

## Press release

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### Basic information

Name: Jean-Christophe Philippe Goldtsche Debost Email: jcd@econ.au.dk Phone: 51372371

Department of: Clinical Medicine

Main supervisor: Liselotte Petersen

Title of dissertation: "Genetic and environmental moderation of adversity in schizophrenia"

Date for defence: 23.03.18 at (time of day): 13.00 Place: Aarhus Universitet, Frederik Nielsens Vej 2-4, Rum M2, 8000 Aarhus C.

Press release (Danish)

Sammenspil mellem genetik og barndomstraumer i udviklingen af skizofreni

Skizofreni er en kompleks sygdom der både involverer genetiske og miljømæssige faktorer. Udsættelse for traumatiske livsbegivenheder i barndommen er en risikofaktor for skizofreni, men meget langt fra alle der oplever barndomstraumer udvikler skizofreni og ikke alle med skizofreni har oplevet barndomstraumer. I min phd har jeg undersøgt sammenspillet mellem genetiske faktorer og barndomstraumer, samt infektioner under graviditeten og barndomstraumer i forhold til udviklingen af skizofreni. Min forskning peger på at individer med bestemte arveanlæg af betydning for kropens stresshormoner og dopamin, er særligt sårbare overfor barndomstraumer og har større risiko for at udvikle skizofreni som følge af dette. Ligeledes fandt jeg individer der har været utsat for infektion i fostertilværelsen er særligt sårbare overfor traumer der opstår omkring teenageårene - et tidspunkt hvor hjernen undergår afgørende modningsprocesser - i forhold til udvikling af skizofreni. Selvom de bagvedliggende biologiske årsagsmekanismer fortsat er uklare, understøtter og forstærker min forskning eksisterende hypoteser. Fra et klinisk perspektiv er tidlig detektion af barndomstraumer vigtigt for at afgøre om børn og unge utsat for dette befinner sig i en bane med stor risiko for udvikling af skizofreni. Et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Jean-Christophe Philippe Goldtsche Debost, der forsvarer det d. 23/03.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 23/03 kl. 13.00 i Rum M2, Aarhus Universitet, Frederik Nielsens Vej 2-4, Aarhus C. Titlen på projektet er "Genetic and environmental moderation of adversity in schizophrenia". Yderligere oplysninger: Ph.d.-studerende Jean-Christophe P. G. Debost, e-mail: jcd@econ.au.dk, tlf. 51372371.

Bedømmelsesudvalg:

Professor Michael Væth (chairman)  
Department of Public Health, Aarhus University

Senior Lecturer Helen L. Fisher  
Social Genetic and Developmental Psychiatry Centre, King's College London, UK

Professor Lene Christiansen  
Epidemiology, Biostatistics and Biodemography; Human Genetics, University of Southern Denmark

Press release (English)

## Interplay between genes and childhood trauma in the development of schizophrenia

Schizophrenia is a severe mental disorder influenced by both genetic factors and the surrounding environment. Exposure to traumatic events in childhood is a known risk factor for schizophrenia, but far from all individuals exposed to childhood trauma develop schizophrenia and not all individuals with schizophrenia have been exposed to childhood trauma. In my research I have investigated the interplay between genetic factors and childhood trauma, and infections during pregnancy and childhood trauma in relation to schizophrenia. I found evidence that certain genetic risk factors that influence stresshormones and dopamine, render the individuals more susceptible to develop schizophrenia after exposure to childhood trauma. I also found that individuals exposed to infections during their fetal life are particularly vulnerable to trauma exposure around the time of puberty, where important maturational processes takes place in the brain, in relation to schizophrenia development. Although the underlying biological mechanisms remain unclear, my research add to a growing burden of evidence implicating childhood adversity and early infections in schizophrenia. From a clinical perspective, early detection of childhood adversities is crucial in order to determine whether children exposed to stressful environments are on a trajectory that could lead to increased risk for later schizophrenia. The project was carried out by Jean-Christophe P. G. Debost, who is defending his dissertation on 23/03.

The defence is public and takes place on 23/03 at 13.00 in Room M2, Aarhus University, Frederik Nielsens Vej 2-4, Aarhus C. The title of the project is "Genetic and environmental moderation of childhood adversity in schizophrenia. For more information, please contact PhD student Jean-Christophe P. G. Debost, email: jcd@econ.au.dk, Phone +45 51372371.

### Assessment committee:

Professor Michael Væth (chairman)  
Department of Public Health, Aarhus University

Senior Lecturer Helen L. Fisher  
Social Genetic and Developmental Psychiatry Centre, King's College London, UK

Professor Lene Christiansen  
Epidemiology, Biostatistics and Biodemography; Human Genetics, University of Southern Denmark

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