GRADUATE PROGRAM IN PUBLIC HEALTH & EPIDEMIOLOGY GRADUATE SCHOOL OF HEALTH AND MEDICAL SCIENCES UNIVERSITY OF COPENHAGEN

Public Health & Epi News

NO. 2, 6TH VOLUME, MAY 2020

Corona, Pandemic, COVID-19

Currently, there is only one thing on most people's minds and it is important to notice that the COVID-19 pandemic directly addresses key public health questions related to surveillance, testing, nonpharmaceutical interventions and primary prevention.

In this situation, our role and knowledge as epidemiologists and public health professionals becomes central, and it is time for us to activate our basic knowledge about e.g. how to define a population, how to validly measure a rate, but to also engage in discussions about the ethical and practical issues related to primary prevention among healthy individuals.

All of that said, I know that it has been - and for many still is - a straining period. Home offices, closed day care, limited access to laboratories and data may hinder work progress. In addition, I think we all miss our colleagues and our normal scientific and social environments. But I hope you have all found ways to manage and that you will keep up the spirit. Hopefully, everything will soon normalize.



Naja Hulvej Rod Professor, Head of the Graduate Program in Public Health & Epidemiology

Conference calendar

12th International Conference on Epidemiology & Public Health September 23-24, 2020 Berlin, Germany https://epidemiology.expertconferences. org/

10th annual SLLS International Conference 5-7 October, 2020, Vilnius, Lithuania https://www.slls.org.uk/

Society for Epidemiologic Research (SER) annual meeting 16-18 December, Boston, USA https://epiresearch.org/annualmeeting/2020-meeting/

World Congress of Epidemiology 2021, 3-6 September, Melbourne, Australia https://wce2020.org/

GRASPH Summer School 2020 26-27 May, 2020 at Comwell Postponed to 25-26 May 2021 due to COVID-19

Editorial info

Public Health & Epi News is distributed to PhD students and supervisors affiliated with the graduate program in Public Health and Epidemiology.

The newsletter is published two times a year (around May and November) and is meant to be a dynamic platform for exchanging information within the graduate program. Any inputs on events, new books, international courses, writing groups etc. are very welcome. Please send your input in an e-mail to Lisbeth Lyng Hansen, <u>Ilh@sund.ku.dk</u>.

Editors: Naja Hulvej Rod, nahuro@sund.ku.dk and Lisbeth Lyng Hansen, Ilh@sund.ku.dk

Deadline for next issue of Public Health & Epi News is 26th of October, 2020.

Previous editions to be found at: http://phd-pubhealthepi.ku.dk/

PhD's of the Month

Lærke Mygind Grønfeldt, MSc Sociology

Joint Doctoral Candidate Deakin University and University of Copenhagen

While children are born ready to "learn, grow, and 'become'" (Shonkoff and Phillips, 2000, p. 32), they have enormously different access to the environments, resources, and social support that will allow them to thrive and fulfil their potentials. My research is motivated by an observed socially determined inequality in life chances and health, and the evidence that suggests that this inequality originates in early childhood and is accumulated throughout life ^{1,2}. To me, this is fundamentally unjust and, on this account alone, calls for change. This unequal burden of disease and distribution of opportunity is, however, also a tremendous societal and economic challenge. The social determinants are often discussed in terms of lack of resource or detrimental environmental and social exposures, but natural environments have been suggested to buffer against toxic exposures and have a salutogenic value in their own right ^{3,4}. The overarching aim of my doctoral research is to investigate how natural environments, which may present a modifiable and widely accessible protective factor against adversity, associate with childhood socioemotional function and development. My research intersects population health, human ecology, and social neuroscience. In doing so, it provides a novel outlook to each of these areas of research. While the intersection between population health and human ecology is not new, this PhD addresses the scarcity of quantitative research pertaining to children, especially children under the age of six. In particular, this PhD focuses on the mechanisms that are relevant for children. The intersection between social neuroscience and population health is also not new, but the coupling of human ecology and social neuroscience is a recent trend ⁵. With very little previous attention having been paid to child populations in environmental neuroscience, this PhD provides a most original contribution. I will be using existing Australian datasets; the PLAYCE dataset ¹, The Deakin Social Brain Development Study ², and The Australian

Temperament Project³. The two latter databases will be linked to remotely



sensed green space data whereas this data is already

available within the PLAYCE database. My PhD is funded by Deakin University which is also my home institution. Being married to an 'Aussie', the Deakin University – University of Copenhagen collaboration was a remarkably fortunate and timely occasion for me to live in Australia – meanwhile staying connected to University of Copenhagen and my Danish colleagues. I am grateful beyond measure for the opportunity to conduct my PhD in this way and for the foresight of the people involved with the collaboration.

I have a background in sociology and health promotion research. I obtained my Sociology degree from the University of Copenhagen in 2016 and have been affiliated to the Health Promotion Research unit, Steno Diabetes Center Copenhagen, from 2012 to 2020. Sociology provided me with the critical mindset and social outlook which transcends my research and I owe my interest and love for modus 2 research to my training with Steno. Both have contributed greatly to my current work.

Contact; laerke.mygind.groenfeldt@regionh.dk

1. Marmot M. Social determinants of health inequalities. *The Lancet* 2005; 365: 1099–1104.

2. Shonkoff JP, Boyce WT, McEwen BS. Neuroscience, Molecular Biology, and the Childhood Roots of Health Disparities: Building a New Framework for Health Promotion and Disease Prevention. *JAMA* 2009; 301: 2252–2259.

3. Hordyk SR, Hanley J, Richard É. 'Nature is there; its free': Urban greenspace and the social determinants of health of immigrant families. *Health & Place* 2015; 34: 74–82.

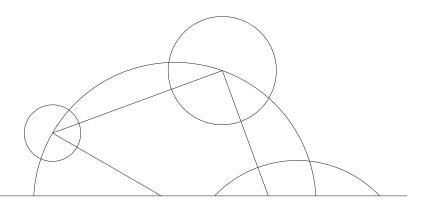
 Rojas-Rueda D, Nieuwenhuijsen MJ, Gascon M, et al.
 Green spaces and mortality: a systematic review and meta-analysis of cohort studies. *The Lancet Planetary Health* 2019; 3: e469–e477.
 Berman MG, Kardan O, Kotabe HP, et al. The promise of

environmental neuroscience. Nature Human Behaviour 2019; 1.

¹ <u>https://www.uwa.edu.au/projects/playce-study</u>

²https://www.facebook.com/pg/deakinsocialbrain/posts/

³ https://www.melbournechildrens.com/atp/



Cathrine Bakkedal, Medical Doctor

The overall aim of my Ph.D. project is to improve pharmacological treatment for patients with severe mental illness (SMI). People with SMI live on average 12-19 years shorter than people without SMI.

SOFIA trial:

In the Section of General Practice, we are planning a pragmatic randomized controlled trial, where people with severe mental illness in the intervention group will be offered more time and a thorough consultation and examination with their own general practitioner. The hypothesis is that this intervention will improve quality of live and decrease the mortality. In several ways, the subprojects in my Ph.D. project will provide insight into some unanswered questions in regards to pharmacological treatment for this group of patients.

Projects in the Ph.D.:

Registry-based diabetes projects: The most common cause of death is cardiovascular disease for people with severe mental illness, and type 2 diabetes is an important risk factor. Previous studies have shown conflicting results in regards to whether people with diabetes receive sufficient pharmacological treatment for their diabetes. The Copenhagen primary Care laboratory (Coplab) database includes biochemical data for more than 1.2 million inhabitants who have been referred by their general practitioners in the period 2000-2015. By coupling these data with data in the national health databases. I aim to describe the biochemical abnormalities, diabetes complications and the pharmacological treatment for people with SMI in general practice. This will be done in a cohort design, where people with diabetes and SMI are compared to people with diabetes but no SMI. I will describe the changes in diabetes treatment over the period as well. Overall, these

studies will give insight into the quality of diabetes treatment for people with severe mental illness, that have been followed in general practice.

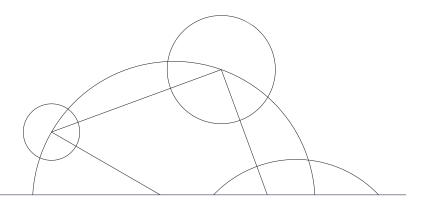


Medication errors in residential homes: Many people with SMI receive pharmacological treatment to control their disease and some of the most severely ill people live in residential facilities. A medication error is defined as "an unintended failure in the drug treatment process that leads to, or has the potential to lead to, harm to the patient" (European Medicines Agency). In a prospective cohort study data was gathered from The Danish Poison Information Centre (DPIC, Giftlinjen in Danish), which is a 24-hour toxicological information service for both the public and health care professionals in Denmark. The aim is to characterize and discuss the nature of medication errors in Danish residential facilities reported to the DPIC over a period of 13 months in year 2018-2019.

Medication and mobile apps:

In a scoping review, I want to investigate the design phases of published papers that focus on apps for improving pharmacological treatment in a broad sense. Differences exist in research culture between the health and technology fields, which unfortunately often challenges joint collaboration. The aim of this review is to categorize and critically appraise the published literature in both medical and technology databases.

Contact: <u>bakkedal@sund.ku.dk</u> Catrine Bakkedal, medical doctor



International 'PhD of the Month'

Janet Janbek

Danish Dementia Research Centre Rigshospitalet

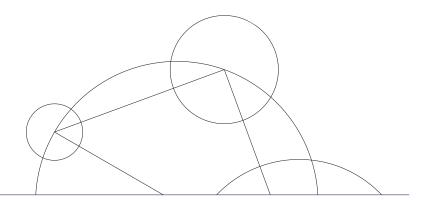
My PhD research interest lies in exploring the role of infections in dementia using Danish national registries. My PhD project is at the Danish Dementia Research Centre, Rigshospitalet and the University of Copenhagen. I was presented with the opportunity to work on a project together with researchers from Infection Medicine, University of Edinburgh (UoE), UK. Professors Jurgen Haas and Richard Lathe have contacted our centre to see whether we were interested to be part of a big project they are working on. A recent study from a Taiwanese group has found that anti-herpetic treatment is highly protective against a later development of dementia. The study however has several limitations and the researches from UoE decided to set up a project that aims to investigate the same topic using several different databases and registries, to test whether their findings hold true. The project includes data from Wales, Germany, Scotland and Denmark. As such, they reached out to the Danish Dementia Research Centre to use data from the Danish registries. As my PhD project was already in the field of infections and dementia, I got connected with the professors from UoE and we started planning our work together. We later agreed that I would visit them at UoE for three months to work on the project while being there. Edinburgh is a beautiful city, although one needs a bit of adjusting to the Scottish accent. UoE is a high-ranked university world-wide. There is a huge number of international students at the university and numerous campuses are scattered around the city. The Infection

Medicine division, where I got to spend 3 months,

was placed at the Royal Infirmary of Edinburgh. Students and researchers at the division work in laboratories conducting various virological experiments, which I got to learn a bit about as well even though it was not my area. I got to have close contact and be part of the weekly meetings, journal clubs and social events at Infection Medicine. As for our anti-herpetics and dementia project, we had constant meetings and discussions about the project and our data. I also got involved in some of the other databases that the project included and worked closely with the head statistician Linda Williams and epidemiologist Christian Schnier. This is a very exciting project, and even after returning to Denmark, we continue to work on the project, have meetings and always interesting discussions.

I highly recommend all PhD students – who have the possibility – to go on a research stay. I of course recommend UoE certainly, but maybe avoid the wintertime. I would advise taking a long research stay as that really helped me get settled in and gain quite a lot out of my stay, which I believe could have been difficult if I spent shorter time there. I also think that ideally, one should try to find a project to collaborate on with a visiting institution.

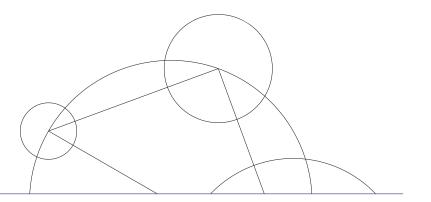
Contact: Janet.Janbek@regionh.dk



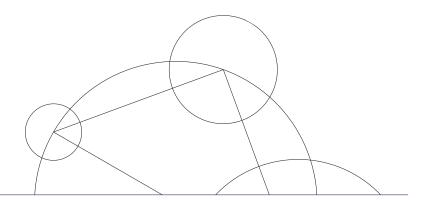
Welcome to the new PhD students

22 new PhD students have been enrolled between 1st of November 2019 and 1st of April 2020

Name	PhD Project	Supervisor	
Anne Juul	Can Community Interventions Improve Survival by Cardiac Arrest in High-Risk Residential Areas?	Fredrik Folke	
Anne-Sofie Glavind	Data based health surveillance for pigs and trends in antibiotic use for pets, horses, mink, fish and poultry	Helle Stege	
Brenda Maria Sequeira D'mello	An assessment of the historical and present situation of quality of maternal and newborn health care and the context modification process of new clinical guidelines in urban maternity units in Dar es Salaam, Tanzania.	Dan Wolf Meyrowitsch	
Caroline Hallas Hemmingsen	Maternal use of hormonal contraception and childhood cancer risk – a Nordic registry-based study	Susanne Krüger Kjær	
George Frederick Mkoma	ACcess To acUte stroke care for All (ACTUAL): the inclusion of ethnic minorities	Marie Louise Nørredam	
Ida Scheel Rasmussen	Parental social support and parent-infant relationship	Philip Michael Wilson	
Jimmi Mathisen	The interplay between work environment factors and mental health, long-term sickness absence and employee retention	Naja Hulvej Rod	
Jonathan Groot	Does indoor air quality matter? An in-depth, multifaceted approach to understanding if and when exposure to indoor pollution increases the risk of childhood asthma, allergies, and infections	Anne-Marie Nybo Andersen	
Julie Louise Munk Andersen	Is organic food consumption associated with lower risk of noncommunicable diseases and a healthy gut microbiota and/or plasma and urine metabolome?	Anne Marie Tjønneland	
Line Husted Baungaard	Aural rehabilitation with Cochlear Implants in Adults ¿ Auditory Verbal rehabilitation and Cochlear Implant candidacy	Per Cayé-Thomasen	
Malene Barfod O'Connell	Barfod O'Connell Prevention of readmissions and early death for patients with liver cirrhosis		
Malthe Faurschou Wandall-Holm	bu Long-term socioeconomic consequences of Multiple Sclerosis		
Maria Booth Nielsen	Causal role of adiponectin in mortality in the general population: mechanism through obesity, diabetes, and cardiovascular disease	Børge Grønne Nordestgaard	
Nikki Have Mitchell	Biochemical biomarkers of inflammation	Henrik Løvendahl Jørgensen	
Rebecca Amy Nourse	Smart homes for Cardiovascular disease	Anne Frølich	
Sandra Skrumsager HansenTreatment of Gram-negative bacterial infections <i>in vitro</i> , observational and randomized controlled studies		Thomas Lars Vibe Benfield	



Simone Elisabeth Bastrup Israelsen	Influence of clinical stability, duration of antibiotic treatment and conventional risk factors on the outcome of community-acquired pneumonia among adults	Thomas Lars Vibe Benfield
Simone Hofman Rosenkranz	Workforce affiliation in Heart Failure Patients implanted with an implantable cardioverter defibrillator, as a marker for long-term rehabilitation	Gunnar Hilmar Gislason
Siv Steffen Nygaard	Health and Well-being in a Changing Deprived Social Housing Area: A contemporary quantitative evaluation of extensive structural changes	Rikke Lund
Steffen Ernesto Kristensen	Pregnant with multiples. How do we improve risk prediction, stratification, management and support	Olav Bennike Bjørn Petersen
Tania Hviid Bisgaard	The co-occurrence of inflammatory bowel disease and mental disorders	Kristine Højgaard Allin
Theo Walther Jensen	Basic Life Support in Denmark	Helle Collatz Christensen

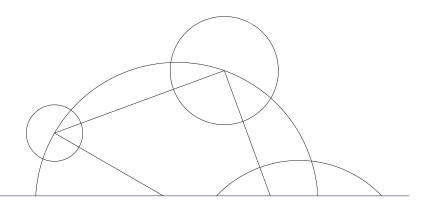


Up-coming PhD courses

Public health courses at SUND	Start
Advanced Course in Qualitative Research in Public and Global Health –	8 June, 2020
From Conceptualization to Write-up <u>3672-20-00-00</u>	
Patient-reported outcomes in clinical health research 3410-20-00-00	3 November, 2020
Obesity: courses and consequences - the complex interplay between behavior, society, genes and the environment <u>3257-20-00-00</u>	9 November, 2020
Clinical research method (Klinisk Forskningsmetode) <u>3716-20-00-01</u>	17 November, 2020

Statistics courses at SUND	Start	
Statistics for experimental medical researchers 3325-20-00-00	12.05.2020	
Causal Inference, Part I: Marginal structural models, IPW and time- varying confounding <u>3326-20-00-00</u>	18.05.2020	
Modern scale validation using IRT and Rasch models 3323-20-00-00	12.06.2020	
Introduction to medical statistics using SPSS 3307-20-00-00	15 September, 2020	

You can always find an updated list containing all PhD courses here: <u>https://phdcourses.ku.dk/Default.aspx?sitepath=SUND</u>



PhD defenses

20 May 2020, 9:00

Mads Østrup Nordentoft

Effort-reward imbalance at work and risk of type 2 diabetes - An epidemiological investigation of the association and possible mechanisms in a nationwide sample of workers in Denmark

20 May 2020, 13:00

Anne Arreskov

What is "the primary?" The priorities and perspectives of patients and Danish general practitioners, when the patient has chronic conditions and a history of cancer

Zoom: https://ucph-ku.zoom.us/j/66744983544

20 May 2020, 14:00-17:00

Amalie Bøggild Schmidt

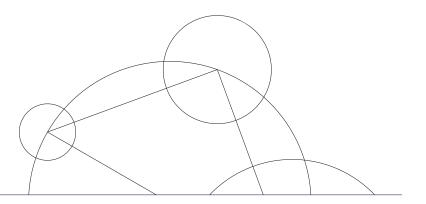
Modifiable maternal risk factors for offspring congenital heart defects: epidemiological cohort studies

You can always find an updated list of PhD defenses at http://phd-pubhealthepi.ku.dk/phd-defenses/

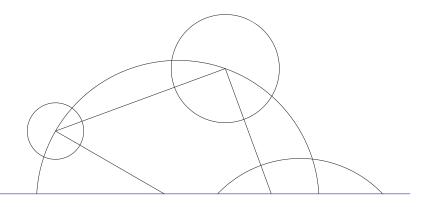
PhD degrees

Congratulations to the 18 PhD students who have been awarded their PhD degree between 14th of December 2019 and 7th of April 2020 within the graduate program 'Public Health & Epidemiology'

Name	Supervisor	Thesis
Anne Vinggaard Christensen	Selina Kikkenborg Berg	The influence of psychosocial factors on morbidity and mortality in cardiac patients: Perspectives on the use of patient-reported outcomes in cardiac research and practice
Sabrina Islamoska	Kirsten Nabe-Nielsen	Stress and Migraine as Risk Factors for Dementia
Jessica á Rogvi	John Brodersen	Psychosocial consequences of colorectal cancer screening: adequacy of measurement and effects
Ditte Vassard	Lone Schmidt	Dysregulation of endoplasmic reticulum homeostasis in pancreatic beta-cell failure
Turid Hammer	Elsebeth Lynge	Inflammatory Bowel Diseases in the Faroe Islands
Emilie Just-	Trine Flensborg-	Alcohol use disorders
Østergaard	Madsen	Predictors and trajectories across the life course
Dinne Skjærlund Christensen	Trine Flensborg- Madsen	Allostatic load: Identifying biomedical, social and psychological predictors
Eszter Török	Naja Hulvej Rod	Work-unit social capital and the risk of long-term sickness absence in the healthcare sector



Christopher Jamil de Montgomery	Signe Smith Jervelund	Growing up as a refugee A comparative study of health, education and employment in the early life courses of refugee children in Denmark
Sofie Lykke Møller	Ib Christian Bygbjerg	Identifying the time-point of highest vulnerability to anemia and malaria in pregnancy: an investigation of placental vascularization and changes in VEGF/PIGF-balance
Stephen Lawrence Grant	Peter Kjær Mackie Jensen	Exploring the influence of extreme weather events and climate change on cholera transmission in Bangladesh
Camilla Holten Møller	Kåre Mølbak	MRSA epidemiology in Denmark from 2006-2016 with special focus on LA-MRSA CC398
Rikke Schultz	Annette Sofie Davidsen	Hypertensive disorders in pregnant women with pre-existing diabetes
Paul Vignir Axelsson Bryde	Ellen Christine Leth Løkkegaard	Risk of psychiatric disorders in children delivered by cesarean section or treated with antibiotics in infancy - a national cohort study using sibling designs to evaluate causal effects attributed to potential alterations of the infant microbiota
Charlotte Mühlmann	Merete Nordentoft	Internet-based self-help therapy for individuals with suicidal ideation
Ida Kristiane Roelsgaard	Bente Appel Esbensen	Smoking cessation among people with rheumatoid arthritis
Camilla Charlotte Lykke	Per Sjøgren	Child mortality and parents; perspectives on losing a child with a life-limiting diagnosis: Population-based studies
Elise Harder Christensen	Susanne Krüger Kjær	Cervical cancer screening in Denmark Factors associated with non-participation in screening and acceptance of HPV self-sampling



Allocation of grants from the graduate program, Winther 2020

Research stays abroad:

Janet Janbek, 9,000 DKK to stay at University of Edingburgh Johan Vinther Lerbeck, 10,000 DKK to stays in Italy and England Abirami Srivarathan, 10,000 DKK to stay at McGill University, Canada

Writing retreats at Skjalm Hvide Hotel: Sara Fredslund Hajdú Cecilie Dyg Sperling Sif Helene Arnold

Funding opportunities for research stays abroad in 2020/2021

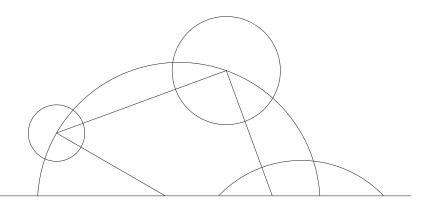
The Graduate Program in Public Health and Epidemiology will provide up to 10,000 DKK in financial support to research stays abroad of *at least three months duration* in 2020/2021 in order to encourage internationalization. Please send a brief description of your research stay abroad and a budget to Lisbeth Lyng Hansen (<u>llh@sund.ku.dk</u>) in order to apply for these funds. Everyone who meets the qualifications will be awarded funding up to a maximum of 10,000 DKK depending on their budget.

Please be aware that these funds are in addition to the funds you can apply for through the PhD School: <u>http://healthsciences.ku.dk/phd/studyabroad/financial-support-for-studying-abroad/</u>

There is also an excellent 'PhD supervision service' for going abroad handled by International Staff Mobility (ISM) who assists PhD students with practical issues such as visa, insurance, de-registration, social security and funding. More information can be found at: <u>http://phd.ku.dk/english/abroad/</u>

Financial support for seminars

If you wish to organize a seminar, the graduate program in Public Health & Epidemiology has some means to support for instance travel and accommodation for guest lecturers. The only condition is that the seminar is open for PhD students in the program. Please contact Naja Hulvej Rod, <u>nahuro@sund.ku.dk</u> or Lisbeth Lyng Hansen, <u>LLH@sund.ku.dk</u> for more information.



Financial support for writing retreats

We offer a number of writing retreats of up to 5 days. We now use Skjalm Hvide Hotel close to Slangerup in Nordsjælland. Please send a short motivated application to Lisbeth, <u>LLH@sund.ku.dk</u>.

Recommendation:

"Opholdet på hotellet har virkelig været godt! Personalet har været enormt søde, servicemindede og hensynsfulde. Jeg er taknemmelig for, at jeg fik muligheden for dette – og kan varmt anbefale et skriveophold på Skjalm Hvide Hotel." **Anne Beiter Arreskov** Læge, ph.d.-studerende.



Coaching sessions

We offer coaching sessions to PhD students that experience challenges in their projects. We have contact to two coaches with specific experience in PhD coaching.

This is an **on-going offer**, so if you feel in need of this kind of support, please contact Lisbeth Lyng Hansen, <u>llh@sund.ku.dk</u>. She can mediate the contact to the coaches. All requests will be handled confidentially.

New opportunity: Individual 1:1 career counselling for PhDs and Postdocs

UCPH now offers individual 1:1 career counselling to PhDs and Postdocs tailored to individual needs. <u>Mette Fog Skriver</u>, who is a career consultant, will be responsible for the new initiative concerning early career development for young researchers. The initiative is meant to inspire, counsel and guide young researchers at UCPH to take charge of their own career development at an early stage.

How to book a one-hour counselling session?

See the flyer for more info via this KU-net link and book a counselling session with Mette via careercounselling@adm.ku.dk.

Courses on supervision for PhD supervisors

Supervision of PhD students

Department of Science Education, University of Copenhagen

This course aims to provide participants with the practical and theoretical basis supervising PhD students - both as principal or supplementary supervisor. The course is designed for new as well as experienced supervisors. For course dates, see http://www.ind.ku.dk/english/course_overview/teacher_training/phd_supervision/