

UNIVERSITY OF COPENHAGEN
FACULTY OF HEALTH AND MEDICAL SCIENCES

ANNUAL REPORT 2021 GRADUATE SCHOOL OF HEALTH AND MEDICAL SCIENCES



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Introduction

As Head of Graduate School, I have the pleasure of presenting the 2021 annual report for the Graduate School of Health and Medical Sciences at the University of Copenhagen. The Graduate School is the largest in Denmark with 1863 enrolled PhD students across a broad range of research fields. In this report, selected PhD statistics for 2021 are presented. In addition, I take the opportunity to highlight selected activities from the past year while also looking towards what 2022 will bring.

In 2021, 501 new PhD students were enrolled at the Graduate School. This indicates that the PhD programme at SUND continues to attract many PhD students. 391 PhD degrees were awarded, which is approximately the same level as in 2020. This most likely reflects the delays caused by COVID-19 and I expect that once the pandemic wears off the number of defences will rise again.

General meetings and PhD students' well-being

In March, the Graduate School hosted two online meetings for PhD students regarding the COVID-19 situation at the time. More than 200 PhD students participated and based on feedback from these meetings the Graduate School has launched several new initiatives to support PhD students' well-being including a new coaching program. More than 100 PhD students have been invited for coaching sessions and many find that it increases their well-being and makes them more capable of managing their PhD studies.

Another new initiative is the introduction of workshops on how to deal with stress. At these workshops, PhD students are introduced to various tools on how to deal

with stress and keep up motivation. Several Graduate Programmes have also organized activities with a focus on well-being during the past year.

I am happy to announce that due to high demand and positive evaluations these initiatives will continue past COVID-19.

NorDoc Summer School 2021

In August, the Graduate School hosted the annual NorDoc Summer School themed *Innovation, entrepreneurship and career development*. The summer school consisted of a two-day conference and nine courses for PhD students from Nordic countries. Due to the pandemic, the summer school was held online. However, it was a great success with more than 300 participants, international panellists, inspiring talks and workshops.

Another important NorDoc milestone was the establishment of NorDoc course database, which is a joint online course database that allows PhD students to easily find relevant scientific courses, often free of charge, at other NorDoc member institutions.

Responsible conduct of research

The course *Responsible Conduct of Research 2: Getting Ready for Submission of Manuscripts and Thesis* has now run for a year with more than 300 PhD students participating. I am happy to notice that it has received very positive evaluations and preliminary assessments suggest that the course works as intended and reduce inappropriate text duplication in PhD theses.



PhD supervision courses

I also want to mention that the two PhD supervision courses, which were introduced in the autumn of 2020, have been very well received and evaluated throughout the past 1.5 years. More than 550 supervisors at SUND have completed the online course and about 120 have

completed the physical 3-day course. In 2022 we plan to introduce a new 1.5-day PhD supervision course aimed at experienced PhD supervisors which will focus on taking supervision to the next level.

Thank you

Finally, I want to thank Vice-Dean for Research, Professor Mogens Holst Nissen, the Graduate Programmes, the PhD Study Board, supervisors, PhD students and other stakeholders for your great contributions to the Graduate School in 2021. I look forward to continuing to work closely with all of you in 2022.

A handwritten signature in blue ink that reads "Hans Bräuner-Osborne". The signature is fluid and cursive.

Hans Bräuner-Osborne, Professor
Head of Graduate School of Health and Medical Sciences

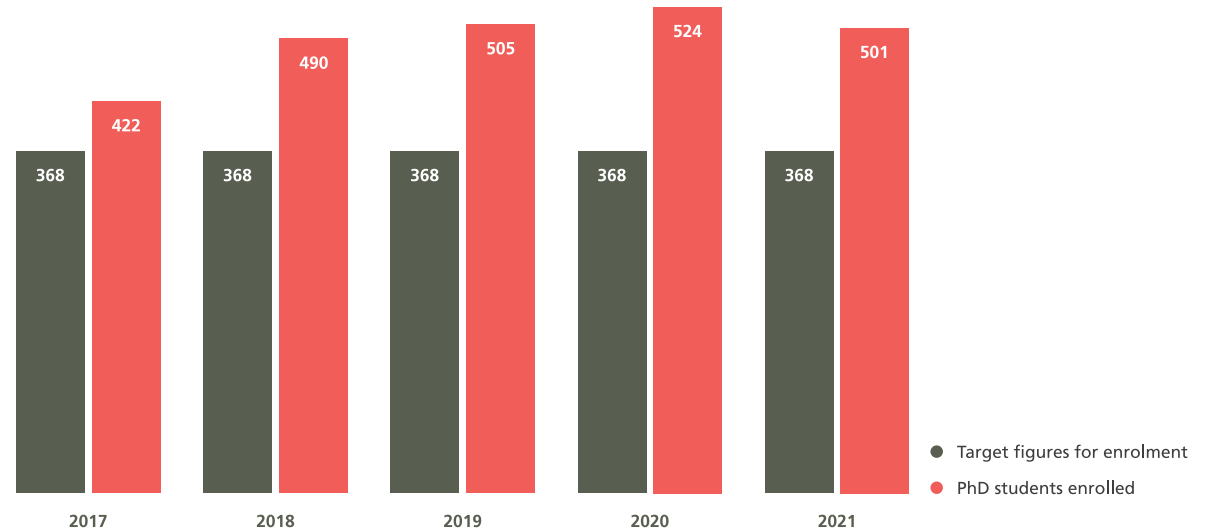
April 2022



PhD students enrolled and target figures for enrolment

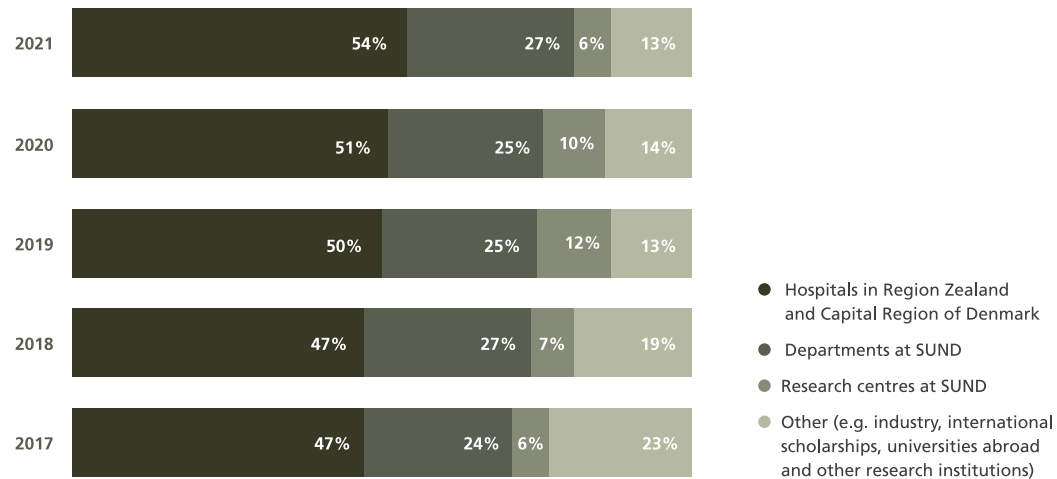
A total of 501 PhD students were enrolled in 2021. The target was 368 new enrolments. The Faculty of Health and Medical Sciences has a target figure for PhD enrolments per year. The target figure is agreed with the management of the University of Copenhagen.

 **501**
New PhD students
were enrolled in 2021



PhD students enrolled by place of employment

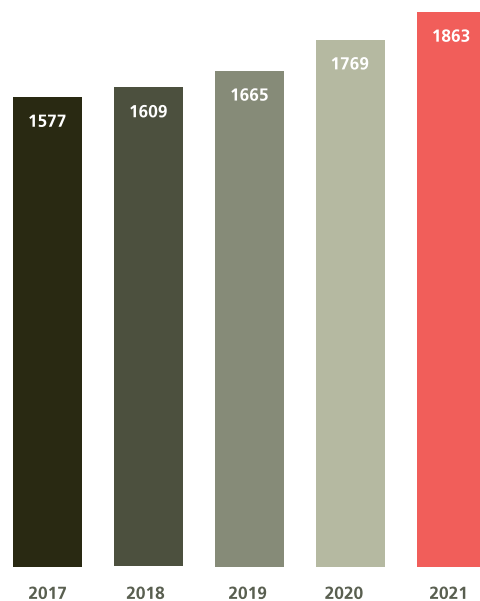
This figure shows the distribution of PhD students by place of employment in four overall categories: Hospitals, departments and research centres at the Faculty of Health and Medical Sciences, and other places of employment. The latter include PhD students in the industry, international living cost stipends,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



Total number of enrolled PhD students

By 31 December 2021, the Graduate School of Health and Medical Sciences had a total of 1,863 enrolled PhD students, making it the largest in Denmark.

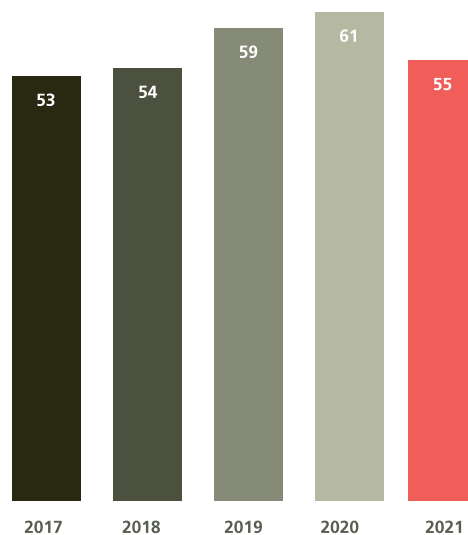
The number includes PhD students on leave.



Number of industrial PhD students

The Graduate School of Health and Medical Sciences had 55 industrial PhD students by the end of 2021.

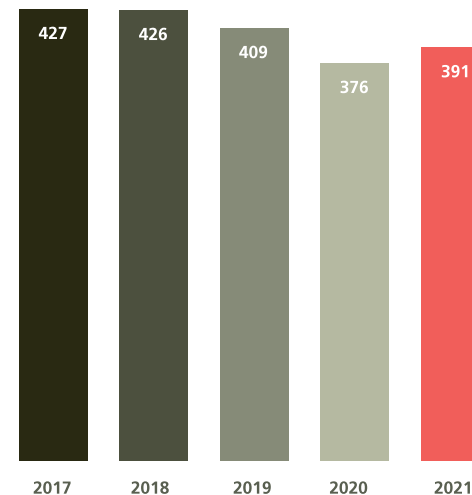
An industrial PhD project is a three-year industrially focused PhD project where the PhD student is employed at a company and enrolled at a university. Read more about the programme here: [innovationsfonden.dk](https://www.innovationsfonden.dk)



Number of PhD degrees awarded

A total of 391 PhD degrees were awarded in 2021. The number is approximately the same level as in 2020. This most likely reflects the delays still caused by COVID-19.

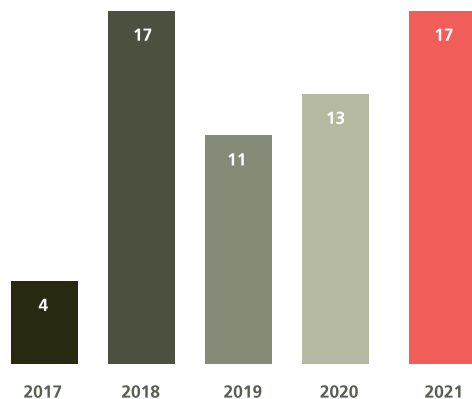
The numbers include PhD degrees awarded without prior enrolment (also known as §15,2). The PhD degree is awarded by the University when the PhD thesis is positively reviewed by an assessment committee and afterwards successfully defended at a public defence.



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.

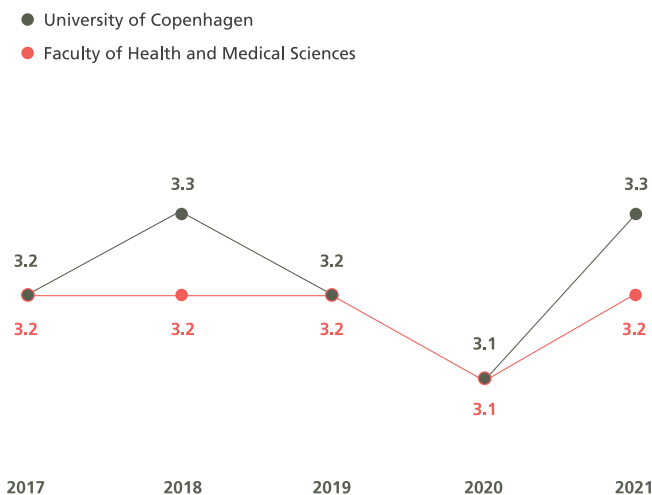
These numbers show how many PhD degrees were awarded without enrolment in 2017-2021.



Duration of PhD study (years)

The average length of the PhD study at the Faculty of Health and Medical Sciences is 3.2 years. This length of time is similar to the average of the University of Copenhagen.

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.

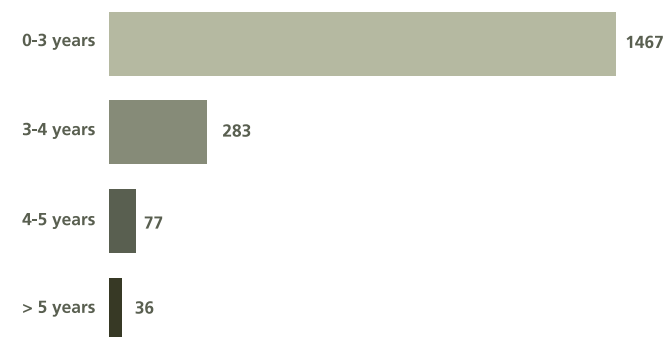


Current enrolment period for enrolled PhD students by the end of 2021

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. These figures show data on enrolment periods. PhD students on flexible models (3+5 and 4+4) are excluded.

1,467

PhD students had an current enrolment period of 0-3 years by the end of 2021



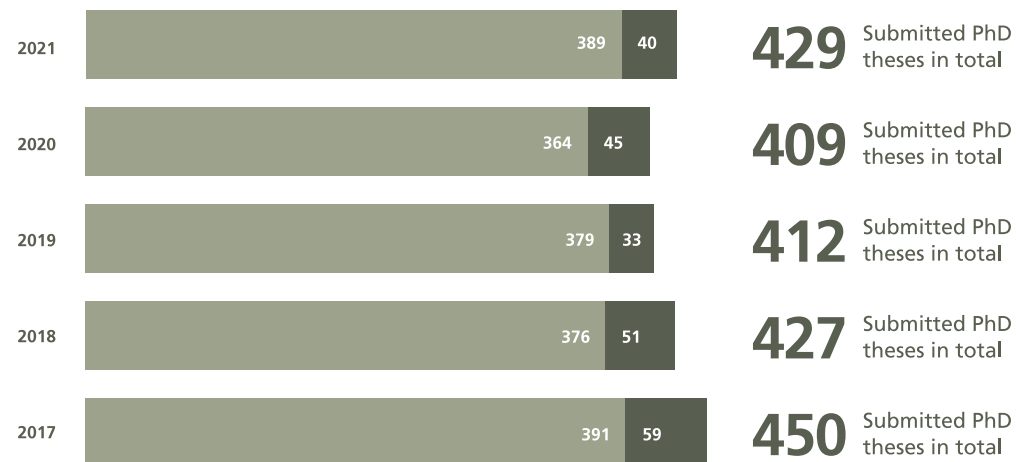
Number of submitted PhD theses and resubmissions

When a PhD student submits his/her thesis, an assessment committee recommends to the University if the PhD thesis can proceed to oral defence or not. 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 revise and resubmit the thesis for a new assessment.

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.



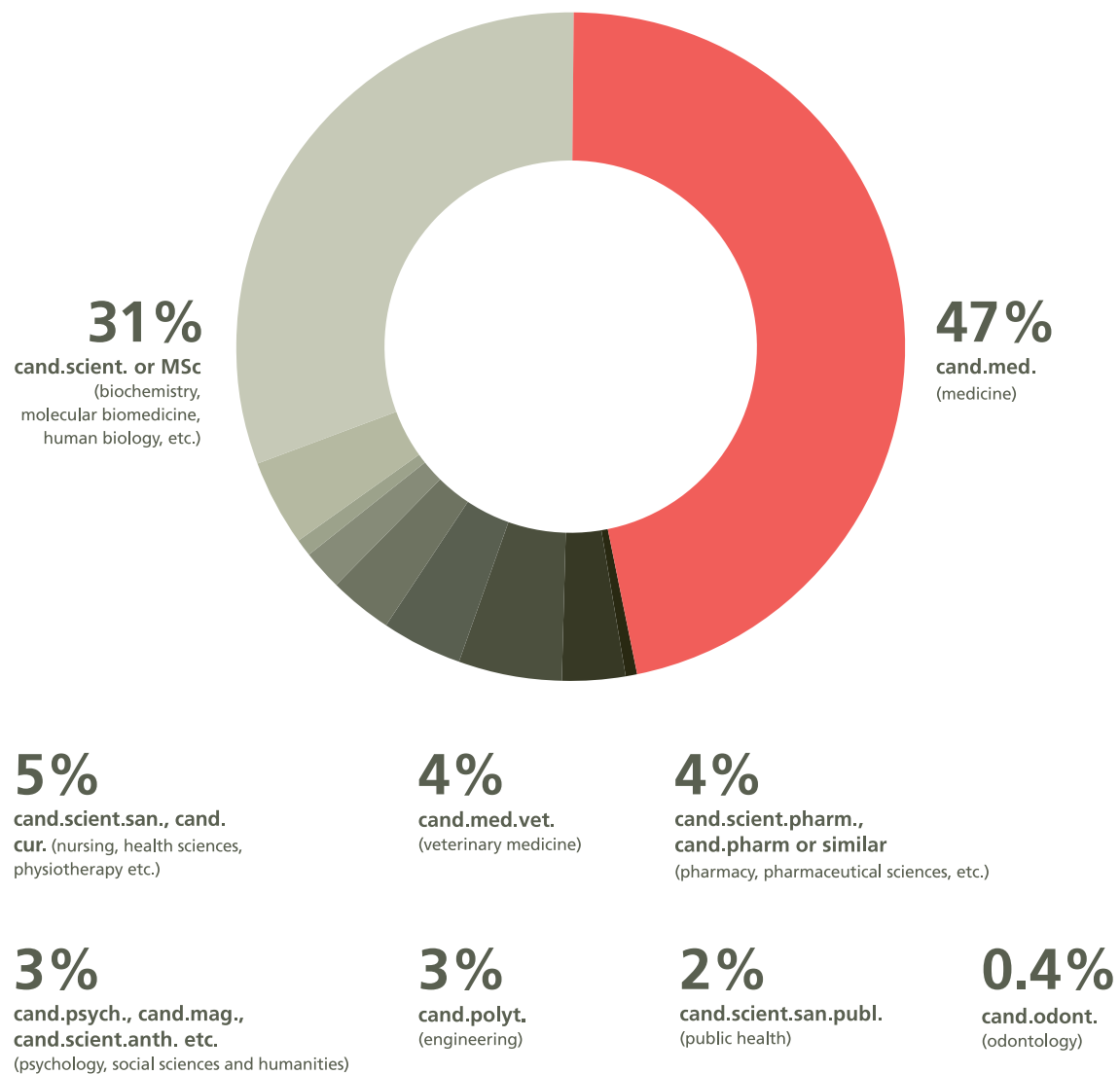
- Submitted PhD theses (no resubmissions)
- Resubmitted PhD theses



Qualifying degree for PhD students enrolled in 2021

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 78%.

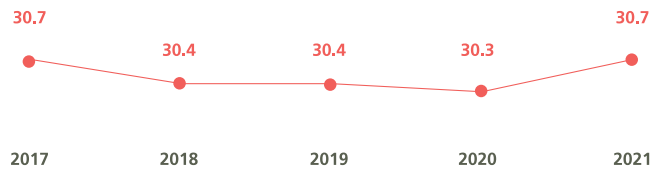
The remaining 22% held qualifying degrees in other scientific areas, such as odontology, pharmacy, veterinary medicine, engineering, public health and social sciences.



Gender, age and nationality of PhD students

The average age at the time of enrolment was 30.7 years in 2021.

Only limited variation occurs in these numbers over the last few years.

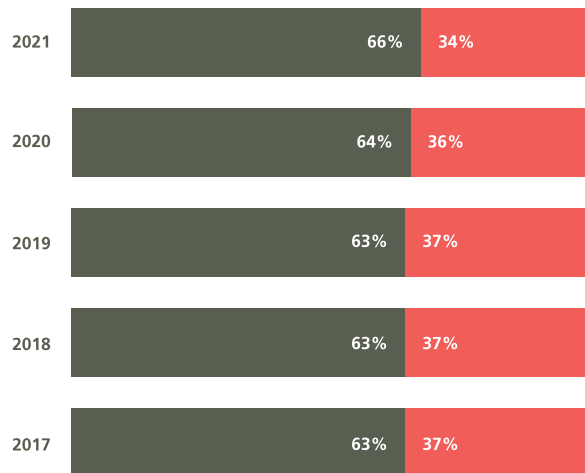


Gender

The gender distribution of the 501 new PhD students enrolled in 2021 is 66 % female and 34 % male.

There are limited variations in these numbers in the last five years.

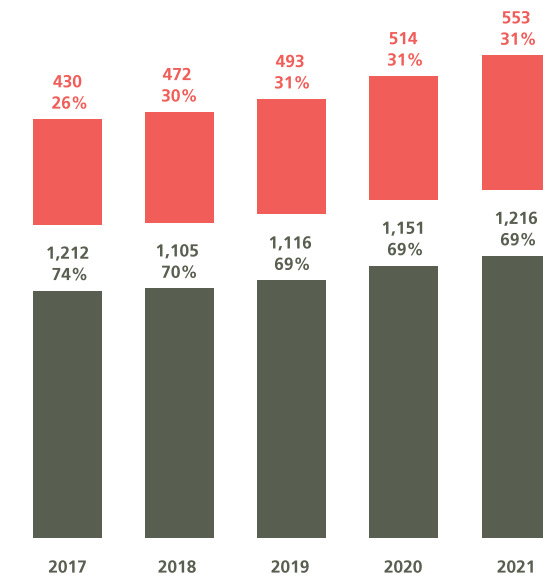
● Female ● Male



Nationality

The majority of the PhD students are Danish, although the number of international PhD students is increasing. The Graduate School of Health and Medical Sciences had a total of 602 international PhD students by the end of 2021. In 2020 there were 553 international PhD students.

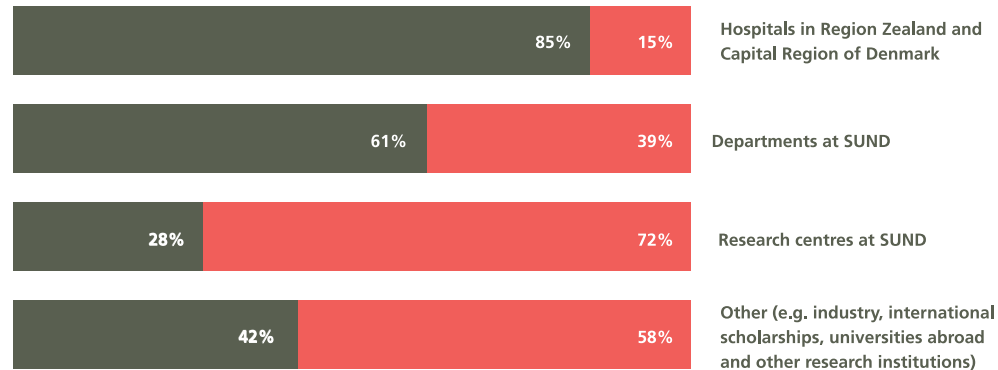
● Danish PhD students ● International PhD students



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 2021 (1863 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 are 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 2021, the Graduate School of Health and Medical Sciences had 22 graduate programmes.

The sum of affiliated PhD students by graduate programmes listed here (1,855) does not equal the total number of enrolled PhD students (1,863). The difference is due to 8 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 2021.

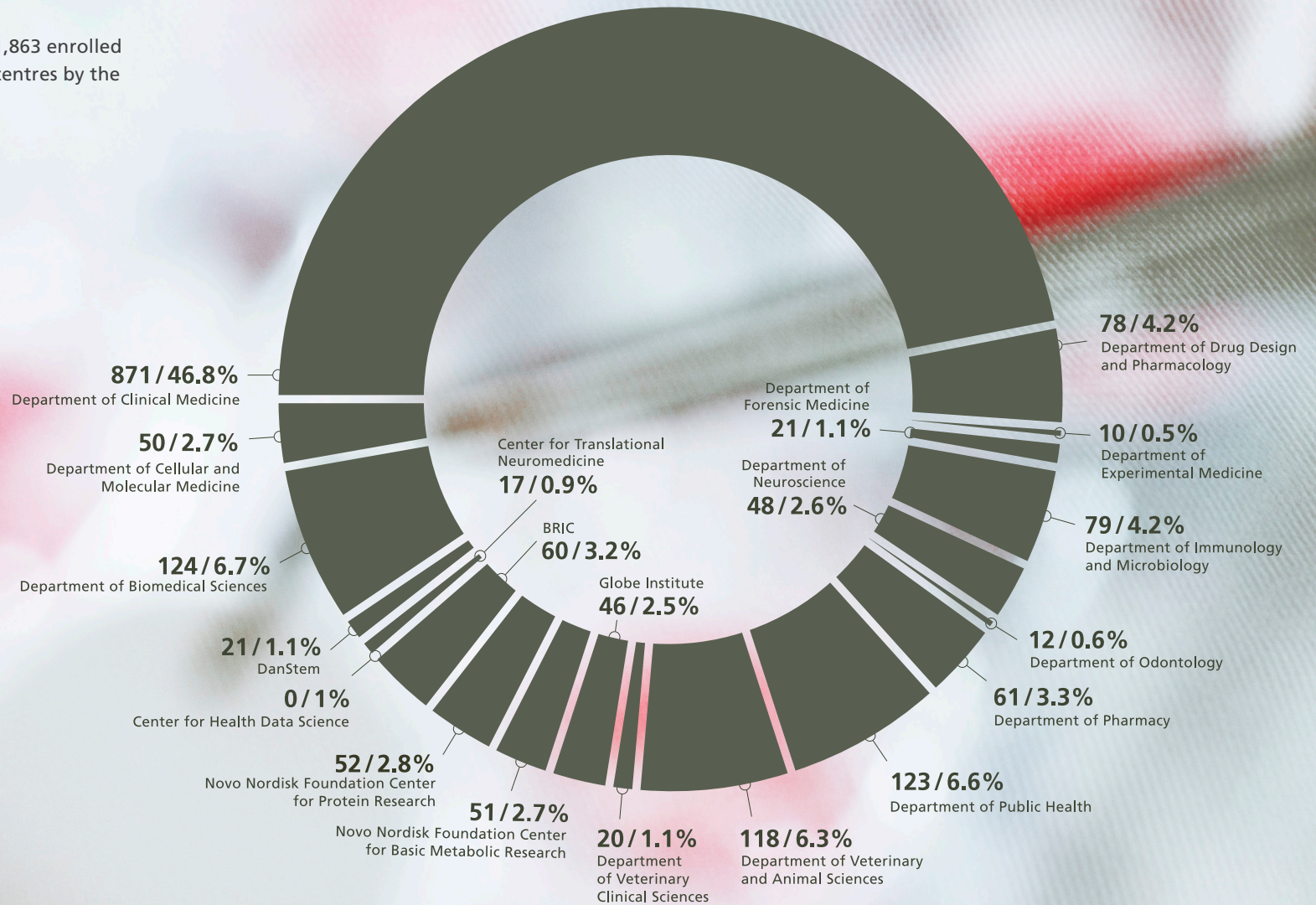
Graduate programme	Head of graduate programme	Number of PhD students
Airways, Anesthesiology and Skin	Professor Charlotte Suppli Ulrik	57
Basic and Clinical Research in Musculoskeletal Sciences	Professor Michael Kjær	71
Basic Metabolic Research	Professor Torben Hansen	162
Biostatistics and Bioinformatics	Professor Torben Martinussen	53
Cardiovascular Research	Professor Thomas Jespersen	119
Cellular and Genetic Medicine	Professor Lene Juel Rasmussen	50
Clinical Cancer Research	Professor Inge-Marie Svane	97
Herd and Population Oriented Research	Associate Professor Charlotte Amdi Williams	42
Immunology and Infectious Diseases	Professor Jan Pravsgaard Christensen	144
In Vivo Pharmacology and Experimental Animals	Professor Jens Lykkesfeldt	37
Life Cycle in Medicine	Professor Anders Juul	68
Life, Earth and Environmental Sciences	Associate Professor Enrico Cappellini	46
Medical and Molecular Imaging	Professor Andreas Kjær	44
Medicine, Culture and Society	Associate Professor Karin Tybjerg	42
Molecular Bacteriology and Infection	Associate Professor Rikke Heidemann Olsen	40
Molecular Mechanisms of Disease	Professor Shohreh Issazadeh-Navikas	146
Neuroscience	Professor Nanna MacAulay	157
Oral Sciences, Forensic Medicine and Bioanthropology	Associate Professor Sys Stybe Johansen	30
Pharmaceutical Sciences	Professor Jukka Rantanen	144
Psychiatry	Professor Merete Nordentoft	51
Public Health and Epidemiology	Professor Naja Hulvej Rod	180
Surgical Sciences	Professor Ismail Gögenur	75
Total		1,855



Number of enrolled PhD students by departments and centres

This figure shows the distribution of the 1,863 enrolled PhD students between departments and centres by the end of the year.

 **1,863**
Total number of enrolled PhD students in 2021



Number of new enrolments by departments and centres

This figure shows the distribution of new PhD students enrolled during 2021 by the departments and centres at the Faculty of Health and Medical Sciences.

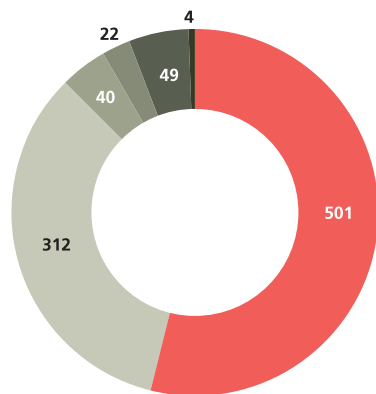
6 / 1.2%	BRIC
0 / 0.0%	Center for Health Data Science
1 / 0.2%	Center for Translational Neuromedicine
5 / 1.0%	DanStem
33 / 6.6%	Department of Biomedical Sciences
12 / 2.4%	Department of Cellular and Molecular Medicine
251 / 50.1%	Department of Clinical Medicine
18 / 3.6%	Department of Drug Design and Pharmacology
1 / 0.2%	Department of Experimental Medicine
4 / 0.8%	Department of Forensic Medicine
18 / 3.6%	Department of Immunology and Microbiology
14 / 2.8%	Department of Neuroscience
4 / 0.8%	Department of Odontology
19 / 3.8%	Department of Pharmacy
31 / 6.2%	Department of Public Health
29 / 5.8%	Department of Veterinary and Animal Sciences
9 / 1.8%	Department of Veterinary Clinical Sciences
16 / 3.2%	GLOBE Institute
14 / 2.8%	Novo Nordisk Foundation Center for Basic Metabolic Research
16 / 3.2%	Novo Nordisk Foundation Center for Protein Research



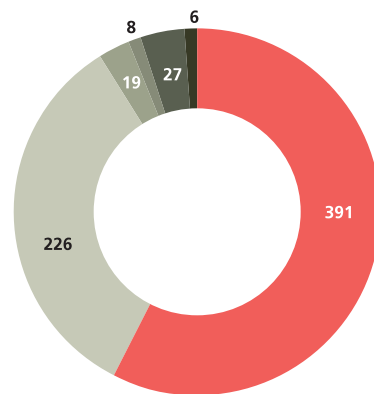
Key PhD statistics for the University of Copenhagen

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 pages 4-6, due to different calculation times and methods.

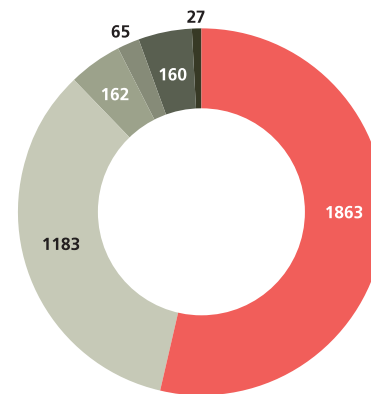
- Faculty of Health and Medical Sciences
- Faculty of Science
- Faculty of Humanities
- Faculty of Law
- Faculty of Social Sciences
- Faculty of Theology



Number of PhD students enrolled during 2021



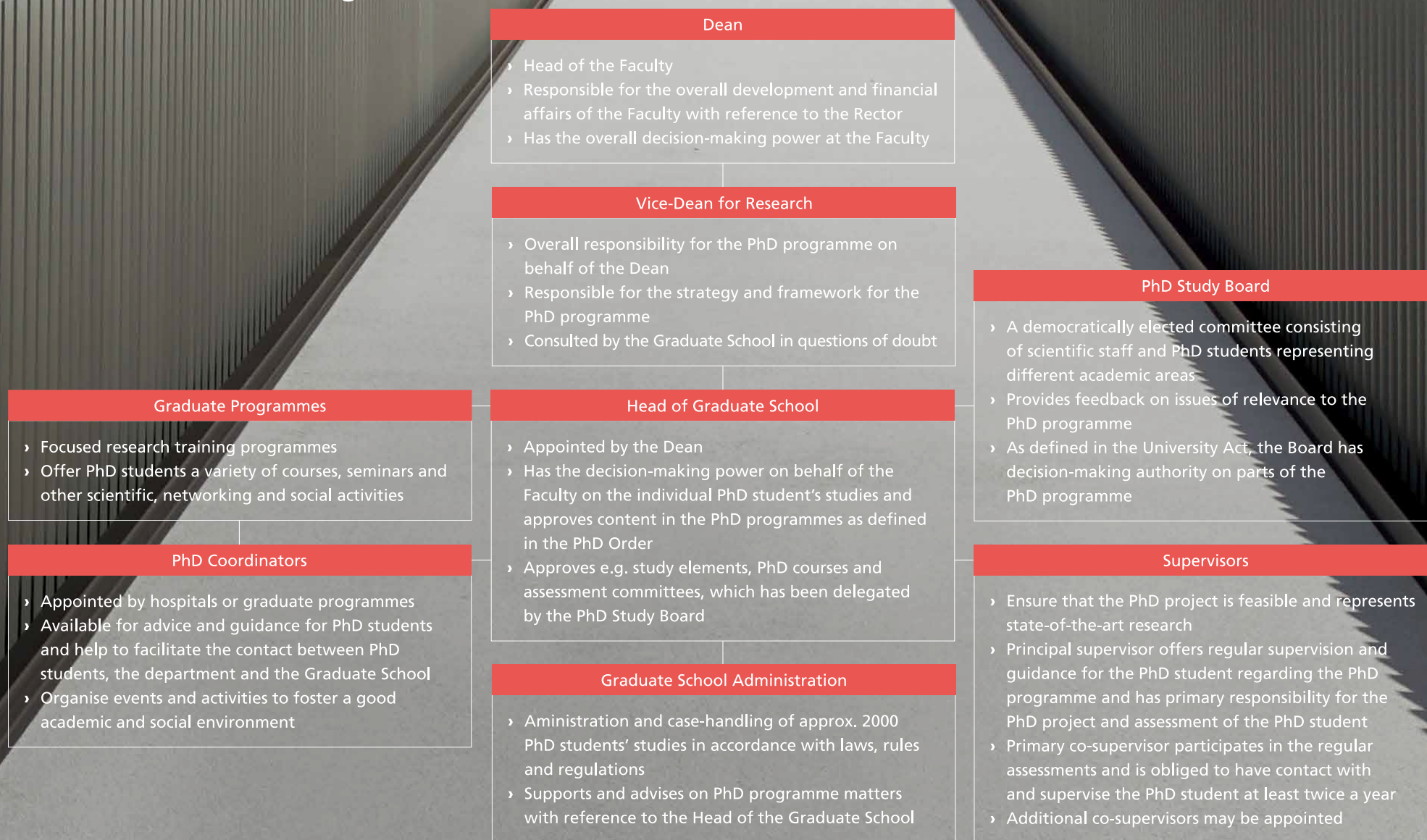
Number of awarded PhD degrees in 2021



Total number of enrolled PhD students by the end of 2021



The Graduate School organisation





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