

Michelle Alejandra Sánchez Rivera

CURRICULUM VITAE

Centre for Integrative Physiology

University of Edinburgh, UK, EH8 9XD

M.Sanchez-Rivera@sms.ed.ac.uk

EDUCATION

2016-2017 Masters by Research in Integrative Neuroscience. University of Edinburgh.

Class of award: Distinction.

2009-2013 Bachelor Biology.

Universidad Nacional Autónoma de México (UNAM) Mark obtained: 9.6/10

RESEARCH EXPERIENCE

2017-present Centre for Integrative Physiology, University of Edinburgh.

Supervised by Dr. Ian Duguid

Research focused on representations of movement in corticospinal neurons in the primary motor cortex, and the effects of dendritic integration on corticospinal output. Experience in techniques such as stereotactic surgery in rodents, development and implementation of rodent behavioural paradigms to study motor control, population and single-cell *in vivo* 2-photon calcium imaging using genetically encoded calcium indicators, *in vivo* opto- and chemogenetic (DREADDS) manipulations of neuronal activity.

2016-2017 Centre for Integrative Physiology, University of Edinburgh.

Supervised by Prof. Matt Nolan

Research topics included synaptic mechanisms involved in spatial navigation, and anatomical and functional mapping of neural circuits. Experience was acquired in stereotactic surgery in rodents, *in vitro* patch-clamp electrophysiology and optogenetics, and immunohistochemical tissue processing methods.

2012-2016 Department of Neurophysiology, National Institute of Psychiatry "Ramón de la Fuente Muñiz"

Supervised by Dr. Citlali Trueta Segovia.

2012- 2014 Institute of Cellular Physiology, Neuroscience Division UNAM

Supervised by Dr. Francisco Fernández de Miguel.

Research topics included synapse neurophysiology, theoretical and experimental models of short-term synaptic plasticity. Experience was acquired in invertebrate microdissection and in vitro electrophysiology (sharp electrodes).

PRESENTATIONS

2014 Participation in the Mathematical Biology National Meeting, Mexico.

Poster: "Mechanisms that produce paired-pulse synaptic depression in an identified synapse".

2014 Participation in the XXIV Annual Research Meeting of the National Institute of Psychiatry.

Poster: "Mechanisms that produce paired-pulse synaptic depression in an identified synapse".

COURSES

COURSES

2015 Bioinformatics Summer School.

Institute of Mathematics, UNAM Campus Querétaro.

2015 Mathematical Methods for Biology Summer School. Institute of Mathematics UNAM Campus Morelia.

2014 Mathematical Biology Autumn School. UNAM Campus Querétaro.

2012 Mathematical Biology Autumn School.

San Luis Potosí Autonomous University (UASLP).