

Careers day 2019



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Overview

- 1 Background
- 2 MSc Biomedical Genomics
- 3 Internship
- 4 EBI, Cambridge
- 5 PhD application
- 6 Questions

Background

- **BSc Biotechnology, NUI Galway**
- 3rd year 3 month placement in Vannes, Brittany
- *Seasonal biochemical variation of the proliferative red macro algae Solieria chordalis*
- **Final year project**
- *A neurocognitive analysis of genes associated with both memory formation and schizophrenia*
- No wet-lab work, all statistical/computational



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@pakalupapito



started from the bottom now we a
little bit above the bottom

2015/04/01, 2:02 AM

- Developed a broad skillset rather than getting really good at one thing
- *Inferring the somatic mutation rate from population sequencing data*
- Allowed to take full ownership/direction of the project
- Roche Prize for best project

- 6 week opportunity at NUI Galway
- First time doing science as a 'job'
- Working on selection in cancer
- First 4 weeks work was scooped by a paper in Science

RESEARCH ARTICLES

TUMOR EVOLUTION

High burden and pervasive positive selection of somatic mutations in normal human skin

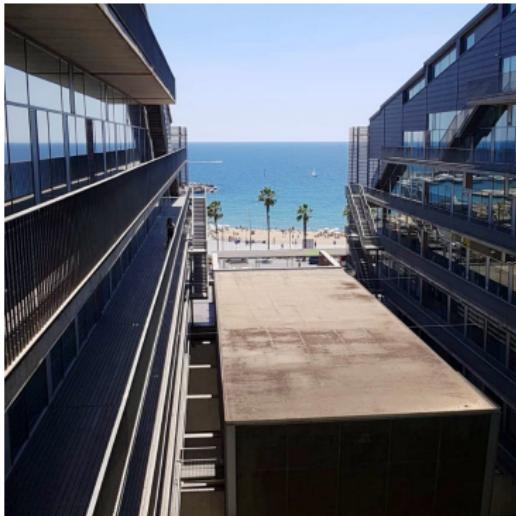


- Bioinformatician on the Accelerating Medicines Project - Type 2 Diabetes (AMP-T2D) project
- Federated collaboration of Broad Institute, Uni of Oxford, Uni of Michigan + Industry Partners
- Tasked to replicate the Broad Institutes GWAS pipeline.
- Experience was not as important as skill set
- Opportunity to network with top scientists, statistical geneticists, software developers etc...



- Based @ Wellcome Genome Campus, Hinxton
- Campus dedicated to Genomic research
- Campus shared with Sanger Institute, Genomics England, Eagle Genomics, Congenica, GA4GH, Elixir etc...
- Dynamic population of scientists, IT staff and support staff.
- Huge variety of roles available

Travel



PhD? what I've learned so far

- Continuation of the MSc
 - Building developing skills
 - Going in circles etc...
- Collaborations
 - Getting to take part in really interesting projects E.g CRISPR knockout screens
- Staying on top of the literature is never ending but most importantly
 - Gives rise to ideas
 - Allows the group to move with the field

PhD sources of funding

- Irish research council
- Hardiman scholarship
- College of Science
- PI-funded PhDs
- Centres for research training
- EMBL EIPP
- Marie Skłodowska-Curie funding

- Annual stipend of €16,000
- Contribution of fees €5,750 per annum
- €2,250 in research expenses per annum
- ≈ 20% of applications are successful
- Application deadline typically November
- See research.ie for details

IRC application



15 page document outlining:

- Research proposal both lay + scientific
- Personal statements
- Choice of higher education institution
- Career development and training plan
- Choice of supervisor

≈ 1 Month over and back with supervisor

Questions?