u>DCA in the community</u> DCA has established a high-quality evaluation of PhD projects ensuring that only strong projects are funded.	The evaluation process and a GC dominated by international researchers with a very high standing in the field ensure the highest possible standard of DCA grantees. On the other hand, it is well known that evaluation of applications is very difficult and contains an element of randomness. DCA should therefore continuously strive to increase the quality of the reviewing process.

<p><u>DCA as role model</u> Due to its high reputation, the DCA acts as inspiration for other research.</p>	<p>Many research communities wish to have organisations such as the NNF-funded academies. DCA are often approached for inspiration and guidance and similar initiatives are emerging in other health areas. There is also an international interest in what the DCA has developed. The DCA finds it rewarding and will continue to share experience and thereby help other organisations lift their research communities.</p>
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- ² Annual Report 2021 (link)
- ³ Annual Report 2022 (link)
- ⁴ Annual Report 2023 (link)
- ⁵ Bibliometric analysis
- ⁶ Distribution of participants
- ⁷ SWOT analysis
- ⁸ Organogram
- ⁹ List of Employees
- ¹⁰ CV for Board of Directors
- ¹¹ International Evaluation Report 2023 (link)
- ¹² List of members of governing bodies
- ¹³ Full list of activities
- ¹⁴ DCA educative milestones
- ¹⁵ Grant Recipients Handbook (link)
- ¹⁶ Visiting and Faculty Programmes (link)
- ¹⁷ Internationalisation programme (link)
- ¹⁸ Meet the Scientist with Danish Heart Foundation
- ¹⁹ Key collaborators
- ²⁰ Timeline on grant activities
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- ²⁴ Overview of social media followers and DCA Newsletter Subscribers
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Timeline for Danish Cardiovascular Academy



* e.g. Graduate Schools, Danish Diabetes and Endocrine Academy (DDEA) and Danish Data Science Academy (DDSA)

Annual reports

Annual Report 2021 (link)

https://dcacademy.dk/fileadmin/dcacademy.dk/Annual_Reports/Annual_report_DCAcademy_2021_NNF_30032022.pdf

Annual Report 2022 (link)

https://dcacademy.dk/fileadmin/dcacademy.dk/Annual_Reports/Annual_report_DCAcademy_2022.pdf

Annual Report 2023 (link)

https://dcacademy.dk/fileadmin/dcacademy.dk/Annual_Reports/Annual_report_DCAcademy_2023.pdf

Bibliometric analysis

Main performance metrics of DCA-funded researchers' publications 2021- 2024 and benchmarking with DDA-funded researchers 2018-2020.

Data source: Scopus

Date last updated: 9 October 2024

	Scholarly output (no)	Publications in top-10% Journal Percentiles by CiteScore Percentile (%)	Output in top-10% Citation Percentiles (%)	Field-Weighted Citation Impact	International Collaboration (%)	Academic-Corporate Collaboration (%)	Academic-University Hospital Collaboration (%)
DCA-funded researcher's publication reported in Researchfish 2021-2024	56	57.1	33.9	2.56	57.1	8.9	30.36
DDA-funded researchers' publications reported in Researchfish 2018-2020	59	57.6*	36.7	1.43	63.3	45.0	20.0

Date exported: 17 October 2024

*By Scimago Journal Ranking

Distribution of participants

Type of Event	Hospital	Industry	University	N/A	Total
Course	21.2%	1.2%	67.8%	9.8%	100.0%
Symposium	20.5%	3.0%	68.5%	7.9%	100.0%
Summer meeting 2023	22.0%	1.8%	75.6%	0.6%	100.0%
Summer meeting 2024	23.4%	5.8%	70.8%	0.0%	100.0%
Total	21.30%	1.92%	68.90%	7.89%	100.00%

Participant type	Basic	Clinical	Epidemiology	Industry	Public Health	Other	N/A	Total
Participant	43.3%	38.0%	8.7%	0.8%	0.2%	3.3%	5.6%	100.0%
Speaker	32.8%	42.1%	7.6%	1.7%	0.8%	5.2%	9.7%	100.0%
Total	41.13%	38.88%	8.48%	0.97%	0.32%	3.74%	6.47%	100.00%

Gender - Participants	Basic	Clinical	Epidemiology	Industry	Public Health	Other	Total
Female	27.9%	21.3%	4.8%	0.4%	0.1%	2.3%	56.8%
Male	18.0%	19.0%	4.5%	0.4%	0.1%	1.2%	43.2%
Total	45.89%	40.30%	9.24%	0.81%	0.21%	3.55%	100.00%

Gender - Speakers	Basic	Clinical	Epidemiology	Industry	Public Health	Other	Total
Female	11.0%	13.3%	1.9%	0.4%	0.4%	2.2%	29.2%
Male	25.4%	33.3%	6.5%	1.5%	0.4%	3.7%	70.8%
Total	36.34%	46.67%	8.39%	1.94%	0.86%	5.81%	100.00%

Nationality	Participant		Total
Argentina	4		4
Australia	2	1	3
Austria	10	4	14
Belgium	1	5	6
Brazil	12		12
Canada	3	4	7
Czech Republic	1		1
Chile	2		2
China	20	3	23
Denmark	1465	339	1804
Egypt	1		1
Faeroe Islands	1		1
Finland	14	2	16
France	8	4	12
Germany	34	21	55
Greece	11		11
Hungary	1		1
India	19		19
Indonesia	2		2
Iran	7		7
Italy	18	3	21
Japan	1	1	2
Lebanon	4		4
Lithuania	3		3
Malaysia	4	1	5
Mexico	6	3	9
Morocco		1	1
N/A	62	2	64
Nepal	1		1
Netherlands	30	16	46
Nigeria	1		1
Norway	13	9	22
Pakistan	2		2
Philippines	3		3
Poland	9	3	12
Portugal	1		1
Russia	12	2	14
Serbia	1		1
Singapore	1	1	2
South Africa		1	1
South Korea	2		2
Spain	41	3	44
Sweden	64	25	89
Switzerland	5	2	7
Tanzania	1		1
Trinidad and Tobago	1		1
Turkey	10		10
Uganda	1		1
UK	42	38	80
Ukraine	5		5
	11	21	32
Total	1973	515	

SWOT Analysis

STRENGTHS

Experience and competencies (education)

During the first three years, the DCA has steadily improved its skills within course and event management. Inspired by the high level at the DDA (now DDEA) the DCA consistently delivers high quality in all aspects of planning and executing educational activities. This has further resulted in very fruitful collaborations with the sister academies.

Experience and competencies (granting)

The DCA granting procedures has continuously been streamlined. By the use of Efond.dk, a mainly international granting committee, and standardized procedures, the DCA is able to handle 300+ annual grants with limited administrative time used.

An established network

A committed network of researchers at all levels and across sectors engage and support the DCA activities.

In-house research competencies

Being active (part-time) cardiovascular researchers, both DCA directors have extensive up-to-date knowledge about the cardiovascular field and personal contacts within the community.

Team spirit in the secretariat

A key factor contributing to the high productivity and quality of DCA's activities is the strong team spirit within the secretariat.

DCAcademy stipends and fellowships

The scientific quality of the applications received for PhD and Postdoctoral grants are at a very high level according to the Grant evaluation committee.

DCAcademy Grantees

The DCA grantees are performing at a very high level and are actively engaging in and supporting the activities and opportunities offered by the DCA exclusively for the grantees.

DCAcademy grant committee

The grant committee operates with a high level of engagement, ensuring a smooth and timely process for the annual call for PhD and Postdoctoral grants. The success rates are similar between genders and are also largely consistent across different sectors.

DCAcademy International programmes

The Internationalisation, Faculty, and Visiting Professor Programmes, developed by the DCA are very valuable tools for supporting the establishment of international networks.

WEAKNESSES

Advisory boards

The setup around the DCA advisory boards (training committee, international adv. board) has been sub-optimal, which lead to limited output/benefit.

Commitment from Scientific Organisers

Some scientific members of organising committees are difficult to keep engaged in the planning process. Part of the explanation may be that they are not paid for this work.

Pedagogical and didactics

The DCA would benefit from enhancing competencies in pedagogical principles for modern didactic learning, thereby further improving the outcomes for participants in DCA activities.

Evaluation of activities

The DCA struggles with finding the best way to evaluate activities and gain useful insights for improvement. A strong routine for measuring impact has not been implemented.

Participation in activities from different sectors

The distribution of researchers from academia, hospitals and industry is severely skewed as 78% are affiliated with university, 20% with hospital and only 2% with industry.

Reach all areas of CVD

The DCA has not been successful in reaching all areas of the Danish CVD community, particularly within public health, surgery, certain aspects of industry, and some areas of digital innovation.

Collaboration with major NNF initiatives

No strong routine for interaction (delivery of education) with the major national NNF funded initiatives has been established.

Grant success rate

The success rate for PhD and Postdoctoral grants average 15% which might discourage potential applicants. There are some geographical differences in success rates. There are few applications from the Public Health sector and the success rate is low for these applications.

Grants

DCA have not been able to provide full PhD grants within basic research. DCA is neither able to provide grants for pregraduates to optimize recruitment of talent for PhD programmes.

Learning tools

DCA have not fully implemented modern teaching tools in course activities.

OPPORTUNITIES

Interaction with NNF major strategic initiatives

DCA can provide teaching of young recruits for the NNF major strategic initiatives e.g. HFpEF, early atherosclerosis detection, and clinical accelerator program.

Cross Academy activities

Stronger cross academy activities - particularly with DDEA, where the subjects are overlapping. This will further a more holistic view on the patient with a cardiometabolic condition.

Learning platforms

The DCA has not fully utilized the potential in e-learning tools and other digital solutions such as podcasts and YouTube channels.

Didactic tools

Interactive teaching methods such as flipped classroom and blended learning has not been implemented to a sufficient degree at the DCA educational activities.

Structured Course Planning

DCA educational activities' learning outcomes could possibly benefit from a more structured approach ensuring clear learning goals for activities at an early stage of planning.

Grants

Due to the high scientific level of applicants the DCA is able to increase the number of PhD and Postdoctoral stipends without compromising quality.

Public Health

More activity within the public health sector including prevention, rehabilitation, inequity issues, pollution, and climatic influences.

THREATS

The secretariat

The small size of the secretariat makes it vulnerable if extended periods of absence for one or more of the employees should occur.

Too many activities

If the DCA does not succeed in broadening its reach within the CVD community, there is a risk of market oversaturation for courses, resulting in fewer participants and a reduced return on the secretariat's efforts per course.

Cancellation of courses

A few courses have been cancelled due to insufficient interest. DCA must make sure to organise courses within the target group's interests and create a plan to successfully attract attendees.

Extension of the DCA

The DCA is currently applying for a new grant period. If the application is not approved the DCA will close by 31/12-2026.

Grants in 2026

The DCA only has funding for 5 calls for PhD and Postdoctoral grants, thus DCA will not be able, within the current grant, to offer PhD and Postdoctoral stipends in 2026.

Keeping the grantees in cardiovascular research

If the peer mentoring program and the ambassador concept is not successful, we may risk losing DCA trained researchers from the cardiovascular field.

Engagement of established researchers

The DCA is dependent on the engagement of senior researchers for the development of a high quality teaching program. If these individuals are too busy in their daily jobs, it can cause a problem.

Competition with other academies

Although the interaction with other academies is important, the new possibilities may saturate the need for courses and provide strong competition for the most talented recruits.

SWOT

Strengths and achievements

The DCAcademy was established on the basis of Danish Cardiovascular Research Academy (DaCRA). DaCRA was established in 20xx, when the government, for a short period, wanted PhD grants to be distributed by organisations independently of the universities. After 2 years the money for PhD grants were returned to the universities but the Danish Cardiovascular Research Academy continued with a low budget, allowing for a summer school/summer meeting each year. This summer activity was dominated by researchers in the basic cardiovascular field, and there were virtually no participants from other sectors in the cardiovascular field. Therefore, when NNF provided a generous grant in collaboration with the Danish Heart Foundation, there was a foundation for building a powerful academy. One of the ambitions of DCA was to establish a platform where all researchers – independently of sector – would meet and interact. This has largely been achieved, particularly with respect to the commitment of clinicians and basic researchers. However, DCA still needs to get the public health sector more strongly involved.

DCA has established a strong grant committee with dedicated researchers (minimum 2/3 from abroad) covering all fields of the cardiovascular area. This ensures an impartial evaluation of the grant applications. The success rate for the grants is identical for males and females, but there are some minor differences in success rates for the different regions in Denmark, and there are far more applications from the Copenhagen area compared to other regions.

A strong international program has been established, with a classical Visiting Professors' Programme and a Visiting Faculty Programme, where 2-4 international experts visit 2-3 groups in Denmark within a field and provide masterclasses for the young researchers and networking with the senior researchers. Finally, a "summit" programme has been established, where a group of Danish senior researchers and their PhDs and Postdoctoral fellows visit a top group within their field for approx. 2 days.

Evaluation of strengths and weaknesses

Because the DCA was established on the basis of DaCRA and because it could learn from the Danish Diabetes Academy in the beginning, DCA quickly and effectively exploited the new possibilities. Although the senior staff in the secretariat has a biological/medical background, some of the junior staff has a background in humanities and were new to biological/medical terminology. We compensated for this by having lunch break teachings for the junior staff on cardiovascular function and dysfunction.

DCA does not employ anyone with a clinical background. This is a weakness when it comes to planning a relevant course program. To compensate for this, the DCA leadership has visited the research-active clinical cardiovascular departments in Denmark and presented the academy. In addition, and as mentioned above, the Executive team meets many clinicians at our Summer Meeting. Furthermore, the DCA has started evening events for young researchers at the European Society for Cardiology annual meeting – these are mainly young clinical cardiovascular researchers. We believe, however, that it would strengthen DCA if one or more persons with a clinical background got a closer association with DCA, preferably as a parttime employment.

Seized or missed opportunities.

DCA has established joint activities with the other NNF funded academies and recently also with the Lundbeck Foundation funded Neuroscience Academy Denmark. This is important to provide a fuller picture of the patient with cardiovascular disease, because cardiovascular problems are often associated with endocrine and neurological problems. Clearly, renal disease and liver disease are also important conditions associated with cardiovascular diseases, and it would make sense in a new DCA period to include these conditions and thus provide a more holistic view of the cardiovascular conditions.

DCA has no possibility to provide support for pregraduates with an interest in the cardiovascular area and thus support recruitment of the talented students at an early age. DCA has found no way to remedy this except allowing research years students to take part in some of the DCA activities.

Risk assessment

As indicated above, the Academy has sought advice from predominantly the DDEA in situations with perceived risks. One of the directors of DCA is chair of the cardiovascular graduate program at Copenhagen University and the other director of DCA is on the board of the cardiovascular network at Aarhus University. This situation also provides venues for seeking advice on difficult matters. The leadership practices an open policy at the secretariat and ensures that all employees are feeling part of the Academy and that they have a responsibility to the Academy. The DCA leadership sees this as being important for keeping the employees in the secretariat.

Future threats and opportunities

One of the future opportunities is closer interactions with NNF on NNF's major initiatives, where DCA could provide teaching of the young researchers. There are also opportunities in intensifying interactions with the other academies and by using modern teaching methods more actively in the DCA teaching activities. DCA therefore foresees a closer interaction with individuals with interests in modern teaching methods. Also, a closer interaction with the public health sector on course and networking activities has substantial potential. The success rate for PhD and Postdoctoral grants is about 15%, and many very good applications are not granted. Therefore, DCA sees an opportunity in being able to grant more good applications.

It can sometimes be challenging to determine which course activities are most relevant, and the DCA recognises a potential risk of organising a course that attracts no participants. This risk is heightened by the increasing number of courses available with the establishment of the academies. DCA is aware that it is of importance to organise courses within the target group's interests and create a plan to successfully attract attendees. The small size of the secretariat makes it vulnerable to illness and leaves of absence for various reasons.

It is a potential threat that our grantees do not stay in the cardiovascular field when they run out of their grants. If our ambassador and peer mentoring programs are not successful, this is a real threat.

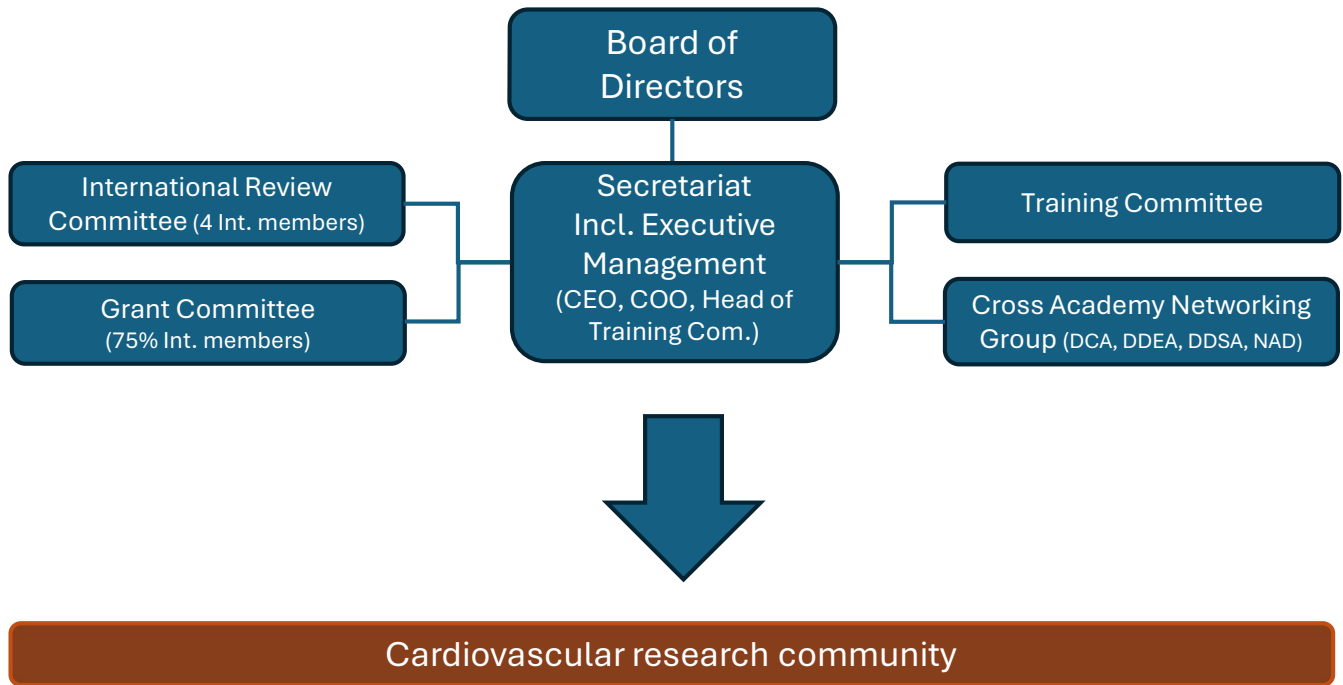
It is important that DCA can keep the attention of the established researchers, so they assist us with networking and course activities.

It is a potential threat that the Academy is not granted a new period.

Key learnings from SWOT analysis

In the first 3.5 years, the Academy has established itself as an institution in the Danish cardiovascular environment. The Academy is known for its grants, and for professional handling of the grant evaluation procedure. The Academy is also known for supporting several networking activities, which have resulted in new collaborative activities both nationally and internationally. In this respect, the midway symposia DCA asks the grantees to organize has been a success. With respect to courses, we have learned that interaction with senior scientists – clinically and basic – is not always sufficient to guarantee that the courses will be attended. DCA needs to develop a stronger routine to decide which teaching activities will generate sufficient interest among the young researchers. DCA sees great potential in interacting more with the sister academies and through this collaboration provide a more holistic view on cardiovascular problems. This is important, as cardiovascular disease often affects many organs in the body and can be characterised as a generalised disease. DCA has also learned that the public health sector needs more attention from DCA to actively take part in and benefit from the DCA activities.

Organogram



List of Employees

Employees (1/11-2024)

Job Title	Name	Appointment	Skills	% employment
Executive Managing Director	Christian Aalkjær	1/1-2021	Dr. Med, PhD, MD, Professor	80
Executive Training Director	Thomas Jespersen	1/1-2021	Dr. Med, PhD, MSc, Professor	50
Chief Operating Officer	Emil Toft Brøndum	1/3-2021	MSc, PhD in human Physiology	100
Course and Event Manager	Lise Klarholt	1/9-2024	HD and Course Management	100
Course Manager	Pernille Højvang Nielsen	1/8-2023	MA in Intercultural studies,	100
Communications Manager	Nanna Cathrine Brinch	1/6-2023	MA in Rhetoric	50
Course Coordinator	Arnela Hasanbasic	1/3-2021	MSc, PhD, Assistant Prof.	10
Course Coordinator	Elena Bouzinova	1/3-2023	Msc, PhD vascular neuro biology	100 (until 1/9-2025)
Student Assistant	Peter Katballe-Kristensen	4/1-2024	Master's student in English	15
Student Assistant	Mikkel Handel Noer	1/8-2024	MSc Student in Molecular Biology	15

Former Employees

Job Title	Name	Appointment	Skills	% employment
Course Manager	Xenia Kessler	1/6-2021 - 31/5-2023	Bsc. Sports	100
Course Secretary	Marie Bach	1/2-2022 – 31/12-2022	MA English	100
Communications Manager	Lene Halgaard	1/5-2021 – 28/2-2023	MA German	80

CV for Board of Directors

Board of Directors

Members of the Board of Directors of the Danish Cardiovascular Academy

Name	Title	Affiliation
Chair Anne-Mette Hvas	Dean	Faculty of Health, Aarhus University
Vice Chair Karin Conde-Knape	Senior Vice President	Global Drug Discovery, Novo Nordisk A/S
Alicia Lundby	Professor MSO	Department of Biomedical Sciences, University of Copenhagen
Claus Graff	Professor	Department of Health Science & Technology, Aalborg University
Gunnar Gislason	Head of Research	The Danish Heart Association
Rasmus Borgquist	Medical Director	Medical Science, Novo Nordisk Foundation

Curricula Vitae

Board of Directors' Curricula Vitae are listed below.

CURRICULUM VITAE – ANNE-METTE HVAS



Current Position: Dean and Professor, Health, Aarhus University
Contact Details: Phone +45 8715 2007, Email: dean.health@au.dk
Date/place of birth: 16 October 1964, Denmark

EDUCATION

September 2005 Specialist in Clinical Biochemistry
October 2001 Ph.D. in Health Sciences, Faculty of Health, Aarhus University
January 1994 Medical Doctor, Faculty of Health, Aarhus University

HOSPITAL EMPLOYMENTS

2011 – 2021 Senior consultant, Dept. of Clinical Biochemistry, Aarhus University Hospital
2008 – 2011 Head consultant, Dept. of Clinical Biochemistry, Aarhus University Hospital
2007 – 2008 Senior consultant, Dept. of Clinical Biochemistry, Aarhus University Hospital
2005 – 2007 Consultant, Dept. of Clinical Biochemistry, Aarhus University Hospital
1994 – 2005 Various training positions, incl. 2 x maternity leave

UNIVERSITY EMPLOYMENTS

2021 current Dean, Health, Aarhus University
2020 – 2021 Deputy Head, Dept. of Clinical Medicine, Aarhus University
2013 current Professor, Health, Aarhus University
2008 – 2013 Clinical Assistant Professor, Dept. of Clinical Medicine, Aarhus University
2007 – 2014 Post-graduate Clinical Assistant Professor, Dept. of Clinical Medicine, Aarhus University

COMMISSIONS OF TRUST, RESEARCH ETHICS AND RESEARCH INTEGRITY

2017 – 2022 Danish Committee on Research Misconduct, for Aarhus University, member appointed by the Ministry of Higher Education and Science
2016 – 2023 National Ethics Committee, member appointed by Central Denmark Region
2015 Task group ('Oddershede-udvalget') set up the Ministry of Higher Education and Science to draw up recommendations for handling research misconduct, member
2012 – 2021 Committee for Responsible Conduct of Research, Health, Aarhus University, to prepare 'Standards for Responsible Conduct of Research', member
2007 – 2008 The regional Committee on Research Misconduct, Central Denmark Region, chairperson
2001 – 2008 Member of two regional Committees on Research Misconduct

COMMISSIONS OF TRUST, OTHERS

2024 current Danish Regions: Legal task group for Health Research, chairperson
2024 current Ministry of Higher Education and Science: Committee for update of code for research integrity, member
2023 current Statens Serum Institut (SSI): Reference group for the project 'Better Health in Generations', member
2023 current KVINFO (Center for Gender and Equality), board member
2023 current Danish Life Science Cluster, board member
2023 current Danish Cardiovascular Academy, chairperson
2022 current Open Science Forum, chairperson
2021 current DANDRITE, board member
2021 current ODIN, board member
2021 current Steno Diabetes Center Aarhus (SDCA), board member
2021 current Den sygeplejefaglige Forskningsfond (research foundation for nursing professionals), board member

2021 current Ernst Carlsens Fond, board member
2021 current Hanstedgård fonden, board member
2021 current Landmand af 'Ølufgård' Peder Nielsen Kristensens Mindefond, board member

PUBLICATIONS, SUPERVISION, ASSESSMENTS

Scientific publications:

Total: 334 peer-reviewed publications

Author of 8 book chapters and 1 medical technology assessment

H-index: 44 Web of Science (May 2024)

Supervision

PhD students: 22

Research year fellows: 40

Cand.scient.san.: 5

Master thesis (medical students): 30

Assessments

PhD theses: member of 10 assessment committees, chair for 10 assessment committees, Aarhus University

Professorships: Member of 4 assessment committees

Associated professors: Member or chairperson of more than 40 assessment committees

Applications for Research Councils in Austria, Holland, Sweden, United Kingdom, Norway

EDITORIAL BOARDS

2020 – 2023 British Journal of Hematology (associate editor)

2019 – 2023 Methods and Protocols (associate editor)

2016 – 2023 Seminars in Thrombosis and Haemostasis (senior editor)

NATIONAL GUIDELINES

Co-author and counselling in several national guidelines within thrombosis and haemostasis as well as Covid-19 vaccines

initiated by

the Danish Health Authority

the Danish Medical Agency

the Danish Society for Thrombosis and Haemostasis

the Danish Society for Fertility

Karin Conde-Knape, Ph.D.

kcondek@hotmail.com



Pharmaceutical Industry Executive responsible for Global Drug Discovery activities at Novo Nordisk. Over 22 years of experience in the pharmaceutical industry including leading leaders, project leadership, portfolio management, strategic planning, project development and budget planning. Executive with enterprise mindset, contributed to culture change, driving the discovery and early development team into the future with new ways of working. Extensive experience in driving external innovation with biotech, academia, and CROs. Experience in areas of Atherosclerosis, Heart failure, MASH, Diabetes, Obesity, Kidney Disease and Rare diseases and driving a culture of disease agnostic and disease understanding through digital science and biology complementarities.

Ph.D. Nutritional Science, University of Connecticut, Storrs, CT (1998)

B.S. Chemistry and Food Science, Universidad La Salle, México City, México (1994)

Appointments

Novo Nordisk, Måløv, Denmark

Senior Vice President, Global Drug Discovery

(Mar 2021 – Present)

Responsibilities:

- Strategy for global drug discovery research within Research and Early Development
- Responsible for building and securing pipeline sustainability and research activities in the areas of diabetes, cardiovascular disease, obesity, MASH, kidney disease, rare endocrine disorders and rare blood disorders
- Non-clinical Safety organization
- AMDPK organization
- Target discovery and validation
- Global research operations
- External outreach, alliance management and scientific integration
- Strategy, business support and digitalization
- Driver of new business models for support of external ecosystem for early investments (e.g. seed investment, build to buy)

Corporate Vice President, Diabetes, Cardio-renal and Translational Research

(Jan 2020- Feb 2021)

Responsibilities as below

Corporate Vice President, Cardiovascular, Liver Disease and Diabetes Research (Jan 2018 – Dec 2019)

Responsibilities:

- Setting up the strategy for Cardiovascular and liver disease research team
- Buildup of the team to deliver on strategy
- Driver of the strategy within CVL disease areas across the value chain for Novo Nordisk.
- Assure implementation and execution on a portfolio level to create a sustainable portfolio for NN.
- Execution of diabetes strategy in alignment with corporate strategy
- Setting the Translational approach strategy together with Translational medicine
- Identifying and executing on the enablers to drive the translational science strategy

Key accomplishments while in Novo Nordisk

- Established a CVD pipeline from scratch including being a main champion for external innovation opportunities leading to the acquisition of Corvidia (Ziltivekimab), licensing of ATTR mAb, and Cardior (miRNA 132 ASO)
- Established a MASH pipeline through internal and external efforts including being the main champion for licensing of VAPi (Ube) and NLRP3i (Ventus), collaboration with Gilead.
- Driving change towards a human centric mindset. Bringing key human cohorts in the areas of CVD, Renal and MASH with external collaborations. Started translational activities
- Driver of a disease agnostic mindset and pathophysiological mechanism or action to position assets in the best indications according to biology potential
- Driver of a killer experiment and bare bone plans mindset for fast to clinic and early failure
- Built a target discovery engine for Target ID and validation efforts at scale
- Built an early pipeline from 2-4 MoA to about 100 projects with more than 60% novel mechanisms across therapy areas
- Established different business tools to incentivise early research and entrepreneurs in the space of diabetes, obesity and CVD
- Built a diverse, inclusive and global organisation including establishing NN presence in Boston.

Johnson and Johnson Innovation, London, United Kingdom

Vice President, Cardiovascular and Metabolism Scientific Innovation (Sept 2013–December 2017)

Responsibilities:

- Sourcing, evaluation, set up and management of external collaborations within Europe and Asia Pacific in CVM.
 - Lead due diligence teams for the evaluation of opportunities.
 - Build up the strategy, development plans with budget and timelines for external opportunities being evaluated for potential collaboration.

- Work closely with potential partners in identifying key aspects of the project that need to be developed/de-risked to consider project integration into the Janssen pipeline
- Member of the CVM leadership team responsible for the strategy of the Research team
- Representative of Janssen at the IMI2 Strategic Guidance Group diabetes.
- Member of scientific advisory boards of FuturRx, JLINx and Super X.

Key Accomplishments:

- Main Scientist and Project Leader behind the XO1 acquisition for a novel anticoagulant
 - Led the due diligence and the R&D team to build the business case for the acquisition including full development plan from preclinical to PhIII, the commercial forecast and the whole company valuation.
 - Worked together with the partner to establish and execute novel animal models for evaluation of bleeding risk that strengthened the pharmacology package and differentiation for the molecule against standard of care.
 - Worked with the integration team to allow seamless transition post-acquisition.
- Main Scientist and Leader behind the Intrexon collaboration
- Main Scientist and leader on 3 collaborations and 1 acquisition in 2015 in the field of thrombosis and diabetes.
- Established relationships with a number of Academic scientists interested in translating their research. Provided strategic and scientific guidance to help them build a robust package to increase investors interest in program.
 - As a result of this effort, Medixci invested in Metabrain and spun off Kymo.
- Worked closely with VC, transactions and finance team to identify a novel business structure to collaborate on a high risk/high reward innovative program and minimize the financial risk to the therapeutic area.

Hoffmann-La Roche, Inc., Department of CV & Metabolic Diseases, Basel Switzerland

Senior Research Director (Aug 2011- August 2013) and Acting Global Head of Discovery Cardiovascular and Metabolism DTA (Sept 2012–August 2013)

Responsibilities:

- Lead the Discovery, Biomarker and Experimental Medicine activities in the areas of Diabetes, Kidney disease, Eye disease, and Cardiovascular.
- Establish the strategy for sustainable delivery of a quality pipeline into First in Human studies.
- Collaboration with cross functional partners supporting the diabetes and complications area (Chemistry, PK, Tox, Discovery technologies)
- Work closely with Pharma Partnering and Academic Alliances groups to define and identify new business models and partners to enable external innovation and support portfolio sustainability.
- Budget and resource allocation across the Discovery group
- Direct line management responsibility of a group of 90 scientists and administrative staff

- Member of the R&D Site Leadership Committee evaluating any topics specifically related to improvements on the site regarding infrastructure or building of culture and important events for increasing site visibility.

Key Accomplishments:

- Designed and implemented the new Discovery organization after a reduction of resources.
- Refocused the strategy of the Discovery group to allow delivery of the key assets in the portfolio.
- Worked closely with Pharma Partnering group in identifying the key strategic alliances to help strengthen our early and late portfolio, as well as identifying new business models to leverage external innovation.
- One novel T2D treatment progression to clinic (EIH Aug 2013)
- One novel target for ophthalmology progression to clinic (EIH Dec 2013)
- Managed to stay within budget and still be able to establish meaningful collaborations to bring innovative science into the group.
- Identified ways to increase associate staff in a more financially efficient way.

Head of Integrative Physiology and Pharmacology Section for CV & Metabolic Diseases (Jan 2011–Aug 2013)

Responsibilities:

- Lead the pharmacology group and set the strategy for the section in the areas of Atherosclerosis, Diabetes, Cardiovascular and Kidney Disease to fit the needs of the Portfolio in CV & Metabolic Diseases.
- Close collaboration with members of the Translational Medicine and Biomarker group to assure an integrated and translational approach.
- Assure prioritization and allocation of resources to support projects across the different stages of drug development (from target validation to late clinical phase).
- Identify, set and coordinate external collaborations including Academic institutions and CROs.
- Member of the Discovery Leadership Team responsible for the strategy, management and prioritization of the portfolio.
- Member of the Ethics Committee on Animal Welfare responsible for the governance and compliance of animal studies.
- Direct line management and development of a group of 30 scientists

Key Accomplishments:

- Established the strategy of the pharmacology section in light of new areas of interest for the DTA.
- Achieved building up new translational models in kidney disease area while continuing optimal support of existing areas. Achieved this by optimizing use of resources internally and identifying external partners to complement internal effort (Academics/CROs), a total of 10 international collaborations covering the different areas of relevance in the Discovery group.
- Built up a translational sequence in kidney disease to increase our confidence on targets progressing to the clinic.

- Contributed to moving into the clinic 2 programs in atherosclerosis, 1 in diabetes.

Research Director (2009– 2011) and Global Head of In vivo Pharmacology for Metabolic Diseases (2010-2011)

Responsibilities:

- Lead the pharmacology team and set the strategy for the CV & Metabolic portfolio.
- Alignment and harmonization of activities and models between the groups in Basel and Nutley.
- Resource allocation and prioritization in the three different units in the in vivo team according to the needs in the Portfolio.
- Provide pharmacology strategy to all projects from target assessment and validation to late-stage projects.
- Assure the right design of studies to achieve proof of concept and product differentiation.
- Identify, set and coordinate external collaborations including Academic institutions and CROs
- Direct line management and development of a group of 36 scientists.

As Project Leader of Preclinical project for Diabetes and Diabetes Complications responsible for:

- Set up the strategy to define the best indication for the target according to biological rationale and clinical relevance and advance the project from Lead Optimization to entry into GLP toxicology studies.
- Assuring the resources and right prioritization of the project with the different cross functional teams such DMPK, Non-clinical Safety, Pharma Technical.

Key Accomplishments:

- Harmonized the efforts in In vivo Pharmacology between two sites. Optimized use of resources through collaborative effort between sites and stratification of skills and disease area of focus.
- Advanced the project to a go/no go decision. Stopped the project due to a well-established decision tree and target related tox findings.
 - Established and implemented the translational strategy to help solidify the pharmacology package for defining the indication.

Hoffmann-La Roche, Inc., Department of Metabolic Diseases, Nutley, NJ USA

Senior Research Leader (2008- 2009) and Department Head of Metabolic Diseases in US Research Site. Biology II Section Head.

Responsibilities:

- Lead the team in Nutley and set the strategy around Type 2 Diabetes portfolio in the US site. Including projects on Insulin Sensitization, insulin secretagogues, incretin like.
- Alignment of portfolio with global goals in the Metabolic Diseases department.
- Resource allocation and budget planning and allocation for the Nutley Research team.
- In vivo section head for US team responsible for pharmacology strategy for all projects.

- Member of the Center Management Team responsible for strategy and needs pertaining to the Roche Research group at the Nutley Site.
- Member of the committee for site improvement including the new animal facilities.
- Member of the Roche IACUC.
- Direct line management and development of a group of 18 scientists including 4 PhDs in the areas of in vivo and in vitro pharmacology.

Key Accomplishments:

- Key pharmacologist role for all projects. Provided translational strategy for key projects that helped in delivering the key package to move them into the clinic (3 programs for Diabetes).
- Set up an early toxicology assessment for compounds in lead optimization to allow early flag identification and derisking.
- Contributed with a translational pharmacology

Research Leader (2007-2008) and Head of In vivo Pharmacology.

Responsibilities:

- Setting up the in vivo strategy for all projects in the areas of Diabetes and Obesity. Assure correct planning and execution of all in vivo studies.
- Direct line management of a group of 9 scientists.

Project Leadership:

- Biology Project Leader for project in lipid metabolism, responsible for setting the strategy around biology profiling to progress project in the obesity/diabetes areas from target assessment to GLP tox studies.

Key Accomplishments:

- Optimized in vivo models for obesity to allow better and more efficient characterization of cpds.
- Identified early on target related tox effects that led to discontinuation of project.

Sr. Principal Scientist (2006-2007) and Head of In vivo Pharmacology

Responsibilities:

- Planning and overseeing all in vivo studies in the areas of Diabetes and Obesity.
- Lead a group of 9 scientists.

Project Leadership:

- Biology Project Leader responsible for biology activities to progress project in the obesity/diabetes areas.

Key Accomplishments:

- Repurposed targets in obesity to T2D by conducting key experiments in vitro and in vivo
- Established external collaborations that allowed us to profile our compounds and identify “add on” effects to the expected efficacy for T2D.

Principal Scientist (2002 – 2006)

In vivo leader for Obesity and Dyslipidemia:

- Study design, and overall management of all in vivo studies required for obesity and dyslipidemia programs.

- Establish new animal models for testing compounds in obesity and dyslipidemia.
- Responsible for protocols for IACUC approval.

In vivo group coordinator:

- Responsible for allocation of in vivo resources according to departmental and site priorities.
- Coordinate the efforts of 9 associates in performing in vivo studies for obesity, diabetes and dyslipidemia.

Project leadership:

- Project advocate, co-leader and scientific advisor in 4 different programs of obesity and dyslipidemia at different stages of discovery going from target identification to clinical lead selected.
- Leading a group of four scientists

Laboratory Head:

- Responsible for bringing new assays and methodologies in the area of Lipid biology in support of the projects in Obesity and Diabetes.

Key Accomplishments:

- Established myself as an expert in Lipid metabolism, bringing new assays, methodologies and in vivo models to the department.
- Evolved from an in vitro lab in dyslipidemia to a key member for the in vivo pharmacology efforts
- Optimized the operations of the pharmacology team by coordinating their activities and identifying and implementing areas of optimization in the overall process for conducting in vivo studies for the department.
- Key pharmacologist in projects with an impact on obesity and dyslipidemia.

Education

Postdoctoral Fellow, Columbia University, Department of Preventive Medicine (1998 – 2002)

- Elucidation of potential mechanisms for postprandial hypercholesterolemia and hypertriglyceridemia using different transgenic mouse models.
- Studied the role of C apolipoproteins in cholesterol and triglyceride metabolism closely related to apo B containing lipoproteins and diabetes.
- Conducted research on the possible mechanisms underlying hyperlipidemia associated with protease inhibitors treatment for HIV patients using transgenic mice.
- Laboratory Supervisor in charge of regulatory compliance with Radiation Safety and Health and Safety offices.
- Supervised the research activities of visiting scientist from Japan.

Graduate Research Assistant, University of Connecticut, Department of Nutritional Science (1997 - 1998).

- Using the guinea pig as an animal model, studied the hypocholesterolemia effects of Atorvastatin and compared them with those of Simvastatin. Studies were done in collaboration with Parke-Davis Pharmaceuticals.
- Studied the mechanisms of action of different proteins and fibers on cholesterol metabolism.
- Responsible for setting up the laboratory from scratch after the move from AZ to CT.
- Responsible for the compliance with Radiation Safety and Health and Safety regulations.

Graduate Research Assistant, University of Arizona, Department of Nutritional Science (1995 - 1996).

- Participated in several studies looking at different dietary components and their mechanisms of action in cholesterol and lipoprotein metabolism using the guinea pig as an animal model.
- Trained and supervised four undergraduate students.
- Responsible for the compliance with Radiation Safety and Health and Safety regulations.

Exchange Student, University of Arizona, Department of Nutritional Science (Jan 1994 – June 1994).

- Bachelor's degree thesis in role of Dietary fat and carbohydrate on cholesterol and lipoprotein metabolism.

Awards and nominations

- Nominated as one of the 20 women leading pharma R&D, Endpoint News, 2024
- Nominated as one of the 10 Fiercest Women in Life Sciences, Fierce Pharma, 2024
- New Investigator Travel Award by the American Heart Association, 2001
- Associate Member of the American Society for Nutritional Sciences since 1998
- Weight Watchers Award from Institute of Food Technology, 1997
- Member of the Delta Gamma Pi Society Section at the College of Agriculture in the University of Connecticut since 1997
- American Heart Association Student Stipend Award, 1996
- Rodwell Cohen Scholarship from Nutritional Sciences Department, University of Arizona, 1996
- Conacyt Scholarship from Mexican Government, 1995 - 1997
- Graduated with honors from Universidad La Salle, 1995

Chaired sessions and Meeting advisor

- Co-Chair of the Diet and Lipoprotein Metabolism Session at Experimental Biology
- 1999.
- Scientific advisor for the IBC's 2nd International Conference on "Targeting Metabolic Syndrome", Boston, MA 2004.
- Chair of the session "Clinical Dynamics of Metabolic Syndrome" at IBC's 2nd International Conference on "Targeting Metabolic Syndrome", Boston, MA 2004.

- Scientific advisor for the IBC's 3rd International Conference on "Targeting Metabolic Syndrome", Boston, MA 2005
- Chair for the session "Novel Therapies for raising HDL cholesterol" at IBC's 3rd International Conference on "Targeting Metabolic Syndrome", Boston, MA 2005
- Scientific advisor for the IBC's 4th International Conference on "Targeting Metabolic Syndrome", Boston, MA 2006
- Scientific advisor for the IBC's 5th International Conference on "Targeting Metabolic Syndrome", Boston, MA 2007
- Chair for the session "Animal Models for Metabolic Disease Research" at IBC's 5th International Conference on "Targeting Metabolic Syndrome", Boston, MA 2007
- Scientific advisor for the IBC's 6th International Conference on "Targeting Metabolic Disorders", Chapel Hill, NC 2008
- Chair for the session "Next Generation Obesity Targets" at IBC's 6th International Conference on "Targeting Metabolic Disorders", Chapel Hill, NC 2008
- Scientific advisor for "Metabolic Leaders Forum" conference. San Francisco, March 2012
- Chair for the session "What is coming out of discovery research that shows greatest promise in humans for impacting the progression of type 2 diabetes?"
- Comparing recent results from small molecules and biologics in early development" at the Metabolic Leaders Forum" conference. San Francisco, March 2012.
- Member of the panel discussion on "CETP inhibitors and beyond: Progress with the search to find more potent drugs to raise HDL" at the Metabolic Leaders Forum" conference. San Francisco, March 2012.
- Chair of panel "How can Industry solved the current innovation crisis" at Translating innovations in diabetes drug development, London, November 18-19, 2014

Oral Presentations

- Weight loss therapy and its impact in obesity, ABI, Cambridge, April 16, 2024
- Panel member: Industry unleashed: What will it take to transform corporate investment and innovation in Europe? What's on the Horizon? Framing the next 40 years of European R&I, Brussels, February 13, 2024
- Weight loss therapy and its impact in obesity, Scion Venture launch, February 7, 2024
- The making of Semaglutide, Bioqube Venture day, November 16, 2023
- Weight loss therapy and the narrative for obesity, Medicxi Annual meeting, September 2023
- The making of Semaglutide, Medicxi Forum, August 2023
- Interview on weight loss medication and obesity, Meg Tirrel on CNBC Healthy Returns, March 2023
- Semaglutide in kidney disease, CKD Summit, March 2023
- Keynote speaker, Grand Opening NLS Days 2022, September 2022
- Panel member: "Biopharma early-stage R&D in 2021: Is it time to review innovation sourcing strategies?" BioFit, December 2021

- Panel member “From Population to Precision” at NLS Invest 2021, Online session, April 2021
- Oral presentation, “Anti-inflammatory mechanisms for the treatment of NASH”, 3rd Global NASH Congress, London, February 2020
- Oral presentation, “Metabolic mechanisms for the treatment of NASH”, ICDM 2019, Seoul South Korea
- Oral presentation, “GLP1 treatment for NASH, Now and beyond”, Discovery on Target: Targeting Nash, September 17th, 2019
- Oral presentation, “Metabolic Mechanisms in the treatment for NASH “, 2nd Global NASH Congress, London, February 2019
- Panel member “Accelerating Innovation: Academia-Industry Collaboration”, British Heart Foundation, UK 2017
- Panel member “Innovation in Cardiovascular disease”, 3rd annual Biotech and Money London, 2017
- Panel on How to Foster the Growth of Microbiome Therapeutics at the 3rd Microbiome R&D and Business Collaboration Forum: Europe, London, UK, April 2016.
- Panel at British Heart Foundation, Translational Research Workshop. London, UK, January 2016. Understanding the mind-set of the investor: how and when to engage with industry.
- American College of Toxicology, 36th Annual Meeting. Development of Anticoagulant Therapies. Animal Models for Thrombosis and Bleeding Risk Assessment. Las Vegas, November 2015.
- Panel at Karolinska Innovation Open Day, Stockholm, Sweden, November 2015.
- Panel at Bio Europe, Munich, Germany, November 2015. Focus on Diabetes.
- Panel at Idea Summit, Strasbourg, France, November 2015. Pre-competitive consortia & bilateral collaborations: are these classic models enough to speed up innovation?
- Keynote lecture at Partnering day; Graz, Austria September 2015. Open Innovation in the search for differentiated health care solutions.
- Metabolic Leaders Forum, San Francisco, March 2012. Diabetic Nephropathy, current status and future alternatives.
- Diabetes and Diabetes Retinopathy, London, June 2011. Y2R analogs as therapeutics for T2D.
- Primer Congreso Internacional de Nutrición y Alimentación, Culiacán, México, octubre 2008. El Metabolismo de los Lípidos y el Tratamiento de la Obesidad.
- XXI Congreso Nacional de la Sociedad Española de Arteriosclerosis, Madrid, junio 2008. Función del HDL y el Transporte Reverso del Colesterol.
- IBC’s 6th International Conference on “Targeting Metabolic Disorders”, Chapel Hill, NC. 2008. Targets affecting lipid metabolism for the treatment of Obesity.
- IBC’s 4th International Conference on “Targeting Metabolic Syndrome”, Boston MA. 2006. Strengths and Weaknesses of animal models for Metabolic Diseases.
- XI Jornada Farmaceutica. Mazatlán, México, 2005. De la idea a la medicina para la Obesidad.
- Annual Symposium on Animal Models of Type 2 Diabetes Complications, Boston MA. 2005. The Guinea Pig as a Model for dyslipidemia.

- IBC's 2nd International Conference on "Targeting Metabolic Syndrome", Boston MA. 2004. Guinea Pig and Hamsters as Models for dyslipidemia.
- American Heart Association, 1999. Hyperlipidemia in Streptozotocin Diabetic mice is associated with Selective impairment of Apo B48 particle clearance related to increased C apolipoproteins and decreased liver heparan sulfate.
- Guest speaker. Department of Medicine. Columbia University. February 1998. Hypocholesterolemic mechanisms of HMG-CoA reductase inhibitors in the guinea pig. Atorvastatin versus simvastatin.
- Experimental Biology, New Orleans, 1997. Mechanisms of plasma LDL lowering by atorvastatin, an HMG-CoA reductase inhibitor. Comparison with Simvastatin.

Publications:

1. Fernandez ML, Ruiz LR, **Conde AK**, Sun D-M, Ebner J, Erickson S & McNamara DJ. 1995. Psyllium reduces plasma LDL in guinea pigs by altering hepatic cholesterol metabolism. *J Lipid Res.* 36:1128-1138.
2. Fernandez ML, **Conde K**, Ruiz L, Montano C & McNamara DJ. 1995. Carbohydrate type and amount alter intravascular processing and catabolism of plasma lipoproteins in guinea pigs. *Lipids.* 30:619-26.
3. Fernandez ML, Vergara-Jimenez M, **Conde K** & Abdel-Fattah G. 1996. Dietary carbohydrate type and fat amount interact to alter VLDL and LDL metabolism in guinea pigs. *J. Nutr.* 126:2494-2504.
4. **Conde K**, Vergara-Jimenez M, Newton R & Fernandez ML. 1996. The hypocholesterolemic effects of atorvastatin are related to alterations in hepatic cholesterol metabolism and lipoprotein composition in guinea pigs. *J. Lipid Res.* 37:2372-2382.
5. Fernandez ML, **Conde K**, Vergara-Jimenez M, Tanya Behr, & Abdel-Fattah G. 1997. Regulation of VLDL-LDL Apo B Metabolism in Guinea Pigs by Dietary Soluble Fiber. *Am. J. Clin. Nutr* 65:814-822.
6. Fernandez ML, Vega S, Ayala MT, Shen H, **Conde K**, Vergara-Jimenez M, & Robbins A. 1997. The interactive effects of vitamin C deficiency and dietary fat saturation on hepatic cholesterol and plasma lipoprotein metabolism in the guinea pig. *J. Nutr. Biochem.* 8:414-424.

7. Vidal-Quintanar RL, Hernandez L, **Conde K**, Vergara-Jimenez M & Fernandez ML. 1997. Fiber isolated from corn husks reduces plasma LDL cholesterol in guinea pigs by altering lipoprotein metabolism. *J. Nutr. Biochem.* 8: 479-486.
8. Vergara-Jimenez M, **Conde K**, Erickson S & Fernandez ML. 1998. Dietary soluble fiber and normalization of hyperlipidemia induced by high carbohydrate diets. *J Lipid Res.* 39:1455-1465.
9. **Conde K**, G. Pineda, RS. Newton, and ML. Fernandez. 1999. Hypocholesterolemic effects of HMG-CoA reductase inhibitors: Atorvastatin vs Simvastatin. *J Biochem Pharm.* 58: 1209-1219.
10. Fernandez, ML., Wilson, TA., **Conde, K.**, Vergara-Jimenez, M., and Nicolosi, RJ. 1999. Hamsters and guinea pigs present different responses in plasma lipoprotein cholesterol distribution when fed diets varying in animal protein, soluble fiber or cholesterol content. *J. Nutr.* 129: 1323-1332.
11. **Conde K**, RS. Newton, HC. Freake, and ML. Fernandez. 1998. HMG-CoA reductase inhibitors: Atorvastatin and Simvastatin have distinct effects on Hydroxy Methylglutaryl-CoA reductase activity and mRNA abundance in the guinea pig. *Lipids.* 34: 1327-1332.
12. Ebara T, **K. Conde**, Y. Kako, Y. Liu, Y. Xu, R. Ramakrishnan, I. Goldberg, and N. Shachter. 2000. Delayed catabolism of apo B48 lipoproteins due to decreased heparan sulfate proteoglycan production in diabetic mice. *J Clin. Invest.* 105:1807-1818.
13. **Conde-Knape, K.** 2001. Heparan Sulfate proteoglycan in experimental models of diabetes: a role for perlecan in diabetes complications. *Diabetes Metab Res Rev.* 17:412-421.
14. **Conde-Knape, K.**, Bensadoun, A., Sobel, J.H., Shachter, N.S. 2002. Overexpression of apo C-I in apo e-null mice: severe hypertriglyceridemia due to inhibition of hepatic lipase. *J Lipid Res.* 43:2136-2145.
15. Herron, K.L., Vega-Lopez S, **Conde K**, Ramjiganesh T, Roy S, Shachter N.S., Fernandez M.L. 2002. Pre-menopausal women, classified as hypo- or hyperresponders, do not alter their LDL/HDL ratio following a high dietary cholesterol challenge. *J Am Coll Nutr.* 21:250-258.
16. Vega-Lopez S, **Conde-Knape K**, Vidal-Quintanar R.L., Shachter N.S., Fernandez, M.L. 2002. Sex and Hormonal status influence the effects of psyllium on lipoprotein remodeling and composition. *Metabolism.* 51:500-507.

17. Herron K.L., Vega-Lopez S, **Conde K**, Ramjiganesh T, Shachter N.S., Fernandez M.L. 2003. Men classified as hypo- or hyper-responders to dietary cholesterol feeding exhibit differences in lipoprotein metabolism. *J Nutr.* 133:1036-1042.
18. **Conde-Knape, K.**, Okada, K., Ramakrishnan, R., Shachter, N.S. 2004. Overexpression of apo C-III produces lesser hypertriglyceridemia in in apo B48-only gene-targeted mice than in apo B100-only mice. *J Lipid Res.* 45:2235-2244.
19. Yanzhu L, Yang L, **Conde-Knape K**, Beher D, Shearman M, Shachter NS. 2004. Fatty acids increase presinilin 1 levels and gamma secretase activity in PSWt-1 cells. *J Lipid Res* 45:2368-2376.
20. Fernandez ML, Metghalchi S, Vega-Lopez S, **Conde-Knape K**, Lohman TG, Cordero-Macintyre ZR. 2004. Beneficial effects of weight loss on plasma apolipoproteins in postmenopausal women. *J Nutr Biochem.* 15:717-21.
21. Shachter, N. S., Rabinowitz, D., Stohl, S., **Conde-Knape, K.**, Cohn, J. S., Deckelbaum, R. J., Berglund, L., and Shea, S. The Common Insertional Polymorphism in the APOC1 Promoter is Associated with Serum Apolipoprotein C-I Levels in Hispanic Children. *Atherosclerosis*, 2005 179:387-93.
22. Erickson SD, Banner B, Berthel S, **Conde-Knape K**, Falcioni F, Hakimi I, Hennessy B, Kester RF, Kim K, Ma C, McComas W, Mennona F, Mischke S, Orzechowski L, Qian Y, Salari H, Teng J, Thakkar K, Taub R, Tilley JW, Wang H. Potent, selective MCH-1 receptor antagonists. *Bioorg Med Chem Lett.* 2008 18:1402-6.
23. Wertheimer S, Bolin D, Erickson S, **Conde-Knape K**, Belunis C, Konkara A, Taub R, Rondinone C. Fatty Acid Modulators for the treatment of diabetes. *Drug Discovery Today.* 2007 4:129-35.
24. Yimin Qian, Stanley J. Wertheimer, **Karin Conde-Knape**, Mushtaq Ahmad, Adrian Cheung, Fariborz Firooznia, Matthew M. Hamilton, Stuart Hayden, Shiming Li, Nicholas Marcopulos, Lee McDermott, Jenny Tan, Weiya Yun, Liang Guo, Anjula Pamidimukkala, Yingsi Chen, Kuo-Sen Huang, Gwendolyn B. Ramsey, Toni Whittard, Rebecca Taub, Cristina M. Rondinone, Jefferson Tilley, and David Bolin. Discovery of Orally Active Carboxylic Acid Derivatives of 2-Phenyl-5-trifluoromethyl-oxazole-4-carboxamide as Potent Diacylglycerol Acyltransferase-1 Inhibitors for the Potential Treatment of Obesity and Diabetes. *J Med Chem.* 2011; 54:2433-46.
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- derivatives as diacylglycerol acyltransferase-1 inhibitors. *Bioorg Med Chem Lett*. 2011; 21(23):7205-9.
26. Qian Y, Ahmad M, Chen S, Gillespie P, Le N, Mennona F, Mischke S, So SS, Wang H, Burghardt C, Tannu S, **Conde-Knape K**, Kochan J, Bolin D. Discovery of 1-arylcarbonyl-6,7-dimethoxyisoquinoline derivatives as glutamine fructose-6-phosphate amidotransferase (GFAT) inhibitors. *Bioorg Med Chem Lett*. 2011; 21(21):6264-9.
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28. Yimin Qian, David Bolin, **Karin Conde-Knape**, Paul Gillespie, Stuart Hayden, Kuo-Sen Huang, Andrée R. Olivier, Tsutomu Sato, Qing Xiang, Weiya Yun, Xiaolei Zhang. Design and synthesis of 2-N-substituted indazolone derivatives as non-carboxylic acid glycogen synthase activators. *Bioorganic & Medicinal Chemistry Letters* 23 (2013) 2936–2940.
29. Yimin Qian, David R. Bolin, **Karin Conde-Knape**, Paul Gillespie, Stuart Hayden, Kuo-Sen Huang, Mei Liu, Andree R. Olivier, Yonglin Ren, Joseph Sergi, Qing Xiang, Lin Yi, Weiya Yuna and Xiaolei Zhang. N-substituted sultam carboxylic acids as novel glycogen synthase activators. *Med. Chem. Commun.*, 2013,4: 833.
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35. Qian Y, **Conde-Knape K**, Erickson SD, Falcioni F, Gillespie P, Hakimi I, Mennona F, Ren Y, Salari H, So SS, Tilley JW. Potent MCH-1 receptor antagonists from cis-1,4-diaminocyclohexane-derived indane analogs. *Bioorg Med Chem Lett*. 2013, 23:4216.
36. Paul Gillespie, Robert Goodnow, G Saha, G Bose, K Moulik, C Zwingelstein, M Myers, **K Conde-Knape**, S Pietranico-Cole, SS So. Discovery of pyrazolo[3,4-d] pyrimidine derivatives as GPR119 agonists. *Bioorg Med Chem Lett*. 2014, 24:949.
37. Gillespie P, Pietranico-Cole S, Myers M, Bilotta JA, **Conde-Knape K**, Fotouhi N, Goodnow RA Jr, Guertin KR, Hamilton MM, Haynes NE, Liu B, Qi L, Ren Y, Scott NR, So SS, Spence C, Taub R, Thakkar K, Tilley JW, Zwingelstein C. Discovery of camphor-derived pyrazolones as 11 β -hydroxysteroid dehydrogenase type 1 inhibitors. *Bioorg Med Chem Lett*. 2014; 24:2707-11.
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40. Higgins DF, Ewart LM, Masterson E, Tennant S, Grebnev G, Prunotto M, Pomposiello S, **Conde-Knape K**, Martin FM, Godson C. BMP7-induced-Pten inhibits Akt and prevents renal fibrosis. *Biochim Biophys Acta Mol Basis Dis*. 2017,1863:3095-3104
41. Raab S, Wang H, Uhles S, Cole N, Alvarez-Sanchez R, Künnecke B, Ullmer C, Matile H, Bedoucha M, Norcross RD, Ottaway-Parker N, Perez-Tilve D, **Conde Knape K**, Tschöp MH, Hoener MC, Sewing S., Incretin-like effects of small molecule trace amine-associated receptor 1 agonists. *Mol Metab*. 2015, 5:47-56.

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43. G. Rakipovski, B. Rolin, N. Barascuk, H. Engslev Lund, M. Bonde, D. Djordjevic, P. Wulff-Larsen, M. Petersen, R. Kirk, K. Hultman, V. Manfe, N. Blume, S. Zahn, M. Lengquist, L. Maegdefessel, G. Hovingh, **K. Conde-Knape**, U.Hedin, L. Matic, M. Nyberg, A neutralizing antibody against DKK1 does not reduce plaque formation in classical murine models of atherosclerosis: Is the therapeutic potential lost in translation?. *Journal of Atherosclerosis*. 2020, 314, 1-9.
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Abstracts

1. **Conde K**, Ruiz LR, Montano C, Steinberg H, Ebner J, McNamara DJ & Fernandez ML. 1995. Dietary carbohydrate (CHO) type and amount alter intravascular processing and catabolism of plasma lipoproteins. *FASEB J* 9: A1128.
2. Ruiz LR, **Conde K**, Erickson SK, McNamara DJ & Fernandez ML. 1995. Psyllium (PSY) reduces plasma LDL in guinea pigs by altering hepatic cholesterol homeostasis. *FASEB J*:A4293.
3. **Conde, K**, Vergara-Jimenez M, Newton R & Fernandez ML. 1995. Atorvastatin reduces plasma LDL, alters lipoprotein composition and up-regulates hepatic LDL receptors. XII International Symposium "Drugs Affecting Lipid Metabolism" p. 114
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6. **Conde K**, Vergara-Jimenez M, Newton RS & Fernandez ML. 1996. Atorvastatin (AT), an HMG-CoA reductase inhibitor, reduces plasma cholesterol by alterations in LDL metabolism. *FASEB J* 10:2947.

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8. Vergara-Jimenez M, **Conde K** & Fernandez ML. 1996. Pectin and psyllium normalize plasma cholesterol and triacylglycerol levels in guinea pigs. IFT Annual Meeting 68D-19.
9. **Conde K**, Vergara-Jimenez M, Romero AL & Fernandez ML. 1996. Carbohydrate type and amount alter VLDL and LDL metabolism in guinea pigs. IFT Ann. Meeting. 68D-20.
10. Fernandez ML, **Conde K** & Vergara-Jimenez M. 1997. Dietary fat saturation and Vitamin C level alter hepatic cholesterol and plasma LDL metabolism. FASEB J. 11 3267.
11. **Conde K**, Newton R, Krause B & Fernandez ML. 1997. Mechanisms of plasma LDL lowering by atorvastatin, an HMG-CoA reductase inhibitor. Comparison with simvastatin. FASEB J. 11: A3269.
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13. **Conde K.**, Newton RS., and Fernandez ML. 1997. Hypocholesterolemic mechanism of action of HMG-CoA reductase inhibitors: Atorvastatin vs Simvastatin. Specific effects in guinea pigs. Kern Aspen Lipid Conference.
14. **Conde K.**, Newton RS., Freake HC., and Fernandez ML. 1998. Atorvastatin and simvastatin protect against LDL oxidation and have different secondary hypocholesterolemic mechanisms in the guinea pig. FASEB J. 12: A1394.
15. Fernandez ML, TA. Wilson, **K. Conde**, M. Vergara-Jimenez, and RJ. Nicolosi. 1999. Hamsters and Guinea Pigs have similar responses to dietary cholesterol. FASEB J. 13: A759.4
16. **Conde, K.**, Kako, Y., Ebara, T., Xu, Y., Ramakrishnan, R., Goldberg, I.J., and Shachter, N.S. 1999. Hyperlipidemia in Streptozotocin Diabetic mice is associated with Selective impairment of Apo B48 particle clearance related to increased C apolipoproteins and decreased liver heparan sulfate. Circulation 100: I-329.
17. Vega-Lopez S, **Conde K**, Schacter N & Fernandez ML. 2001. Psyllium effects on triglyceride (TAG) metabolism is modulated by gender and hormonal status. FASEB J. 15 A576.4.

18. Cordero-MacIntyre Z, Vega-Lopez S, **Conde K**, Lohman TG & Fernandez ML. 2001. Beneficial effects on plasma lipids and apoproteins as a result of a weight loss program. *FASEB J.* 15 254:4
19. **Conde, K.**, Okada, K., Shachter, N.S. Overexpression of apo C-III produces lesser postprandial hypertriglyceridemia in apo B48-only gene-targeted mice than in apo B100-only mice. ATVB conference, May 2001.
20. **Conde, K.**, Bensadoun, A., Shachter, N.S. Severe hypertriglyceridemia and remnant accumulation due to modest overexpression of human apolipoprotein C-I in apo E null mice: Apo C-I induced hyperlipidemia appears not to be mediated via effects on apo E-mediated clearance. ATVB conference, May 2001.
21. S.J. Wertheimer, **K. Conde-Knape**, Y. Qian, G.B. Ramsey, S. Kazmer, Y. Chen, T. Whittard, R.A. Taub, C. Rondinone. Can DGAT Inhibition Improve Insulin Sensitivity? ADA 2009
22. A. Konkar, W. Danho, L. Rumennik, C. Spence, T. Truitt, H. Salari, R. Garrido, G. Ehrlich, H. Char, I. Mikaelian, N. Brown, **K. Conde-Knape**, C. Rondinone. Novel Role of Long Acting PYY₃₋₃₆ on Glucose Handling and Islet Sparing. ADA 2010
23. A. Konkar, W. Danho, I. Mikaelian, R. Garrido, L. Rumennik, C. Spence, T. Truitt, H.A. Salari, G. Ehrlich, N. Brown, **K. Conde-Knape**, C. Rondinone, H.L. Char. PEGylated PYY₃₋₃₆ has beneficial effects on glucose handling and exhibits islet sparing effects in db / db mice. EASD 2010

Patents

Neuropeptide-2 receptor (Y-2R) agonists and uses thereof

- Patent number: 8268784
- Inventors: Karin Conde-Knape, Waleed Danho, George Ehrlich, Nader Fotouhi, David Charles Fry, Wajiha Khan, Anish Konkar, Cristina Martha Rondinone, Joseph Swistok, Rebecca Anne Taub, Jefferson Wright Tilley
-

Neuropeptide-2 receptor (Y-2R) agonists

- Publication number: 20110172147
- Inventors: Karin Conde-Knape, Waleed Danho, Nader Fotouhi, David Charles Fry, Wajiha Khan, Anish Konkar, Cristina Martha Rondinone, Joseph Swistok, Jefferson Wright Tilley

Curriculum Vitae

PERSONAL INFORMATION

Alicia Lundby, PhD

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Born in Denmark, August 6th, 1980. Three children: Mattias (b.2012), Maja (b.2014),

Anne Sophie (b.2016). orcid.org/0000-0002-1612-6041

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EDUCATION

2009 PhD in Health Sciences. Faculty of Medical and Health Sciences, UCPH.

2005 M.Sc. in Physics and Biophysics. The Niels Bohr Institute, Department of Physics, UCPH.

2003 B.Sc. in Physics and Biophysics. The Niels Bohr Institute, Department of Physics, UCPH.

POSITIONS

2024- Professor. Department of Biomedical Science, UCPH.

2020-2024 Professor MSO. Department of Biomedical Science, UCPH.

2024 Visiting research scholar, Cardiovascular Research Center, New York University School of Medicine, USA. Host: Prof. Mario Delmar. July-August 2024.

2023 Visiting research scholar, Cardiovascular Research Institute, Stanford University, USA. Host: Prof. Sean Wu. June-August 2023.

2015-2020 Associate Professor. Department of Biomedical Science, UCPH. Affiliated Associate Professor at NNF Center for Protein Research, UCPH.

2012-2015+ Post Doctoral Research Fellow in Quantitative Proteomics. Department of Proteomics, NNF Center for Protein Research, UCPH. Advisor: **Prof. Jesper V. Olsen.**

2009-2011 Post Doctoral Research Fellow in Human Population Genetics, *The Broad Institute of MIT and Harvard, Cambridge, USA.* Advisor: **Prof. Mark Daly.**

2011-2012 Post Doctoral Research Fellow in Human Population Genetics, *The Broad Institute of MIT and Harvard, Cambridge, USA.* Advisor: **Prof. Mark Daly.**

2007-2008 Visiting scientist in voltage sensitive fluorescent proteins, *RIKEN Brain Science Institute, Saitama, Japan.* Advisor: **Prof. Thomas Knöpfel.**

2004-2005 Visiting research student, ion channel research. Department of Biology, *University of California at San Diego, USA.*

SELECTED FELLOWSHIPS AND AWARDS

2020 Hallas-Møller Ascending Investigator Award.

2018 The Carlsberg Foundation Distinguished Associate Professorship.

2016 Sapere Aude Elite Research Leader by The Independent Research Fund Denmark.

2014 The Danish Council for Independent Research DFF-YDUN grant.

2013 For Women in Science price by L'Oréal, UNESCO and The Royal Danish Academy of Sciences and Letters.

2011 Member of The Young Academy, The Royal Danish Academy of Sciences and Letters.

2011 Sapere Aude Young Elite Researcher by Independent Research Fund Denmark.

2007 Talent award, The Lundbeck Foundation.

SUPERVISION EXPERIENCE

2015- Primary supervisor for ten post doctoral fellows (Svetlana Maurya, Ulrike Leurs, Navratan Bagwan, Robert Mills, Andrea Sorrentino, Estefania Torres Vega, Secil Erbil, Carolin Sailer, Mikkel Svenningsen, John Mulvey), five PhD students (Pi Camilla Poulsen, Anna Eleonora Linscheid, Maren Schrölkamp, Konstantin Kahnert, Jonathan Achter), four B.Sc. students (Johan Yirou Ze, Stine Møller, Sofie Christensen, Caroline Christoffersen, Morsal Rasuli), three M.Sc. students (Huandi Xu, Puck Quarles, Emily Meyer), and two international research interns (Felix Flath from Germany and Marta Vallverdu Prats from Spain).

SELECTED CURRENT TEACHING ACTIVITIES

2023- Lecturer in 'Bachelor preparatory course'. Faculty of Health and Medical Sciences, UCPH.

2019- Course leader and main lecturer in "The ABC of grant application and how to pitch your research" course. Faculty of Health and Medical Sciences, UCPH.

2019- Lecturer in M.Sc. Bioinformatics course. Faculty of Health and Medical Sciences, UCPH.

2015- Yearly presentations at elementary schools on cardiac research

ORGANISATION OF SCIENTIFIC MEETINGS

Sep 2022	Organizer of “Cardiac Arrhythmia Symposium”, international meeting with 150 participants
May 2019	Co-organizer of “Ion Channel Symposium”, international meeting with 150 participants
May 2018	Co-organizer of “Ion Channel Symposium”, international meeting with 150 participants
May 2015	Organizer of the meeting “National PhD network seminar”
May 2013	Co-organizer of the meeting “National PhD network seminar”

SELECTED COMMISSIONS OF TRUST

2023-	Evaluation Committee Bridge Translational Research Program
2022-	Proteomics Research Infrastructure User Advisory Board Member, UCPH
2022-	Professorship promotion committee, Department of Biomedical Sciences, UCPH
2021-22	Scientific Advisory Board Member of the Protein Research Infrastructure at UCPH
2020	Host for sabbatical of Professor Mario Delmar, New York University for 9 months.
2019	Host for sabbatical of Professor Mark Boyett, Manchester University for 9 months.
2018-	Board of Directors, Danish Cardiovascular Academy (2018-).
2018-	Chair of seven PhD Assessment Committees at UCPH.
2017-	Evaluator of Associate Professorship positions at UCPH, DTU, AAU and Lund University.
2011-2016	Member of The Young Academy, The Royal Danish Academy of Sciences and Letters.

SELECTED RECENT INVITED SPEAKER PRESENTATIONS

NYU Cardiovascular Research Center, research seminar, New York, USA, 07.2024
 Frontiers in CardioVascular Biomedicine, European Society of Cardiology, Amsterdam, NL, 04.2024
 King Abdullah University of Science and Technology (KAUST), Bioscience research seminar, SA, 02.2024
 Keynote Speaker, HUPO, Busan, Korea, 09.2023
 KAIST science meeting, Daejeon, Korea, 09.2023
 Frontiers in Cardiovascular Science, Stanford Cardiovascular Institute, 06.2023
 Heart Rhythm Society meeting, New Orleans, USA, 05.2023
 Cardiovascular Research Division Seminar Series, University of Manchester, 02.2023
 Copenhagen Meeting on Cardiac Arrhythmia, 09.2022
 100 anniversary of Niels Bohr, Forskningsens Døgn, Royal Danish Academy of Sciences and Letters, 04.2022
 Cardioproteomics meeting by London Proteomics Discussion Group, 04.2022
 Protein structure and function, Linderstrøm-Lang Centre Symposium, Copenhagen, 11.2021
 Post-translational Modifications – The Third Disruptive Wave in Proteomics, Thermo Fisher Scientific webinar at HUPO, San Francisco, USA, 11.2021
 Life Science Engineering – Expanding the Therapeutic Space, DTU, Lyngby. Key note speaker. 11.2021
 Heart Rhythm Society Meeting, Boston, USA, 07.2021
 Cardiac Physiology meeting SPS, Reykjavik, Iceland 08.2019
 Heart Rhythm Society Meeting, San Francisco, USA, 05.2019
 Keystone Meeting, Proteomics and its Application to Translational and Precision Medicine, Stockholm, SE, 04.2019
 The 32nd meeting of the Israeli Society for Mass Spectrometry, The Weizmann Institute of Science, 02.2019

RESEARCH INTERESTS

Research field: Cardiac proteomics / Molecular regulatory mechanisms of the heart.
 Key competencies: Applying unbiased large-scale experimental approaches combining state-of-the-art proteomics and orthogonal approaches (such as human population genomics or single cell transcriptomics) to explore the cardiac protein landscape to identify novel proteins of key importance in cardiac physiology.

PUBLICATION SUMMARY

Articles: 54, First authorships: 17, Last authorships: 16, Corresponding authorships: 21.
 Twenty papers have been published in leading international multi-disciplinary journals, such as Cell, Cell Reports, Nature Communications, Circulation, Science Signaling. Top five recent publications are highlighted below.

1. Lubberding AF*, Veedfald S*, Achter JS, Nissen SD, Soattin L, Sorrentino A, Vega ET, Linz B, Eggertsen CHE, Mulvey J, Toräng S, Larsen SA, Nissen A, Petersen LG, Bilir SE, Bentzen BH, Rosenkilde MM, Hartmann B, Lilleør TNB, Qazi S, Møller CH, Tfelt-Hansen J, Sattler SM, Jespersen T, Holst JJ*, **Lundby A***. GLP-1 increases heart rate by a direct action on the sinus node. *Cardiovascular Research*, 2024.
2. Kahnert K*, Soattin L*, Mills RW*, Wilson C*, [+15], Boyett MR#, D'Souza A#, **Lundby A#**. Proteomics Couples Electrical Remodeling to Inflammation in a Murine Model of Heart Failure with Sinus Node Dysfunction. *Cardiovascular Research*. 2024.
3. Maurya S*, Mills RW*, Kahnert K*, Chiang DY*, Bertoli G, Lundegaard PR, Duran MPH, Zhang M, Rothenberg E, George Jr. AL, MacRae CA, Delmar M, **Lundby A#**. Outlining cardiac ion channel protein interactors and their signature in the human electrocardiogram. *Nature Cardiovascular Research*. 2023.
4. Pérez-Hernández M*, van Opbergen CJM*, Bagwan N*, Vissing CR*, [+19], Bundgaard H#, Delmar M#, **Lundby A#**. Loss of Nuclear Envelope Integrity and Increased Oxidant Production Cause DNA Damage in Adult Hearts Deficient in PKP2: A Molecular Substrate of ARVC. 2022. *Circulation*.
5. **Lundby A#**, Franciosa G, Emdal KB, Refsgaard JC, Gnosa SP, Bekker-Jensen DB, Secher A, Maurya SR, Paul I, Mendez BL, Kelstrup CK, Francavilla C, Kveiborg M, Montoya G, Jensen LJ, Olsen JV. Oncogenic mutations rewire signaling pathways by switching protein complex recruitment to phosphotyrosine sites. *Cell*. 2019. Featured as 'editor's pick' in **Science**, 25.10.19



Claus Graff

Professor, M.Sc., Ph.D.

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cgraff@hst.aau.dk

Personal data

Name: Claus Graff

Date of birth: 29 December 1971

Place of birth: Aalborg, Denmark

Education and appointments

- 2021: Professor, Dept. of Health Science and Technology, AAU, DK
- 2015: Fellowship, University of California (UCSF), San Francisco, CA, USA
- 2013: Associate professor, Dept. of Health Science and Technology, AAU, DK
- 2010: Assistant professor, Dept. of Health Science and Technology, AAU, DK
- 2010: Technology Scout, AAU Innovation, AAU, DK
- 2010: Post-doc, Dept. of Health Science and Technology, AAU, DK
- 2010: Ph.D., Dept. of Health Science and Technology, AAU, DK
- 2005: M.Sc. Biomedical Eng. Dept. of Health Science and Technology, AAU, DK
- 2004: Visiting Scholar, University of British Columbia (UBC), Vancouver, B.C., Canada

Research Management Courses

- 2021: Research management course (6-day course, AAU, Aalborg University)
- 2017: Research management course (9-day course, CBS Executive, Copenhagen)
- 2017: Leadership development (5-day course, AAU, Aalborg University Hospital)

Current Board and Committee Memberships

- Board of Directors, The Danish Cardiovascular Academy
- Cross-Academy Collaboration Committee, Danish Data Science Academy
- Committee on Health Research Ethics, North Jutland Region (Videnskabetisk Komité)
- Editor Scientific Reports, Cardiology – Nature
- Academic Council, Faculty of Medicine, Aalborg University
- Program Committee, Danish University Extension, Health Science (Folkeuniversitetet)
- Program Committee, Computing in Cardiology, CinC
- Board of Directors, International Society for Computerized Electrocardiology
- Steering Committee Member “The National Heart Failure Initiative”
- Executive Board “The Danish Nationwide Electrocardiogram Study”
- Executive Board “The Danish-CRT Study”
- Executive Board “The Loop Study”
- Executive Board “The Copenhagen ECG Study”

Awards

- 2016: Research Talent Award, Faculty of Medicine, Aalborg University
- 2012: Sapere Aude Talented Researcher Award, Danish Council for Independent Research
- 2007: Danish Medical Device Award, Biomedical Industry in Denmark
- 2005: First Prize, Venture Cup phase 1
- 2005: First Prize, Innovations Cup
- 2004: First Prize, BiomedCom Science and Innovation for the Living
- 2004: First Prize, Venture Cup phase 1

Ph.D./Postdoc Supervision

Main supervisor for 2 PhD students, Co-supervisor for 14 PhD students
Co-supervisor for 12 Postdocs.

Supervision Leading to Student Awards

- 2022: Spar Nord Foundation Research Award, 250.000 DKK (1. Prize, PhD thesis)
- 2021: Svend Andersen Foundation, 50.000 DKK (1. Prize, PhD thesis)
- 2020: Danish Society for Internal Medicine, 15.000 DKK (1. prize, lecture competition)
- 2020: Danish Society of Cardiology 25.000 DKK (1. prize, lecture competition)
- 2019: Danish Society of Cardiology 25.000 DKK (1. prize, lecture competition)
- 2019: Jos Willems Award Int. Society for Comp. Electrocardiol. (1. prize, lecture competition)
- 2016: Roblon Prize, 100.000 DKK (most innovative Master's Thesis at AAU)
- 2013: Danish Psychiatric Society, 10.000 DKK (3. prize, article competition)
- 2008: SEMCON, 40.000 DKK (1. prize, 7th semester project, AAU)

Technology Transfer

Method to identify congenital and acquired Long QT Syndrome
Licensed to GE Healthcare in 2005
FDA approved in 2012

Method to detect coronary artery disease with digital stethoscope
Acarix spin-off company
<http://acarix.com>

Publications

Peer-reviewed journal papers: 156
Conference papers: 94
Patents: 8 issued, 1 pending
H-index/i10 index (Google Scholar): 38/95
H-index (Scopus/Web of Science): 32/31

Gunnar H. Gislason MD, PhD, FESC, FACC, FAHA
Professor of Cardiology and Cardiovascular Epidemiology
Chief Science Officer and Director of Research



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E-mail: gg@heart.dk / gunnar.gislason@regionh.dk / gunnar.gislason@hjerteforeningen.dk	
ORCID 0000-0002-0548-402X / Web of Science ResearcherID Y-2418-2019	
 @gunngis / @copcard  linkedin.com/in/gunngis	

Education and Degrees

- 1992 MD, University of Iceland
- 1993 Authorization as a physician, the Icelandic National Board of Health
- 2003 Authorization as a Specialist in Internal Medicine, the Danish Health Authority
- 2008 PhD, University of Copenhagen
- 2009 Authorization as a Specialist in Cardiology, the Danish Health Authority
- 2013 Professor of Cardiology, University of Copenhagen

Current employment

- November 2014: Chief Science Officer and Director of Research, The Danish Heart Foundation
- January 2013: Professor of Cardiology and Cardiovascular Epidemiology, University of Copenhagen
- January 2010: Senior Consultant Cardiologist, Department of Cardiology, Copenhagen University Hospital Herlev and Gentofte

Research and scientific activity:

- My main fields of research are clinical trials and large-scale register-based studies within cardiovascular disease, epidemiology and pharmacoepidemiology related to treatment of cardiovascular diseases, implementation of evidence-based treatments and complications of cardiovascular and non-cardiovascular treatments. I have extensive experience within clinical epidemiology and managing large datasets and linkage of clinical data with administrative databases.
- I head two research groups at the Cardiovascular Research Centre, Copenhagen University Hospital Herlev and Gentofte and the Danish Heart Foundation, respectively, that mainly focuses on clinical trials, register-based research and large-scale observational studies with an annual publication rate of more than 100 original scientific papers and a total budget of \$ 2-2.5 million.
- International collaboration with research groups in USA (Stanford, Duke, Boston), New Zealand (Auckland) and Europe (Liverpool, London, Amsterdam).
- I am author/co-author of more than 900 scientific papers published in peer-reviewed scientific journals. I hold key publications in the New England Journal of Medicine, the Lancet, JAMA, Annals of Internal Medicine, BMJ, JAMA Internal Medicine, Circulation, JACC and the European Heart Journal. The h-index is 114 (Google Scholar) / 93 (Web of Science) and the total number of citations exceeds 52,500 (GS) / 39,000 (WoS). Acknowledged as Highly Cited Researcher (Top 1%) in the field of Clinical Medicine on Web of Science.
- Scientific advisor on more than 65 completed and 6 ongoing PhD projects and several pregraduate scientific projects on bachelor and master level.

Other scientific and professional activity

- Member of The National Council for Drug Supply Security (2023-present)
- Advisory board member for the National Partnership for Healthcare Data (2022-present)
- Committee member of The Strategic Alliance for Register- and Healthcare Data (STARS)* (2015-2021).
- Member of the Research and Infrastructure Committee for the National Genome Centre (2019-21).
- Advisory committee member of The Danish Clinical Quality Program (RKKP, 2020-present)
- Advisory group member for the Copenhagen Centre for Drug Regulatory Science (CORS)
- Member of the board of the Danish Society of Cardiology (DCS, 2013-2017)
- Chairman of the DCS Working group on Cardiovascular Pharmacology (2014-2015 and 2018-2020)
- Chairman of the DCS Database committee (2014-2017)
- President of the Danish Society of Pharmacoepidemiology (2009-2012)
- Member of the board of Danish Society of Pharmacology (2009-2013).
- Member of the board for the Cardiovascular Research Programme, Univ. of Copenhagen
- Member of Copenhagen University Hospital Herlev and Gentofte research council
- Member of the ESC Working Group on Cardiovascular Pharmacology and Drug Therapy
- Evaluated 30 PhD and 3 doctoral theses, 3 full and 5 associate professorships.
- Reviewer on several international journals e.g The Lancet, JAMA, BMJ, Circulation, European Heart Journal.
- Reviewer of research grant applications for multiple national and international institutions and foundations.

Research leadership and Administrative Experience

- Research Director and Chief Science Officer The Danish Heart Foundation
- Research director, The Cardiovascular Research Centre, Gentofte University Hospital.
- Partner in the ESCAPE-NET European Union H2020 program funded project on sudden cardiac death (EU grant total of €10 million)
- Partner in the European Union Interreg IV programme, supporting establishment of the Centre for Cardiac Arrest in the Oresund region (EU grant of €1.2 million).
- President of the Danish Society of Pharmacoepidemiology (2008-2012)
- Completed Gentofte Hospital leadership programme for consultants (2010), CBS Executive Foundation Research Management course (2013-14), Region H Strategic Research Management course (2014) and CBS Executive Foundation Research Management Masterclass course (2021).

Honours/Awards

- Fellow of the European Society of Cardiology (FESC)
- Fellow of the American College of Cardiology (FACC)
- Fellow of the American Heart Association (FAHA)
- Highly Cited Researcher (Top 1%) in the field of Clinical Medicine in Web of Science 2019
- Awarded Honorary Life Membership of the Danish Society of Pharmacoepidemiology in 2019
- Awarded the Danish Society of Cardiology and Danish Heart Foundation research prize in 2018
- Awarded the Jeppe Juhl and Ovita Juhl Memorial Foundation Research Prize in 2016
- Awarded a 5-year Clinical Research Scholarship from the Novo Nordisk Foundation in 2012
- Awarded a 3-year Postdoctoral Fellowship from the Danish Research Council in 2008

Selected Publications

1. Gislason GH, Rasmussen JN, Abildstrom SZ, Rasmussen S, Buch P, Friberg J, Gadsbøll N, Køber L, Stender S, Madsen M, Torp-Pedersen C. Long-term compliance with beta-blockers, angiotensin-converting enzyme inhibitors and statins after acute myocardial infarction. *European Heart Journal* 2006;27:1153-8
2. Gislason GH, Jacobsen S, Rasmussen JN, Abildstrom SZ, Buch P, Friberg J, Schramm TK, Rasmussen S, Køber L, Madsen M, Torp-Pedersen C. Risk of death or reinfarction associated with treatment with selective cyclooxygenase-2 inhibitors and non-selective non-steroidal anti-inflammatory drugs after acute myocardial infarction. *Circulation* 2006;113:2906-13
3. Sørensen R, Hansen ML, Abildstrøm SZ, Hvelplund A, Andersson C, Jørgensen C, Madsen JK, Hansen PR, Køber L, Torp-Pedersen C, Gislason GH. Bleeding risk in patients with acute myocardial infarction treated with different combinations of aspirin, clopidogrel and vitamin K antagonists: a nationwide study of 40 812 patients. *The Lancet* 2009;374:1967-74.
4. Charlot M, Ahlehof O, Jørgensen CH, Hansen PR, Madsen JK, Køber L, Torp-Pedersen C, Gislason GH. Proton Pump Inhibitors are associated with Increased Cardiovascular Risk Independent of Clopidogrel Use: A Nationwide Study. *Annals of Internal Medicine* 2010;153:378-86
5. Olesen JB, Lip GYH, Kamper AL, Hommel K, Køber L, Lane DA, Lindhardsen J, Gislason GH, Torp-Pedersen C. Stroke and Bleeding in Atrial Fibrillation with Chronic Kidney Disease. *N Engl J Med* 2012;367:625-35
6. Lamberts M, Lip GY, Hansen ML, Lindhardsen J, Olesen JB, Raunso J, Olsen AM, Andersen PK, Gerds TA, Fosbøl EL, Torp-Pedersen C, Gislason GH. Relation of Nonsteroidal Anti-inflammatory Drugs to Serious Bleeding and Thromboembolism Risk in Patients With Atrial Fibrillation Receiving Antithrombotic Therapy: A Nationwide Cohort Study. *Ann Intern Med.* 2014;161(10):690-698.
7. Staerk L, Lip GY, Olesen JB, Fosbøl EL, Pallisgaard JL, Bonde AN, Gundlund A, Lindhardt TB, Hansen ML, Torp-Pedersen C, Gislason GH. Stroke and recurrent haemorrhage associated with antithrombotic treatment after gastrointestinal bleeding in patients with atrial fibrillation: nationwide cohort study. *BMJ.* 2015;351:h5876.
8. Schjerning Olsen AM, Gislason GH, McGettigan P, Fosbøl E, Sørensen R, Hansen ML, Køber L, Torp-Pedersen C, Lamberts M. Association of NSAID Use With Risk of Bleeding and Cardiovascular Events in Patients Receiving Antithrombotic Therapy After Myocardial Infarction. *JAMA.* 2015;313(8):805-814.
9. Kragholm K, Wissenberg M, Mortensen RN, Hansen SM, Malta Hansen C, Thorsteinsson K, Rajan S, Lippert F, Folke F, Gislason G, Køber L, Fonager K, Jensen SE, Gerds TA, Torp-Pedersen C, Rasmussen BS. Bystander Efforts and 1-Year Outcomes in Out-of-Hospital Cardiac Arrest. *N Engl J Med.* 2017;376(18):1737-1747.
10. Bondonno NP, Dalggaard F, Kyrø C, Murray K, Bondonno CP, Lewis JR, Croft KD, Gislason G, Scalbert A, Cassidy A, Tjønneland A, Overvad K, Hodgson JM. Flavonoid intake is associated with lower mortality in the Danish Diet Cancer and Health Cohort. *Nat Commun.* 2019;10(1):3651
11. Schjerning AM, McGettigan P, Gislason G. Cardiovascular effects and safety of (non-aspirin) NSAIDs. *Nat Rev Cardiol.* 2020 Sep;17(9):574-584.
12. Malmberg M, Schmiegelow MDS, Nørgaard CH, Munch A, Gerds T, Schou M, Kistorp C, Torp-Pedersen C, Hlatky MA, Gislason G. Does type 2 diabetes confer higher relative rates of cardiovascular events in women compared with men? *Eur Heart J.* 2020 Apr 1;41(13):1346-1353.
13. Holt, A., P. Blanche, A.K.G. Jensen, N. Nouhravesh, D. Rajan, M.H. Jensen, M. El-Sheikh, A.M. Schjerning, M. Schou, G. Gislason, C. Torp-Pedersen, P. McGettigan, and M. Lamberts, Adverse Events Associated With Coprescription of Phosphodiesterase Type 5 Inhibitors and Oral Organic Nitrates in Male Patients With Ischemic Heart Disease : A Case-Crossover Study. *Ann Intern Med,* 2022;175(6):774-782.
14. Beaman EE, Bonde AN, Larsen SMU, Ozenne B, Lohela TJ, Nedergaard M, Gislason GH, Knudsen GM, Holst SC. Blood-brain barrier permeable β -blockers linked to lower risk of Alzheimer's disease in hypertension. *Brain.* 2023;146(3):1141-1151
15. Christensen DM, Strange JE, Falkentoft AC, El-Chouli M, Ravn PB, Ruwald AC, Fosbøl E, Køber L, Gislason G, Sehested TSG, Schou M. Frailty, Treatments, and Outcomes in Older Patients With Myocardial Infarction: A Nationwide Registry-Based Study. *J Am Heart Assoc.* 2023;12(14):e030561

Curriculum Vitae

Personal Information

Name: Rasmus Borgquist
Born: December 29th, 1971
Address: Tretommervej 13, 8240 Risskov, Denmark
Phone: Phone: +45 24783165
E-mail: rbo@novo.dk
Private: Married to Signe Borgquist, 4 children



Current Positions

2024 **Medical Director**, Novo Nordisk Foundation
2023 **Senior Medical Lead**, Novo Nordisk Foundation
2015- **Associate Professor**, Cardiology, Dept. of Clinical Sciences, Lund University, Lund, Sweden

Previous Positions/Education

2020-2022 **Senior Consultant Cardiologist, Director of Cardiac pacing and device therapy**, Skane University Hospital, Lund, Sweden
2018-2022 **Associate Professor**, Clinical Cardiology, Aarhus University, Aarhus, Denmark
2018-2019/11 **Head of Department of Cardiology**, Aarhus University Hospital, Denmark. Responsible for a budget of DKK 400M and 350 FTE (whereof 85 physicians).
2018 **Senior Consultant** in Cardiology, Aarhus University, Denmark
2015 – 2018 **Head of Department of Cardiology (paired leadership), Skane University Hospital, Lund**. Responsible for a budget of DKK 100M and 25 physicians.
2009 – 2018 **Senior Consultant** in Cardiology, Skane University Hospital, Lund, Sweden
2009 – 2014 **Director of cardiology fellowship training**, Skane University Hospital, Lund, Sweden
2007 – 2009 **Consultant** in Cardiology, Malmo University Hospital, Malmo, Sweden
2007 **PhD Thesis**, Clinical Cardiology, Medical Faculty, Lund University, Sweden. Title: *“Coronary Heart Disease and Erectile Dysfunction.”*
2006 **Specialist** in Cardiology, Sweden
2002 – 2016 **Resident physician** in cardiology, Malmo University Hospital, Malmo, Sweden
2001 **Board Certified MD**, Sweden
1999 – 2001 **Internship** at Thisted and Nykobing Mors Hospitals, Denmark
1999 **Medical Degree**, Medical Faculty, Lund University, Sweden

Post-doctoral Fellowship

2014 – 2015 Post-Doc, Massachusetts General Hospital, Harvard Medical School, Boston, USA

Research

Published >75 papers in peer reviewed international journals. Completed supervision of 4 PhD students, 3 more ongoing as main supervisor and one as auxiliary supervisor. PI for several clinical studies, and involved in numerous international and national collaborative projects.

Review Assignments (journals)

Journal of American College of Cardiology (JACC), JACC Cardiovascular Imaging,

Heart, Europace, JACC: Electrophysiology, Heart, Heart Rhythm, Heart Rhythm O2, Trials, Journal of Electrocardiology, European Radiology, BMC Cardiovascular Disorders, Journal of Interventional Cardiac Electrophysiology, etc.

Commissions of Trust / Grant and Congress Review Assignments

2020	Reviewer of European Society of Cardiology Guidelines on Cardiac Pacing
2020-	Member of the European Heart Rhythm Association Selection Committee
2020-	Editorial board, Heart Rhythm Society O2 journal
2020-	Member of Scientific Sessions Programme Committee, EHRA
2018-	Abstract reviewer, European Society of Cardiology Scientific Sessions
2017	Reviewer of grant applications for the Sapere Aude institute in Denmark
2010-2012	Swedish coordinator for the European Society of Cardiology web-platform for education of future cardiologists
2010-2013	Member of European Society of Cardiology task force on MCQs & Professional Standards, within the ESC Education in Cardiology Committee

Clinical trials

PI for the following trials: (NCT01426321, NCT04701112, NCT04529577, NCT04512586, NCT04867460)
Regional PI or site investigator for the following trials: (NCT00955539, NCT00980057, (NCT01282918)

Language skills

Danish, Swedish, English	Fluent
French, Spanish	Speak and write to some extent

International Advisory Board Evaluation report, 2023

International Advisory Board Evaluation report, 2023:

https://dcacademy.dk/fileadmin/dcacademy.dk/Annual_Reports/Report_2023_-_International_Advisory_Board_4.0.pdf

List of members of governing bodies

Training Committee

Name	Title	Affiliation
Chair: Thomas Jespersen	Executive Training Director	Danish Cardiovascular Academy
Arnela Saljic	Assistant Professor	Danish Cardiovascular Academy
Ashkan Eftekhari	Senior Consultant	Aalborg University
Bo Winkel	Senior Consultant	Rigshospitalet
Charlotte Mehlin Sørensen	Associate Professor	University of Copenhagen
Christian Aalkjær	Executive Managing Director	Danish Cardiovascular Academy
Christian Juhl Terkelsen	Professor	Aarhus University Hospital
Claus Graff	Professor	Aalborg University
Donna Bødtkjær	Associate Professor	Aarhus University
Emil Toft Brøndum	Chief Operating Officer	Danish Cardiovascular Academy
Gowry Rasalingam	Cand.med, PhD	Aarhus University
Gunnar Gislason	Head of Research	The Danish Heart Association
Lasse Skibsbye	Pharmacist, PhD	Lundbeck
Lasse Bach Steffensen	Associate Professor	University of Southern Denmark
Maria Bloksgaard	Cand.scient., PhD	University of Southern Denmark
Maria Kristiansen	Professor	University of Copenhagen
Morten Laursen	Principal Specialist	Novo Nordisk
Morten Thomsen	Associate Professor	University of Copenhagen
Morten Schak Nielsen	Associate Professor	University of Copenhagen
Nicole Schmitt	Professor	University of Copenhagen
Per Lav Madsen	Associate Professor	University of Copenhagen
Pernille Højvang Nielsen	Course Manager	Danish Cardiovascular Academy

Pernille Lærkegaard Hansen	Executive Director	Astra Zeneca
Selina Kikkenborg Berg	Clinical Professor	University of Copenhagen
Sine Torekov	Professor	University of Copenhagen
Tobias Wang	Professor	Aarhus University
Tor Biering-Sørensen	Professor	University of Copenhagen
Trine Pagh Ludvigsen	Scientific Director	Novo Nordisk
Ulrike Muscha Steckelings	Professor	University of Southern Denmark

DCA, DDEA and DDSA Training Sub-Committee for training and education

Name	Title	Affiliation
Christian Aalkjær	Executive Managing Director	Danish Cardiovascular Academy
Emil Toft Brøndum	Chief Operating Officer	Danish Cardiovascular Academy
Marie Helene Andersson	Managing Director	Danish Data Science Academy
Tore Christiansen	Managing Director	Danish Diabetes and Endocrine Academy

International Reviewing Committee

Name	Title	Affiliation
Anthony Heagerty	Professor, Head of the School of Medical Sciences	University of Manchester, United Kingdom
Barbara Natterson-Horowitz	Professor	Division of Cardiology, University of California, USA
Stefan James	Professor	Uppsala University, Sweden
Ursula Ravens	Professor Emerita	Carl Gustav Carus School of Medicine, Technical University of Dresden, Germany

Grant Committee

Name	Title	Affiliation
Chair: Boye L. Jensen	MD, Professor, Head of Research	Division of Cardiovascular and Renal Research, University of Southern Denmark
Alun Hughes	MD, Professor	University College London, United Kingdom
David Erlinge	Professor, Head of office	Cardiology, Lund University, Sweden
Dobromir Dobrev	MD, Professor and Director	Institute of Pharmacology, University Duisburg-Essen, Germany
Edward Wigmond	Associate Professor, Researcher	Institut de Rythmologie et de modélisation cardiaque, Université Bordeaux, France
Hanno Tan	MD, PhD, Professor	Department of Cardiology, Heart Center, Academic Medical Center, University of Amsterdam, the Netherlands
Harald Binder	Professor, Head of Institute for Medical Biometry and Statistics	Institute for Medical Biometry and Statistics, University of Freiburg, Germany
Jens Cosedis Nielsen	MD, Professor	Department of Clinical Medicine, Aarhus University & Department of Heart Diseases, Aarhus University Hospital, Denmark
Karl Swärd	Professor	Department of Experimental Medical Science, Lund University, Sweden
Kieran Docherty	Clinical Senior Lecturer	BHF Cardiovascular Research Centre, University of Glasgow, Scotland
Lars Køber	MD, Professor, Chief Physician	Department of Cardiology, Rigshospitalet, Denmark
Ljubica Matic	PhD, Associate Professor	Department of Molecular and Surgery, Karolinska Institute, Sweden

Lydia Sorokin	Professor, Director of the Institute of Physiological Chemistry and Pathobiochemistry	Institute of Physiological Chemistry and Pathobiochemistry, University of Münster, Germany
Maria Kristiansen	Professor, Head of Center, Research Group Leader	Department of Public Health, University of Copenhagen, Denmark
Mary Sheppard	Professor	St George's University Medical School, London, United Kingdom
Miranda van Eck	Professor of Cardiovascular and metabolic therapeutics	Leiden University, Netherlands
Molly Maleckar	Research Professor	Department of Computational Physiology, Simula Research Laboratory, Oslo, Norway
Pardeep Jhund	Professor of Cardiology and Epidemiology (Cardiovascular & Metabolic Health)	University of Glasgow, Scotland
Patricia McGettigan	MD, Associate Professor, Clinical Pharmacologist and Consultant Physician	Queen Mary University of London, England
Pyotr Platonov	MD, Professor, Electrophysiology Research Group	Lund University, Sweden
Rie Schultz Hansen	PhD, Chief Scientific Officer	Aelin Therapeutics, Belgium
Ulrich Pohl	MD, Professor of Physiology	Biomedical Centre Munich, Germany
Ulrich Schotten	MD, Professor	Department of Physiology, Maastricht University, Netherlands

Full list of activities

DCA activities 2021 - 2024		# Participants
2021		208
Course		137
	Basal Metabolism & Molecular Mechanisms in Diabetes	51
	Cardiovascular Winter School at Univ. of Copenhagen	26
	Empower Your Talent	33
	not on web	27
Summer meeting		71
	not on web	71
2022		521
Course		335
	Basal cardio metabolic course	33
	Cardiac Magnetic Resonance and its cardiovascular applications	22
	Cardiovascular Winter School at Univ. of Copenhagen	33
	DCAcademy Winter Meeting	39
	Electrophysiology - from basics to bedside	19
	Hypertension, Diabetes and Cardiovascular Disease	66
	Integrative human cardiovascular control	24
	Introduction course for grant recipients	25
	(tom)	74
Summer meeting		145
	DCAcademy Summer Meeting	145
Workshop		41
	The Talented Researcher – second module	20
	Vascular Research Poster Event	21
2023		1042
Course		599
	Atherosclerosis: Molecular Mechanisms, Genomic Modifiers and Therapeutic Strategies	55
	Basic Cardiometabolic Research PhD Course - From Metabolic Disturbances to the Quest for Novel	53
	Coronary physiology – From basic to clinical science	39
	Data science for non-data scientists	32
	Data Visualization, a PhD Course in collaboration with Danish Data Science Academy	44
	DCAcademy Postdoctoral Winter Meeting	53
	ESM PhD Course: What you need to know about life in the arterial wall	53
	International Summit on Clinical Research in Heart Failure	50
	PhD Cardiovascular Winter School 2023 at UCPH	52
	PhD course: Integrative human cardiovascular control	28
	The Fundamentals of Randomized controlled trials	42
	Working in the industry	48
	(tom)	50
Summer meeting		214
	DCAcademy Summer Meeting	214
Symposium		140
	Midterm symposium: Cardiac CT and AutoPlaque	36
	Sudden Cardiac Arrest - Directions for the Future Research. The Lancet Commission on SCD.	81
	(tom)	23
Workshop		89
	PhD course: Introduction to Danish health registries and translational perspectives	17
	PhD course: Maximize the impact of your presentation	19
	Strengthen Your Project Management Capabilities 2023	21
	The Talented Researcher – second module	20
	(tom)	12

2024	902
Course	464
Basic Cardiometabolic Research PhD Course	54
DCAcademy Cardiometabolic Networking Summit	75
DCAcademy Postdoctoral Winter Meeting 2024	60
DCAcademy Scientific meeting for Danish researchers attending ESC 2024	30
Electrocardiography: Basic Physiology, Epidemiology, and Bedside	40
International Summit on Clinical Research in Heart Failure 2024	54
R&D and Drug Development, PhD & PostDoc course	50
Scandinavian Society for Atherosclerosis Research Young Investigator meeting	40
(tom)	61
Summer meeting	179
DCAcademy Summer Meeting 2024	179
Symposium	235
Ketosis: Metabolic Insights & Cardiovascular Effects	54
Midterm Symposium: MRI in the study of myocardial metabolism and tissue characterization	49
Midterm Symposium: PhD Hacks, Career, & Work Life Balance Symposium	19
The Christian Aalkjær Symposium On Resistance Arteries	100
(tom)	13
Workshop	24
(tom)	24
Total participants	2673
DCA public outreach	
2022	
Meet the Scientist with the Danish Heart Foundation	80
2023	
Meet the Scientist with the Danish Heart Foundation	100
2024	
Meet the Scientist with the Danish Heart Foundation	100
Total participants	280

DCA educative milestones

Timeline milestones in the development of the Academy's portfolio of networking and collaborative activities (e.g. workshops, seminars and conferences)



Grant Recipients Handbook, Visiting Faculty Programme, Visiting Professors Programme and Internationalisation Programme

Grant Recipients Handbook (link)

<https://dcacademy.dk/default-title-3/handbook-for-grant-recipients>

Visiting Faculty Programme (link)

<https://dcacademy.dk/grants/visiting-faculty-programme>

Visiting Professors Programme (link)

<https://dcacademy.dk/grants/visiting-professors-programme>

Internationalisation Programme (link)

<https://dcacademy.dk/grants/internationalisation-programme>

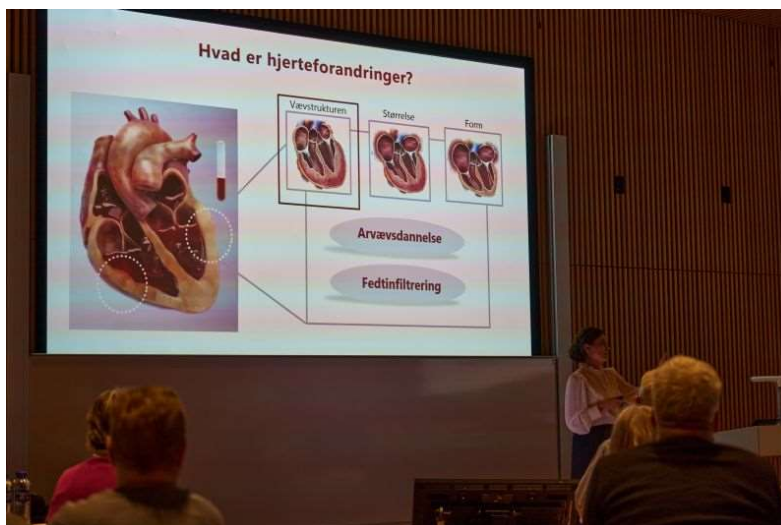
Meet the Scientist with Danish Heart Foundation

Meet the Scientist- arrangement for members of the Danish Heart Foundation

The most successful of the DCA outreach public activities was arranged in collaboration with the Danish Heart Foundation.

It was held on November 7th, 2024 with 114 participants. They were curious and interested patients with heart failure and their relatives, and the arrangement gave them the opportunity to have a closer look at the research that will hopefully make a difference in their lives.

The researchers told about the important collaborations between clinical, register-based, translational, and basic research and how these aspects help the researchers understand why heart failure occurs and what can be done to improve on the treatments.



Key collaborators

During 2020-2024, DCA collaborated with a number of researchers and research institutions from academia, hospitals and the life science industry in Denmark and abroad in connection with the education, networking and recruitment activities.

The lists below present the key national and international collaborators that DCA collaborated with during 2020-2024. DCA collaborated with many more than those indicated on the lists below, in particular also researchers who are members of the DCA governing bodies and former and current DCA-funded PhD students, postdocs and visiting professors. The below lists only contain collaborators that DCA collaborated with more than once in connection with DCA activities.

1. Close national collaborators

(researchers and representatives from the below mentioned institutions)

Aalborg University
Aalborg University Hospital
Aarhus University
Aarhus University Hospital
Amager & Hvidovre Hospital
Arla Foods
AstraZeneca
Bispebjerg Hospital
Bispebjerg-Frederiksberg Hospital
Danish Cancer Society
Danish Data Science Academy
Danish Dementia Research Centre
Danish Diabetes Academy
Danish Medicines Agency
GUBRA
Health Tech Hub Copenhagen
Herlev & Gentofte Hospital
High Performance Institute
Hvidovre Hospital
IBM Client Innovation Center Denmark
Implement Consulting Group
IT University of Copenhagen
Lene Kobbarnagel
Neuroscience Academy Denmark
NMD Pharma

Nordsjællands hospital
Novo Nordisk Foundation
Odense University Hospital
Rigshospitalet
Roskilde University
Scandinavian Society for Atherosclerosis Research
Schultz Jørgensen Kom
Steno Diabetes Center Aarhus
Steno Diabetes Center Copenhagen
Steno Diabetes Center Odense
Technical University of Denmark
The Danish Heart Association
University of Copenhagen
University of Southern Denmark
Vejle Hospital
Voluntas
Zealand University Hospital Roskilde

2. Close international collaborators

(researchers and representatives from the below mentioned institutions)

Acta Physiologica
Albert-Ludwigs University Freiburg, Germany
Amsterdam University Medical Center, Netherlands
Baptist Health, Louisville, Kentucky, USA
Boston Children's Hospital, USA
CNIC Madrid, Spain
DeltaG, United Kingdom
Drexel University, USA
Goethe University Frankfurt, Germany
Harvard Medical School, USA
Harvard School of Public Health, USA
Hasselt University, Belgium
Haukeland University Hospital, Norway
Journal of General Physiology, USA
Karolinska Institute, Sweden
Ketone-IQ, USA
Leiden University Medical Center, Netherlands
Leiden University, Netherlands
Ludwig-Maximilians-Universität Munich, Germany
Maastricht University Medical Centre, Netherlands
Maastricht University, Netherlands
Maastricht University, Netherlands

Manchester University, United Kingdom
Max Planck Institute for Metabolism Research, Germany
Mayo Clinic, USA
Michigan State University, USA
Olv Hospital Aalst, Belgium
Oslo Metropolitan University, Norway
Oslo University Hospital, Norway
Oxford University, United Kingdom
Sant Pau Biomedical Research Institute, Spain
SickKids Hospital Toronto, Canada
Simon Fraser University, Canada
St. George's University, London, United Kingdom
Thomas Jefferson University, USA
Università degli Studi di Milano-Bicocca, Italy
University Center of Cardiovascular Science, Germany
University College of London, United Kingdom
University Hospital Essen, Germany
University Hospital of Toulouse, France
University Hospital of Ulm, Germany
University Hospital RTWH Aachen, Germany
University Medical Center Groningen, Netherlands
University Medical Center Hamburg, Germany
University Medical Center Rotterdam, Netherlands
University of Angers, France
University of Bergen, Norway
University of Bern, Switzerland
University of British Columbia, Canada
University of Cambridge, United Kingdom
University of Colorado, USA
University of Duisburg-Essen, Germany
University of Eastern Finland, Finland
University of Glasgow, Scotland
University of Gothenburg, Sweden
University of Lübeck, Germany
University of Madrid, Spain
University of Münster, Germany
University of Sheffield, United Kingdom
University of Szeged Albert Szent-Györgyi Medical School, Hungary
University of Texas, USA
University of Valencia, Spain
University of Virginia, USA
University of Zürich, Switzerland
Uppsala University, Sweden
UTHealth Houston, USA
Vanderbilt University School of Medicine, USA

Timeline of Grant Activities 2021-2024



* Call 1:

6 PhD Scholarships
 6 2/3 PhD Scholarships
 1 2/3 5-year Postdoc Fellowships
 1 2/3 2-year Postdoc Fellowships
 4 2-year Postdoc Fellowships
 1 5-year Postdoc Fellowship
 1 DDEA-DCA 2/3 5-year Postdoc Fellowship

** Call 2:

6 PhD Scholarships
 1 1/3 PhD Scholarships
 6 2/3 PhD Scholarships
 4 2-year Postdoc Fellowships
 4 5-year Postdoc Fellowships

*** Call 3:

4 PhD Scholarships
 5 2/3 PhD Scholarships
 5 2-year Postdoc Fellowships
 2 5-year Postdoc Fellowships
 3 2/3 DDEA-DCA PhD Scholarships

**** Call 4:

3 PhD Scholarships
 6 1/3 PhD Scholarships
 5 2/3 PhD Scholarships
 1 2/3 2-year Postdoc Fellowships
 4 2/3 5-year Postdoc Fellowships
 4 2-year Postdoc Fellowships
 3 2/3 DDEA-DCA PhD Scholarships
 2 2/3 DDSA-DCA PhD Scholarships

Statistics on call 1 to 4

CALL 1

Stipend	data	Granted	Succes Rate
2-year Postdoc	24	5	20,8%
5-year Clin Postdoc	15	3	20,0%
PhD	68	12	17,6%
Total	107	20	18,7%

Gender	# Appl.	Granted	Succes Rate
Female	62	12	19,4%
Male	45	8	17,8%
Total	107	20	18,7%

Region	# Appl.	Granted	Succes Rate
Region Hovedstaden	57	13	22,8%
Region Midt	24	3	12,5%
Region Nord	6	1	16,7%
Region Sjælland	6		0,0%
Region Syd	14	3	21,4%
Total	107	20	18,7%

Area	# Appl.	Granted	Succes Rate
Basic research	37	8	21,6%
Clinical research	55	10	18,2%
Epidemiological research	14	2	14,3%
Public Health research	1		0,0%
Total	107	20	18,7%

CALL 2

Stipend	# Appl.	Granted	Succes Rate
2-year Postdoc	29	3	10,3%
5-year Clin Postdoc	20	4	20,0%
PhD	88	14	15,9%
Total	137	21	15,3%

Gender	# Appl.	Granted	Succes Rate
Female	77	12	15,6%
Male	60	9	15,0%
Total	137	21	15,3%

Region	# Appl.	Granted	Succes Rate
Region Hovedstaden	69	11	15,9%
Region Midt	36	4	11,1%
Region Nord	10	3	30,0%
Region Sjælland	1		0,0%
Region Syd	21	3	14,3%
Total	137	21	15,3%

Area	# Appl.	Granted	Succes Rate
Basic research	37	7	18,9%
Clinical research	59	7	11,9%
Epidemiological research	33	7	21,2%
Public Health research	8		0,0%
Total	137	21	15,3%

CALL 3

Stipend	# Appl.	Granted	Succes Rate
2-year Postdoc	33	5	15,2%
5-year Clin Postdoc	11	2	18,2%
PhD	85	10	11,8%
DDEA-DCA 2/3 PhD2	11	3	27,3%
Total	140	20	14,3%

Gender	# Appl.	Granted	Succes Rate
Female	71	11	15,5%
Male	69	9	13,0%
Total	140	20	14,3%
Region	# Appl.	Granted	Succes Rate
Region Hovedstaden	72	12	16,7%
Region Midt	43	6	14,0%
Region Nord	9	1	11,1%
Region Syd	16	1	6,3%
Total	140	20	14,3%

Area	# Appl.	Granted	Succes Rate
Basic research	39	10	25,6%
Clinical research	71	9	12,7%
Epidemiological research	22	1	4,5%
Other	2		0,0%
Public Health research	6		0,0%
Total	140	20	

CALL 4

Stipend	# Appl.	Granted	Succes Rate
2-year Postdoc	38	5	13,2%
5-year Clin Postdoc	14	4	28,6%
PhD	88	14	15,9%
DCA-DDSA 2/3 PhD	6	1	16,7%
DCA-DDEA 2/3 PhD	14	3	21,4%
Total	160	27	16,9%

Gender	# Appl.	Granted	Succes Rate
Female	95	14	14,7%
Male	65	13	20,0%
Total	160	27	16,9%
Region	# Appl.	Granted	Succes Rate
Region Hovedstaden	90	20	22,2%
Region Midt	33	3	9,1%
Region Nord	10	2	20,0%
Region Syd	27	2	7,4%
Total	160	27	16,9%

Area	# Appl.	Granted	Succes Rate
Basic research	45	9	20,0%
Clinical research	64	10	15,6%
Epidemiological research	35	6	17,1%
Other	3		0,0%
Public Health research	13	2	15,4%
Total	160	27	16,9%

ALL CALLS

Stipend	# Appl.	Granted	% of Total	Succes Rate
2-year Postdoc	124	18	22,79%	14,5%
5-year Clin Postdoc	60	13	11,03%	21,7%
PhD	329	50	60,48%	15,2%
DCA-DDSA 2/3 PhD	6	1	1,10%	16,7%
DCA-DDEA 2/3 PhD	14	3	2,57%	21,4%
DDEA-DCA 2/3 PhD	11	3	2,02%	27,3%
Total	544	88	100,00%	16,2%

Gender	# Appl.	Granted	% of Total	Succes Rate
Female	305	49	56,07%	16,1%
Male	239	39	43,93%	16,3%
Total	544	88	100,00%	16,2%

Region	# Appl.	Granted	% of Total	Succes Rate
Region Hovedstaden	288	56	52,94%	19,4%
Region Midt	136	16	25,00%	11,8%
Region Nord	35	7	6,43%	20,0%
Region Sjælland	7		1,29%	0,0%
Region Syd	78	9	14,34%	11,5%
Total	544	88	100,00%	16,2%

Area	# Appl.	Granted	% of Total	Succes Rate
Basic research	158	34	29,04%	21,5%
Clinical research	249	36	45,77%	14,5%
Epidemiological research	104	16	19,12%	15,4%
Other	5		0,92%	0,0%
Public Health research	28	2	5,15%	7,1%
Total	544	88	100,00%	16,2%

Full list of publications

Data source Scopus
 Date last updated 9 October 2024
 Date exported 17 October 2024

Title	Authors	Year	Journal	Publication type	Citations	Field-Weighted Citation Impact	Institutions
Absence of Coronary Artery Disease is a Strong Negative Predictor of Major Adverse Cardiovascular Events in Patients with Chronic Kidney Disease	Tonnesen, P.T. Olesen, K.K.W. Thrane, P.G. Gyldenkerne, C. Peters, C.D. Buus, N.H. Maeng, M.	2023	Clinical epidemiology	Article	0	0	Aarhus University
Atrial fibrillation in patients with liver disease: Recent advances	Godtfredsen, S.J. Kragholm, K.H. Pareek, M.	2023	Kardiologia Polska	Review	0	0	University of Copenhagen Aalborg University
Birth cohort effects on diagnosed atrial fibrillation incidence: nationwide cohort study from 1980 to 2018	Vinter, N. Cordsen, P. Johnsen, S.P. Benjamin, E.J. Frost, L. Trinquart, L.	2024	Heart	Article	3	4,36	Aalborg University Aarhus University Boston University Tufts University Tufts Medical Center

Bone Health after Exercise Alone, GLP-1 Receptor Agonist Treatment, or Combination Treatment: A Secondary Analysis of a Randomized Clinical Trial	Jensen, S.B.K. Sørensen, V. Sandsdal, R.M. Lehmann, E.W. Lundgren, J.R. Juhl, C.R. Janus, C. Ternhamar, T. Stallknecht, B.M. Holst, J.J. Jørgensen, N.R. Jensen, J.-E.B. Madsbad, S. Torekov, S.Sø.	2024	JAMA Network Open	Article	2	4,95	University of Copenhagen
Calcium Scoring Improves Clinical Management in Patients With Low Clinical Likelihood of Coronary Artery Disease	Brix, G.S. Rasmussen, L.D. Rohde, P.D. Schmidt, S.E. Nyegaard, M. Douglas, P.S. Newby, D.E. Williams, M.C. Foldyna, B. Knuuti, J. Bøttcher, M. Winther, S.	2024	JACC: Cardiovascular Imaging	Article	5	8,63	University of Turku Harvard University University of Edinburgh Massachusetts General Hospital Aalborg University Aarhus University Åbo Akademi University Duke University
Clinical Likelihood Prediction of Hemodynamically Obstructive Coronary Artery Disease in Patients With Stable Chest Pain	Rasmussen, L.D. Karim, S.R. Westra, J. Nissen, L. Dahl, J.N. Brix, G.S. Knuuti, J. Schmidt, S.E. Holm, N.R. Christiansen, E.H. Eftekhari, A. Bøttcher, M. Winther, S.	2024	JACC: Cardiovascular Imaging	Article	2	3,45	University of Turku Aalborg University Aarhus University Åbo Akademi University

Combination of diuretics for acute heart failure: a protocol for a systematic review of randomised clinical trials with network meta-analysis and trial sequential analysis	Nahiz, N. Lukoschewitz, J.D. Seven, E. El Caidi, N.O. Hove, J.D. Jakobsen, J. Grand, J.	2024	BMJ open	Article	0	0	University of Copenhagen
Computed tomography or chest X-ray to assess pulmonary congestion in dyspnoeic patients with acute heart failure	Miger, K. Overgaard Olesen, A.S. Grand, J. Fabricius-Bjerre, A. Sajadieh, A. Høst, N. Køber, N. Abild, A. Pedersen, L. Lawaetz Schultz, H.H. Torp-Pedersen, C. Ploug Boesen, M. Thune, J.J. Nielsen, O.W.	2024	ESC heart failure	Article	0	0	University of Copenhagen Aalborg University
Coronary Artery Stenosis Evaluation by Angiography-Derived FFR: Validation by Positron Emission Tomography and Invasive Thrombolysis	Westra, J. Rasmussen, L.D. Eftekhari, A. Winther, S. Karim, S.R. Johansen, J.K. Hammid, O. Søndergaard, H.M. Ejlersen, J.A. Gormsen, L.C. Mogensen, L.J.H. Bøttcher, M. Holm, N.R. Christiansen, E.H.	2023	JACC: Cardiovascular Imaging	Article	5	1,85	Linköping University Aalborg University Aarhus University

<p>Danish study of Non-Invasive Testing in Coronary Artery Disease 3 (Dan-NICAD 3): Study design of a controlled study on optimal diagnostic strategy</p>	<p>Winther, S. Dupont Rasmussen, L. Westra, J. Abdulzahra, S.R.K. Dahl, J.Nø. Gormsen, L.C. Christiansen, E.Hø. Brix, G.S. Mortensen, J. Ejlersen, J.A. Søndergaard, H.M. Hansson, N.C.L. Holm, N.R. Knudsen, L.L. Eftekhari, A. Møller, P.L. Rohde, P.D. Nyegaard, M. Böttcher, M.</p>	<p>2023</p>	<p>Open Heart</p>	<p>Article</p>	<p>3</p>	<p>1,02</p>	<p>Aalborg University Aarhus University</p>
<p>Design and analytical evaluation of an impact-based four-point bending configuration for piezoelectric energy harvesting</p>	<p>Hasani, M. Khazaei, M. Huber, J.E. Rosendahl, L. Rezanian, A.</p>	<p>2023</p>	<p>Applied Energy</p>	<p>Article</p>	<p>4</p>	<p>0,76</p>	<p>Aalborg University University of Oxford</p>
<p>Developing Cut-off Values for Low and Very Low Bone Mineral Density at the Thoracic Spine Using Quantitative Computed Tomography</p>	<p>Cheneymann, A. Therkildsen, J. Rasmussen, L.D. Thygesen, J. Isaksen, C. Hauge, E.-M. Winther, S. Böttcher, M.</p>	<p>2024</p>	<p>Calcified Tissue International</p>	<p>Article</p>	<p>0</p>	<p>0</p>	<p>Aalborg University Aarhus University</p>

Diagnostic performance of clinical likelihood models of obstructive coronary artery disease to predict myocardial perfusion defects	Rasmussen, L.D. Albertsen, L.E.B. Nissen, L. Ejlersen, J.A. Isaksen, C. Murphy, T. Søndergaard, H.M. Kirk, J. Brix, L. Gormsen, L.C. Petersen, S.E. Bøttcher, M. Winther, S.	2024	European heart journal. Cardiovascular Imaging	Article	1	1,73	Barts Health NHS Trust Aarhus University Queen Mary University of London
Dietary medium-chain fatty acids reduce food intake via the GDF15-GFRAL axis in mice	Kanta, J.M. Deisen, L. Johann, K. Holm, S. Lundsgaard, A. Lund, J. Jähnert, M. Schürmann, A. Clemmensen, C. Kiens, B. Fritzen, A.M. Kleinert, M.	2023	Molecular metabolism	Article	7	1,82	University of Copenhagen University of Potsdam German Center for Diabetes Research Brandenburg Medical School Theodor Fontane German Institute of Human Nutrition Potsdam-Rehbruecke Brandenburg University of Technology
Education level and the use of coronary computed tomography, functional testing, coronary angiography, revascularization, and outcomes—a 10-year Danish, nationwide, registry-based follow-up study	Søndergaard, M.M. Freeman, P. Kristensen, A.M.D. Chang, S.M. Nassir, K. Mortensen, M.B. Nørgaard, B.L. Maeng, M. Andersen, M.P. Søgaard, P. Taya, B. Pareek, M. Johnsen, S.P. Køber, L. Gislason, G. Torp-Pedersen, C. Kragholm, K.H.	2024	European heart journal. Quality of care & clinical outcomes	Article	0	0	Houston Methodist University of Copenhagen Aalborg University Aarhus University

Effect of a 12-week high-intensity exercise intervention: a comparison of cardiac exercise adaptations during biological disease-modifying antirheumatic drug treatment (TNF inhibitors vs IL-6 signalling inhibitors) in patients with rheumatoid arthritis - study protocol for a randomised controlled trial	Jønck, S. Adamsen, M.L. Højgaard, P. Rasmussen, I.E. Ellingsgaard, H. Lund, M.A.V. Jørgensen, P.G. Jacobsen, S. Køber, L. Vejstrup, N. Dreyer, L. Pedersen, B.K. Berg, R.M.G. Christensen, R.H.	2023	BMJ open	Article	1	0,5	University of Copenhagen Aalborg University
Effects of Dapagliflozin on Echocardiographic Measures of Cardiac Structure and Function in Patients with Chronic Kidney Disease: The DECODE-CKD Trial	Bartholdy, K.V. Johansen, N.D. Landler, N. Skaarup, K.G. Jensen, J. Bressendorff, I. Schou, M. Christensen, J. Feldt-Rasmussen, B. Vaduganathan, M. Solomon, S. Haynes, R. Persson, F. Rossing, P. Køber, L. Zannad, F. Hansen, D. Biering-Sørensen, T.	2023	Kidney360	Article	2	0,91	CHU de Nancy Harvard University University of Copenhagen Brigham and Women's Hospital Novo Nordisk Foundation University of Oxford Institut national de la santé et de la recherche médicale Université de Lorraine
Effects of Vitamin K2 and D Supplementation on Coronary Artery Disease in Men: A RCT	Hasific, S. Oevrehus, K.A. Lindholt, J.S. Mejdal, A. Dey, D. Dahl, J.S. Frandsen, N.E. Auscher, S. Lambrechtse, J. Hosbond, S. Alan, D. Urbonaviciene, G. Becker, S.	2023	JACC: Advances	Article	2	1,08	University of Southern Denmark Cedars-Sinai Medical Center Aarhus University

	Rasmussen, L.M. Diederichsen, A.P.						
Electrical energy by electrode placement for cardioversion of atrial fibrillation: a systematic review and meta-analysis	Vinter, N. Holst-Hansen, M.Z.B. Johnsen, S.P. Lip, G.Y.H. Frost, L. Trinquart, L.	2023	Open heart	Article	2	0,68	University of Liverpool Aalborg University Aarhus University Tufts Medical Center Tufts University Liverpool Heart and Chest Hospital NHS Foundation Trust Liverpool John Moores University
Electrocardiographic markers in patients with type 2 diabetes and the role of diabetes duration	Isaksen, J.L. Sivertsen, C.B. Jensen, C.Z. Graff, C. Linz, D. Ellervik, C. Jensen, M.T. Jørgensen, P.G. Kanters, J.K.	2024	Journal of Electrocardiology	Article	0	0	Harvard University University of Copenhagen Boston Children's Hospital University of California at San Francisco Novo Nordisk Foundation Aalborg University
Eligibility for and Preventive Potential of Semaglutide in Overweight and Obese Patients With Myocardial Infarction	Hansen, M.K. Olesen, K.K.W. Gyldenkerne, C. Thrane, P.G. Stødkilde-Jørgensen, N. Mortensen, M.B. Maeng, M.	2024	Journal of the American College of Cardiology	Letter	1	4,37	Johns Hopkins University Aarhus University
Exercise electrocardiography for pre-test assessment of the likelihood of coronary artery disease	Rasmussen, L.D. Schmidt, S.E. Knuuti, J. Newby, D.E. Singh, T. Nieman, K. Galema, T.W. Vrints, C. Bøttcher, M. Winther, S.	2023	Heart (British Cardiac Society)	Article	3	1,02	University of Turku University of Edinburgh British Heart Foundation University of Antwerp Aalborg University Stanford University Aarhus University Erasmus University Rotterdam

External validation of novel clinical likelihood models to predict obstructive coronary artery disease and prognosis	Rasmussen, L.D. Williams, M.C. Newby, D.E. Dahl, J.N. Schmidt, S.E. Bøttcher, M. Winther, S.	2023	Open heart	Article	2	0,68	University of Edinburgh Aalborg University
Harnessing cardiac power: Heart kinetic motion analysis for energy harvesters	Khazaei, M. Hasani, M. Riahi, S. Rosendahl, L. Rezaei, A.	2024	Biomedical Signal Processing and Control	Article	2	2,63	Aalborg University
High Plasma Levels of Soluble Lectin-like Oxidized Low-Density Lipoprotein Receptor-1 Are Associated With Inflammation and Cardiometabolic Risk Profiles in Pediatric Overweight and Obesity	Stinson, S.E. Jonsson, A.E. Andersen, M.K. Lund, M.A.V. Holm, L.A. Fonvig, C.E. Huang, Y. Stankevič, E. Juel, H.B. Ångquist, L. Sørensen, T.I.A. Ongstad, E.L. Gaddipati, R. Grimsby, J. Rhodes, C.J. Pedersen, O. Christiansen, M. Holm, J.-C. Hansen, T.	2023	Journal of the American Heart Association	Article	8	2,72	Statens Serum Institut University of Copenhagen University of Southern Denmark AstraZeneca Regeneron Pharmaceuticals, Inc.
Impact of Absolute Myocardial Blood Flow Quantification on the Diagnostic Performance of PET-Based Perfusion Scans Using ⁸² Rubidium	Rasmussen, L.D. Gormsen, L.C. Ejlersen, J.A. Karim, S.R. Westra, J. Knudsen, L.L. Kirk, J. Søndergaard, H.M. Mortensen, J. Knuuti, J. Christiansen, E.H. Eftekhari, A.	2024	Circulation. Cardiovascular imaging	Article	3	5,18	University of Turku Aalborg University Aarhus University Åbo Akademi University

	Bøttcher, M. Winther, S.						
In-depth phosphoproteomic profiling of the insulin signaling response in heart tissue and cardiomyocytes unveils canonical and specialized regulation	Achter, J.S. Vega, E.T. Sorrentino, A. Kahnert, K. Galsgaard, K.D. Hernandez-Varas, P. Wierer, M. Holst, J.J. Wojtaszewski, J.F.P. Mills, R.W. Kjørbsted, R. Lundby, A.	2024	Cardiovascular Diabetology	Article	0	0	University of Copenhagen
Influenza and cardiovascular disease pathophysiology: strings attached	Skaarup, K.G. Modin, D. Nielsen, L. Jensen, J.U.S. Biering-Sørensen, T.	2023	European heart journal supplements : journal of the European Society of Cardiology	Article	12	4,08	University of Copenhagen
Link between myocardial deformation phenotyping using longitudinal and circumferential strain and risk of incident heart failure and cardiovascular death	Skaarup, K.G. Lassen, M.C.Hø. Johansen, N.D. Sengeløv, M. Olsen, F.J. Jensen, G.B. Schnohr, P. Shah, A. Claggett, B.L. Solomon, S.D. Møgelvang, R. Biering-Sørensen, T.	2023	European Heart Journal - Cardiovascular Imaging	Article	5	1,85	Harvard University University of Copenhagen University of Southern Denmark Brigham and Women's Hospital Beth Israel Deaconess Medical Center

Lipoprotein(a) and Risks of Peripheral Artery Disease, Abdominal Aortic Aneurysm, and Major Adverse Limb Events	Thomas, P.E. Vedel-Krogh, S. Nielsen, S.F. Nordestgaard, B.G. Kamstrup, P.R.	2023	Journal of the American College of Cardiology	Article	17	5,78	University of Copenhagen
Lipoprotein(a) is linked to atherothrombosis and aortic valve stenosis independent of C-reactive protein	Thomas, P.E. Vedel-Krogh, S. Kamstrup, P.R. Nordestgaard, B.G.	2023	European heart journal	Article	26	8,84	University of Copenhagen
Lower versus higher blood pressure targets in comatose patients resuscitated from out-of-hospital cardiac arrest—Protocol for a secondary Bayesian analysis of the box trial	Grand, J. Wiberg, S. Kjaergaard, J. Hassager, C. Schmidt, H. Møller, J.E. Mølstrøm, S. Granholm, A.	2024	Acta anaesthesiologica Scandinavica	Article	0	0	University of Copenhagen University of Southern Denmark
Mortality Trends After Primary Percutaneous Coronary Intervention for ST-Segment Elevation Myocardial Infarction	Thrane, P.G. Olesen, K.K.W. Thim, T. Gyldenkerne, C. Mortensen, M.B. Kristensen, S.D. Maeng, M.	2023	Journal of the American College of Cardiology	Article	14	4,76	Aarhus University
Myocardial Blood Flow by Magnetic Resonance in Patients With Suspected Coronary Stenosis: Comparison to PET and Invasive Physiology	Rasmussen, L.D. Murphy, T. Milidonis, X. Eftekhari, A. Karim, S.R. Westra, J. Dahl, J.Nø. Isaksen, C. Brix, L. Ejlersen, J.A. Nyegaard, M.	2024	Circulation. Cardiovascular imaging	Article	1	1,73	Barts Health NHS Trust Aalborg University Aarhus University Queen Mary University of London King's College London

	Johansen, J.K. Søndergaard, H.M. Mortensen, J. Gormsen, L.C. Christiansen, E.H. Chiribiri, A. Petersen, S.E. Bøttcher, M. Winther, S.						
Non-HDL cholesterol and residual risk of cardiovascular events in patients with ischemic heart disease and well-controlled LDL cholesterol: a cohort study	Hansen, M.K. Mortensen, M.B. Warnakula Olesen, K.K. Thrane, P.G. Maeng, M.	2024	The Lancet regional health. Europe	Article	8	14,78	Johns Hopkins University Aarhus University
Optimal diagnostic approach for using CT-derived quantitative flow ratio in patients with stenosis on coronary computed tomography angiography	Dahl, J.N. Rasmussen, L.D. Ding, D. Tu, S. Westra, J. Wijns, W. Christiansen, E.H. Eftekhari, A. Li, G. Winther, S. Bøttcher, M.	2024	Journal of cardiovascular computed tomography	Article	0	0	Aalborg University University of Galway Aarhus University Shanghai Jiao Tong University
Prognostic importance of ischemic heart disease for patients with atrial fibrillation undergoing catheter ablation	Espersen, C. Modin, D. Johansen, N.D. Janstrup, K.H. Johannessen, A. Hansen, J. Eskesen, K. Iversen, A.Z. Worck, R.H. Ruwald, M.H. Hansen, M.L. Gislason, G.H. San José Estépar, R. Marcus, G.M. Biering-Sørensen, T.	2024	Heart rhythm	Article	0	0	Harvard University University of Copenhagen University of California at San Francisco Brigham and Women's Hospital Novo Nordisk Foundation

Proprotein convertase subtilisin/kexin type 9 targets megalin in the kidney proximal tubule and aggravates proteinuria in nephrotic syndrome	Skeby, C.K. Hummelgaard, S. Gustafsen, C. Petrillo, F. Frederiksen, K.P. Olsen, D. Kristensen, T. Ivarsen, P. Madsen, P. Christensen, E.I. Nielsen, R. Birn, H. Glerup, S. Weyer, K.	2023	Kidney international	Article	5	2,1	Aarhus University
Risk of new-onset atrial fibrillation—does blood glucose matter?	Vinter, N. Frost, L.	2023	Journal of internal medicine	Editorial	0	0	Aalborg University Aarhus University
Serial assessments of cardiac output and mixed venous oxygen saturation in comatose patients after out-of-hospital cardiac arrest	Grand, J. Hassager, C. Schmidt, H. Mølstrøm, S. Nyholm, B. Høigaard, H.F. Dahl, J.S. Meyer, M. Beske, R.P. Obling, L. Kjaergaard, J. Møller, J.E.	2023	Critical Care	Article	9	3,02	University of Copenhagen University of Southern Denmark
Serial troponin-I and long-term outcomes in subjects with suspected acute coronary syndrome	Pareek, M. Kristensen, A.M.D. Vaduganathan, M. Byrne, C. Biering-Sørensen, T. Højbjerg Lassen, M.C. Johansen, N.D. Skaarup, K.G. Rosberg, V. Pallisgaard, J.L. Mortensen, M.B. Maeng,	2024	European journal of preventive cardiology	Article	2	3,31	Harvard University University of Copenhagen Massachusetts General Hospital Northwell Health System Brigham and Women's Hospital Aalborg University Aarhus University Icahn School of Medicine at Mount Sinai

	M. Polcwiartek, C.B. Frangeskos, J. McCarthy, C.P. Bonde, A.N. Lee, C.J.-Y. Fosbøl, E.L. Køber, L. Olsen, N.T. Gislason, G.H. Torp-Pedersen, C. Bhatt, D.L. Kragholm, K.H.						
Serial troponin-T and long-term outcomes in suspected acute coronary syndrome	Pareek, M. Kragholm, K.H. Kristensen, A.M.D. Vaduganathan, M. Pallisgaard, J.L. Byrne, C. Biering-Sørensen, T. Lee, C.J.-Y. Bonde, A.N. Mortensen, M.B. Maeng, M. Fosbøl, E.L. Køber, L. Olsen, N.T. Gislason, G.H. Bhatt, D.L. Torp-Pedersen, C.	2023	European Heart Journal	Article	10	3,4	Harvard University University of Copenhagen Brigham and Women's Hospital Aalborg University Aarhus University
Severe mental illness: cardiovascular risk assessment and management	Polcwiartek, C. O'Gallagher, K. Friedman, D.J. Correll, C.U. Solmi, M. Jensen, S.E. Nielsen, R.E.	2024	European Heart Journal	Review	4	3,68	Charité – Universitätsmedizin Berlin Northwell Health System British Heart Foundation Hofstra University Aalborg University University of Ottawa King's College London Zucker Hillside Hospital King's College Hospital NHS Foundation Trust Duke University

Sex differences in symptoms of anxiety, depression, post-traumatic stress disorder, and cognitive function among survivors of out-of-hospital cardiac arrest	Grand, J. Fuglsbjerg, C. Borregaard, B. Wagner, M.K. Kragh, A.R. Bekker-Jensen, D. Mikkelsen, A.D. Møller, J.E. Glud, H. Hassager, C. Kikkenborg, S. Kjaergaard, J.	2023	European heart journal. Acute cardiovascular care	Article	3	1,49	University of Copenhagen University of Southern Denmark
Spectral library search for improved TMTpro labelled peptide assignment in human plasma proteomics	Palstrøm, N.B. Campbell, A.J. Lindegaard, C.A. Cakar, S. Matthiesen, R. Beck, H.C.	2024	Proteomics	Article	1	1,25	University of Southern Denmark NOVA University Lisbon
Targeted left ventricular lead positioning to the site of latest activation in cardiac resynchronization therapy: A systematic review and meta-Analysis	Fyenbo, D.B. Bjerre, H.L. Frausing, M.H.J.P. Stephansen, C. Sommer, A. Borgquist, R. Bakos, Z. Glikson, M. Milman, A. Beinart, R. Kockova, R. Sedlacek, K. Wichterle, D. Saba, S. Jain, S. Shalaby, A. Kronborg, M.B. Nielsen, J.C.	2023	Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology	Article	1	0,32	Tel Aviv University Institute for Clinical and Experimental Medicine Lund University Charles University Sheba Medical Center at Tel Hashomer University of Pittsburgh Na Homolce Hospital Aalborg University Aarhus University Hebrew University of Jerusalem Shaare Zedek Medical Center
Targeting PCSK9 to tackle cardiovascular disease	Hummelgaard, S. Vilstrup, J.P. Gustafsen, C. Glerup, S. Weyer, K.	2023	Pharmacology & therapeutics	Review	19	3,25	Aarhus University

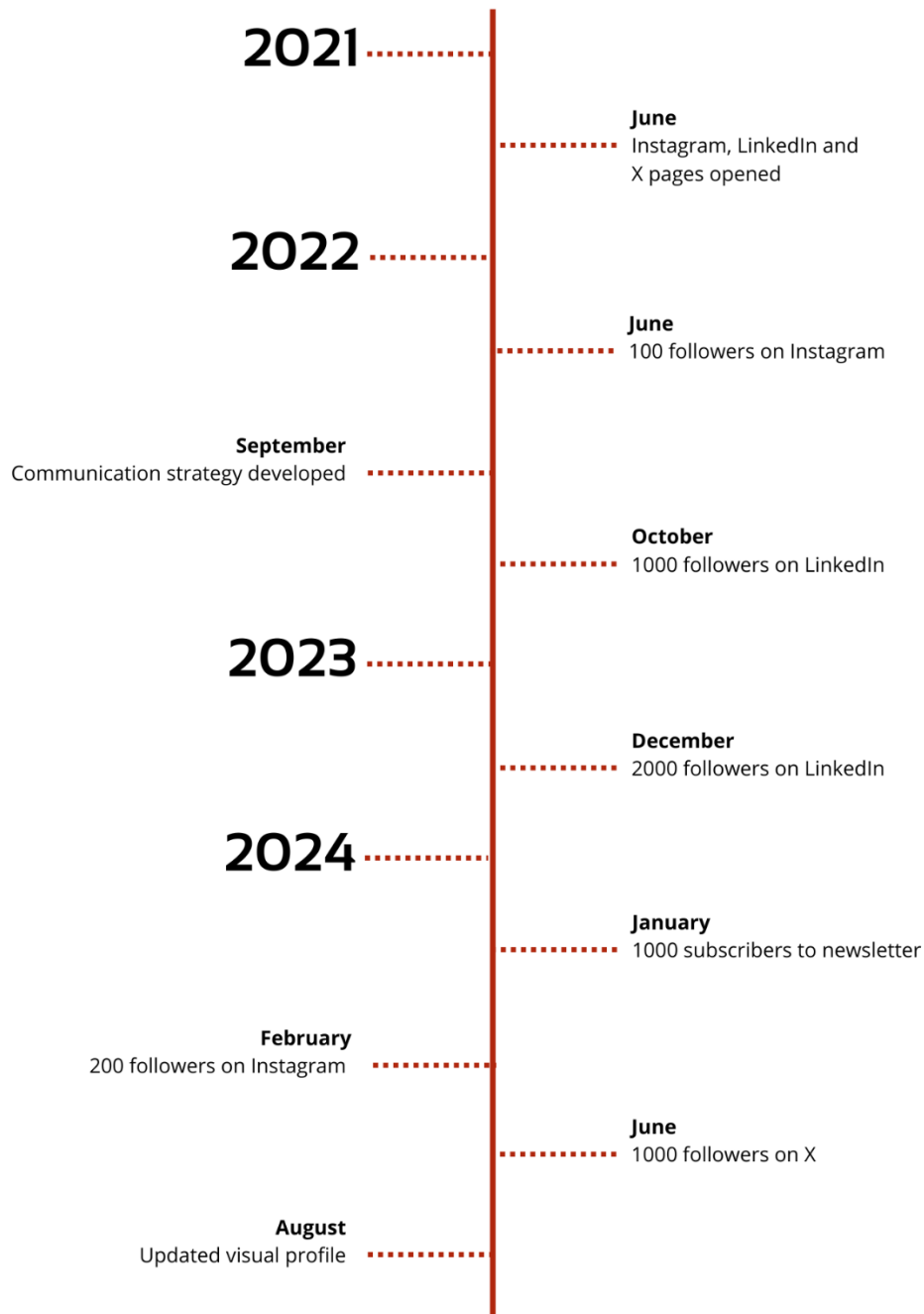
Temporal trends in lifetime risks of atrial fibrillation and its complications between 2000 and 2022: Danish, nationwide, population based cohort study	Vinter, N. Cordsen, P. Johnsen, S.Ø.P. Staerk, L. Benjamin, E.J. Frost, L. Trinquart, L.	2024	BMJ	Article	8	19,81	University of Copenhagen Aalborg University Aarhus University Boston University Tufts Medical Center Tufts University
Temporal trends in low-dose aspirin therapy for primary prevention of cardiovascular disease in European adults with and without diabetes	Kristensen, A.M.D. Pareek, M. Kragholm, K.H. Torp-Pedersen, C. McEvoy, J.W. Prescott, E.B.	2023	European journal of preventive cardiology	Article	4	1,37	University of Copenhagen Aalborg University University of Galway
The acute effects of furosemide in acute heart failure assessed by remote dielectric sensing. A protocol	El Caidi, N.O. Lukoschewitz, J.D. Nielsen, O.W. Hove, J. Seven, E. Dixen, U. Grund, F. Petersen, M. Foss, N.B. Grand, J.	2024	Danish medical journal	Article	0	0	University of Copenhagen
The Danish Atrial Fibrillation Registry: A Multidisciplinary National Pragmatic Initiative for Monitoring and Supporting Quality of Care Based on Data Retrieved from Administrative Registries	Frost, L. Joensen, A.M. Dam-Schmidt, U. Qvist, I. Brinck, M. Brandes, A. Davidsen, U. Pedersen, O.D. Damgaard, D. Mølgaard, I. Bedsted, R. Schlünsen, A.D.M. Chousa, M.G. Andersen, J. Pedersen, A.R. Johnsen, S.P. Vinter, N.	2023	Clinical epidemiology	Article	1	0,35	University of Copenhagen University of Southern Denmark Aalborg University Aarhus University Sjællands Universitetshospital

The influence of insulin-related genetic variants on fetal growth, fetal blood flow, and placental weight in a prospective pregnancy cohort	Reim, P.K. Engelbrechtsen, L. Gybel-Brask, D. Schnurr, T.M. Kelstrup, L. Høgdall, E.V. Hansen, T.	2023	Scientific Reports	Article	0	0	University of Copenhagen
The relative vaccine effectiveness of high-dose vs standard-dose influenza vaccines in preventing hospitalization and mortality: A meta-analysis of evidence from randomized trials	Skaarup, K.G. Lassen, M.C.H. Modin, D. Johansen, N.D. Loiacono, M.M. Harris, R.C. Lee, J.K.H. Dufournet, M. Vardeny, O. Peikert, A. Claggett, B. Solomon, S.D. Jensen, J.U.S. Biering-Sørensen, T.	2024	Journal of Infection	Article	1	2,04	University of Minnesota Twin Cities Department of Veterans Affairs Harvard University University of Copenhagen Sanofi-Aventis Brigham and Women's Hospital Novo Nordisk Foundation
Ticagrelor or prasugrel vs. clopidogrel in patients with atrial fibrillation undergoing percutaneous coronary intervention for myocardial infarction	Godtfredsen, S.J. Kragholm, K.H. Kristensen, A.M.D. Bekfani, T. Sørensen, R. Sessa, M. Torp-Pedersen, C. Bhatt, D.L. Pareek, M.	2024	European Heart Journal Open	Article	3	6,55	University of Copenhagen Aalborg University Otto von Guericke University Magdeburg Icahn School of Medicine at Mount Sinai
Vasodilators for acute heart failure—A protocol for a systematic review of randomized clinical trials with meta-analysis and Trial Sequential Analysis	Grand, J. Nielsen, O.W. Møller, J.E. Hassager, C. Jakobsen, J.C.	2022	NEJM evidence	Review	2	0,28	University of Copenhagen University of Southern Denmark

<p>Weight-loss maintenance is accompanied by interconnected alterations in circulating FGF21-adiponectin-leptin and bioactive sphingolipids</p>	<p>Fiorenza, M. Checa, A. Sandsdal, R.M. Jensen, S.B.K. Juhl, C.R. Noer, M.H. Bogh, N.P. Lundgren, J.R. Janus, C. Stallknecht, B.M. Holst, J.J. Madsbad, S. Wheelock, C.E. Torekov, S.S.</p>	<p>2024</p>	<p>Cell reports. Medicine</p>	<p>Article</p>	<p>1</p>	<p>1,12</p>	<p>University of Copenhagen Karolinska Institutet</p>
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Communication milestones

Milestones of communication and outreach activities 2021-2024



Overview of social media followers and DCA Newsletter subscribers

Number of followers/subscribers of DCA social media and newsletter 2021-2024

	Followers/subscribers as per 31 December 2021	Followers/subscribers as per 31 December 2022	Followers/subscribers as per 31 December 2023	Followers/subscribers as per 11 November 2024
LinkedIn	315	902	1815	2782
X	145	495	844	1046
Instagram	86	111	159	270
Newsletter	480	766	1139	1525

Social media follower location data (round up in decimals)

Countries	3430 followers in total
Denmark	52%
Scandinavia exclusive Denmark	17%
Mid- and Southern Europe	9%
United Kingdom	6%
Central America	5%
Middle East	4%
North America	3%
Australia	2%
Africa	1%
South America	1%

Example of how DCA has been a benefit for the career

Case story of Danish Cardiovascular Academy Outreach and Communication

“Cross-sectorial collaboration was highly valued during my PhD”

Through the study of animal models for her PhD, Sandra Hummelgaard examined what could be done to restore the capacity of the megalin receptor in the kidneys. PCSK9 inhibition can reduce proteinuria and potentially help patients with chronic kidney disease in the future.



Research in animal models can inform how to help human patients

On the 29th of February, Sandra Hummelgaard handed in her PhD dissertation from Aarhus University on PCSK9 as a new target to mitigate kidney disease. An afternoon in March, we sat down with Sandra to learn more about her project and experience with conducting her PhD:

“My team and I found that the cardiovascular risk protein PCSK9 binds to and induces downregulation of the megalin receptor in the proximal tubule of the kidneys. Megalin is an endocytic receptor that reabsorbs glomerular filtered proteins in the proximal tubule of the kidney to avoid loss of proteins in the urine.”

Proteinuria, which refers to loss of proteins in the urine, is a clinical hallmark of kidney disease that is associated with a worse disease progression. Of particular interest to this project, PCSK9 levels are increased in a patient population of kidney disease, namely in patients with nephrotic syndrome. Therefore, Sandra and her collaborators investigated PCSK9 inhibition in a rodent model of nephrotic syndrome, hypothesising that PCSK9 inhibition reduced proteinuria by restoring megalin protein levels in the kidney proximal tubule.

“Our findings showed that blockage of the PCSK9:megalín interaction using a clinically available PCSK9 inhibitor reduced proteinuria and kidney injury markers in a mouse model of nephrotic syndrome, suggesting that patients with nephrotic syndrome may benefit from PCSK9 inhibitors both by lowering plasma cholesterol levels but also by reducing proteinuria”, Sandra elaborates.

Sandra’s professional network played an important role ending up as a PhD student. Her main supervisor, Associate Professor Kathrin Weyer, offered the students at Molecular Medicine at Aarhus University the opportunity to volunteer in her research group – an opportunity that Sandra took, and it has now resulted in her writing her BA, MA-thesis and a PhD with Kathrin Weyer as her supervisor.

“A strong and diverse network has been a huge benefit to me”

An interdisciplinary network is very important according to Sandra and it is one of the aspects that she most liked about her supervisors for her PhD:

“My supervisors formed a very strong and knowledgeable team. They covered different aspects of the process. I had one supervisor who was at the university, another at a hospital, yet another at Novo Nordisk A/S, and the last is an Associate Professor who has experience from many startups. They all brought important experiences and insights to my project.”

The opportunity to connect with other PhD students was also a highlight for Sandra:

“It was inspiring to meet people who were at a similar level in their career. Writing a PhD was a great experience, but it was also intense and full of ups and downs. Having a network through DCAcademy where people had similar research interests was beneficial to me.”

This is also why Sandra really enjoyed having peer mentoring group sessions where the DCAcademy grant recipients could meet across research interests, geography, level in their career and help each other with advice or support.

In the future, these results may help patients with kidney disease:

We asked Sandra about the future, both for her and for the research she was a part of with her PhD project. Sandra recently began working at Novo Nordisk A/S in their cardiorenal department as an in vivo research scientist, so she is staying in the field.

When talking about the future of the research area, Sandra has a clear ambition for what her research may contribute with:

“The aspiration, and the goal, is that we can use these results to further investigate the use of PCSK9 inhibitors as a treatment to lower proteinuria and slow down disease progression in patients with kidney disease.”

It is her hope that future research will be conducted in this area, since the research that Sandra did for her PhD indicates that it could make a difference for human patients.

About the project:

- Began: January 2022
- Submitted: February 2024
- Supervisors:
 - Kathrin Weyer, Associate Professor at Department of Biomedicine at Aarhus University
 - Henrik Birn, Nephrologist and Professor at Department of Clinical Medicine at Aarhus University
 - Jeppe Kirchhoff, Senior Research Scientist at Novo Nordisk A/S
 - Simon Glerup, Associate Professor at Department of Biomedicine at Aarhus University and CSO at Draupnir Bio
- Support and Funding: DCAcademy and the Augustinus Foundation.

<https://dcacademy.dk/display/artikel/cross-sectorial-collaboration-was-highly-valued-during-my-phd-1>

Example of content

Example of content which is the result of a collaboration



Danish Cardiovascular Academy
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Symposium on ageing and cardiovascular disease 🌐

Is it possible to slow down the ageing process? Can we reduce the risk of cardiovascular disease? 🌐

These questions will be addressed in two symposia in June. Four professors will examine these interesting topics and update us on what research is indicating could be some of the answers 🌐

Read more and sign up here: <https://shorturl.at/X0kUN>

Vis oversættelse



Symposium for læger, sygeplejersker og øvrige sundhedsprofessionelle

Kan intervention med Q10 og Selen nedsætte aldningens hastighed, forekomsten af hjertekarsygdomme og endda give os bedre livskvalitet?

TILMELD DIG HER

København 25.06.24
Mærskartnet

Aarhus 26.06.24
Aarhus Universitetshospital

SYMPOSIETS TALERE:



Professor, dr.med.
Anne Astrup



Professor
Urban Alehagen



Professor
Steen Larsen



Professor, dr.med.
Henrik Silleen



Læs mere om symposiet og tilmeld dig på www.pharmanord.dk/symposium2024 eller scan her:

Deltagelse er gratis, men af hensyn til mad og drikke er tilmelding bindende. Tilmelding senest 8 dage før.



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