

EDUCATION

- University of Buenos Aires, Faculty of Exacts and Natural Sciences.
PhD in Biological Sciences (2018).
Thesis title: "Binocular neurons and directional neurons of an arthropod and their possible role in visually guided behaviors". Supervisors: Dr. Daniel Tomsic and Dr. Julieta Sztarker.
- University of Buenos Aires, Faculty of Exacts and Natural Sciences.
Licentiate degree in Biological Sciences - equivalent to Bachelor plus Master (2012)
Thesis title: "Effects of visual stimulus features and position on the induced escape response in the crab *Neohelice granulata*". Supervisor: Dr. Daniel Tomsic

RESEARCH EXPERIENCE

- May - December 2018 – Newcastle University (secondment)
Visiting researcher STEP2DYNA. Project aimed at investigating Spatial-temporal information processing for collision detection in dynamic environments. Work Package 1: Collision detection visual neural systems modeling. This project has received funding from the European Union's Horizon 2020 research and innovation program. Supervisor: Dr. Claire Rind.
- September 2012 – April 2018 – University of Buenos Aires
Doctoral student. Project: "Binocular visual integration in *Neohelice granulata*" Supervisor: Dr. Daniel Tomsic and Dr. Julieta Sztarker.
- July 2010 – July 2012 – University of Buenos Aires
Undergrad student. Project: "Sensitization of the escape response to visual dangerous stimuli in the crab *Neohelice granuata*". Supervisor: Dr. Daniel Tomsic.

PUBLICATIONS

- Lobula complex directional cells. **Scarano, F.**, Tomsic, D. and Sztarker, J. In preparation.
- Binocular processing of object motion in an arthropod. **Scarano, F.**, Sztarker, J., Medan, V., Beron de Astrada, M. and Tomsic, D. Year of publication: 2018 Journal of Neuroscience.
DOI: <https://doi.org/10.1523/JNEUROSCI.3641-17.2018>
- A network of visual motion-sensitive neurons for computing object position in an arthropod. Medan, V., Beron de Astrada, M., **Scarano, F.** and Tomsic, D.
Year of publication: 2015
Journal of Neuroscience. Vol. 35(17). Pages 6654-6666.
DOI:10.1523/JNEUROSCI.4667-14.2015
- Escape response of the crab *Neohelice* to computer generated looming and translational visual danger stimuli. **Scarano, F.** and Tomsic, D.
Year of publication: 2014. Elsevier.
Journal of Physiology – Paris. Vol. 108. Pages 141-147. Online
ISSN: 0928-4257.

CONFERENCES

- Gordon Research Conference **2017** – Neuroethology: Behavior, Evolution and Neurobiology, Les Diablerets Conference Center in Les Diablerets, Switzerland, June 18 to 23th, 2017. Title: "Binocular properties of lobula giant neurons of crabs". Florencia Scarano, Julieta Sztarker and Daniel Tomsic. Poster.
- XII International Congress of Neuroethology, Montevideo, Uruguay, March 30th to April 3rd, **2016**. Title: "Highly direction selective visual neurons in the crab *Neohelice granulata*". Florencia Scarano, Julieta Sztarker and Daniel Tomsic. Poster.
- Gordon Research Conference **2015** – Neuroethology: Behavior, Evolution and Neurobiology, Renaissance Tuscany Il Ciocco Lucca (Barga), Italy. June 28th to July 3rd, 2015. Title: "Binocular properties of lobula giant motion-sensitive neurons of crabs". Florencia Scarano, Julieta Sztarker and Daniel Tomsic. Poster.
- Insect Vision: Cells, Computation, and Behavior. **2015** Spring Conferences. Janelia Farm Research Campus. April 19 to 22th, 2015. "A network of visual motion-sensitive neurons for computing objects position in an arthropod." Medan, V., Beron de Astrada, M., Scarano, F. and Tomsic, D. Oral presentation.
- XXVIII Annual Conference of Argentinean Society of Neuroscience Research & Meeting "Neural Bases of Behavior: Neuroethology and Neurobiology of Memory in the South Cone". Huerta Grande, Córdoba, Argentina, September 30th to October 4th, **2013**. "Binocular Visual Integration in *Neohelice granulata*". Florencia Scarano, Julieta Sztarker and Daniel Tomsic". Poster.
- XXVI Anual Conference of Argentinean Society of Neuroscience Research. Huerta Grande, Córdoba, Argentina, 20 al 22 de Octubre de **2011**. "Effect of object features and retinal position on the crab's escape response induced by visual stimulation. Florencia Scarano – Daniel Tomsic". Poster.
- II Joint Meeting of Neuroscience. Argentine Society of Neuroscience Research (SAN) and Argentine Workshop of Neuroscience (TAN). Huerta Grande, Córdoba, Argentina, October **2010**. Participant.
- I Meeting of Evolutionary Biology of the Southern Cone. Faculty of Exact and Natural Sciences. Buenos Aires, Argentina. November **2009**. Participant.
- XII National Meeting and 1st International Meeting of the Argentine Association of Behavioral Sciences. Argentine Catholic University. Buenos Aires, Argentina. August **2009**. Participant.

OTHER PRESENTATIONS

- Binocular neurons and directional neurons of an arthropod and their possible role in visually guided behavior. Institute of Neuroscience. Colin Ingram Seminar Room. Henry Wellcome Building. Newcastle University, UK. Date: 30th October, 2018.
- Characterization of synapses of MLG1 neurons of the crab *Neohelice granulata*. Workshop 4 STEP2DYNA Project: Spatial-temporal information processing for collision detection in dynamic environments. Lincoln University, UK. Date: 16th October, 2018.

GRANTS AND AWARDS

- 2017 – Heiligenberg Student Travel Award: USD 750 by Society for Neuroethology for attending to "Gordon Research Conference on Neuroethology: Behavior, Evolution & Neurobiology", Les Diablerets Conference Center in Les Diablerets, Switzerland.
- 2017 – Grant of €1200 for registration and accommodation in "Gordon Research Conference on Neuroethology: Behavior, Evolution & Neurobiology", Les Diablerets Conference Center in Les Diablerets, Switzerland.
- 2013 – Grant from IBRO for attending to "2nd Caribbean School of Neuroethology" in Cuba.
- 2012 – Five years PhD fellowship from National Council of Science and Technology Research – CONICET (2013-2018)
- 2011 - Stimulus scholarship for initiating in the investigation, Ministry of Science and Technology, University of Buenos Aires. Period: July 2011 to July 2012. With a renewal until December 2012.
- 2011 - Grant awarded by the Argentine Society of Neuroscience Research (SAN), for presenting the work, "Effect of object features and retinal position on the crab escape response induced by visual stimulation" as first author, in the congress in Huerta Grande Córdoba, Argentina, October 2011.

OTHER STUDIES

- "Social and reproductive Biology". FCEN-University of Buenos Aires, February 27th to March 10th, 2017.
- "Topics in Biology and Systematic of Crustaceans". FCEN-University of Buenos Aires, December 12 to 20th, 2016.
- "Comparative Neuroendocrinology". FCEN-University of Buenos Aires, February 29th to March 11th, 2016.
- "José A. Balseiro School. Course: Modeling in Neurosciences". CNEA-IB-IBRO-TWAS, October 6 to 31th, 2014, in San Carlos de Bariloche, Argentina.
- "2nd Caribbean School of Neuroethology". Postgrade School organized by IBRO-LARC-ISN, May 12 to 25th, 2013, in La Habana, Cuba.
- "Early sensory-motor integration: from the cellular to the system level". Postgrade workshop organized by ISN (international society for Neurochemistry)-AMSUDPasteur-PEDECIBA, September 3 to 7th, 2012, in Montevideo, Uruguay.
- "Electrophysiological Recordings and Optical Imaging in Neuroscience". Postgrade course organized by Argentine Society of Neuroscience Research, October 18 and 19th, 2011, in Huerta Grande, Córdoba.
- "Physics and Neuroscience: heading towards quantitative biology". Postgrade course organized by Argentine Society of Neuroscience Research, October 6 and 7, 2010, in Huerta Grande, Córdoba

OUTREACH ACTIVITIES

- 2016 – 2018 – Didactic experiences in the Laboratory. Participation of high school student in a research project. Students did the following activities under our supervision: hypothesis formulation, behavioral experiments design, manipulation of animals (crabs, mice and bees), performing experiments and statistical analysis of data, report and poster.
- 2016 – 2018 – neuroscience workshop for high school students, using the movie "Inside Out".
- February 2017 – "Zoom: laboratory of micro-worlds" open to the public. Workshop in the Cultural center of Science. Ministry of science and technique.
- 2010 - 2017 - August Biology Week. Participation in the stand of the Laboratory of Neurobiology of Memory. Faculty of Exacts and Natural Sciences. University of Buenos Aires (UBA). Principally targeting to high school students. Educational Guide.
- September 2007- Participation in "Basement of Perception (El sótano de la percepción)" in Argentine Museum of Natural Sciences: Bernardino Rivadavia. Educational Guide.

Acconsento alla pubblicazione del mio CV in ottemperanza alle disposizioni di legge dettate in materia di trasparenza (D. Lgs. 33/2013).