

# Jago Van Dam, PhD

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## EDUCATION

### PHD IN MEDICINE | 2017–2020 | UNIVERSITY OF ADELAIDE

- Project title: ‘Towards characterising neurophysiological and neuroendocrine function in adolescents born to women with gestational diabetes mellitus’
- Multidisciplinary research primarily in the fields of neurophysiology, endocrinology, and obstetrics
- Used transcranial magnetic stimulation, electrophysiology, immunohistochemistry, cognitive assessment and statistics

### BACHELOR OF HEALTH SCIENCES (HONOURS) | 2016 | UNIVERSITY OF ADELAIDE

- Honours, First Class
- Explored the effects of gestational diabetes on cortical development, endocrine function in children; pharmacogenetic analyses of metformin
- GPA: 7.000 | Graduated with highest marks in the discipline

### BACHELOR OF SCIENCE | 2012–2015 | UNIVERSITY OF ADELAIDE

- Double Major in Genetics and Psychology
- GPA: 6.083

## COMMUNICATION

- Advanced technical and scientific writing
- Experienced in online writing
- Experienced in presenting scientific data and research at national and international conferences
- Experienced in clinical research administration including recruitment and patient management
- Excellent written and oral communication skills
- Experienced in tertiary teaching and assessment

## TRAINING

### DATA AND COMPUTER SCIENCE

- Full-stack Web Development with React (Specialization) – Coursera (2021)
- Introduction to Cyber Security (Specialization) – New York University/Coursera (2021)
- Cloud Application Development Foundations (Professional Certificate) – IBM (2021)
- Modern Big Data Analysis with SQL (Specialization) – Cloudera (2020)
- SQL and Database Design – Udemy (2020)
- Machine Learning A-Z (R/Python) – Udemy (2019)
- Data Scientist with Python – DataCamp (2019)
- CS50 Introduction to Computer Science – HarvardX (2019)
- Python for Data Science – University of California San Diego (2018)
- Advanced statistics, R, and research methods coursework – University of Adelaide (2012–2015)

## AWARDS

- Australian Society for Medical Research (ASMR) Robison Research Award (Best Presentation) 2017
- Perinatal Society of Australia and New Zealand Early Career Researcher Travel Award 2017
- Healthy Development Adelaide/Channel 7 Children’s Research Foundation (top-up) scholarship 2017
- Research Training Program/Australian Postgraduate Award 2017
- Faculty of Sciences Outstanding Academic Achievement Award 2015
- Faculty of Sciences Outstanding Academic Achievement Award 2014

## LEADERSHIP

- Leading multidisciplinary biomedical research projects
- Principal researcher, Metformin in Gestational diabetes (MiG) trial follow-up studies
- Directing research design, recruitment, data collection, database management, data analysis, publication and dissemination of data
- Supervising junior researchers and research assistants; lecturing, tutoring, and assessing 3<sup>rd</sup> year university Health and Medical Science students

## RELEVANT EMPLOYMENT & EXPERIENCE

### SENIOR STATISTICIAN/DATA ANALYST | CHILD DEATH AND SERIOUS INJURY REVIEW COMMITTEE | 2020–PRESENT

- Responsible for all quantitative analysis, annual reporting, and research in a Govt independent statutory body
- Working with complex, semi-structured data requiring significant transformation, aggregation, and integration with other sources, e.g., ABS data
- Modernised the annual reporting process by developing an interactive [web version](#) of the annual report (previously PDF) using HTML, CSS, JavaScript, and Plotly
- Converted data extraction workflow from legacy system (Cognos) to Power BI, inc. extensive ETL and data modelling with SQL Server
- Managed and implemented the transition from legacy SQL Server database to a new electronic data capture and reporting system (REDCap) hosted on Azure – extensive negotiation with ICT and Cyber Security departments and technical configuration
- Developed interactive web apps for [blog posts](#)
- Performed qualitative work inc. case review, collaboration with NGOs to promote policy change

### TEACHING ASSISTANT (CASUAL) | UNIVERSITY OF ADELAIDE | 2017–PRESENT

- Tutorial & workshop delivery, assignment marking

### RESEARCH ASSISTANT (CASUAL) | UNIVERSITY OF ADELAIDE | 2017–2020

- Neurophysiology research – data collection, analysis, publication

## TECHNICAL SKILLS

- Advanced statistics and modelling using Python & R
- Data wrangling, cleaning, and manipulation using pandas (Python) and the tidyverse (R)
- Data visualization using matplotlib & seaborn (Python) and ggplot2 & Plotly (R)
- Interactive data visualization and dashboarding using Tableau, Power BI, Plotly, and Shiny
- Web and app development using HTML, JavaScript, CSS, jQuery, React
- Advanced machine learning, inc. classification and prediction models using scikitlearn (Python)
- Advanced querying, database design, ETL using SQL (SQL Server, SSMS, MySQL, MySQL Workbench)
- Big data analysis with SQL using Hive and Impala
- Cloud computing with Google Cloud Platform, Azure, and IBM Cloud
- Software engineering and general programming using Python, JavaScript, C#
- REDCap – project design and implementation; Azure configuration, back-end engineering (JavaScript & PHP)
- Software: MS Office, Jupyter, RStudio, VS Code

## PUBLICATIONS

**Van Dam, J. M., et al.** (2021). Cortical Plasticity and Interneuron Recruitment in Adolescents Born to Women with Gestational Diabetes Mellitus. *Brain Sci.* 11(3), 388; doi.org/10.3390/brainsci11030388

**Van Dam, J. M., et al.** (2018). Variability of the cortisol awakening response and morning salivary oxytocin in late adolescence. *J Neuroendocrinol*, e12645. doi:10.1111/jne.12645

**Van Dam, J. M., et al.** (2018). Reduced cortical excitability, neuroplasticity, and salivary cortisol in 11–13-year-old children born to women with gestational diabetes mellitus. *EBioMedicine*, 31, 143–149. doi: 10.1016/j.ebiom.2018.04.011

**Van Dam, J. M., et al.** (Under review). Larger average cortisol awakening response is associated with poorer executive function and processing speed in healthy adolescents.

## **PUBLICATIONS CONT.**

**Van Dam, J. M.**, Goldsworthy, M. R., Hague, W. M., Coat, S., Pitcher, J. B. (Under review). Lower total morning cortisol secretion in adolescents born to women with gestational diabetes mellitus.