

UNIVERSITY OF COPENHAGEN  
FACULTY OF HEALTH AND MEDICAL SCIENCES



# ANNUAL REPORT 2022 GRADUATE SCHOOL OF HEALTH AND MEDICAL SCIENCES



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## Introduction

As new Head of Graduate School from 1 December 2022, I have the pleasure of presenting the 2022 annual report for the Graduate School of Health and Medical Sciences at the University of Copenhagen. This report presents selected statistics of our PhD training program.

In 2022, 543 new PhD students were enrolled at the Graduate School, while 452 students successfully defended their theses and were awarded the PhD degree. The continuous increase in the intake of PhD students at our Graduate School is impressive, and the number of defences delayed due to the pandemic has fortunately caught up. Additionally, travel activity is increasing, both with external assessors attending defences in Denmark, and with our PhD students visiting other research institutions resulting in the formation of new research networks which is fundamental for science.

### Training of supervisors

A PhD is a research training programme. However, not only do the PhD students benefit from training, supervisors should be educated as well. Therefore, all new supervisors are required to attend three different training courses; 1) A brief online module outlining the PhD rules; 2) a three-day interactive course prioritizing skills, networking and feedback among supervisors; and 3) an afternoon seminar dedicated to 'Responsible Conduct of Research for Academic Staff'. The evaluation indicates that the participants completed all courses with great satisfaction. Thus, if you are new as supervisor, you have excellent supervision training waiting for you. Moreover, even very experienced supervisors ask for training in supervising and motivating young scientists, which is why courses for experienced super-

visors are now also offered from the Graduate School. Our supervisor training is in full alignment with what other leading European universities are implementing these years, recognizing that both supervisor and PhD student require proper guidance for successful collaboration.

### Training in Responsible Conduct of Research pays off

We are very pleased to report that the Graduate School has had no pending cases of PhD theses in the Danish Committee on Research Misconduct as of 1 January 2023. The Graduate School continued the focus on Responsible Conduct of Research in 2022. At the end of 2022, 655 students had participated in the Responsible Conduct of Research 2 course introduced in 2020 and 264 students had their PhD thesis prescreened for plagiarism before submission. We are proud of the results that these initiatives have provided and will strive to continue the high standard of responsible research being naturally integrated into the PhD training.

### Redefining the role of our PhD coordinators

The mental well-being of each of our 1,870 PhD students is of utmost importance to the Graduate School. We have been providing coaching sessions, stress-handling courses, to support students on their doctoral journey. In addition, we are now working to redefine the role of our PhD coordinators to make them more active participators in the social lives at the workplaces of our students. While all these initiatives are important, it is the broader network and sense of community, which will ultimately help ensure each student's well-being. Therefore, onboarding and research community are part of our working plan for this year to come.



### New Vice Dean for Research

In 2022, the Faculty of Health and Medical Sciences got a new Vice-Dean for research Hans Bräuner, who until December last year was Head of Graduate School. I would like to take this opportunity to extend a heartfelt thanks to Hans Bräuner. His hard work and dedication to research and PhD training have been instrumental in the advancement of the Graduate School. I am eager to follow in his footsteps and continue our collaboration. I am also truly grateful to the Graduate School's stakeholders – from supervisors to students, the administration, the PhD Study Board and the research programme leaders for their commitment to the school.

A handwritten signature in blue ink that reads "Rikke Buhl".

Rikke Buhl, Professor  
Head of Graduate School of Health and Medical Sciences

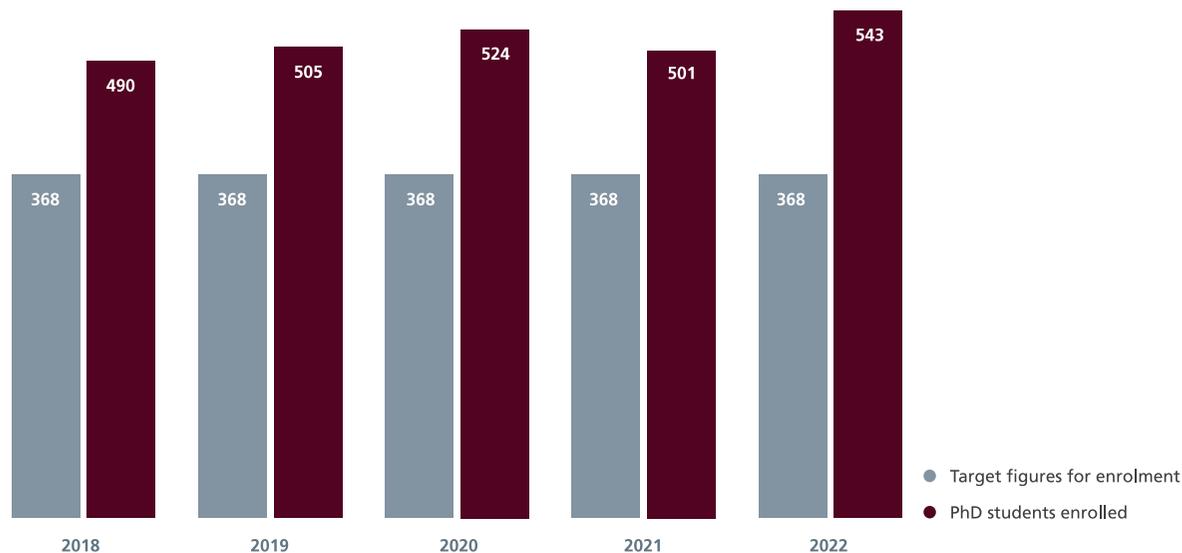
June 2023



## PhD students enrolled during 2022 and target figures for enrolment

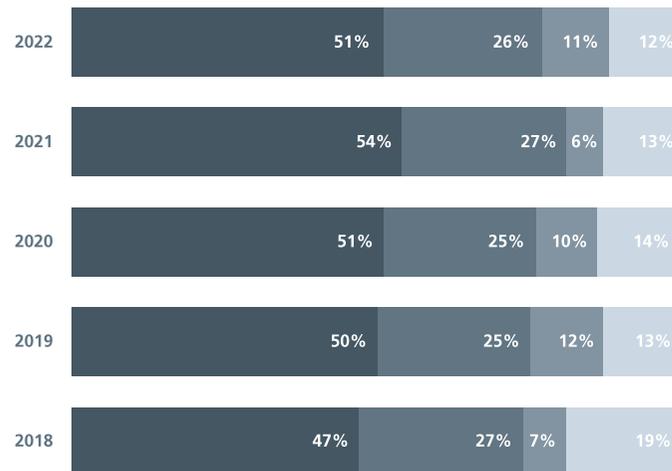
A total of 543 PhD students were enrolled in 2022. The target was 368 new enrolments. The Faculty of Health and Medical Sciences has a target figure for PhD enrolments per year. The target figure is agreed with the management of the University of Copenhagen.

 **543**  
New PhD students  
were enrolled in 2022



## PhD students enrolled by place of employment

This figure shows the distribution (in pct.) by place of employment in four overall categories: Hospitals, departments and research centres at the Faculty of Health and Medical Sciences, and other places of employment. The latter include PhD students in the industry, international living cost stipends, self-employed or institutions abroad. The information is provided by the PhD students at the time of enrolment and is not validated.



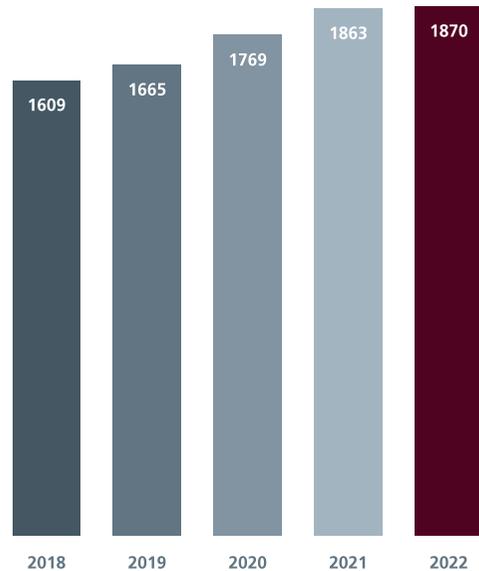
- Hospitals in Region Zealand and Capital Region of Denmark
- Departments at SUND
- Research centres at SUND
- Other (e.g. industry, international scholarships, universities abroad and other research institutions)



## Total number of enrolled PhD students by the end of the year

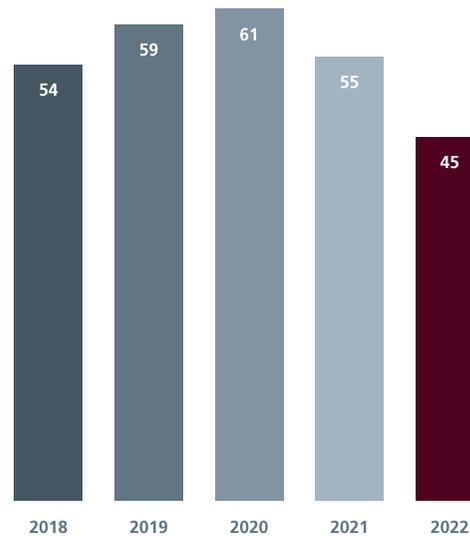
By 31 December 2022, the Graduate School of Health and Medical Sciences had a total of 1,870 enrolled PhD students, making it the largest in Denmark.

The number includes PhD students on leave.



## Number of industrial PhD students by the end of the year

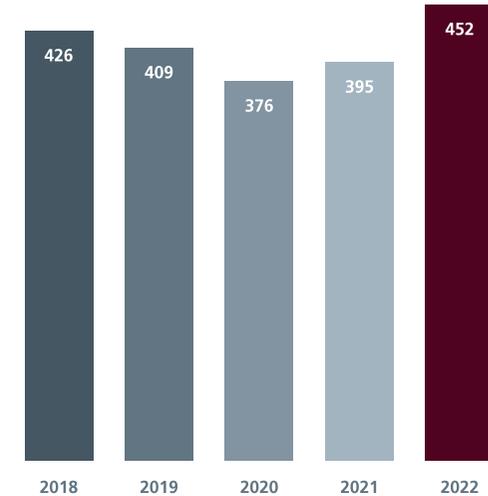
The Graduate School of Health and Medical Sciences had 45 industrial PhD students by the end of 2022. An industrial PhD project is a three-year industrially focused PhD project where the PhD student is employed at a company and enrolled at a University. Read more about the programme: [innovationsfonden.dk](https://www.innovationsfonden.dk)



## Number of PhD degrees awarded

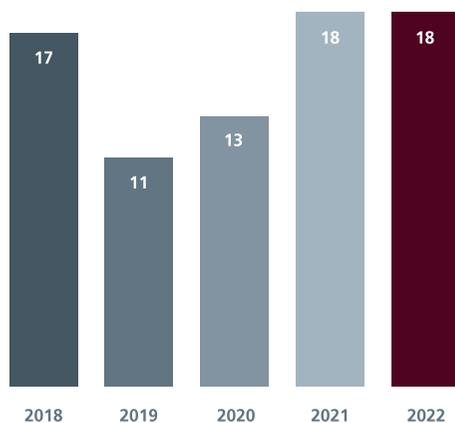
A total of 452 PhD degrees were awarded in 2022.

The number includes PhD degrees awarded without enrolment (also known as §15.2). The PhD degree is awarded by the University when the PhD thesis is positively reviewed by an assessment committee and afterwards successfully defended at a public defence.



## PhD without enrolment (§15, 2)

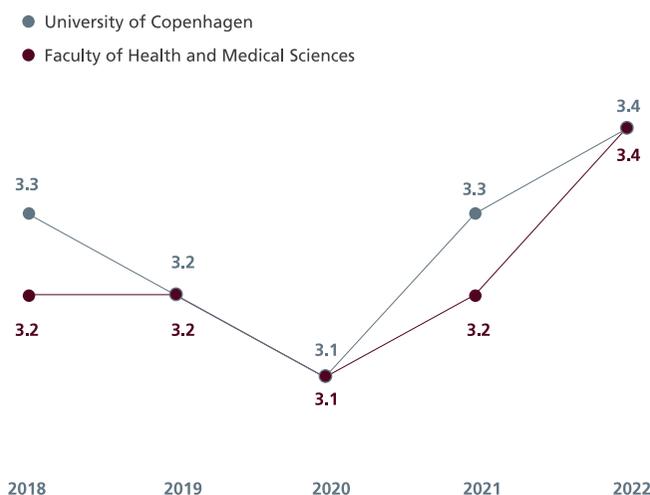
It is possible to submit a PhD thesis without enrolment at the Graduate School of Health and Medical Sciences. This requires qualifications that are comparable to the qualifications obtained through a PhD programme as well as a university representative that acts as supervisor. These numbers show how many PhD degrees were awarded without enrolment in 2018-2022.



## Duration of PhD study (years)

In 2022 the average length of the PhD study at the Faculty of Health and Medical Sciences was 3.4 years.

The average is calculated as the time from the enrolment date to the date of submission of the thesis. Leave periods are excluded and PhD students on flexible models (3+5 and 4+4) are excluded.

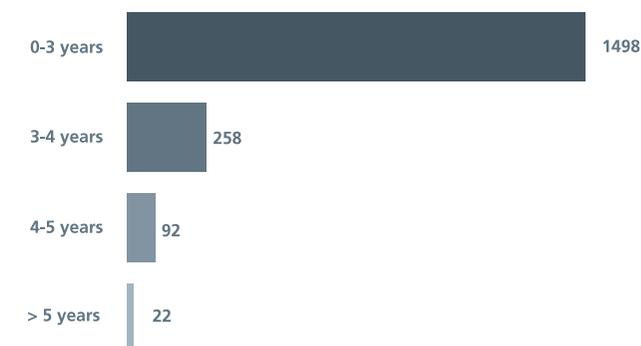


## Current enrolment period for enrolled PhD students by the end of 2022

The prescribed period of study for the Danish PhD programme is three years, which corresponds to 180 ECTS. Most PhD students submit their PhD thesis within the expected enrolment period of three years, however some PhD students take leave of absence or apply for an extension of their PhD programme. Examples may be parental leave, illness, other professional activities or project-related issues. PhD students on flexible models (3+5 and 4+4) are excluded.

# 1,498

PhD students had a current enrolment period of 0-3 years by the end of 2022



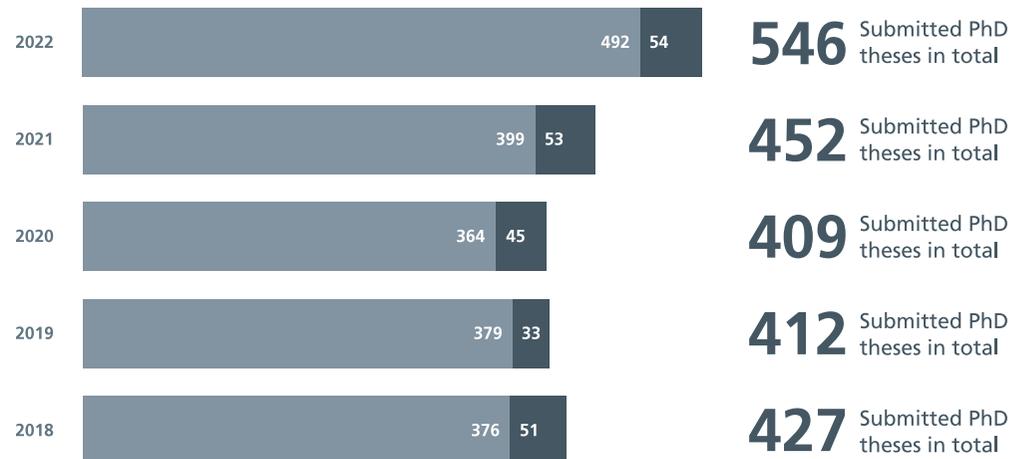
## Number of submitted PhD theses and resubmissions

When a PhD student submits the thesis, an assessment committee recommends to the University as to whether the PhD thesis can proceed to oral defence. The majority of submitted PhD theses proceed straight to defence after the preliminary assessment. A small number of resubmissions occur where the PhD student is given the opportunity to resubmit the thesis in a revised version for assessment and possibly be recommended for oral defence.

This figure shows PhD theses that were submitted for the first time each year. Resubmissions may have occurred in the same year or the year(s) after. Those PhD theses are still included in the year, where they first were submitted.

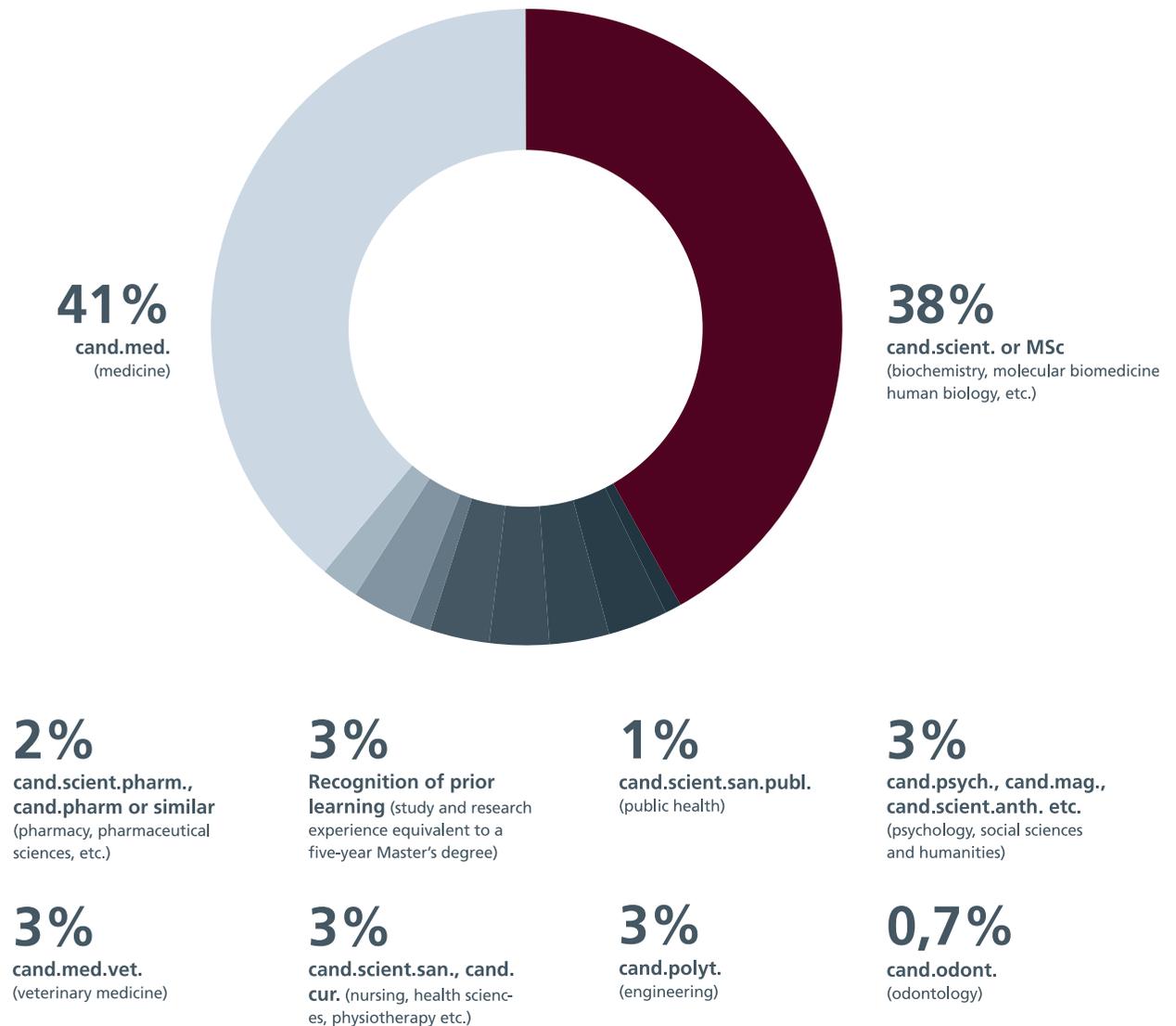


- Submitted PhD theses (no resubmissions)
- Resubmitted PhD theses



## Qualifying degree for PhD students enrolled in 2022

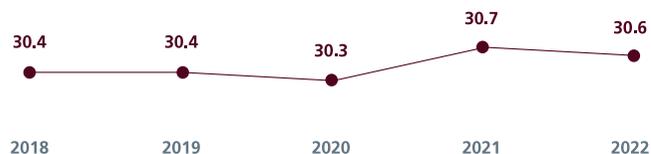
Most newly enrolled PhD students held a qualifying degree in either medicine (cand.med.) or scientific areas such as molecular biomedicine, human biology or biochemistry (cand.scient or MSc). These numbers account for 79%. The remaining 21% held qualifying degrees in other scientific areas, such as odontology, pharmacy, veterinary medicine, engineering, public health and social sciences.



## Gender, age and nationality of PhD students

### Average age at time of enrolment

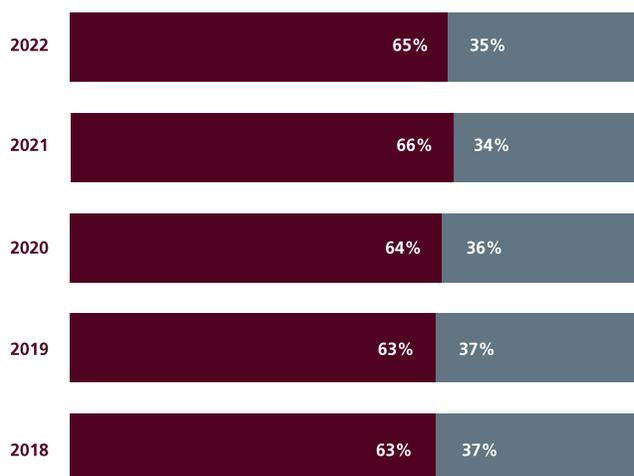
The average age at the time of enrolment was 30.6 years in 2022. Only limited variation occurs in these numbers over the last few years.



### Gender

The gender distribution of the 543 new PhD students enrolled in 2022 is 65% female and 35% male. Only slight variation occurs in these numbers in the last five years. The data in this figure is based on information from the Danish Central Person Register (CPR – Det Centrale Personregister).

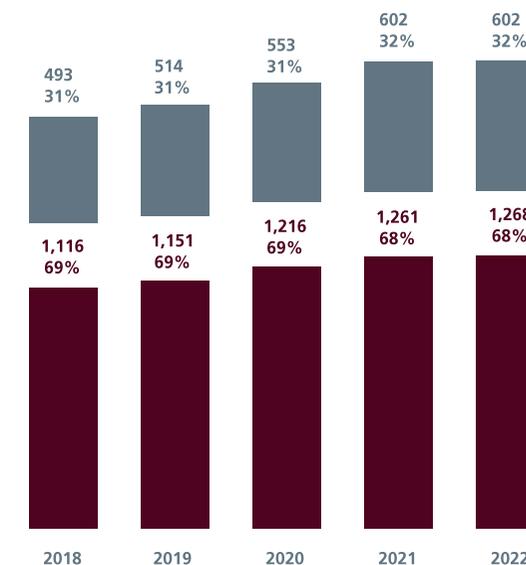
● Female ● Male



### Nationality

The number of international PhD students is increasing, although the majority of PhD students are Danish. The Graduate School of Health and Medical Sciences had a total of 602 international PhD students by the end of 2022 which is the same as in 2021.

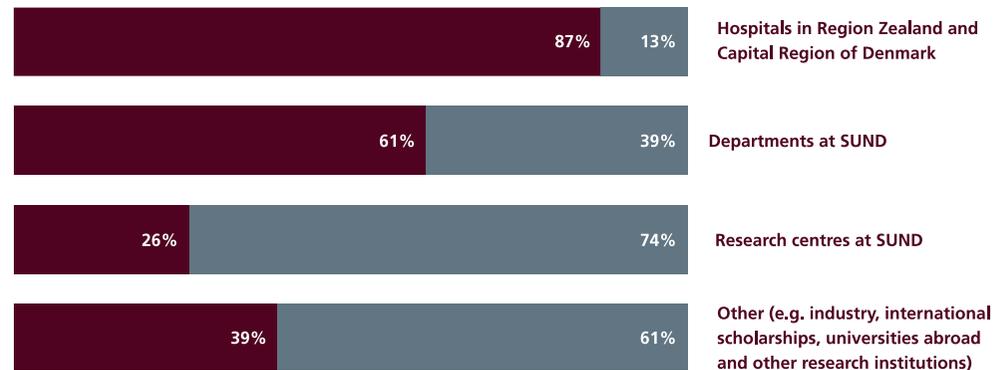
● Danish PhD students ● International PhD students



## Nationality of PhD students by place of employment

This figure shows the quite large variation of internationalisation depending on the place of employment for PhD students. The figure covers the total number of PhD students enrolled by the end of 2022 (1,870 PhD students). Employment data is divided into four overall categories: Hospitals, departments and research centres at the Faculty of Health and Medical Sciences, and other places of employment. The latter include PhD students in the industry, international living cost stipends, self-employed or institutions abroad. Employment information is provided by PhD students themselves at the time of enrolment and is not validated.

- Danish PhD students
- International PhD students



## Number of enrolled PhD students by graduate programme

The graduate programmes are a key organisational and quality framework for the PhD programme at the Faculty of Health and Medical Sciences. All PhD students are affiliated with a graduate programme, which offers a variety of courses, seminars and other academic activities. By the end of 2022, the Graduate School of Health and Medical Sciences had 22 graduate programmes.

The sum of affiliated PhD students by graduate programmes listed here (1,866) does not equal the total number of enrolled PhD students (1,870). This is due to 4 PhD students in the former graduate programmes Clinical Research and Veterinary Clinical Sciences, that are still affiliated with these programmes. The graduate programme in Clinical Research was phased out in 2018 while the graduate programme in Veterinary Clinical Sciences was phased out in 2020.

# 22

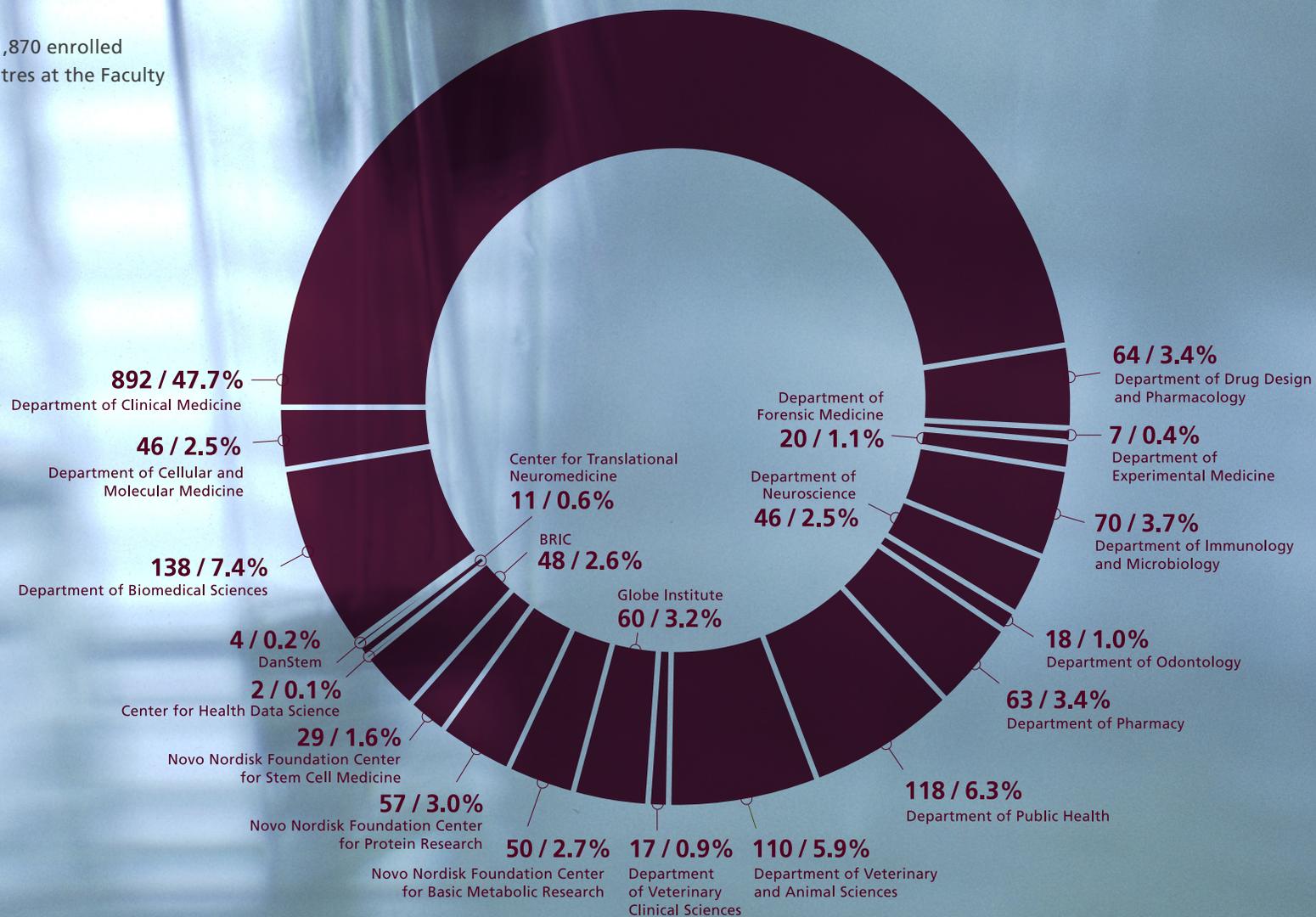
Different graduate programmes were available to PhD students by the end of 2022.

Graduate programme	Head of graduate programme by the end of 2022	Number of PhD students
Airways, Anesthesiology and Skin	Professor Charlotte Suppli Ulrik	58
Basic and Clinical Research in Musculoskeletal Sciences	Professor Michael Kjær	78
Basic Metabolic Research	Professor Torben Hansen	150
Biostatistics and Bioinformatics	Professor Torben Martinussen	52
Cardiovascular Research	Professor Thomas Jespersen	130
Cellular and Genetic Medicine	Professor Lene Juel Rasmussen	48
Clinical Cancer Research	Professor Inge-Marie Svane	101
Herd and Population Oriented Research	Associate Professor Charlotte Amdi Williams	37
Immunology and Infectious Diseases	Professor Jan Pravsgaard Christensen	142
In Vivo Pharmacology and Experimental Animals	Professor Jens Lykkesfeldt	26
Life Cycle in Medicine	Professor Anders Juul	79
Life, Earth and Environmental Sciences	Associate Professor Enrico Cappellini	58
Medical and Molecular Imaging	Professor Andreas Kjær	48
Medicine, Culture and Society	Associate Professor Karin Tybjerg	48
Molecular Mechanisms of Disease	Professor Shohreh Issazadeh-Navikas	144
Molecular Microbiology and Infection	Associate Professor Rikke Heidemann Olsen	34
Neuroscience	Professor Nanna MacAulay	156
Oral Sciences, Forensic Medicine and Bioanthropology	Associate Professor Sys Stybe Johansen	34
Pharmaceutical Sciences	Professor Jukka Rantanen	133
Psychiatry	Professor Merete Nordentoft	54
Public Health and Epidemiology	Professor Naja Hulvej Rod	167
Surgical Sciences	Professor Ismail Gögenur	89
<b>Total</b>		<b>1866</b>



## Number of enrolled PhD students by departments and centres by the end of 2022

This figure shows the distribution of the 1,870 enrolled PhD students by the departments and centres at the Faculty of Health and Medical Sciences.



## Number of new enrolments during 2022 by departments and centres

This figure shows the distribution of new PhD students enrolled during 2022 by the departments and centres at the Faculty of Health and Medical Sciences.

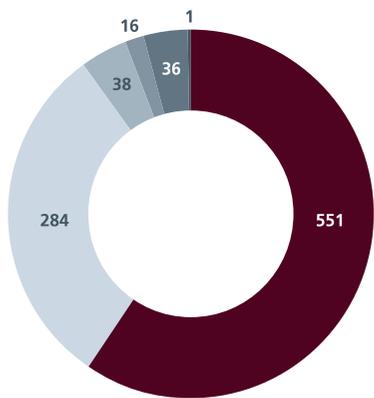
<b>17/3.1%</b>	BRIC	<b>9/1.7%</b>	Department of Neuroscience
<b>1/0.2%</b>	Center for Health Data Science	<b>6/1.1%</b>	Department of Odontology
<b>0/0.0%</b>	Center for Translational Neuromedicine	<b>23/4.2%</b>	Department of Pharmacy
<b>0/0.0%</b>	DanStem	<b>37/6.8%</b>	Department of Public Health
<b>53/9.8%</b>	Department of Biomedical Sciences	<b>24/4.4%</b>	Department of Veterinary and Animal Sciences
<b>14/2.6%</b>	Department of Cellular and Molecular Medicine	<b>3/0.6%</b>	Department of Veterinary Clinical Sciences
<b>256/47.1%</b>	Department of Clinical Medicine	<b>19/3.5%</b>	GLOBE Institute
<b>16/2.9%</b>	Department of Drug Design and Pharmacology	<b>13/2.4%</b>	Novo Nordisk Foundation Center for Basic Metabolic Res
<b>1/0.2%</b>	Department of Experimental Medicine	<b>19/3.5%</b>	Novo Nordisk Foundation Center for Protein Research
<b>4/0.7%</b>	Department of Forensic Medicine	<b>12/2.2%</b>	Novo Nordisk Foundation Center for Stem Cell Medicine
<b>16/2.9%</b>	Department of Immunology and Microbiology		



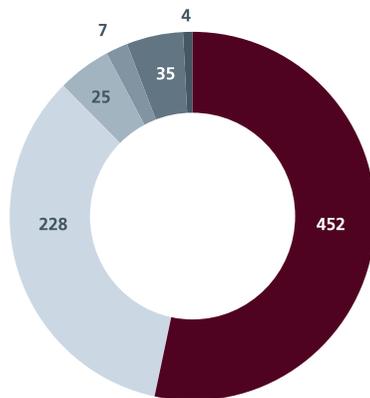
## Key PhD statistics for the University of Copenhagen

In these figures we present a comparison among faculties at the University of Copenhagen on key numbers: PhD enrolments and PhD degrees awarded during the year, as well as the number of enrolled PhD students by the end of the year. The numbers are submitted to Statistics Denmark by the University of Copenhagen. Thus, the numbers differ slightly from the numbers shown on p. 4-6, due to different calculation time and method.

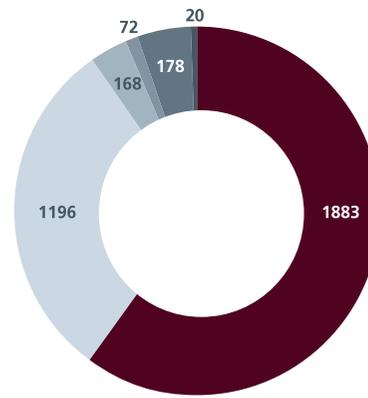
- Faculty of Health and Medical Sciences
- Faculty of Science
- Faculty of Humanities
- Faculty of Law
- Faculty of Social Sciences
- Faculty of Theology



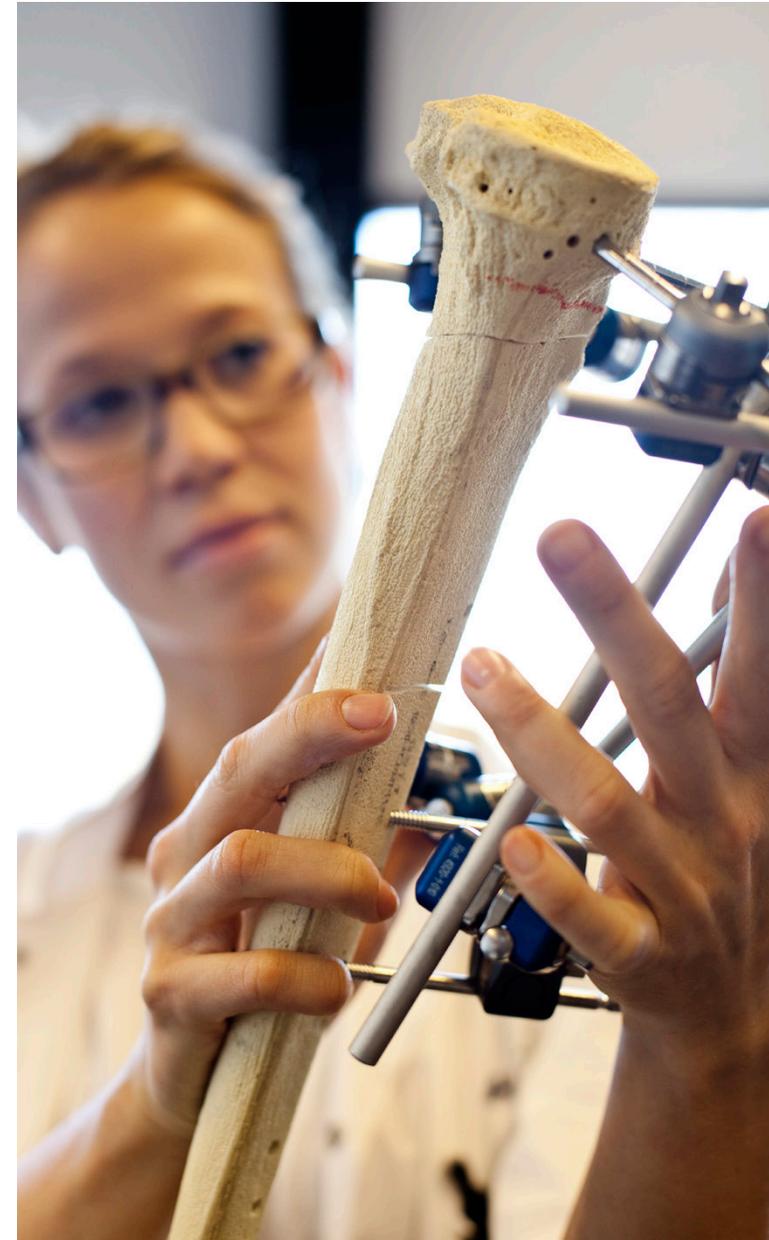
Number of PhD students enrolled during 2022



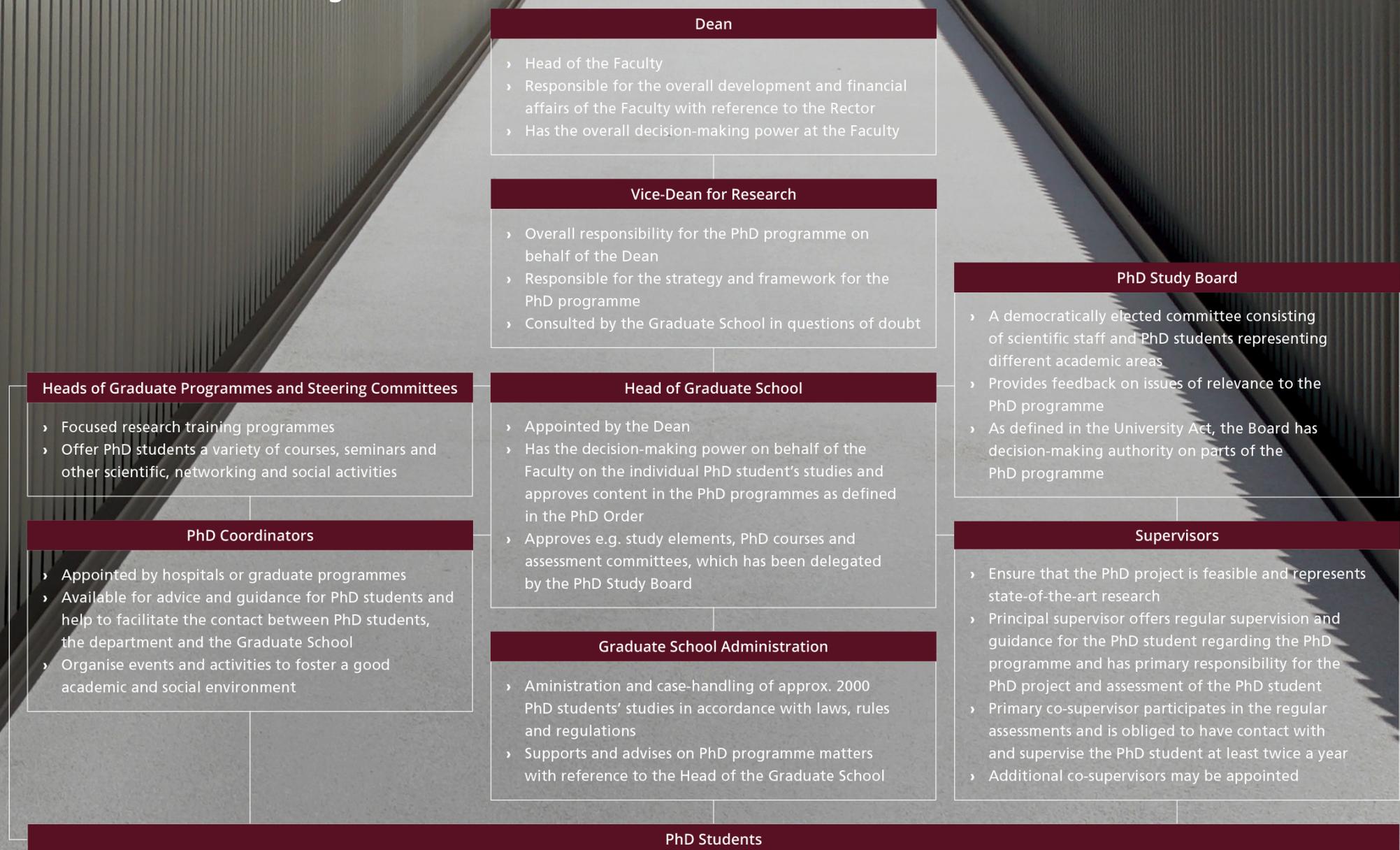
Number of awarded PhD degrees in 2022



Total number of enrolled PhD students by the end of 2022



# The Graduate School organisation





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