

## PERSONAL INFORMATION

Name (Family, first, middle name): Trucco, Arianna  
Date of Birth (MM/DD/YYYY): 06/04/1997  
Nationality: Italian  
Workplace: University of Pavia, Pavia, Italy  
Position: Graduate student  
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## WORK EXPERIENCE

**Graduate student** enrolled in the PhD program in Biomedical Sciences Physiology track (10/2023 -) University of Pavia, Pavia, Italy; Department of Biology and Biotechnology “L. Spallanzani”; Biophysics and Physiology of Ion Channels Lab

Advisors: Prof. Gerardo Biella – Dr. Paolo Spaiardi

- Exploring the role of IGF-II in the CA1 hippocampal subfield during synaptic plasticity, using whole-cell patch clamp technique combined with Schaffer collaterals electric stimulation, in wild-type mice and models of neurodegenerative disorders

- Teaching assistant: Membrane Biophysics and Electrophysiology, Neural Basis of Behavior and Neuropsychology, Cellular Neurophysiology (Master’s degree in Neurobiology); General Physiology (Bachelor’s degree in Biological Sciences); Bioengineering and Physiology (Bachelor’s degree in Bioengineering)

- NYU Langone Health Neuroscience Institute (435 East 30th Street, New York, NY 10016, USA) (10/2025 – 05/2026)

Advisors: Prof. Margaret E Rice – Dr. Soomin C Song

- Explored the effect of LM22A-4 (TrkB receptor agonist) on striatal dopamine axons and striatal neurons, using calcium-imaging technique with a superfused dye, in wild-type mice
- Attended Weekly Department Group Meetings and Seminars by Postdocs in Neuroscience: Extramural Series (SPiNES) – immersed in an exciting high-level scientific environment

**Scholarship holder** (05/2023 – 09/2023)

National Institute for Nuclear Physics (INFN), Pavia, Italy and University of Pavia, Pavia, Italy

Advisors: Prof. Paolo Walter Cattaneo and Prof. Gerardo Biella

- Development of an innovative subretinal prosthesis consisting of a silicon photomultiplier array (SiPM): evaluation of the SiPM electric field and test of the SiPM biocompatibility

**Volunteer attendant** (01/2023 – 05/2023)

University of Pavia, Pavia, Italy; Department of Biology and Biotechnology “L. Spallanzani”; Biophysics and Physiology of Ion Channels Lab

Advisor: Prof. Gerardo Biella

**Internship for Master thesis** (10/2020 – 01/2023)

University of Pavia, Pavia, Italy Department of Biology and Biotechnology “L. Spallanzani”; Biophysics and Physiology of Ion Channels Lab

Advisor: Prof. Gerardo Biella

Intracardiac perfusion and murine brain dissection

Whole-cell patch clamp electrophysiological recordings on mouse brain slices (striatum and hippocampus)

- ⇒ Analysis of striatal and hippocampal synaptic circuits in animal models of Huntington’s Disease (HD), early and late stages of the disease
- ⇒ Studied the synaptic and network effect of TGOT (OTR agonist) in striatum and hippocampus

Experimental data analysis (pClamp, Microcal Origin, LabVIEW, ImageJ)  
Immunofluorescence techniques  
Mice colony administration and genotyping

**Internship for Bachelor thesis** (01/ 2019 – 11/ 2019)

University of Pavia, Pavia, Italy; Department of Biology and Biotechnology “L. Spallanzani”;  
Pharmacobiochemistry Lab  
Advisor: Prof. Maurizia Dossena  
Colorectal Cancer, Alzheimer’s disease, Nervous Anorexia: amino acids dosages and biomarkers  
research by processing blood and cerebrospinal fluid samples derived from patients

**EDUCATION AND TRAINING**

Master’s degree in Neurobiology (2023)

University of Pavia, Pavia, Italy

Thesis Advisor: Prof. Gerardo Biella

Thesis title -> Functional alterations of striatal neuronal cell types in a mouse model of Huntington’s  
disease: early and late stages comparison

Final grade: 110/ 110 with honors

Bachelor’s degree in Biological Sciences (2019)

University of Pavia, Pavia, Italy

Thesis Advisor: Prof. Maurizia Dossena

Thesis title -> Cancer patients undergoing therapy with XELOX: plasma dosages of malonyldialdehyde  
and amino acids

Final grade: 109/ 110

High School leaving qualification in Classical Studies (2016)

High School “G.D. Cassini”, Sanremo, Italy

**TEACHING ACTIVITY**

Academic seminars for the course Comparative Anatomy (Bachelor’s degree in Science and  
Technology for Nature and Biological Sciences) (11/ 2019)

Academic seminars about the analysis of electrophysiological and calcium-imaging recordings for the  
course Cellular Neurophysiology (Master’s degree in Neurobiology) (06/ 2024 - 2025 - 2026)

**STUDENT MENTORSHIP**

Co-supervisor of Bachelor’s degree thesis in Biological Sciences at University of Pavia:

- “Electrophysiological characterization of striatal medium spiny neurons differentiated from  
human embryonic stem cells and engineered to express hM3Dq and KORD chemoreceptors”.  
Graduand: Chiara Donati. Supervisor: Dr. Paolo Spaiardi.
- “Study of spontaneous excitatory postsynaptic currents in CA1 pyramidal neurons of the  
mouse after the perfusion of IGF-II”. Graduand: Maya Brusa. Supervisor: Prof. Gerardo Biella.

**THIRD MISSION**

SHARPER (SHARing Researchers’ Passion for Enhanced Roadmaps) – European Researchers’ Night:  
presenter at the stand “MagicaMENTE!” (Pavia, 09/ 2021 - 2022 - 2023)

SHARPER (SHARing Researchers’ Passion for Enhanced Roadmaps) – European Researchers’ Night:  
presenter at the stand “Neuropolis” (Pavia, 09/ 2024)

“Penne amiche della Scienza” - explaining Science&Research to Primary and Secondary School scholars (10/ 2025 -)

## INTERNATIONAL CONFERENCES

“Next Generation Neurobiology Training: a new Era Begins at University of Pavia” (Pavia, Italy, September 22<sup>nd</sup>-23<sup>rd</sup>, 2022)

- Poster presenter: Canevari C\*, Trucco A\*, Raffin F, Talpo F, Bisceglia D E, Ruto F, Salerno C, Valenza M, Biella G “Restoration of cortico-striatal connectivity in a mouse model of Huntington’s disease through the administration of cholesterol-loaded nanoparticles”

FENS Forum 2024 (Vienna, Austria, June 25<sup>th</sup>-29<sup>th</sup>, 2024)

- Poster presenter: Trucco A, Spaiardi P, Castagno A N, Raffin F, Mancini M, Cazzola J, Faravelli G, Talpo F, Biella G “Functional impairments of striatal neurons in Huntington’s disease: fast-spiking interneurons and their key role during the early stages of the pathology”

Fresco International Workshop on synaptic plasticity and advances in Parkinson’s disease (Milazzo, Italy, September 19<sup>th</sup>-21<sup>st</sup>, 2024)

- Oral presentation: Trucco A, Spaiardi P, Castagno A N, Raffin F, Mancini M, Cazzola J, Faravelli G, Talpo F, Biella G “Different vulnerability of striatal neurons and functional impairments temporal onset in a preclinical model of Huntington’s disease during the progression of the pathology”

FISV “Advanced Technologies in Single Cell Omics” (Milan, Italy, February 4<sup>th</sup>-5<sup>th</sup>, 2025)

Fondazione Ettore Majorana “Neuromodulators of connection: cutting-edge insights on oxytocin and vasopressin in social behavior, cognition and therapy” (Erice, Italy, September 9<sup>th</sup>-14<sup>th</sup>, 2025)

## FELLOWSHIPS AND AWARDS

- Pre-doctoral fellowship by Fresco Foundation (10/ 2025 – 05/ 2026)
- Thematic scholarship for recently graduated student by National Institute for Nuclear Physics (INFN) Pavia section (05/ 2023 – 09/ 2023)

## MEMBERSHIP OF SCIENTIFIC SOCIETIES

- Italian Society for Neuroscience (SINS) (2024 -)

## PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED JOURNALS

- Birolini G, Valenza M, Ottonelli I, Talpo F, Minoli L, Cappelleri A, Bombaci M, Caccia C, Canevari C, Trucco A, Leoni V, Passoni A, Favagrossa M, Nucera M R, Colombo L, Paltrinieri S, Bagnati R, Duskey J T, Caraffi R, Vandelli M A, Taroni F, Salmona M, Scanziani E, Biella G, Ruozi B, Tosi G, Cattaneo E. **Chronic cholesterol administration to the brain supports complete and long-lasting cognitive and motor amelioration in Huntington’s disease.** Pharmacological Research. 2023. DOI: [10.1016/j.phrs.2023.106823](https://doi.org/10.1016/j.phrs.2023.106823) – DOI: [10.1016/j.phrs.2025.108001](https://doi.org/10.1016/j.phrs.2025.108001) (corrigendum)
- Castagno A N, Spaiardi P, Trucco A, Maniezzi C, Raffin F, Mancini M, Nicois A, Cazzola J, Pedrinazzi M, Del Papa P, Pisani A, Talpo F, Biella G. **Oxytocin modifies the excitability and the action potential shape of the hippocampal CA1 GABAergic interneurons.** Int J Mol Sci. 2024. DOI: [10.3390/ijms25052613](https://doi.org/10.3390/ijms25052613)

- Cazzola J, Talpo F, Faravelli G, Donati C, Maramai S, Saletti M, Giuliani G, Paolino M, Cappelli A, Anzini M, Sommi P, Vitali A, Sala A, **Trucco A**, Biella G, Spaiardi P. **Evaluation of a new Riluzole-based compound VA945 on sodium and potassium conductances expressed by SH-SY5Y-derived neurons.** J Neurochem. 2025. DOI: [10.1111/jnc.70280](https://doi.org/10.1111/jnc.70280)

New York, 05/ 2026

Arianna Trucco