

David Westergaard, PhD

HEALTH DATA SCIENTIST · RESEARCH LEADER · WOMEN'S HEALTH

Summary

As an early-career health data scientist and research leader specializing in early pregnancy, I'm deeply passionate about harnessing the power of omics data integration to advance maternal health insights. With a track record of merging genomics, proteomics, and metabolomics, I transform complex datasets into actionable knowledge. My collaborative experiences with clinicians and bioinformaticians emphasize the union of data-driven research with clinical relevance.

Work Experience

Department Obstetrics and Gynecology, Copenhagen University Hospital-Hvidovre

SENIOR RESEARCHER (ASSOCIATE PROFESSOR LEVEL)

- Lead data scientist for the COPL project - <https://www.graviditetstab.dk/>

Copenhagen, DK

Sep. 2022 -

Translational Disease Systems Biology, Novo Nordisk Foundation Center for Protein Research, University of Copenhagen

PHD STUDENT, POSTDOCTORAL FELLOW, ASSISTANT PROFESSOR

- PhD Student 2015-2018
- BRIDGE Translational Excellence Postdoctoral Fellow 2019-2021
- Part-time/full leave due to illness Nov 2020-May 2022

Copenhagen, DK

Feb. 2015 - May. 2024

Data Science Lab, Statistics Denmark

GUEST RESEARCHER

Copenhagen, DK

Mar. 2019 -

Recurrent Pregnancy Loss Unit, Capital Region, Rigshospitalet / Hvidovre Hospital, Capital Region

GUEST RESEARCHER

Copenhagen, DK

Apr. 2019 - Aug. 2022

University of Hong Kong

RESEARCH ASSISTANT

Hong Kong, HK

Oct. 2013 - Dec. 2013

EMBL - European Bioinformatics Institute

RESEARCH INTERNSHIP

Cambridgeshire, UK

Mar. 2013 - Sep. 2013

Presentations

CLIME Seminar: Omics Technologies in Women's Health

INVITED PRESENTATION: THE COPENHAGEN PREGNANCY LOSS PROJECT

DK

2024

Novo Nordisk Fondation Challenge Symposium

INVITED PRESENTATION: UNCOVERING THE HERITABLE COMPONENTS OF MULTIMORBIDITIES AND DISEASE TRAJECTORIES: A NATIONWIDE COHORT STUDY

DK

2023

Life cycle in Medicine Symposia

INVITED PRESENTATION: BIG DATA - DISEASE TRAJECTORIES

DK

2022

Librarians in Health, Medicine, and Society Biannual Meeting

INVITED PRESENTATION: AN INTRODUCTION TO TEXT MINING

DK

2019

Union of Young Obstetricians and Gynaecologists

INVITED PRESENTATION: RECURRENT PREGNANCY LOSS AND RISK OF LATER DISEASE

DK

2019

Education

University of Copenhagen, Faculty of Health Sciences

PHD DEGREE IN BIOSTATISTICS AND BIOINFORMATICS

- Thesis: Modeling Temporality in Healthcare Data
- Supervisors: Prof. Søren Brunak & Prof. Lars Juhl Jensen

Copenhagen, DK

May 2018

Technical University of Denmark

MSC.ENG IN BIOINFORMATICS AND SYSTEMS BIOLOGY

- Honors Program, GPA: 11.1 (Danish Scale) (A)
- Thesis: Candidate Gene-Networks Associated with Direct and Inverse Comorbidities

Copenhagen, DK

Jan. 2015

Hong Kong University of Science and Technology

SCIENCE STUDIES, EXCHANGE PROGRAMME

- Research project: Investigation of gender sensitivity of Single Nucleotide Polymorphisms. Supervisor: Prof. Hannah H. Xue

Hong Kong, HK

Sep. 2011 - Dec. 2011

Technical University of Denmark

BSC.ENG, CHEMICAL ENGINEERING

- Thesis: Deciphering the complex effects of diet on human health by integrating large scale transcriptome data

Copenhagen, DK

Jul. 2012

Extracurricular Activity

LEADERSHIP

- I am a co-supervisor of two PhD students, have supervised >10 master and bachelor students, and I am involved in the daily supervision of master thesis students, PhD students, and postdoctoral fellows with diverse backgrounds in biology, medicine, and computer science.

REVIEW EXPERIENCE

- I am a reviewer for: Nature Communications, Bioinformatics (Oxford), PLoS Computational Biology, IEEE/ACM Transactions on Computational Biology and Bioinformatics, European Journal of Human Genetics, Journal of Biomedical Informatics, Computational and Structural Biotechnology Journal, and Journal of Clinical Medicine

PROFESSIONAL MEMBERSHIPS

- I am a steering group member in the Copenhagen Hospital Biobank Working Group on Reproduction, member of the Danish Blood Donor Study Genetic Consortium, and part of the Nordic Collaboration on Women's Health and Reproduction.

INTERNATIONAL EXPERIENCE

- 2019-: Nordic Collaboration on Women's Health and Reproduction. Collaboration between Oxford University (UK), FIMM (FI), Tartu University (EE), deCODE Genetics (IS), and Gothenburg University (SE) with a focus on genetics and reproduction. Flagship paper on postpartum hemorrhage in review, led by me
- 2015-2018: Part of the NIH funded project "Illuminating the Druggable Genome", coordinated by Prof. Tudor Oprea (UNM, USA). Flagship paper published in Nature Reviews Drug Discovery
- 2013: Research assistant at University of Hong Kong. Hosted by Dr. Gianni Panagiotou. Project has been published in BMC Genomics
- 2013: Member of the Danish Pan Genome Consortium. Articles published in Genome Research, Nature Communications, Nature Genetics, and Nature
- 2013: Internship at the EMBL-EBI in Cambridge

Funding

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| 2024 | Non-Diabetic Endocrinology – Collaborative Project Grants (10M DKK) , Novo Nordisk Foundation. Work package responsible. |
| 2023 | Non-Diabetic Endocrinology – Collaborative Project Grants (25M DKK) , Novo Nordisk Foundation. Work package responsible. |
| 2020 | PREGCO: Consequences of COVID-19 infections for pregnant women and their newborn babies (5.8 million DKK) , Danish Ministry of Health. Partner. |
| 2019 | DeiC Pilot Project (150.000 DKK) , Two HPC pilot projects on text mining and precision medicine in autoimmune disease. Main co-applicant |
| 2019 | BRIDGE Translational Excellence Programme (Two year postdoc) , The University of Copenhagen.
https://bridge.ku.dk/ |

Publications

PEER-REVIEWED PUBLICATIONS >50 peer-reviewed articles, 2,476 citations, H-index 21 (Google scholar)