REGINA H REYNOLDS

Molecular biologist turned bioinformatician, with a passion for systems-level biology, statistics and data visualisation and the application of these to answer biological questions. My current work explores the role of different cell types in neurodegeneration, making use of large-scale genomic and transcriptomic datasets.

🎓 EDUCATION

PhD, Bioinformatics

University College London   📍 London, UK

2021 | 2016

- Thesis: Exploring the importance of cell-type-specific gene expression regulation and splicing in Parkinson's disease[1]
- Integrated transcriptomic data with summary-level genetic association data to investigate the role of cell-type-specific gene expression regulation and splicing in Parkinson's disease.
- Published 3 first/co-first author research articles and 1 first author review. Additionally, regularly collaborated with colleagues, resulting in several middle-author research articles.
- Successfully secured £10,000 from Signe og Peter Gregersens Mindefond to undertake transcriptional profiling of Parkinson's disease brain tissue.

MSc, Molecular Biomedicine

University of Copenhagen   📍 Copenhagen, Denmark

2016 | 2014

- Thesis: Changes in the miR-34a-SIRT1 axis in Huntington's disease
- Grade: A (92.5%)

BSc, Molecular Biomedicine

University of Copenhagen   📍 Copenhagen, Denmark

2013 | 2010

- Thesis: Pro-apoptotic factors in Huntington's disease: a study in the R6/2 transgenic mouse model
- Grade: A (96.7%)

💼 WORK EXPERIENCE

Research Fellow

University College London   📍 London, UK

Present | 2021

- Lead analyst involved in processing and analysing transcriptomic data generated with the aim of identifying molecular signatures of Parkinson's disease progression. Work done primarily using R, nextflow and docker.
- Co-lead of Code and Pipeline Alignment Working Group in the Aligning Sciences Across Parkinson's[2] initiative. This group aims to maximize the value of data generated from finite post-mortem brain tissues through code alignment, which will enable eventual meta-analysis.
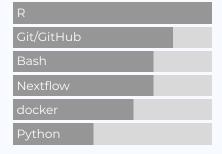
CONTACT

✉ rhreynolds@hotmail.co.uk
○ GitHub
in LinkedIn
▤ ResearchGate

PROGRAMMING LANGUAGES

R
Git/GitHub
Bash
Nextflow
docker
Python

2016
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2016

Research Assistant
University of Copenhagen 📍 Copenhagen, Denmark

· Ran project exploring the interactions between miR-34a, Sirt1 and p53 in a Huntington's disease mouse model, which culminated in a first author publication[3].

2015
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2013

Housing Assistant
DIS, Study Abroad in Scandinavia, Denmark 📍 Copenhagen, Denmark

· Student assistant involved in general administrative tasks; organisation of bi-annual orientation meeting for hosts/students; and conflict mediation between hosts and students.

💻 TEACHING EXPERIENCE

Present
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2021

Subsidiary PhD Supervisor
University College London 📍 London, UK

· Involved in top-level project planning, providing a second opinion/additional areas of expertise where appropriate.

Present
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2019

R fundamentals
Clinician Coders 📍 London, UK

· Developed materials[4] and lead workshops teaching basic R and tidy data principles to clinical academics.

2019
|
2017

Omics Techniques
King's College London 📍 London, UK

· Lectured graduate level students on the principles of genome-wide association studies and lead a workshop on how/why to use the Genotype-Tissue Expression portal.