Arian Rokkum Jamasb

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Date of Birth: 5^{th} June 1996. **Address:** 10 Archway Court, CB3 9LW, Cambridge, UK. **Nationalities:** Norwegian, Iranian. **Webpage:** http://www.jamasb.io

Education

2018-(2022) *PhD.* **Computational Biology Group, Artificial Intelligence Group, Department of Computer Science and Department of Biochemistry, University of Cambridge**
Artificial intelligence & multiplex network modelling for *M. tuberculosis* drug discovery.
Supervisor: Professor Sir Tom Bludell, Department of Biochemsitry.
Second Supervisor: Professor Pietro Lió, Department of Computer Science and Technology.

2014-2017 *BSc.* **Biochemistry, Imperial College London** (1^{st} Class Honours)
Dissertation: Automated Quantification of Cells Across Whole-Brain Image Volumes.
Specialist modules: Bioinformatics, Integrative Systems Biology, Neuroscience Research.

2007-2014 **The Perse School, Cambridge.** Academic Scholar.
A Levels: Mathematics, Further Mathematics, Biology, Chemistry

Research Experience

2017-2018 *Graduate Research Assistant. Drosophila* Connectomics Group, Department of Zoology, University of Cambridge. **Neural Circuit Reconstruction and Connectomic Analysis of a Whole-Brain *Drosophila* EM Volume** (Dr. G. Jefferis).

- Examining odour information integration pathways and their relation to innate behaviour and learning & memory circuitry
- Neuroinformatics, development of computational tools, Analysis of electron micrographs
- Statistical image analysis, image registration

2017 *Undergraduate Dissertation.* Department of Life Sciences, Imperial College London. **Automated Quantification of Neuronal Distribution Across Whole-Brain Image Volumes** (Professor S. Brickley).

- Image processing, computer vision, algorithm design
- Whole-brain 2-photon imaging in mice
- Bioinformatics

2016-2017 *Undergraduate Reseach Assistant.* Department of Life Sciences, Imperial College London. **Developing a Dynamic Optogenetics System for High-Throughput Behavioural Manipulation of *Drosophila*** (Dr G. Gilestro).

- Statistical analysis and modelling of large time series
- Computer-aided design, 3d printing and electronics
- Machine learning applied to behaviour analysis

Publications[1]

Peer-Reviewed

2017 **Ethoscopes: An open platform for high-throughput ethomics.** Q. Geissmann, L. García Rodriguez, E. J. Beckwith, A. S. French, **A. R. Jamasb**, and G. F. Gilestro. *PLoS Biology.*

2018 **Functional and Anatomical Specificity in a Higher Olfactory Centre**. S. Frechter, A. S. Bates, S. Tootoonian, M. J. Dolan, J. D. Manton, **A. R. Jamasb**, J. Kohl, D. Bock, G. S. X. E. Jefferis. *bioRxiv, https://doi.org/10.1101/336982*

Forthcoming

2018 **The Synaptic organistation of Olfactory Projection Neurons in the Lateral Horn**. A. S. Bates & P. Schlegel, ..., **A. R. Jamasb**, ... *et al.* (Exact authors TBC; submission 2019)

The Role of Non-Canonical Muliglomerular Olfactory Projection Neurons in Courtship in Female *Drosophila*. **A. R. Jamasb** & I. Taisz *et al.* (Exact authors TBC; Forthcoming 2019)

Scientific Computing and Programming[2]

In addition to my primary interest in biology, I have extensive experience in computer programming and have developed several scientific applications in various languages:

`R`	*Highly competent*: base functions, statistics, algebra, data visualisation and package development.
`python`	*Highly competent*: scientific computing, data analysis, machine learning
System	*Competent*: GNU/Linux.
Web	*Competent*: `javascript` and `HTML`/`CSS`.

Teaching, Volunteering and Outreach

2018	Volunteer demonstrator for Just Bugs, Science Festival, *University of Cambridge*
2016	Webmaster, *Imperial College Biochemistry Society*
2016	Public engagement volunteer, *Biochemical Society*
2016	Public engagement volunteer, *Royal Society of Biology.*
2014	Volunteer tutor in mathematics, *Queen Edith's Primary School, Cambridge*

Memberships and Professional Affiliations

AMRSB	*Associate Member of the Royal Society of Biology*
AMRSC	*Associate Member of the Royal Society of Chemistry*
ARCS	*Associate of the Royal College of Science*
	Postgraduate Member of the Biochemical Society

References

Undergraduate Personal Tutor: Professor Anne Dell (a.dell@imperial.ac.uk)
Undergraduate Research Supervisor Dr Giorgio Gilestro (g.gilestro@imperial.ac.uk)
PI, Drosophila Connectomics Group: Dr Gregory Jefferis (jefferis@mrc-lmb.ac.uk)
Project Leader, Drosophila Connectomics Group: Dr Marta Costa (mmc46@cam.ac.uk)

[1] Detailed list on my webpage (`https://jamasb.io#publications`)
[2] Most of my contributions are open-source and publicly available (see `http://github.com/a-r-j`)