



## Louise Baruël Johansen (MSc, PhD)

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### PROFILE

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In my professional life as well as in my private life, I am motivated by making the right decisions and implementing solutions in a structured way. Through my education as a biomedical engineer and PhD, I have gained a broad set of capabilities in both medical and technical sciences, which gives me strong interdisciplinary skills. My project work, including PhD and master thesis, has provided me with solid experience in project management, systematic data processing, statistical analyses, literature review, medical writing and communication of results.

### EDUCATION & PROFESSIONAL EXPERIENCE

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- 2016 - 2018 **Post doctoral researcher, Danish Research Centre for Magnetic Resonance, Hvidovre Hospital & Center for Neuropsychiatric Schizophrenia Research, Psychiatric Center Glostrup**  
Two-year project employment on a long-term follow-up study of initially antipsychotic-naïve first-episode schizophrenia patients to investigate the course of illness and identify outcome biomarkers.
- 2011 - 2016 **PhD student, Danish Research Centre for Magnetic Resonance, Hvidovre Hospital**  
Full scholarship granted by the Faculty of Health Sciences, University of Copenhagen  
Project: "Neuroticism and Functional Connectomics of the Resting Adolescent Brain: Insights from a Danish Cohort of Children and Adolescents". Submitted December 2015.
- 2013 - 2013 **Visiting student, Oregon Health & Science University**  
Acquiring advanced network analysis skills while working on a longitudinal study of resting-state functional MRI in healthy children and adolescents at the Department of Behavioral Neuroscience, headed by Dr. Damien Fair. 3-month-visit (June-August)
- 2010 - 2010 **Academic employee, Neuroscience & Pharmacology, University of Copenhagen**  
Data collection, processing and analysis, as well as recruitment of test subjects  
Temporary employment for 6 months (June 1 – December 31)
- 2004 – 2010 **Master's degree: Civil Engineer in Medicine & Technology**  
Technical University of Denmark (DTU), and Health & Medical Sciences, University of Copenhagen. Specialization in signal processing and model based diagnostics.
- Master thesis: "Analysis of functional Magnetic Resonance Imaging - Activation Changes Related to Cataract Surgery"
  - Bachelor thesis: "3D inverse-dynamic gait analysis with osteoarthritis of the knee - before and after knee replacement"

## PUBLICATIONS

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### Original research

1. Reduced global efficiency and orbitofrontal centrality of the functional network characterizes high neuroticism in adolescence. Johansen LB, Madsen KS, Andersen KW, Madsen KH, Siebner HR, Baaré WFC. Manuscript in submission.
2. Longitudinal functional connectomics of the adolescent brain: implications of neuroticism. Johansen LB, Madsen KS, Andersen KW, Madsen KH, Siebner HR, Baaré WFC. Manuscript in preparation.

### Popular science

3. The Brain – imaging genetics and development (Danish title: Hjernen - genetik og udvikling i billeder). Johansen LB, Siebner HR, Werge T, Madsen KS. Hjerneforum - society of voluntary researchers and practitioners communicating recent brain research, 2013.

## ACADEMIC COURSES

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- Good Clinical Practice (GCP) - monitoring of clinical research, University of Copenhagen
- Advanced Signal Processing, Technical University of Denmark
- Regression Models, University of Copenhagen
- FSL & FreeSurfer (image analysis software), University of Oxford and University of Montréal
- Intensive Medical Writing, University of Copenhagen
- Neuroradiology & Functional Neuroanatomy, University College London, UK

## SELECTED ACADEMIC ACTIVITIES

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- Involvement in the **application for ethical approval** from the National Committee on Health Research Ethics for the Brain Maturation project (HUBU).
- Setting up and **optimizing analysis pipeline** for resting-state functional magnetic resonance imaging (MRI) with documentation.
- **Publication administrator** (PURE) of contributions from the Danish Research Centre for Magnetic Resonance.
- **Teaching** functional MRI including imaging, physiological noise, artifacts, and application to radiographers.

## IT QUALIFICATIONS

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Standard software:	MS Word, Excel, PowerPoint, and Outlook; Openoffice and TeX
Data processing software:	MATLAB, Python and R
Statistical analysis software:	R studio, SAS JMP and SPSS
Visualization software:	Inkscape and Gephi
Image analysis software:	Statistical Parametric Mapping (SPM), FMRIB Software Library (FSL), FreeSurfer, Brain Connectivity Toolbox (BCT), BrainNet Viewer
OS systems:	Mac, Windows, and Linux

## LANGUAGE SKILLS

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Danish: Fluent (mother tongue)  
English: High professional level