Master student project opportunities at the Center for Clinical Research and Prevention, Frederiksberg Hospital

Do you want to do your Master’s project research in an inspiring research environment? Do you want to work with an established research group and be guided by engaged supervisors? In our group on lifecourse epidemiology at the Center for Clinical Research and Prevention, we have several new opportunities!

Suggested projects:

- Is body size at different ages associated with risks of hypertension or dyslipidemia?
- Do the associations between birth weight and childhood body size differ across time?
- Is childhood body size associated with risks of cancer in adulthood?
- Review of the literature on childhood body size and risks of prostate cancer in adult life
- Does overweight in childhood increase risks of gallbladder surgery in adulthood?
- Is childhood body size associated with risk factors for breast cancer?

Data: Most projects will use data from the Copenhagen School Health Records Register, which contains information on weight and height measurements on more than 370,000 Copenhagen school children aged 7-13 years. Individuals in this data resource will be merged with several data resources and national health registers. The Master students will perform statistical analyses in STATA. It is intended that all projects will result in a peer-reviewed publication in an international journal.

Required qualifications: We are looking for a candidate with a background in health sciences (including Public Health Science, Medicine, Human Nutrition or equivalent) with interest in epidemiology and good communication skills in English. Experience with STATA is an advantage.

Work place: The candidate will receive a desk place at the Center for Clinical Research and Prevention, located at Frederiksberg Hospital and benefit from joining an integrated group of epidemiologists, medical doctors and statisticians.

Contact/project supervisors: Associate Professor Jennifer L Baker (Jennifer.Lyn.Baker@regionh.dk), Postdoc Julie Aarestrup (Julie.Aarestrup@regionh.dk, 3816 3018), Postdoc Britt Wang Jensen (britt.wang.jensen@regionh.dk, 3816 3074).

Application: Please send an application (1 page cover letter stating your interest in the project, your CV and your grade transcript) to Julie.Aarestrup@regionh.dk and britt.wang.jensen@regionh.dk.

Suggested project start date: April 2018 or later.
Project 1: Is body size at different ages across the lifecourse associated with risks of hypertension or dyslipidaemia?
Body size in both child- and adulthood is associated with risks of cardiovascular diseases. The evidence for the associations with hypertension, dyslipidaemia etc. is currently sparse and inconsistent. This master project will investigate if body size in child- and adulthood is associated with intermediate risk markers of cardiovascular disease.

Project 2: Do the associations between birth weight and childhood body size differ across time?
Babies that are heavier at birth have higher risks of being overweight as children. During the last 90 years, there has been a secular increase in birth weights and childhood body mass index (BMI) and height. However, it is currently unknown whether the associations between birth weight and childhood body size changed during this time period. This master project will investigate if there are secular trends in the associations between birth weight and childhood body size.

Project 3: Is childhood body size associated with risks of cancer in adulthood?
Overweight in adult life increases risks of several cancer forms in adulthood. Ongoing work in our group shows that childhood body size is associated with 12 forms of cancer. As there are more than 200 different types, much remains unknown. This master project will investigate if childhood body mass index (BMI) is related to the later risk of different forms of adult cancer.

Project 4: Review of the literature on childhood body size and risks of prostate cancer in adult life
Excess adiposity and tallness in adult life are likely associated with an increased risk of prostate cancer, but findings may depend on the aggressiveness of the disease. Few studies have investigated if these associations originate in early life and the findings are inconsistent. The aim of this master student project is to conduct a systematic review using international guidelines and to perform a meta-regression analysis of the available evidence on the association between body size in childhood and future risk of prostate cancer.

Project 5: Does overweight in childhood increase risks of gallbladder surgery in adulthood?
More than 6000 Danish men and women undergo gallbladder surgery every year. Adult obesity is a risk factor for gallstones, which are the most common reason for having this surgery. Importantly, surgery is not without risks and gallstones are the most common risk factor for gallbladder cancer. This master project will investigate if childhood body size is associated with the risk of having gallbladder surgery at adult ages.

Project 6: Is childhood body size associated with risk factors for breast cancer?
Benign breast disease is a common disease which increases the risk of breast cancer. Childhood body size affects breast cancer risks; however it is uncertain whether body size in childhood affects the risk of benign breast disease. This master project will investigate if childhood body mass index (BMI) is related to the later risk of benign breast disease.