

Curriculum Vitae for Theis Lange

Personal Data

Name Theis Lange, Ph.D., M.Sc.

Date of birth February 22nd 1978

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Bio- and research summary

My research involves methodological research within statistics as well as a wide range of applied collaborations with medical doctors, epidemiologists, psychologists etc. My methodological work is focused on causal inference i.e. a formal framework for addressing cause and effect. Methods I have developed have been broadly applied and its novelty recognized by the 2012 Kenneth Rothman Prize. My applied collaborations span from RCTs to complex longitudinal observational studies and from intensive care research to psychology. In total I have published 203 papers of which 15 as first author and 11 as last author (H-index 27, Web of Science). Since being awarded the EliteForsk travel grant of 250k during my PhD. I have been PI and co-PI for successful grant applications totaling 160M DKK. Until the summer of 2019, I held a dual position at Section of Biostatistics, University of Copenhagen and Department of Biostatistics, Peking University. I have also served on the Danish Heart Association's and Statistics Denmark's research boards. Finally, I have been working for BeiGene as their senior statistical methodology expert. BeiGene is a Chinese pharmaceutical company working on novel oncology treatments. I have been Head of the Section of Biostatistics (about 30 staff) and is currently Vice Head of Department of Public Health (about 300 staff) both University of Copenhagen.

Education

- 2008 Ph.D. Mathematical Statistics, University of Copenhagen (Thesis: "Asymptotic Theory in Financial Time Series Models with Conditional Heteroscedasticity").
- 2005 M.Sc. Mathematics and Economics, University of Copenhagen (Thesis: "Likelihood Based Inference in the AR-ARCH Model").
- 2004 M.Sc. Econometrics and Mathematical Economics with Distinction at London School of Economics (Thesis: "Consumption, Aggregated Wealth, and Expected Stock Returns in the UK").
- 2002 Bachelor (B.Sc.), Mathematics and Economics, University of Copenhagen (Thesis: "Modeling the Real Exchange Rate Using Threshold Autoregressive Models").

Positions

- 2019 – Vice Head of Department of Public Health, University of Copenhagen.

- 2012 – Associate Professor at Section of Biostatistics, University of Copenhagen.
- 2018 – 2019 Senior statistician with responsibility for methodology development, BeiGene, Beijing, China.
- 2016 – 2019 Visiting professor at Center for Statistical Science (later Department of Biostatistics), Peking University.
- 2013 – 15 Head of the Section of Biostatistics, University of Copenhagen
- 2013 Paternity leave from May until August.
- 2010 Paternity leave from May until August.
- 2009 – 12 Assistant Professor at the Section of Biostatistics, University of Copenhagen.
- 2008 – 09 Post.doc at the Department of Economics, University of Copenhagen.
- 2008 – 09 Post.doc. at Center for Research in Econometric Analysis of Time Series (CREATES), University of Aarhus.
- 2005 – 08 Ph.D. student at the Department of Mathematical Sciences, University of Copenhagen.

Awards, International Exchange and Other Activities

- 2020 Co-organizer of The 2020 Pacific Causal Inference Meeting, online.
- 2020 – Member of the Expert group on mathematical modelling of the Corona outbreak in Denmark under the Danish Institute for Infectious Diseases (SSI).
- 2019 Invited to give two-week intensive course on causal inference, Nanjing Medical University, Nanjing, China.
- 2019 Chair of the Scientific Organizing Committee for the Nordic Baltic Meeting of the IBS in Vilnius, Lithuania.
- 2011 – Member of several Data safety Monitoring Committees including the TTM-trial, ICU-ROX, NN8640-4172 REAL3 (Novo Nordisk trial), Aorta Rivaroxaban trial and HOMAGE trial.
- 2015 – 2018 Statistical editor for the Cochrane Hepato-Biliary Group.
- 2015 – Member of “Forskningsudvalget” within Statistics Denmark.
- 2014 – 2017 Teaching at the African Institute for Mathematical Sciences (AIMS), Cape Town, South Africa.
- 2014 Completed the basic management skills development course (LUKU) by University of Copenhagen and Summit Consulting.
- 2014 – Member of the Steering Committee of the WARM study on infant mental health.
- 2014 – Member of the Steering Group of CRIC.

- 2013 – 2019 Member of the research board in the Danish Heart Association, which grants around 25 million DKK annually for projects related to heart disease research and prevention.
- 2012 Awarded the *Kenneth Rothman Prize 2012* by the American College of Epidemiologists for the best paper (Direct and Indirect Effects in a Survival Context) in Epidemiology in 2011.
- 2010 Member of the study board (Danish: Studierådet) for the IT & Health program at the University of Copenhagen.
- 2010 Completed the Higher Education Teaching and Teaching Practice Program (Danish: Adjunktpædagogikum), Faculty of Health Sciences, University of Copenhagen.
- 2010 Included in the censor group for mathematics and statistics.
- 2007 Visiting scholar at the Department of Economics, Duke University, USA.
- 2007 Awarded the EliteForsk travel grant of DKK 250.000 by the Danish Ministry of Science, Technology, and Innovation.

Grants

- 2019 PI for the Causal Initiative composed of Section of Biostatistics, University of Copenhagen, Department of Biostatistics, UC Berkeley, and Novo Nordisk.
- 2019 Awarded an International Network award of 300.000 DKK from Danish Research Council for exploring network possibilities with University of Cape Town, South Africa.
- 2016 Co-PI and applicant for “Copenhagen Infant Health Intervention – implementation evaluation”; total grant DKK 5 million from Tryg.
- 2015 Co-applicant for “Psychosocial work environment and healthy aging”, Nordforsk; total grant DKK 24 million.
- 2014 Co-applicant in “Center for Research in Intensive Care (CRIC)”; total grant DKK 34 million from InnovationsFonden, Denmark.
- 2013 Co-applicant for a successful application for a KU2016 grant of 28 million DKK with which the “Dynamical Systems Interdisciplinary Network” will be initiated.
- 2011 Co-applicant for a successful Marie Curie Initial Training Networks (EU Seventh Framework Program) application. The total grant was €3.8 millions of which €303,000 is to be spent on projects directly involving the Department of Biostatistics, University of Copenhagen.
- 2007 Awarded the EliteForsk travel grant of DKK 250.000 by the Danish Ministry of Science, Technology, and Innovation.

Referee for Scientific Journals

American Journal of Epidemiology; Bernoulli; Biometrics; Communications in Statistics; International Journal of Biostatistics; Intensive Care Medicine; Epidemiology, JAMA; Journal of the American Statistical Association; Journal of Business and Economic Statistics; Journal of Econometrics; Oxford Bulletin of Economics and Statistics; Scandinavian Journal of Statistics; Statistica Sinica; Statistics in Medicine; Stochastic Processes and their applications; The Manchester School; The R Journal, Ugeskrift for læger (in Danish).

PhD Supervision

Currently supervising Anne Lyngholm Sørensen on her project on network mate-analysis. Previously supervised Liis Starkopf (on causal inference) and Anna Balch (on novel models for competing risks). In addition co-supervised 17 PhD students within epidemiology.

Langue Skills

Danish (native).
English (fluent).

Media Experience

External expert for Danish Broadcasting Company (DR) including both TV and radio appearances. Many interviews in press media.

Invited Talks and Conference Presentations (selected items only)

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| Dec 2019 | Invited speaker at Nanjing Medical University |
| Dec 2019 | Bohringer-Ingelheim, Shanghai Office. |
| Sep 2018 | Invited talk at Beijing Design Week. |
| Aug 2018 | Key-note speech at ADVICE 2018, Oslo, Norway. |
| Jul 2018 | Invited talk at IBC2018, Barcelona, Spain. |
| May 2017 | Invited talk at Kyungpook National University, Republic of Korea. |
| April 2017 | Invited talk at Harvard Medical School, MH, USA. |
| April 2017 | Invited talk at Dartmouth, NH, USA. |
| Feb 2017 | Invited talk at Nanjing Medical University, China. |
| Feb 2017 | Invited talk at Department of Epidemiology and Biostatistics, University of Cape Town, South Africa. |

Dec 2016 Talk at invited session 10th ICSA meeting, Shanghai, China.

Aug 2016 Invited talk at meeting of the Danish Society for Biopharmaceutical Statistics.

Jul. 2016 Talk at invited session 4th IBS-China International Conference, Shanghai, China.

May 2016 Key-note speaker at the conference Big Data in Medical Research, GuiYang, China.

Apr. 2016 Invited talk at the LEAD symposium, Dublin, Ireland.

Feb. 2016 Invited talk at East China Normal University, Shanghai, China.

Feb. 2016 Invited talk at Shanghai Biostatistics Forum, Shanghai, China.

Dec. 2015 Invited talk at Center for Statistical Science, Peking University, Beijing, China.

Jun. 2015 Invited talk at the 5th Nordic-Baltic Biometric Conference, Reykjavik, Iceland.

Apr. 2015 Invited talk at the 2-day meeting of the Danish Society for Theoretical Statistics.

Oct. 2014 Invited talk at the Department of Biostatistics, University of Århus.

Sep. 2014 Invited talk at the joint meeting of BSBS/FMS (the Danish and Swedish societies for biopharmaceutical/medical statistics).

Sep. 2013 Invited talk at the 34th Annual Conference of the International Society for Clinical Biostatistics, Munich, Germany.

Apr. 2013 Invited talk at The Danish Cancer Society.

March 2013 Invited talk at the Department of Biostatistics, Heidelberg University.

Feb. 2013 Invited talk at the Department of Biostatistics, University of Oslo.

Aug. 2012 Presentation and session leader at International Biometric Conference 2012, Kobe, Japan.

July 2012 Invited talk at the Department of Insurance Medicine, Karolinska Institute, Stockholm.

May 2012 Presentation at the workshop Time for Causality in Bristol, UK.

Sep. 2011 Invited talk at the Department of Biostatistics, University of Oslo.

May 2011 Invited talk at Einstein College of Medicine, New York.

May 2011 Invited talk at New York University.

May 2011 Poster presentation at Workshop on Causality in Health Care, Montreal, Canada.

Mar. 2011 Invited talk at The National Institute of Public Health, Denmark.

Dec. 2010 25th International Biometric Conference, Florianópolis, Brazil.

Sep. 2010 Invited talk at the Department of Biostatistics, University of Oslo.

Nov. 2009 2-day meeting of the Danish Society for Theoretical Statistics.