Dominic D.G. Owens





About me

I am a highly motivated bioinformatician with nine years experience extracting key insights from genomics and proteomics data and disseminating knowledge effectively to colleagues across diverse disciplines. I have found that my decade-long background as a bench scientist uniquely positions me to provide robust and meaningful conclusions from biological data. My expert domain knowledge in drug discovery, epigenetics, and disease mechanisms mean I'm capable of delivering exceptional results that make a real impact.

Professional Experience

Amphista Therapeutics

Aug. 2023-present Cambridge, UK

Senior Bioinformatician, Amphista Therapeutics Ltd.

- Responsible for analysing proteomics and transcriptomics data for multiple drug discovery projects
- Communicating results clearly and accurately to project teams made up of diverse disciplines
- Developing high-throughput cloud-based reproducible pipelines for end-to-end omics data analysis
- Delivered user-friendly and intuitive shiny apps for project teams to explore and visualise their omics data

University of TorontoPostdoctoral Research Fellow, Structural Genomics Consortium

Jan. 2021 - Jul. 2023 Toronto, Canada

- Lead author on interdisciplinary project team of twenty-eight biologists and medicinal chemists from academia and industry that delivered a novel E3 ligase ligand, published in Nature Chemical Biology
- Co-author identifying a novel alkyl amine-based FBXO22-recruiting degrader, published in Nature Chemical Biology
- Secured competitive research funding and fellowships totalling £95,000

Education

University of Oxford

Oct. 2015 - Nov. 2020

Oxford, UK

DPhil (PhD) Medical Sciences

- Established and coordinated two research projects involving twenty-six scientists across the UK and Europe
- Lead author on a publication in Nature Communications on regulation of a gene involved in leukemia, ranked in the 93rd percentile for online accesses
- First author on a publication on CRISPR/Cas9 with 118 citations (ranked in the top 5% of all papers)
- Awarded research funding and scholarships worth £122,000

Skills and Experience

Data analysis and visualisation

- Nine years experience designing and implementing cloud-based analysis pipelines for RNA-seq, ATAC-seq, Cut&Run, ChIP-seq, Capture-C, and more from raw Illumina fastq files
- Four years experience analysing and interpreting proteomics data including label-free and TMT global proteomics, chemoproteomics, and proximity-dependent biotinylation (BioID) data from raw files
- Advanced data visualization skills to transform complex biological data into attractive and accessible figures for presentations, reports, and publications
- Skilled in applying machine learning and statistical models including regression, clustering, principal components analysis, differential expression analysis, pathways analysis, and network analysis to derive deep insights

Programming skills

- Strong programming skills including daily R scripting and package development; familiar with Python; familiar with Snakemake; proficient in bash and command line use
- Design and execution of SQL databases
- Pipeline development and workflow management with Snakemake and conda
- Committed to software development best practices including version control with Git, containerized environments, and cloud computing via AWS and Azure

Experimental skills

• Ten years wet-lab experience personally generating omics data including proteomics, chemoproteomics, RNA-seq, ATAC-seq, CUT&RUN, ChIP-seq, Capture-C

Leadership, project management, and teamwork

- Developed and maintained multiple international scientific collaborations involving top-tier scientists across academia and industry
- Initiated and personally led three research projects each lasting two to three years and delivered high-impact papers, demonstrating my high attention to detail and strong organizational skills