

Monica Pontearso, MSc

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WORK EXPERIENCE

04/2024 – PRESENT

Postdoc Fellow

University of Genoa affiliated with the Italian Institute of Technology, Neuroscience and Smart Materials (NYSN).

10/2019 – 03/2024

Postgraduate Researcher

Laboratory of Pain Research, Institute of Physiology, CAS, Prague

05/2018 – 09/2019

Fellowship in Science communication

Institute of Space Astrophysics and Cosmic Physics of Palermo (INAF IASF- PA), Palermo, Italy

12/2017 – 12/2018

Tutor

Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Italy

05/2017 – 10/2017

Postgraduate Researcher (Internship)

Institute of Biomedicine and Molecular immunology, National Research Council (CNR), Palermo, Italy

07/2015 – 07/2016

Undergraduate Researcher (Internship)

Department of Promotion of Health, Maternal-Child, Internal Medicine and Specialist of Excellence "G. D'Alessandro", University of Palermo, Italy

EDUCATION

10/2019 – 06/2024

PhD in Animal Physiology

Department of Physiology, Faculty of Science, Charles University, Prague. Laboratory of Pain Research, Institute of Physiology (CAS), Prague

10/2008 – 07/2016

Master study programme in Pharmaceutical Chemistry and Technology

5 years long, University of Palermo, Palermo, Italy

Thesis: *Early Activation Of The Hypothalamic-Pituitary-Adrenal Axis And Handling: Effects On Behavioural Reactivity And Emotionality In Rats Of Both Sexes*

LABORATORY SKILLS

Preparation of spinal cord slices
Whole cell patch clamp on acute spinal cord slices and dorsal root ganglia (DRGs)
Murine models of human neuropathic pain
Confocal microscopy
Maintenance and manipulation of cell cultures
Cell viability assays
PCR
Behavioral tests: *Hargreaves, Hot Plate, Electronic Von Frey and Von Frey filaments, Elevated Plus Maze, Open Field, Morris Water Maze, Tail Flick, Rotarod, Fear Conditioning, Novel Object Recognition Task and Operant Conditioning*

LANGUAGE SKILLS

MOTHER TONGUE Italian (native speaker)
OTHER LANGUAGES English (full professional working proficiency)
Czech (elementary proficiency)

DIGITAL SKILLS

Prism-GraphPad, ImageJ, Clampfit, CorelDraw Graphics Suite, Microsoft Office

COMPETITIONS

HR Excellence in Research Award
POINT/Ai/2021-1-043
POINT/Ai/2022-1-138
ISN Travel Award to attend the ISN-APSN 2022 Meeting
ISN Travel Award to attend the ISN-ESN 2023 Meeting

CONFERENCES

Society for Neuroscience's virtual meeting, 8-11 November 2021
Institute of Physiology internal meeting, 8-10 November 2021, Nesuchyne
Czech Neuroscience Society meeting, 24-25 November 2021, Prague
FENS forum 2022, 9-13 July 2022, Paris, France
ISN-APSN 2022 Meeting, August 28-September 1, 2022, Honolulu, USA
ISN-ESN 2023 Meeting, 8-11 August 2023, Porto, Portugal

PUBLICATIONS

Adamek P, Heles M, Bhattacharyya A, Pontearso M, Slepicka J, Palecek J. Dual PI3K δ / γ Inhibitor Duvelisib Prevents Development of Neuropathic Pain in Model of Paclitaxel-Induced Peripheral Neuropathy. *J Neurosci*. 2022 Mar 2;42(9):1864-1881. doi: 10.1523/JNEUROSCI.1324-21.2021.

Spicarova D, Nerandzic V, Muzik D, Pontearso M, Bhattacharyya A, Nagy I, Palecek J. Inhibition of synaptic transmission by anandamide precursor 20:4-NAPE is mediated by TRPV1 receptors under inflammatory conditions. *Front Mol Neurosci*. 2023 Jun 22;16:1188503. doi: 10.3389/fnmol.2023.1188503.

Pontearso M, Slepicka J, Bhattacharyya A, Spicarova D, Palecek J. Dual effect of anandamide on spinal nociceptive transmission in control and inflammatory conditions. *Biomed Pharmacother*. 2024 Apr;173:116369. doi: 10.1016/j.biopha.2024.116369

OTHER ACTIVITIES

Volunteer for Cheltenham Science Festival, 2019. Cheltenham, UK.