

Sally P. Duarte, Ph.D.

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Overview

- Proven ability to independently drive a scientific research project from conceptualization to completion
- Superior communication skills, both written and verbal, evidenced through numerous presentations, posters, publications and grant submissions; awarded NSERC Postgraduate D2 Grant
- Strong leadership and management abilities; founder of Post-Doctoral Association; former business owner/operator
- High level technical expertise, including cutting edge imaging and microscopy, electrophysiology, fluorescent indicators, in vitro and in vivo preparations, histology, cell culturing, perfusion, and very fine scale neurosurgery
- Electrical engineering background with strong proficiency in computational and mathematical modeling, coding in many languages and troubleshooting

Education

- 2012 Doctor of Philosophy, Neurobiology and Anatomy, University of Rochester
Mentor: David J Pinto, Ph.D.
Thesis: Neuronal and Network Mechanisms of Ictogenesis
- 2002 Master of Engineering (Electrical), McMaster University
Mentor: Henry Leung, Ph.D.
Thesis: Fuzzy Track Initiation Techniques for Air Surveillance Radar
- 1998 Bachelor of Engineering (Electrical), McMaster University
Mentor: Anthony F. Vaz, Ph.D.
Thesis: Forming and Solving the Arm Equation for a 5D Model Helicopter

Honors and Awards

- 2010 Graduate Student Society First Place Merit Award
2007 NSERC Postgraduate Scholarship D2
2002 Graduation with Distinction (Suma Cum Laude)
1998 Ontario Graduate Scholarship
1998 Graduation with Distinction (Suma Cum Laude)
1996 Ontario Hydro Scholarship in Electrical Engineering
1994 Canada Scholarship
1994 McMaster Merit Award
1994 Rycott Mathematics Award

Work Experience

2018 – Present	Post-Doctoral Fellow, James Schummers Lab, Cellular Organization of Cortical Circuit Function, Biomedical Engineering Department, Florida International University
2013 – 2018	Post-Doctoral Fellow, James Schummers Lab, Cellular Organization of Cortical Circuit Function, Max Planck Florida Institute of Neuroscience
2012	Research Fellow, Ania Majewska Lab, Neurobiology and Anatomy Department, University of Rochester
2009 (Winter)	Graduate Teaching Assistant, Biosystems and Circuits for Biomedical Engineers Undergraduate Course, Biomedical Engineering Department, University of Rochester
2008 (March)	Teaching Assistant, Advanced Biology, Wilson Magnet High School
2006 – 2008	Mentor, Summer Bioengineering Research Program for High School Students
1998 – 2004	Owner/Operator, Lex Electrical & General Contracting
1998 – 2000	Graduate Teaching Assistant, Control Systems, Digital Signal Processing Undergraduate Course, McMaster University
1997 – 2002	Assistant, Keith Travis, Ph.D., Consulting Neuropsychologist
1998 (Summer)	Engineering Intern, Batch Annealing Processing Plant, Dofasco Steel
1997 (Summer)	Engineering Intern, Car Manufacturing Plant, General Motors of Canada
1996 – 1998	Tutorial Coordinator and Undergraduate Teaching Assistant, Level 1 Physics for Engineers, McMaster University
1995 – 1996	Undergraduate Teaching Assistant, Level 1 Physics for Engineers, McMaster University

Publications

Duarte SP, Schummers J, Retinotopic scatter minimizes receptive field redundancy in ferret visual cortex, in preparation.

Duarte SP, Pinto DJ, Spatiotemporal Patterns of Ictogenesis Differ in Somatosensory and Piriform Cortices, submitted

Duarte SP, Pinto DJ, Effect of Neuronal Properties on the Onset of Epileptiform Events, in preparation.

Duarte SP, Pinto DJ, Initiation of Epileptiform Activity Depends on the Interaction of Neuronal and Network Mechanisms in a Mathematical Model of Population Activity, in preparation.

Gdowski GT, **Duarte SP**, Green A (2006) Vestibular-Evoked Reflexive Head Movements and Their Dependence on the Body's Orientation in Space. IEEE Engineering in Medicine and Biology Society, Volume 1, pp. 3696-9.

Invited Talks

Duarte SP, Schummers J, (2017) Multiscale Variability and Redundancy of Stimulus Encoding in Ferret Visual Cortex, Max Planck Florida Institute for Neuroscience

Duarte SP, Schummers J, (2015) Sparseness and Redundancy of Stimulus Encoding in Ferret Visual Cortex, Max Planck Florida Institute for Neuroscience

Duarte SP, Schummers J, (2014) Large and Small Scale Structure of Functional Maps in Primary Visual Cortex, Max Planck Florida Institute for Neuroscience

Duarte SP, Pinto DJ (2012) Neuronal and Network Mechanisms of Ictogenesis, Max Planck Florida Institute for Neuroscience

Duarte SP, Pinto DJ (2012) Neuronal and Network Mechanisms of Ictogenesis, The Scripps Research Institute

Duarte SP, Pinto DJ (2012) Neuronal and Network Mechanisms of Ictogenesis, Baylor College of Medicine

Duarte SP, Pinto DJ (2010) Neuronal and Network Mechanisms of Ictogenesis, Gordon Research Conference on Mechanisms of Epilepsy & Neuronal Synchronization

Duarte SP (2009) To Seize or Not to Seize: Cellular and Circuit Mechanisms of Ictogenesis, Neuroengineering Graduate Course, Biomedical Engineering Department, University of Rochester

Invited Conferences

2016	Thalamocortical Interactions, Gordon Research Conference
2015	Scientific Writing Retreat, Cold Spring Harbor Labs
2014	Signal Transforms in the Early Visual System, Janelia Research Campus, Howard Hughes Medical Institute
2010	Mechanisms of Epilepsy & Neuronal Synchronization, Gordon Research Conference
2010	Novel Approaches to Bioimaging II, Janelia Research Campus, Howard Hughes Medical Institute
2006	Mechanisms of Epilepsy & Neuronal Synchronization, Gordon Research Conference

Poster Presentations

Duarte SP, Schummers J, (2019) Representation of Complex Natural Scenes in Primary Visual Cortex, University of Miami Neural Engineering Symposium Abstract

Duarte SP, Schummers J, (2015) Sparseness and Redundancy in Visual Stimulus Encoding in Primary Visual Cortex, Society for Neuroscience Abstract

Duarte SP, Schummers J, (2014) Large and Small Scale Structure of Functional Maps in Primary Visual Cortex, Society for Neuroscience Abstract

Duarte SP, Schummers J, (2014) Large and Small Scale Structure of Functional Maps in Primary Visual Cortex, Janelia Research Campus Abstract.

Duarte SP, Pinto DJ, (2010) Neuronal and Network Mechanisms of the Onset of Epileptiform Activity, Neurons and Photons, University of Rochester Center for Visual Science Symposium.

Duarte SP, Pinto DJ, (2010) Neuronal and Network Mechanisms of the Onset of Epileptiform Activity, Novel Approaches to Bioimaging II, Janelia Research Campus Abstract.

Duarte SP, Pinto DJ, (2010) Neuronal and Network Mechanisms of Ictogenesis, Neuronal Circuits, Cold Spring Harbor Labs, Abstract 30.

Duarte SP, Pinto DJ (2006) Characterizing the Transition from Normal to Epileptiform Activity, Gordon Research Conference on Mechanisms of Epilepsy & Neuronal Synchronization

Duarte SP, Rosecrans N, Weliky M, (2005) Relationship of Developmental Changes in Primary Visual Cortical States to Sensory Coding. Computational and Systems Neuroscience Abstract 89.

Rosecrans N, **Duarte SP**, Weliky M, (2005) State Analysis of Visual Cortical Network Dynamics. Computational and Systems Neuroscience Abstract 223.

Rosecrans N., **Duarte S.P.**, Fiser J., Chiu C., Weliky M., (2005). Investigating the Interplay Between Spontaneous and Evoked Cortical Dynamics. Society for Neuroscience Abstract 856.12