Declan Bennett

Curriculum vitae

Education

2023	**PhD Bioinformatics**, *University of Galway*
	Awarded Irish Research Council postgraduate scholarship to investigate and analyse mutational processes inferred from low-depth sequencing data
2017	**MSc. Biomedical Genomics**, *University of Galway*, *1.1*
	NGS data analysis, Bioinformatics, Cancer Biology, Immunology, Programming, Statistical Computing in R, Medical Genomics and Probabilistic Models
2016	**BSc. Biotechnology**, *University of Galway*, *2.1*
	Modules: Biochemistry, Microbiology, Industrial Processes, French, Genetics, Pharmacology and Business

Work Experience

Jan 2019 – Jan 2021	**HPC Systems Administrator**, *University of Galway*, Bioinformatics HPC
Jan 2018 – Sept 2018	**Bioinformatician**, *Keane Group*, EMBL-EBI, Cambridge
	Development of statistical analysis pipelines relating to the Accelerating Medicines Project-Type 2 Diabetes. Loading of datasets to the AMP node and submission to the EGA archive
Oct 2017 – Dec 2017	**Bioinformatics Internship**, *Supervisor: Prof Cathal Seoighe*, University of Galway
	Investigation of genes in cancer under selection for downregulation via NMD
Apr 2015 – Jul 2015	**Research Assistant**, *Laboratoire de Biotechnologie et Chimie Marines*, Vannes, France

Achievements

2020	**Awarded €25,000 Small Research Equipment grant**
	To upgrade and storage capacity increase of bioinformatics high performance compute cluster
2018	**Government of Ireland postgraduate scholarship**
	Awarded a 4-year scholarship from the Irish research council to study the somatic mutation rate variation across large population-scale datasets
2017	**Winner of the inaugural Roche prize for best MSc Biomedical Genomics research project**

31 Abbey Rd, Clonmel – Co. Tipperary – Ireland

+353-85-7571540 • *declanbennett@hotmail.com*

in *declan-bennett* • *declan93*

Skills

- Pipeline development for biobank scale datasets
- Hands on experience with large NGS datasets (UK biobank, GTEx, TCGA, ICGC) as well as analysing CRISPR KO screens
- Extensive experience in statistical programming languages (R,Julia) and genome association analysis toolsets (samtools,GATK,plink etc...)
- Experience in Python scripting language and workflow management systems (Snakemake, nextflow)
- Comfortable working with Unix based operating systems or with cloud based technologies (AWS,google cloud)
- Significant report writing and presentation experience
- Strong data analysis and visualisation skills developed through education and research
- Collaboration and team working skills demonstrated throughout my studies and at work
- Adaptable and flexible individual who is highly motivated and excited by new opportunities/challenges
- Active decision maker with strong attention to detail
- Excellent work ethic and commitment to quality
- Ability to take own initiative when necessary

References

Prof Cathal Seoighe
Director, SFI Centre for Research Training in Genomics Data Science
School of Mathematical and Statistical Sciences
University of Galway, Ireland
✉ cathal.seoighe@universityofgalway.ie

Dr Thomas Keane
Team Leader - EGA & Archive Infrastructure
EMBL-EBI, Cambridge, UK
✉ tk2@ebi.ac.uk

Publications

[1] Declan Bennett, Donal O'Shea, John Ferguson, Derek Morris, and Cathal Seoighe. Controlling for background genetic effects using polygenic scores improves the power of genome-wide association studies. *Scientific reports*, 11(1):1–10, 2021.

[2] Anja Göder, Aisling Quinlan, Michael David Rainey, Declan Bennett, Jacqueline Corso, and Corrado Santocanale. Ptbp1 enforces atr-chk1 signalling determining the potency of cdc7 inhibitors. *Iscience*, 2023.

[3] Michael D Rainey, Declan Bennett, Rachel O'Dea, Melania E Zanchetta, Muriel Voisin, Cathal Seoighe, and Corrado Santocanale. Atr restrains dna synthesis and mitotic catastrophe in response to cdc7 inhibition. *Cell reports*, 32(9):108096, 2020.

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📱 +353-85-7571540 • ✉ declanbennett@hotmail.com
in declan-bennett • ⌗ declan93