

EDUCATION

- 2009 - 2016 PhD, Molecular Neurobiology and Biophysics, The Rockefeller University
2003 - 2009 Licenciatura (MS/BS), Biology, Universidad de Buenos Aires

RESEARCH EXPERIENCE

- 2017 – **Postdoctoral Fellow**, The Rockefeller University, Laboratory of Neurophysiology and Behavior.
Advisor: Vanessa Ruta
Research: The structural basis of odorant recognition in insects
- 2016 – 2017 **Postdoctoral Scholar**, UC Berkeley, Department of Molecular and Cellular Biology.
Advisor: Steve Brohawn
Research: Structural basis of mechanosensitivity of the inner ear
- 2010 – 2016 **Graduate Student**, The Rockefeller University, Laboratory of Molecular Neurobiology and Biophysics. **Advisor: Roderick MacKinnon**
Dissertation: Molecular basis of mechanosensation
- 2006 – 2009 **Master's Student**, Universidad de Buenos Aires, Department of Inorganic and Analytical Chemistry. **Advisor: Roberto Etchenique**
Dissertation: Development of photo-activatable fluorescent probes

FELLOWSHIPS AND AWARDS

Pending

- 2021 – 2026 NIH K99/R00 Career Development Award - Impact Score 11
Project: Elucidating the structural determinants of odor specificity in insect olfactory receptors
Pending council review

Completed

- 2018 – 2020 Leon Levy Postdoctoral Fellowship in Neuroscience, The Leon Levy Foundation
- 2015 Regeneron Prize for Creative Innovation – Finalist
- 2011 – 2014 HHMI International Student Research Fellowship
- 2009 – 2010 Women & Science Graduate Fellowship, The Rockefeller University
- 2009 Deutschland Winterkurs Full Scholarship, DAAD (German Academic Service)
- 2007 – 2009 Master's Student Research Full Scholarship – University of Buenos Aires

PUBLICATIONS

In preparation

Del Marmol J, Yedlin MA and Ruta V. The structural basis of odorant recognition in insect olfactory receptors.

Published

Butterwick JA, **Del Marmol J**, Kim KH, Kahlson MA, Rogow JA, Waltz T and Ruta V. Cryo-EM structure of the insect olfactory receptor Orco. *Nature*. 2018 Aug; 560(7719):447-452

Muller PA, Schneeberger M, Matheis F, Wang P, Kerner Z, Ilanges A, Pellegrino K, **Del Marmol J**, Castro TBR, Furuichi M, Perkins M, Han W, Rao A, Picard AJ, Cross JR, Honda K, de Araujo I, Mucida D. Microbiota modulate sympathetic neurons via a gut-brain circuit. *Nature*. 2020 Jul;583(7816):441-446

Del Marmol J, Touhara K, Croft G. and MacKinnon R. Piezo1 forms a slowly-inactivating mechanosensitive ion channel in mouse embryonic stem cells. *Elife*. 2018 Aug 22;7

Del Marmol J, Rietmeijer R and Brohawn S. Studying mechanosensitivity of two-pore domain K⁺ channels in cellular and reconstituted proteoliposome membranes. *Methods Mol Biol*. 2018, 1684:129-150.

Brohawn SB, **Del Marmol J**, MacKinnon R. Crystal structure of the human K2P TRAAK, a lipid and mechanosensitive K⁺ ion channel. *Science* 2012, 6067: 436-441

Schmidt D, **Del Marmol J**, MacKinnon R. Mechanistic basis for low-threshold mechanosensitivity in voltage-dependent K⁺ channels. *Proceedings of the National Academy of Sciences* 2012, 26: 10352-10357

Del Marmol J, Filevich O, Etchenique R. A Ruthenium-Rhodamine Complex as an activatable fluorescent probe. *Anal. Chem*, 2010, 14: 6259-6264

SELECTED PRESENTATIONS

- Apr 2021 Invited Speaker, SPiNES seminars, New York University Langone Neuroscience Institute.
- Jan 2021 Invited Speaker, Intersections Science Fellows Symposium.
- Apr 2019 Invited Speaker, 'Making Sense of Scents: Molecular Basis of Olfaction', Leon Levy Neuroscience Annual Symposium, Weill Cornell Medicine.
- Mar 2015 Invited Speaker, 'Mechanosensory ion channels as drug targets for cancer therapy', Regeneron Prize Symposium.

OUTREACH, TEACHING, MENTORING AND VOLUNTEERING

- 2020 – Volunteer mentor, Graduate School Mentorship Initiative 'Científico Latino'.
- 2020 – Member and Volunteer Reviewer of Postdoctoral Fellowships, Graduate Women in Science National Program.
- 2018 – Mentor of a research specialist and two rotation students, Ruta Lab.
- 2018 Teaching Assistant, The Rockefeller University. Course: Membrane biophysics.
- 2017 Volunteer Policy Analyst, 'All of Us' Research Program, NIH.
- 2016 – Member and Volunteer Reviewer, Society for the Advancement of Chicanos/ Hispanics and Native Americans in Science (SACNAS).
- 2016 Mentor of AMGEN Undergraduate Researcher, UC Berkeley.
- 2012 – 2015 Mentor of two rotation students, MacKinnon Lab.
- 2006 – 2008 Teaching Assistant, University of Buenos Aires, School of Sciences.
- 2005 – 2007 Teaching Assistant, Buenos Aires National High School. Biology; 10th, 11th and 12th grades.

CERTIFIED GRADUATE AND POSTGRADUATE COURSES

- 2020 Introduction to Molecular Modeling in Drug Discovery, Schrödinger LLC
- 2011 Imaging Structure and Function in the Nervous System, Cold Spring Harbor Laboratories

PROFESSIONAL ACTIVITIES

- 2018 – Head of the Organizing Committee, Rockefeller University Neuroscience Seminar Series
- 2020 – Reviewer for *Science Advances*

REFERENCES

Roderick MacKinnon, MD

John D. Rockefeller Jr. Professor, Investigator Howard Hughes Medical Institute
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Vanessa Ruta, PhD

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