

# Heath O'Brien, PhD

## Bioinformatician

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[Publications](#)

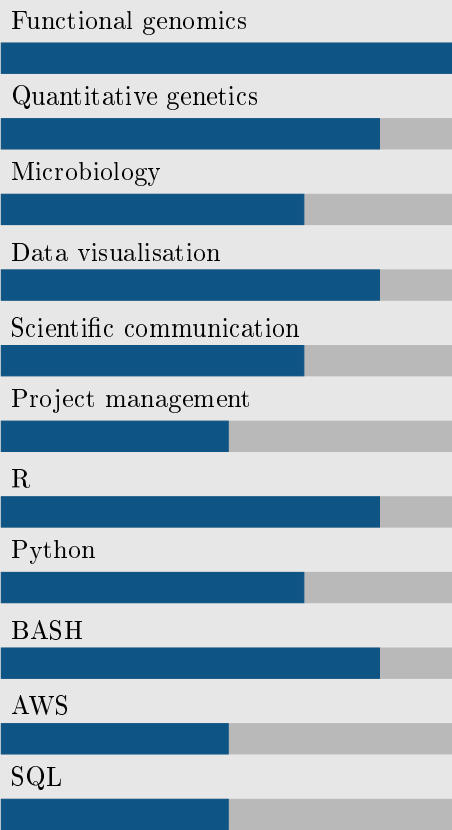


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## About me

I have 20 years of experience analyzing genetic data, both in academia and the private sector. I've worked on functional genomics, high-throughput sequencing and genotyping data from plants, fungi, bacteria and humans. I enjoy working on interdisciplinary projects and leading teams with diverse skill sets. I also have strong communication skills, having co-authored over 25 publications and presented my research at conferences in 7 countries.

## Skills



## Work History

2018-Present	Lead Bioinformatician Living DNA	Frome, UK
	<ul style="list-style-type: none"><li>Leading a team of 6 bioinformaticians and data scientists developing methods to derive ancestry and health insights from direct-to-consumer genetics</li><li>Managing partnerships with data suppliers, academic scientists and business incubators</li><li>Working to secure external funding to develop novel genomic prediction approaches</li><li>Collaboration with the engineering team to deploy processing pipelines at scale and to improve all steps of sample processing and data delivery</li></ul>	
2016-2018	Research Associate MRC Centre for Neuropsychiatric Genetics and Genomics	Cardiff, UK
	<ul style="list-style-type: none"><li>Differential gene expression and eQTL analyses on human brain samples</li><li>Integration of functional genomics data with large-scale population genomics datasets for schizophrenia and other neuropsychiatric disorders</li><li>Organization of training seminars on data science (Rstudio, MySQL), version control (Git), and pipeline development (Snakemake, Bash)</li><li>Deployment of results on the web using R-Shiny</li></ul>	
2013-2016	Bioinformatician University of Bristol	Bristol, UK
	<ul style="list-style-type: none"><li>Comparative transcriptomics to determine the genetic basis of cell wall patterning responsible for colour-production in plant leaves</li><li>Electron microscopy of light scattering nanostructures in plants and algae</li><li>Acting group leader during nine-month family leave cover (overseeing a team of three staff and two students, managing procurement)</li></ul>	
2008-2013	Postdoctoral Fellow University of Toronto	Toronto, ON, Canada
	<ul style="list-style-type: none"><li>De novo assembly and comparative analyses of bacterial genomes</li><li>Cloning of virulence factors and characterization using in-planta infection assays</li><li>Supervision of undergraduate students</li></ul>	
2006-2008	Lab Administrator Duke University	Durham, NC, USA
	<ul style="list-style-type: none"><li>Oversight of teaching labs for General and Advanced Microbiology</li><li>Managed one lab technician and eight teaching assistants</li></ul>	

## Education

2000-2006	PhD, Molecular systematics of cyanobacteria Duke University	Durham, NC, USA
1994-1999	Bachelors degree, Plant Science University of Alberta	Edmonton, AB, Canada

## Training

Advanced Python for Biologists, PR Statistics, February, 2017.  
Advancing in R, PR Statistics, April, 2015.  
Genetic Data Analysis, Summer Institute in Statistical Genetics, June, 2003.

## References

Available on request.