

PERSONAL INFORMATION

ORCID: 0000-0003-4732-5526

DOB: March 10, 1986

EMAIL: johnrshorter@gmail.com

URL for website: <https://forskning.ruc.dk/en/persons/johnsh>

<https://github.com/johnshorter>



SUMMARY

John Shorter is an Assistant Professor of Biomedical Data Science at Roskilde University (RUC), in the Department of Science and the Environment, and affiliated with researcher with the Institute of Biological Psychiatry (IBP) at Sct Hans in Roskilde, and the PandemiX Center at RUC, as well as a member of the Young Academy Panel for the Danish Data Science Academy (DDSA). His research focuses on understanding the genetic mechanisms of disease, and the development and use of polygenic risk scores for disease prediction. He has been invited to teach workshops on the use of genetic prediction in research, see <https://github.com/johnshorter/NSHG-PM2023>

He has 19 total publications (12x first or co-first author), 3 in preparation, and 1 first author manuscript accepted in Nature Genetics, pending minor revisions. He has over 1,000 citations, h-index 14, i10-index 16 (Google Scholar) <https://scholar.google.com/citations?user=cj6-bD4AAAJ&hl=en>

He is course responsible for two master's courses, Applied Data Science, and Bioinformatics, which he has taught for three years at Roskilde University. He created RUC's new Applied Data Science course in 2023. He also teaches several lectures in Genetics, and a short Ph.D. Research Dissemination Course starting October 2024 on Data Visualization and AI.

EDUCATION

Dec 2015 Ph.D. in Genetics North Carolina State University -- Raleigh, North Carolina

May 2011 M.S. in Entomology Purdue University -- West Lafayette, Indiana

May 2008 B.S. in Ecology and Evolutionary Biology University of Michigan -- Ann Arbor

EMPLOYMENT

2022 - present Assistant Professor Biomedical Data Science – Roskilde University, Denmark

2019 - 2022 Senior Postdoc at the Institute of Biological Psychiatry -- Roskilde, Denmark

2018 - 2019 NIH CIDD T32 postdoctoral fellow – University of North Carolina, US

2015 - 2018 Postdoctoral fellow – University of North Carolina, US

FELLOWSHIPS AND PREVIOUS FUNDING

2018-2019 NIH CIDD T32 postdoctoral fellowship

Salary for 2 years. ~90,000 USD. Co-PI with Prof. Fernando Pardo Manuel de Villena

2011-2013 NIH Predoctoral Research Training Fellowship

Salary for 2 years. ~65,000 USD. Co-PI with Prof. Trudy Mackay

(CO)-SUPERVISION OF STUDENTS AND POSTDOCTORAL FELLOWS

2012 - 1 Post Docs, 2 PhD students, 1 Master student, 3 Bachelor student

MAJOR COLLABORATIONS

Patrick Sullivan (UNC, US & Karolinska, SE) – Extreme Depression

Lu Yi (Karolinska, SE) – Extreme Depression

Ole Andreassen (University of Oslo) – Extreme Depression

Kelli Lehto (Estonian Biobank, Institute of Genomics, Tartu University) – Extreme Depression

Allan Bayat (Danish Epilepsy Center, Dianalund) – Efficacy and tolerability of perampanel therapy in the treatment of epilepsy

Alexander Teumer (University of Greifswald) and the **ThyroidOmics Consortium** -- GWAS study between the interaction of smoking and thyroid-stimulating hormone (TSH) levels

Ole Pedersen (DBDS, Naestved Hospital) and **Louise Torp Dalgaard** (Roskilde University) -- Longitudinal development of hypothyroidism in the DBDS

Michael Asger Andersen (Bispebjerg Hospital) Clopidogrel Efficacy in Stroke Patients

TEACHING ACTIVITIES

2024 - Ph.D. Research Dissemination Course ‘How to visualize your research’, RUC, DK, (1/2 ECTs). 4-12 students / workshop

2023 - Bioinformatics. RUC, DK, MSc in Health Science (5 ECTs). ~40 students / semester

2023 - Applied Data Science and Visualization. RUC, DK, MSc in Health Science (5 ECTs). ~50 students / semester

2023 - Genetics. RUC, DK, BSc in Biology (5 ECTs). ~80 students / semester

2020 Experimental design in neuroscience. UCPH, DK, MSc in Neuroscience program
Guest Lecturer (8 hours)

2013 Introduction to Genetics, NCSU, USA, Department of Genetics

INSTITUTIONAL RESPONSIBILITIES & LEADERSHIP TRAINING

2024 Danish Data Science Academy, Young Academy Panel (YAP) member

2023 Developed and taught a 3-day R Data Science workshop for RUC faculty

2022 Participant in Certificate of University Teaching and Learning (CUTL), RUC

2021 Graduate Student Advisor, IBP, DK

REVIEWING ACTIVITIES

2012- Ad hoc reviewer for; G3, PLOS ONE, PLOS Genetics, Behavioral Ecology and Sociobiology, Molecular Ecology

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2023- **Member of the Danish Data Science Academy (DDSA)**

2022- Member of the Nordic Society of Human Genetics (NSHG)

2021- Member of the European Society of Human Genetics (ESHG)

2019- Member of the International Society of Psychiatric Genetics (ISPG)

SELECTED INVITED PRESENTATIONS

June 2023 Invited speaker at the Nordic Society of Human Genetics (NSHG) “A Large Meta-Analysis Across Five Nordic Countries Reveals Several Significant Genetic Associations for Early Onset Major Depressive Disorder”

Aug 2017 Invited speaker at the University of North Carolina Genetics retreat “Male infertility is responsible for nearly half of the strain extinction observed in the Collaborative Cross”

Feb 2015 Selected speaker at the Gordon Research Conference for Quantitative Genetics and Genomics “Understanding epistasis and gene networks in complex traits: an analysis of aggression in *Drosophila*”

March 2015 Invited speaker at the Brain Awareness Symposium at the NC Museum of Natural Sciences “The brain and aggression: what can we learn from animals?”