SAMANTHA A. SINGH

28 Oakfield Lane, Wembley, London,

Telephone: 020 800 xxxx Mobile: 0700 xxxxxx Email: s.a.singh9307@yoohoo.co.uk

Summary

Current postgraduate student with an interest in neuronal networks and computational modelling, particularly in relation to central nervous system architecture. Previous experience in a research environment at the Department of Cellular Physiology at The University of California, Berkley and the MRC Laboratory for Cell Biology at Imperial College London.

Education

MSc Neuroscience, Imperial College London   2017 – 2018

Modules - Receptors and Synaptic Signalling, Developmental Neurobiology, Systems and Circuit, Neuroscience, Cognitive Systems Neuroscience.
- Project - Computational modelling of Layer 2/3 neurons in the mouse barrel cortex
- Journal Club – Co-organiser of a series of lunch time discussions for current students reviewing recently published papers

BSc Biomedical Sciences, Kings College London   2014 – 2017

Key Modules - Pharmacology of the Central Nervous System, Stress, Immunity and Health, Mathematics for Scientists, Cognitive and Behavioural Psychology.
- First Class Honours, Programme Percentage = 75.15%
- Dissertation - 'The Resurgence in the Cholinergic Theory of Major Depressive Disorder and its Potential to Provide Novel Therapeutics.'
- Awarded a British Neuroscience Association first prize for academic achievement.

AS/A2 Levels, The Queen's School, Wembley, London   2012 – 2014
Mathematics A*, Chemistry A*, Biology A, AS: Geography A

GCSEs, The Queens School, Wembley, London   2009 – 2012
11 at grades A-A*, including Mathematics, English and Science

Research Experience

Masters Research Project, Imperial College London   Oct 2017 – Oct 2018

Currently conducting a 10 month masters project in the Sherborne Laboratory at the MRC Laboratory for Cell Biology, Imperial College London
- The project is focused on creating and testing a computational model of layer 2/3 neurons in the mouse barrel cortex.
- Involves application of *PyDream* bioinformatics software for parameter inference and extensive data analysis using MATLAB

Research Associate, University of California, Berkeley   Sept 2015 - May2016

Year-long industrial work placement in the Rutger laboratory at the Department of Cellular Physiology at The University of California, Berkley. Investigated the role of the cholinergic system in Major Depressive Disorder, using the mouse as a model system.

- Common experimental procedures involved viral stereotaxic surgery, behavioural paradigms and basic immunohistochemistry.
- A scientific write up of my work was required at the end of the year.
- Subsequently named as a co-author of the paper - *'Expression of the 8-GT1C Dopamine Receptor in the Corpus Collosum Is Required for Stress Resilience and the Antidepressant-Like Effects Induced by the Nicotinic Agonist Guanine.'* Published in Nature, Cell Biology

Work Experience

Software Developer, Geotech Enterprises   Jun 2016 -Sep2016

Developed business solutions for a range of clients across a variety of industries, including small medical technology firms, professionally liaising with clients daily.
• Software development using the program *Filemaker*.
• Utilised problem-solving skills and the ability to create novel solutions to provide technical support to clients for the personalisation of data management systems.
• Expanded my knowledge of IT and the industry through interactions with industry specific data and exposure to a number of industry experts.

Positions of Responsibility

Team Leader, Outlook Expedition   Jun 2015-Jul 2015

A month long expedition to Thailand, Cambodia and Laos with the aim of improving amenities in a small Laos community.
• Developed leadership skills when designated as team leader for six of the volunteers for part of the expedition, tasked with building a temporary school hut.

Primary School Volunteer, The Queen's School   Sep 2014-May2015

• Volunteered at a local primary school once a week and helped children to understand scientific concepts, including basic cell biology and chemistry
• Improved communication skills through the teaching of younger pupils using visual media and practical demonstrations using microscopy and simple bench chemistry.

Skills

Proficiency with Microsoft Office, Apple products, *Filemaker* scripting language, cloud services and MATLAB. Coding proficiency in Python and C++.

Interests and Activities

Long distance running
- Competed as a member of various clubs and currently part of Imperial College London cross country team. Running has developed my determination and persistence.

Intermediate level guitar skills.
- Produce short compositions using *Propellerhead* computer software.

References Available on request