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PROFESSIONAL EXPERIENCE

2018-Present **Post-doctoral visiting fellow**, National Institute on Drug Abuse (NIDA) (USA)
Mentor: **Dr. Geoffrey Schoenbaum**

EDUCATION

2012-2018 **PhD, Neuroscience**, Goethe University and the International Max Planck Research School for Neural Circuits (IMPRS-NC), Max Planck Institute for Brain Research (Germany). Mentor: **Dr. Jochen Roeper**

2010-2012 **MSc, Physiology**, School of Medicine of Ribeirão Preto, University of São Paulo (Brazil). Mentor: **Dr. Benedito Honório Machado**

2006-2010 **BS, Biological Sciences**, Institute of Biological Sciences, Federal University of Pará (Brazil). Mentor: **Dr. Manoel da Silva Filho**

FUNDING

2019-2021 **Post-doctoral research fellowship**, German Research Foundation (Germany)

2012-2013 **Doctoral graduate fellowship**, Max Planck Society (Germany)

2010-2012 **Master graduate fellowship**, Coordination for Improvement of Higher Education Personnel (Brazil)

2006-2010 **Undergraduate Scientific Initiation fellowship**, National Council for Scientific and Technological Development (Brazil)

AWARDS AND HONORS

2020 **Exceptional oral presentation award**, Brazilian Symposium of Neurosciences (Brazil)

2019 **Exceptional poster presentation award**, Annual meeting of the Greater Baltimore Society for Neuroscience Chapter (USA)

2018 **GRADE Center Brain award for best interdisciplinary poster**, 5th biennial meeting of the Rhine-Main Neuroscience Network (Germany)

2018 **Travel grant**, German Academic Exchange Service (Germany)

2017 **Trainee Professional Development Award**, Society for Neuroscience (USA)

2017 **Travel grant**, Association of Friends and Patrons of the Goethe University (Germany)

2017 **Best oral presentation award**, Barcelona Young Neuroscientists Symposium (Spain)

2017 **Travel grant**, Barcelona Young Neuroscientists Symposium (Spain)

2016 **Exceptional poster presentation award**, 95th Annual meeting of the German Physiological Society (Germany)

2012 **Exceptional poster presentation award**, 16th Brazilian Symposium of Cardiovascular Physiology (Brazil)

- 2011 **Exceptional poster presentation award**, 15th Brazilian Symposium of Cardiovascular Physiology (Brazil)
- 2010 **Honor award for the highest overall academic achievement in the Biological Sciences bachelor Program (2010)**, Federal University of Pará (Brazil)
- 2008 **Exceptional poster presentation award**, 23rd Annual Meeting of the Brazilian Federation of Experimental Biology Societies (Brazil)
- 2006 **Honor award for the first place in the admissions process for the Biological Sciences bachelor Program (2006)**, Federal University of Pará (Brazil)
- 2003 **José Márcio Ayres award for young naturalists**, Emílio Goeldi Museum, (Brazil)

TEACHING EXPERIENCE

Courses

- 2019 **Instructor, Methods in Neuroscience Course**, *Class: module IIIb - Neural Circuits: In vivo*. NIDA IRP, USA
- 2015-2018 **Teaching assistant, Modern Topics in Neuroscience Course**, *Class: Reward systems and motivation*. International Max Planck Research School for Neural Circuits, Germany
- 2011 **Teaching assistant, Physiology Summer Course**, Department of Physiology, School of Medicine of Ribeirão Preto, University of São Paulo, Brazil

Mentorship

- 2019-Present **Nishika Raheja**, NIDA IRP postbaccalaureate trainee
- 2019-2020 **Davied Sanchez**, NIDA IRP postbaccalaureate trainee
- 2019-2020 **Daniela Schenkel**, Goethe University MD/PhD student
- 2019 **Aneesh Bal**, NIDA IRP summer student
- 2015 **Lora Kovacheva**, Goethe University MD/PhD student
Kanako Otomo, IMPRS-NC rotation student

RELEVANT COURSES

- 2014 **Ion Channel and Synaptic Transmission Summer Course**, Cold Spring Harbor Laboratory, Cold Spring Harbor, USA
- 2009 **Physiology Summer Course**, School of Medicine of Ribeirão Preto, University of São Paulo, Ribeirão Preto, Brazil
- 2009 **Comparative Physiology Winter Course**, Institute of Biosciences, University of São Paulo, São Paulo, Brazil

INSTITUTIONAL SERVICE

- 2020-Present Trainee representative, "Return to Physical Workspaces" (COVID-19 response) committee, NIDA IRP
- 2019-Present Member, NIDA Postdoc Advisory Board
- 2019-Present Associate Faculty, Faculty Opinions

- 2018-Present Organizing committee member, Baltimore Brain Series
- 2019-2020 Reviewer, NIDA Summer Research Internship Program
- 2020 Poster judge, NIH Postbac Poster Day
- 2019 Poster judge, NIDA Summer Internship Poster Day
- 2012-2014 Student representative, International Max Planck Research School for Neural Circuits student organization committee
- 2007-2008 Member, student union - Biological Sciences program, Federal University of Pará
- 2006 Student organizer, Brazilian Society for the Advancement of Science

PEER REVIEW SERVICE

Journals: eLife, Current Biology, Current Opinion in Behavioral Sciences, Progress in Neurobiology, Behavioral Neuroscience, Ageing Research Reviews, Nature (with Geoffrey Schoenbaum), Nature Neuroscience (with Geoffrey Schoenbaum), Cell Reports (with Jochen Roeper), Frontiers in Neural Circuits (with Jochen Roeper), Brazilian Journal of Medical and Biological Research (with Benedito H. Machado)

Grants: Helmholtz Association of German Research Centers (with Geoffrey Schoenbaum)

INVITED SEMINARS

- 2019 **Guest seminar - Kuchibhotla Lab**, Johns Hopkins University, Baltimore, USA
- 2018 **“Fruits of Ethology” seminar**, Eötvös Loránd University, Budapest, Hungary
- 2017 **Diplomaten-Matinée Brasilien**, Goethe University and the Brazilian Consulate at Frankfurt am Main, Germany
- 2017 **Young Investigators Colloquium**, Interdisciplinary Center for Neuroscience, Frankfurt am Main, Germany
- 2016 **Guest seminar - Schoenbaum Lab**, NIDA IRP, Baltimore, USA
Guest seminar - Uchida Lab, Harvard University, Cambridge, USA
Guest seminar - Lammel Lab, UC Berkeley, Berkeley, USA
- 2014 **Guest seminar - Kandel Lab**, Columbia University, New York, USA

CONFERENCE ORAL PRESENTATIONS

- 2020 Brazilian Symposium of Neurosciences (virtual meeting), Rio de Janeiro, Brazil
- 2018 Gordon Research Seminar - Basal Ganglia, Ventura, CA, USA
- 2017 Barcelona Young Neuroscientists Symposium, Barcelona, Spain
- 2014 Annual meeting of the German Physiological Society, Mainz, Germany
- 2004 International Migratory Birds Day Meeting, Belém, Brazil

POSTER PRESENTATIONS

- 2019 Annual meeting of the Greater Baltimore SFN Chapter, Baltimore, USA
- 2018 Gordon Research Conference - Basal Ganglia, Ventura, USA

- 2018 Biennial meeting of the Rhine-Main Neuroscience Network, Oberwesel, Germany
- 2018 Annual Society for Neuroscience Meeting, San Diego, USA
- 2017 Annual Society for Neuroscience Meeting, Washington DC, USA
- 2016 Annual Society for Neuroscience Meeting, San Diego, USA
- 2016 Annual meeting of the German Physiological Society, Lübeck, Germany
- 2014 Annual Society for Neuroscience Meeting, Washington DC, USA
- 2012 Brazilian Symposium of Cardiovascular Physiology, Goiania, Brazil
- 2011 Joint Meeting of the International Society of Autonomic Neuroscience and American Autonomic Society, Búzios, Brazil
- 2011 Brazilian Symposium of Cardiovascular Physiology, São Paulo, Brazil
- 2011 Annual Meeting of the Brazilian Federation of Experimental Biology Societies, Rio de Janeiro, Brazil
- 2009 Annual Meeting of the Brazilian Federation of Experimental Biology Societies, Águas de Lindóia, Brazil
- 2008 IBRO - LARC Congress of Neurosciences, Búzios, Brazil
- 2008 Annual Meeting of the Brazilian Federation of Experimental Biology Societies, Águas de Lindóia, Brazil
- 2008 Regional Meeting of the Brazilian Federation of Experimental Biology Societies, Fortaleza, Brazil

PUBLICATIONS

Pre-prints

Costa K.M., Roeper J. Deletion of the alternative splice variant KCHIP4a in midbrain dopamine neurons selectively enhances extinction learning. *bioRxiv*, 344499

Peer-reviewed publications

Costa K.M., Schoenbaum G. The orbitofrontal cortex is necessary for learning to ignore irrelevant cues. **Submitted for review**

Costa K.M., Schenkel D., Roeper J. Sex-dependent alterations in behavior, drug responses and dopamine transporter expression in heterozygous DAT-Cre mice. **Under review in Scientific Reports**

Koury G.V.H., Araújo F.C.R.S, **Costa K.M.**, da Silva Filho M. A digital filter-based method for diagnosing speech comprehension deficits. **Mayo Clinic Proceedings: Innovations, Quality & Outcomes, in press**

Farassat N., **Costa K.M.**, Albert S., Kovacheva L., Shin J., Somayaji M., Schneider G., Roeper J. In vivo functional diversity of midbrain dopamine neurons within identified axonal projections. **eLife**, 8: e48408, 2019.

Schwenk J, Boudkkazi S, Kocylowski M.K., Brechet A, Zolles G, Bus T, **Costa K**, Kollwe A, Jordan J, Bank J, Bildl W, Sprengel R, Kulik A, Roeper J, Schulte U, Fakler B. An ER assembly line of AMPA-Receptors controls excitatory neurotransmission and its plasticity. **Neuron**, 104(4):680-692.e9, 2019.

Ribeiro L.B., Rodrigues A.R., **Costa K.M.**, da Silva Filho M. Quantification of textual comprehension difficulty with an information theory-based algorithm. *Palgrave Communications*, 5 (1), 1-9, 2019.

Messer M., **Costa K.M.**, Roeper J, Schneider G. Multi-scale detection of rate changes in spike trains with weak dependencies. *Journal of Computational Neuroscience*, 42(2), 187–201, 2017.

de Macedo M.S.F.C., **Costa K.M.**, da Silva Filho M. Voice disorder in systemic lupus erythematosus. *PLoS One*, 12(4): e0175893, 2017.

Costa K.M., Accorsi-Mendonça D., Moraes D.J. and Machado B.H. Evolution and physiology of neural oxygen sensing. *Frontiers in Physiology*, 5:302, 2014.

Moraes D.J.A., Bonagamba L.G.H., **Costa K.M.**, Costa-Silva J.H., Zoccal D.B., Machado B.H. Short-term sustained hypoxia induces changes in the coupling of sympathetic and respiratory activities in rats. *The Journal of Physiology*, 592: 2013–2033, 2014.

Granjeiro É.M., Marroni S.S., Dias D.P.M., Bonagamba L.G.H., **Costa K.M.**, do Santos J.C., Oliveira J.A.C., Machado B.H., Garcia-Cairasco N. behavioral and cardiorespiratory responses to bilateral microinjections of oxytocin into the central nucleus of amygdala of Wistar rats, an experimental model of compulsion. *PLoS One*, 9(7): e99284, 2014.

Lourenço B.M., **Costa K.M.**, da Silva Filho M. Voice Disorder in Cystic Fibrosis Patients. *PLoS One*, 9(5): e96769, 2014.

Costa K.M., Moraes D.J.A., Machado B.H. Acute inhibition of glial cells in the NTS does not affect respiratory and sympathetic activities in rats exposed to chronic intermittent hypoxia. *Brain Research*, 1496, 36-48, 2013.

da Silva Filho M., Santos D.V., **Costa K.M.** A new low cost wide-field illumination method for photooxidation of intracellular fluorescent markers. *PLoS One*, 8(2): e56512, 2013.

Tejada J.¹, **Costa K.M.**¹, Bertti P.¹, Garcia-Cairasco N. The epilepsies: complex challenges needing complex solutions. *Epilepsy & Behavior*. 26(3), 212-228, 2013.

Santos D.V., **Costa K.M.**, Vaz M.C.G., da Silva Filho M. Relations between dendritic morphology, spatial distribution and firing patterns in Layer I neurons. *Brazilian Journal of Medical and Biological Research*, 45(12), 1221-1233, 2012.

Costa J.C., **Costa K.M.**, Nascimento J. L. M. Scopolamine- and diazepam-induced amnesia are blocked by systemic and intraseptal administration of substance P and choline chloride. *Peptides*, 31(9), 1756-1760, 2010.

Commentaries and editorials

Costa K.M., Sengupta A. Short-term scholar visas are essential for science. *Neuropsychopharmacology*, 0:1–2, 2020.

lotchev I.B., **Costa K.M.** Animal cognition: quantity has a quality of its own. *Animal Sentience*, 23(44), 2019.

Costa K.M. The effects of aging on substantia nigra dopamine neurons. *The Journal of Neuroscience*, 34 (46), 15133-15134, 2014.

Machado B.H., Moraes D.J.A., **Costa K.M.** Highlights in basic autonomic neurosciences: Glia and neuromodulation. *Autonomic Neuroscience: Basic & Clinical*, 156(1-2), 1-4, 2010.

¹ Joint first authorship