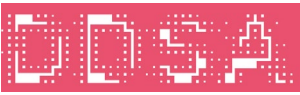# CALL FOR APPLICATIONS

Cross-Academy Scholarships
Danish Cardiovascular Academy
&
Danish Data Science Academy

Deadline 7th February 2024

Content

THE CROSS ACADEMY PhD PROGRAMME

Danish Data Science Academy (DDSA) and the Danish Cardiovascular Academy (DCA) invite applications for up to five **2/3 co-funded PhD scholarships of DKK 1,100,000** to visionary young researchers who want to bridge the Danish data science environment with the Danish cardiovascular research environment.

Applications can be in any field overarching data science and cardiovascular research. Co-supervision is a requirement. You must have an agreement with a principal supervisor within data science employed at a Danish university, as well as a co-supervisor within cardiovascular research affiliated with a Danish research institution.

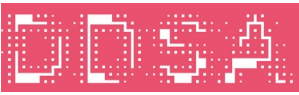## Deadline for application is Friday 7th February 2024 at 12:00

For questions related to the data science requirements to the project and/or the affiliation of principal supervisor, you may contact the DDSA Secretariat at: secretariat@ddsa.dk

For questions related to the cardiovascular requirements to the project and/or affiliation of co-supervisor, you may contact the DCAcademy Secretariat at etb@biomed.au.dk

Please note that DDSA and the Danish Diabetes and Endocrine Academy (DDEA) also invite for applications for up to five 2/3 co-funded PhD scholarships of DKK 1,100,000 with the aim to bridge the Danish data science environment with the Danish diabetes and classical endocrine research environment. You can apply for these here. Please note that you cannot apply for the DDSA-DCA Cross-Academy PhD scholarship and the DDSA-DDEA Cross-Academy scholarship.

The grant must be activated within six months after receiving the grant notification letter (or by further agreement with the DCA or DDEA).

Please note that you and your supervisors must become members of Danish Cardiovascular Academy before you can submit an application. Sign up at www.DCAcademy.dk

OBJECTIVE

The DDSA-DCA Cross-Academy PhD Scholarships aim to bridge the Danish data science environment with the Danish cardiovascular research environment. Applications must be cross-disciplinary between fields of data science and cardiovascular research.

Data science in this context is a multidisciplinary approach that combines elements from mathematics, statistics, artificial intelligence, and computer science to analyze and extract meaningful scientific insights from large amounts of data. Data science thus goes beyond classical and established statistical methods. Scientific data is typically stemming from a specific scientific domain, and advanced analysis of these data can provide new scientific insights into said domain and therefore data science as a discipline is synergistic to most scientific disciplines.

Application can be within any area of cardiovascular research/ concerning improvement of the understanding of disease mechanisms and improvement of disease prevention, diagnostics, treatment, or rehabilitation.

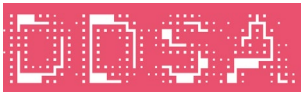With the DDSA-DCA Cross-Academy PhD scholarships, we further aim to:

- Promote interdisciplinary and cross-sectoral research
- Create viable networks and collaborations across disciplines and sectors
- Position Denmark at an international level within data science in cardiovascular research

ELIGIBILITY

The Candidate

You must have a master's degree from a Danish university or an equivalent degree from a foreign university by the time of application[i].

You must have completed your master's degree within five years at the time of application (leave of absence and "hoveduddannelse" excluded).

You must have research experience. An MSc. can be considered as having research experience from the master's degree thesis. An MD is expected to have research experience beyond the medical training (e.g. publications, submitted manuscripts, pre-graduate research year).

Co-supervision is a requirement. You must have an agreement with a principal supervisor within the field of data science employed at a Danish university, as well as a co-supervisor within cardiovascular research affiliated with a Danish research institution.

You must have a high-level of proficiency in English[ii].

You must not already be enrolled as a PhD student by the time of receiving the grant notification letter (June 2024). This means that if you are already enrolled as a PhD student you cannot apply for or obtain funding, and we reserve the right to check with the relevant institutionS whether you are already a PhD student.

The Supervisors

The principal supervisor must be within the field of data science and be employed at a Danish university[iii].
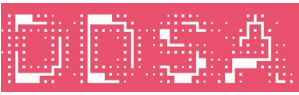
The co-supervisor must be within the field of cardiovascular research and affiliated with a Danish research institution.

Both supervisors are expected to play a highly active role in the training and supervision of the PhD student.

Supervisors cannot apply for PhD scholarships, only candidates may apply.

The Research Project

Your project must span both data science and cardiovascular research and must be aligned with the research scope of the DDSA/DCA funder, The Novo Nordisk Foundation; https://novonordiskfonden.dk

THE APPLICATION

Applications must be in English and submitted through the online application system.

www.efond.dk/dca

In the application system you must provide relevant contact information, project title, short project description in English, and upload the main application document.

The main application document must consist of the following documents, merged into a single PDF-file in the order stated below

For readability purposes, all documents must be prepared using standard fonts, font size 11-12, and line spacing between 1.15 and 1.5.
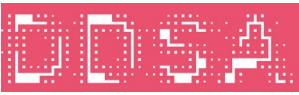
1: Project description including:
(max. 4 pages, including illustrations but excluding literature cited)

- Aim and specific objectives
- Background, significance and state-of-the-art
- Preliminary studies/results (if applicable)
- Hypothesis
- Research questions and methods
- Risk management strategy ("plan B")
- Outcome and potential impact
- Literature cited

2: Data availability statement including;
(optional max. half a page)

- It is a prerequisite that the proposed research is conducted in agreement with The Danish Code of Conduct for Research Integrity. Furthermore, if the specific project contains elements of potential ethical concern, please enclose a statement describing

these as well as a presentation of measures to ensure responsible research conduct. If the research requires approval from ethical committees, this should be stipulated along the expected approval processing time.

3: Description of project and candidate synergy including:
(max. 2 pages)

- Description of which parts of the project you will perform independently and how you will address the research questions
- Description of which parts of the project other research team members will contribute to/be responsible for
- Description of how the project and you support interdisciplinary collaboration across the fields of cardiovascular research and data science, including a description of how the described interdisciplinary collaboration will result in synergy between the collaborators and bridge the two research fields
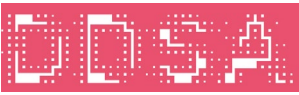
4: Your CV including
(max. 2 pages)

- Your educational background
- Additional qualifications and experiences you may have, for instance: studies abroad, pregraduate research, data science and programming experience, honours, experience with working in a research environment, participation in research conferences/ meetings/ presentations, teaching experiences, and publications (incl. the status of the paper: published/accepted/under review/preprint, etc.)
- Other documentation

5: Copies of your master's degree and bachelor's degree certificates including full transcripts of grades.

- If you have not yet finished your master's degree, please enclose a statement from your master's thesis supervisor including the expected date for handing in the thesis, as well as expectation of a successful outcome.

6: CVs of both the principal supervisor and co-supervisor
(max. two pages each)

7: Statement of Support from Principal Supervisor including:

- Why they supports the candidate and the project
- Confirmation and description of the research environment where the PhD project will be carried out
- If available, signed confirmation from principal supervisor and /or head of department concerning expected or already granted funding of the remaining 1/3 of the scholarship (including 1-year of tuition fee to the university)

8: Other relevant documents

EVALUATION PROCEDURE AND SELECTION PROCESS

After submitting your application, you will receive a receipt of your application by email – if you do not receive this email, please contact the Danish Cardiovascular administration at etb@biomed.au.dk
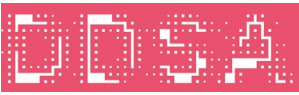
Application procedure

The Danish Cardiovascular Academy secretariat will process all incoming applications. Applications not fulfilling the eligibility criteria and/or technical requirements will not be considered.

All eligible applications will be forwarded to the Danish Cardiovascular Academy Grant Committee and the DDSA FEC Sub-Committee.

The selected candidate will be informed about the decision by June 2024.

DCAcademy and DDSA does not provide feedback on rejected applications.

Applicant:

- Is the applicant appropriately trained and well suited to carry out this work?
- Does the applicant have relevant research experience?
- Has the applicant expressed high motivation and commitment during the master studies?

Project:

- Significance: Does the study address an important problem?
- Approach: Are the conceptual framework, design, methods, and analyses adequately developed, well integrated, and appropriate to the objectives of the project?
- Innovation: Does the project employ novel concepts, approaches or methods?
- Feasibility: Are the three years suitable for completion of the project?

Research environment:

- Does the scientific environment in which the work will be performed contribute to the probability of success/increase the feasibility of the project?
- Can the supervisors and collaborators sufficiently contribute to the completion of the PhD study?
- Interdisciplinarity and cross-sectoral focus:
- Does the application promote interdisciplinary and cross-sectoral research and describe how the synergy of research disciplines contributes to achieving the research goals of the project?
- Does the application contribute to viable networks and collaborations across disciplines and sectors?
- Internationalisation: An international aspect, if relevant, is evaluated positively.
- Does the application contribute to position Denmark at an international level within data science in cardiovascular research?

TERMS OF EMPLOYMENT

The principal supervisor is expected to assist the candidate when submitting their application for enrolment at the PhD School.

Applicants must be aware of the fact that specific requirements can vary from one university to another e.g. required research experience, publication of articles in peer-reviewed journals, English skills.

Place of enrolment and employment

Enrollment must take place at a university in Denmark. Employment is full-time and will last for three years unless an agreement with the Danish Cardiovascular Academy is made. Employment will take place at the research institution (Danish university or hospital, or a private life sciences company in Denmark) where the PhD project will be carried out.

Enrollment and employment should be within six months after receiving the grant notification letter. If this is not achieved, the grant will be retracted. Upon enrollment, the enrollment letter must be submitted to the DCAcademy.

If the PhD project includes close research collaborations between two universities (one Danish university and one university abroad), it is possible to obtain a joint or double PhD degree (according to the rules in force and Danish legislation), but enrollment must take place at one of the Danish universities (home university). For further information, the PhD candidate should contact the institution where she/he will be enrolled.

Terms of employment are according to the agreement between the Danish Confederation of Professional Associations and the Ministry of Finance.
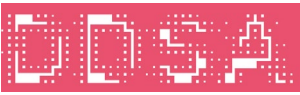
PhD programme

The PhD programme must be completed in accordance with The Ministerial Order on the PhD Programme at the Universities, Ministry of Higher Education and Science and the regulations and guidelines defined by the university where employment will take place.
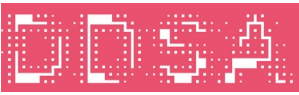
Funding

DDSA/DCAcademy will fund the PhD scholarship up to an amount of DKK 1,100,000 covering tuition fee and the salary of the PhD student for two years during the three-year PhD project period. DDSA/DCAcademy does not cover overhead or operating expenses.

Full financing for three years is a prerequisite for being enrolled as a PhD student at a Danish university. Accordingly, DDSA/DCAcademy grant 2/3 PhD scholarship, provided that funding for the remaining 1/3 funding (including tuition fee to the university) is assured. If a submitted application does not include documentation of the remaining 1/3 funding in terms of a grant

letter or the like (e.g. signed guarantee from principal supervisor and/or head of department), the 2/3 PhD scholarship will be paid out when the DDSA/DCAcademy Secretariat has received documentation of the remaining 1/3 funding at the latest six months after receiving the grant notification letter. Otherwise, the PhD scholarship grant will be withdrawn.

iIf the exam is not yet passed, the applicant should enclose a statement from the supervisor of the Master thesis confirming when the thesis will be handed in and when the exam will take place. The Master's degree certificate must be forwarded to the Danish Cardiovascular Academy Executive Management Team no later than six months after receiving the grant notification letter. If we have not received your Master's degree certificate six months after receiving the grant notification letter or if you do not pass the Master's exam, the scholarship will be withdrawn.

ii The Danish Cardiovascular Academy and DDSA expects high-level proficiency in English oral as well as written. Please be aware of the fact, that specific requirements can vary from one university to another with regards to English language skills. We refer to the individual PhD schools of the Danish university where you will apply for enrolment.

iii *The main supervisor* must be employed at the faculty at which the student applies for enrolment, and he/she must conduct research as an associate professor or professor within the subject studied by the PhD student. The main supervisor has overall responsibility for ensuring compliance with all formalities relating to the PhD programme. Please note that a main supervisor can only be main supervisor on one application for a Danish Cardiovascular Academy PhD scholarship per application round.