Curriculum Vitæ

FORMATO EUROPEO PER IL CURRICULUM VITAE

PERSONAL INFORMATION

Surname and name: **TRUCCO ARIANNA**

WORK EXPERIENCE

ACTUAL POSITION

• Time period (from – to)	1-10-2023 – nowaday
• Name and address of the Principal Investigator	Prof. Gerardo Biella – Dr. Paolo Spaiardi Electrophysiology and Biophysics of Ion Channels Lab Department of Biology and Biotechnology "L. Spallanzani" University of Pavia: 6, Via Forlanini, Pavia, 27100, Italy
• Position	**PhD student**
• Currently	**Awarding of a pre-doctoral fellowship for a research period abroad in Margaret Rice's lab (NYU) by Fresco Foundation in partnership with the Ion Lab. and Dr. Soomin Song (October, 2025 – April, 2026)**

PAST EXPERIENCES

• Time period (from – to)	15-05-2023 – 30-9-2023
• Name and address of the Principal Investigator	Prof. Gerardo Biella – Prof. Paolo Walter Cattaneo Electrophysiology and Biophysics of Ion Channels Lab – National Institute for Nuclear Physics (INFN) Department of Biology and Biotechnology "L. Spallanzani" - Department of Physics University of Pavia: 6, Via Forlanini, Pavia, 27100, Italy - 6, Via Agostino Bassi, Pavia, 27100, Italy
• Reserch field	SPEye project (development of an innovative subretinal prosthesis consisting of a silicon photomultiplier - SiPM)
• Position	**Awarding of a thematic scholarship for recently graduated student by INFN (Pavia)**
• Principal subjects covered, and skills acquired	Evaluation of the SiPM electric field SiPM biocompatibility: setting of electrophysiological recordings on SHSY5Y cells, which undergo protocols to express a neuron-like phenotype Bibliographic research to planning an experimental cycle, focusing the attention on optogenetics and calcium-imaging experiments

• Time period (from – to)	27-01-2023 - 14-05-2023
• Name and address of the Principal Investigator	Prof. Gerardo Biella Electrophysiology and Biophysics of Ion Channels Lab Department of Biology and Biotechnology "L. Spallanzani"

	University of Pavia: 6, Via Forlanini, Pavia, 27100, Italy
• Research field	Neurophysiology and Biophysics of Ion Channels
• Position	**Volunteer attendant before PhD**
• Principal subjects covered, and skills acquired	W*hole-cell patch clamp* electrophysiological recordings on brain slices Experimental data analysis Immunofluorescence techniques Bibliographic research to planning an experimental cycle
• Time period (from – to)	01-10-2020 – 26-01-2023
• Name and address of the Principal Investigator	Prof. Gerardo Biella Electrophysiology and Biophysics of Ion Channels Lab Department of Biology and Biotechnology "L. Spallanzani" University of Pavia: 6, Via Forlanini, Pavia, 27100, Italy
• Research field	Neurophysiology and Biophysics of Ion Channels
• Position	**Internship for Master thesis**
• Principal subjects covered, and skills acquired	W*hole-cell patch clamp* electrophysiological recordings on brain slices Experimental data analysis Immunofluorescence techniques Bibliographic research to planning an experimental cycle, focusing the attention on the identification of striatal markers and their primers and the setting of patch-seq. experiments
• Time period (from – to)	01-01-2019 – 28-11-2019
• Name and address of the Principal Investigator	Prof.ssa Maurizia Dossena Pharmacobiochemistry Lab Department of Biology and Biotechnology "L. Spallanzani" University of Pavia: 9, Via Ferrata, Pavia, 27100, Italy
• Research field	Colorectal Cancer, Alzheimer's disease, Nervous Anorexia: amino acids dosages
• Position	**Internship for Bachelor thesis**
• Principal subjects covered, and skills acquired	Laboratory basic activities Processing of blood and cerebrospinal fluid samples derived from patients

EDUCATION AND TRAINING

• Year of graduation	2023
• Name and locality of the educational or training organization	University of Pavia: 65, Corso Strada Nuova, Pavia, 27100, Italy
• Thesis title	Functional alterations of striatal cells' different populations in a mouse model of Huntington's disease: *early* and *late stages* comparison
• Degree grade	110/110 with honour
• Qualification awarded	Master's degree in Neurobiology
• Level in national classification	*EQF 7*
• Year of graduation	2019
• Name and locality of the educational or training organization	University of Pavia: 65, Corso Strada Nuova, Pavia, 27100, Italy
• Thesis title	Cancer patients being treated with XELOX: plasma dosages of malonyldialdehyde and amino acids
• Degree grade	109/110
• Qualification awarded	Bachelor's degree in Biological Sciences
• Level in national classification	*EQF 6*
• Year of graduation	2016
• Name and locality of the educational or training organization	High school "G.D. Cassini": 53, Corso Cavallotti, Sanremo, 18038, Italy

• Degree grade	93/100
• Qualification awarded	Classical high school diploma
• Level in national classification	*EQF 4*

LINGUISTIC SKILLS AND COMPETENCES

NATIVE LANGUAGE **ITALIAN**

OTHER LANGUAGES

ENGLISH [(CERTIFICATE *TRINITY* GRADE 6); STUDY HOLIDAY IN 2015 AT THE DRAMA STUDIO IN LONDON]

• Understanding (listening and reading)	INDEPENDENT USER
• Writing	INDEPENDENT USER
• Speaking	INDEPENDENT USER

FRENCH (CERTIFICATE *DELF* GRADE A2)

• Understanding (listening and reading)	BASIC USER
• Writing	BASIC USER
• Speaking	BASIC USER

SOCIAL AND PLANNING SKILLS

GOOD PREDISPOSITION TO WORK IN TEAM AND TO SETUP COLLABORATIONS

ABILITY TO SPEAK IN PUBLIC PRESENTING SCIENTIFIC ARTICLES AND RESULTS FROM EXPERIMENTAL ACTIVITY

ORGANIZATION AND PROBLEM-SOLVING SKILLS DERIVED FROM THE EXPERIMENTAL PLANNING

JOB-RELATED SKILLS AND COMPETENCES

GOOD COMMAND OF THE INTRACARDIAC PERFUSION PROCEDURE AND MURINE BRAIN DISSECTION

GOOD KNOWLEDGE OF *WHOLE-CELL PATCH CLAMP* TECHNIQUE ON MURINE BRAIN SLICES AND BASIC ONE ON CELL CULTURES: NEURONS ELECTRICAL ACTIVITY REGISTRATION BOTH BEFORE AND AFTER THE APPLICATION OF A DRUG/TOXIN INTO THE BATH; HELP IN SETTING *EX-VIVO* LTP INDUCTION

GOOD KNOWLEDGE OF IMMUNOFLUORESCENCE PROTOCOL ON BRAIN SLICES

GOOD ABILITY IN ISOLATING HIPPOCAMPAL AREAS AND STRIATUM FROM MURINE BRAIN SLICES

GOOD KNOWLEDGE OF THE GENOTYPING PROTOCOL: DNA EXTRACTION FROM MURINE TISSUE (TAIL OR FINGER), POLYMERASE CHAIN REACTION (PCR), AGAROSE ELECTROPHORESIS GEL

GOOD ABILITY IN MOUSE MANIPULATION IN ANIMAL FACILITY AND MOUSE COLONY ADMINISTRATION

INFORMATIC SKILLS AND COMPETENCES

CERTIFICATE ECDL CORE FULL

GOOD KNOWLEDGE OF *WINDOWS* AND *MACOS*

GOOD KNOWLEDGE OF *MICROSOFT OFFICE PACKAGE* (*WORD*, *EXCEL*, *POWERPOINT*)

GOOD KNOWLEDGE OF *PCLAMP* DATA ACQUISITION AND ANALYSIS PACKAGE (*CLAMPEX* AND *CLAPFIT*)

GOOD KNOWLEDGE OF *MICROCAL ORIGIN*

BASIC KNOWLEDGE OF *IMAGEJ*

DATA ANALYSIS USING HOMEMADE SCRIPT IN *LABVIEW*

GOOD KNOWLEDGE OF THE *ENTREZ-PUBMED DATABASE*

DIDACTIC ACTIVITY

Preparation and discussion of seven didactic seminars for the course "Comparative Anatomy" of the Bachelor's degree in Science and Technology for Nature and Biological Sciences at University of Pavia (November, 2019). Principal Investigator: Prof. Vittorio Bertone.

Preparation and discussion of a didactic seminar about excitatory post-synaptic currents analysis through a *LabVIEW* script for the course "Cellular neurophysiology" of the Master's degree in Neurobiology at University of Pavia (2024 - 2025). Principal Investigator: Prof. Gerardo Biella and Dr. Francesca Talpo.

Subject expert for the following courses:
Membrane Biophysics and Electrophysiology (Master's degree in Neurobiology)
Neural Basis of Behaviour and Neuropsychology (Master's degree in Neurobiology)
Cellular Neurophysiology (Master's degree in Neurobiology)
General Physiology (Bachelor's degree in Biological Sciences)
Bioengineering and Physiology (Bachelor's degree in Bioengineering)

CONFERENCES AND SEMINARS ATTENDED

CERTIFICATES FOR ANIMAL MANIPULATION THEORY AND PRACTICE:

"Minisimposi sulla sperimentazione animale in biomedicina: un percorso di scienza, storia, diritto, etica e medicina" (online: March 18th, 2021; June 9th, 202; June 21st, 2021; September 23rd, 2021; October 29th; 2021)

Teramo IZS "Recognition of pain, suffering and distress and its application in the evaluation of severity of the procedures (species specific: mice and rats) – III Edition" (online: November 2023)

IZSLER "Biologia e gestione degli animali da laboratorio, moduli 3.1, 4, 5, 6.1, 7. DM 5 agosto 2021 roditori e lagomorfi – 1^ Edizione" (online: November,2023)

IZSLER "Legislazione nazionale ed etica livello 1, moduli 1 e 2, DM 5 agosto 2021 – 1^ Edizione" (online: November,2023)

IZSLER "Etica e concezione dei progetti, moduli 9,10, 11, DM 5 agosto 2021 – Edizione Unica" (online: November,2023)

"Percorso formativo per funzione A. Moduli 3.2 Biologia di Base – 6.2 Eutanasia – 8 Procedure minimamente invasive senza anestesia. Specie topo e ratto. 12 CFP" (Charles River, Calco, Italy, December 4th-5th, 2023)

ANALYSIS:

Mario A. Comelli "Statistical models useful in biomedical and behavioural research – a "hands on" approach exploiting the package R" (Pavia, September 25th-29th, 2023)

Massimiliano Ruocco "Data Science" (Pavia, January 20th-24th,2025)

OTHERS:

Giacomo Rizzolatti "Specchi nel cervello: basi neurali dell'empatia" (Cairoli college, Pavia, December 3rd, 2019)

Elena Cattaneo "Staminali e trascrittomica *single-cell* per le malattie neurodegenerative" (online: February 4th, 2021)

Symposium in honour of Professor Jacopo Magistretti (Pavia, September 22nd, 2021)

Michael W. Young "Chronic social isolation signals starvation in the Drosophila brain and reduces sleep" (Pavia, April 7th, 2022)

"Next Generation Neurobiology Training: a new Era Begins at University of Pavia" (Pavia, September 22nd-23rd, 2022)

Edward Moser "Neural computation of space and time" (Pavia, March 1st, 2023)

Thomas C. Südhof "Towards a cell biology of Alzheimer's disease" (Pavia, May 26th, 2023)

FISV "Genomica: tecnologie avanzate" (Milan, January 25th-26th, 2024)

FENS Forum 2024 (Vienna, June 25 th-29th, 2024)

Fresco International Workshop on synaptic plasticity and advances in Parkinson's disease (Milazzo, September 19 th-21st, 2024)

FISV "Advanced Technologies in Single Cell Omics" (Milan, February 4th-5th, 2025)

Fondazione Ettore Majorana "Neuromodulators of connection: cutting-edge insights on oxytocin and vasopressin in social behavior, cognition and therapy" (Erice, September 9th-14th, 2025)

Casella prize James Mason Bower "How does the history of science tell us we should proceed to understand the relationship between the structure and the function of the nervous system?" and "The sensory cerebellum: re-evaluating the function of the cerebellum in the context of the specific computational requirements of the vertebrate brain" (Pavia, October 13th-14th, 2025)

THESIS CO-SUPERVISOR

Co-supervisor of Bachelor's degree in Biological Sciences thesis "Electrophysiological characterization of striatal medium spiny neurons differentiated from human embryonic stem cells and engineered to express hM3Dq and KORD chemoreceptors". Candidate: Chiara Donati. Supervisor: Dr. Paolo Spaiardi.

Co-supervisor of Bachelor's degree in Biological Sciences thesis "Study of spontaneous excitatory postsynaptic currents of CA1 pyramidal neurons of mouse after the perfusion of IGF-II". Candidate: Maya Brusa. Supervisor: Prof. Gerardo Biella.

OTHER ACTIVITIES

Student representative in the PhD Board for the PhD program in Biomedical Sciences at University of Pavia (December 2024 – nowaday)

Member of "Commissione Paritetica Docenti-Studenti" for the Master's degree in Neurobiology at University of Pavia (November 2020 - November 2022)

SHARPER (SHAring Researchers' Passion for Enhanced Roadmaps) – European Researchers' Night: presenter at the stand "MagicaMENTE!" (Pavia, September 2021, 2022, 2023)

SHARPER (SHAring Researchers' Passion for Enhanced Roadmaps) – European Researchers' Night: presenter at the stand "Neuropolis" (Pavia, September 2024)

Roundtable with the Nobel prize Edward Moser (Pavia, March 2nd, 2023)

Project "Penne amiche della scienza" (October, 2025 - nowaday)

POSTER, ABSTRACTS AND ORAL PRESENTATIONS

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**". Presenter at the congress "Next Generation Neurobiology Training: a new Era Begins at University of Pavia" (**Pavia, September 22nd-23rd, 2022**)

Raffin F, De Luca R, **Trucco A**, Castagno A N, Spaiardi P, Talpo F, Fuller P M, Biella G, Arrigoni E "**Neuropeptidergic modulation of the hypothalamic subparaventricular neurons in mouse brain slices**". SFN 2023 (**Washington DC, November 11th-15th, 2023**)

Castagno A N, Spaiardi P, **Trucco A**, Maniezzi C, Raffin F, Mancini M, Nicois A, Cazzola J, Del Papa P, Pedrinazzi M, Pisani A, Talpo F, Biella G "**Shaping the spikes: oxytocinergic modulation of action potentials in the CA1 hippocampal region of mice**". SINS 2023 (**Turin, September 14th-17th, 2023**)

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**". FENS 2024 (**Vienna, June 25 th-29th, 2024**)

Castagno A N, Spaiardi P, **Trucco A**, Cazzola J, Raffin F, Mancini M, Nicois A, Cazzola J, Del Papa P, Pedrinazzi M, Pisani A, Talpo F, Biella G "**Fast and (sometimes) furious: oxytocinergic modulation of fast-spiking interneurons in hippocampal CA1 region and caudoputamen of mice**". FENS 2024 (**Vienna, June 25 th-29th, 2024**)

Cazzola J, Spaiardi P, Iannantuoni S, Donati C, Maramai S, Saletti M, Castagno A N, Faravelli G, Raffin F, **Trucco A**, Talpo F, Anzini M, Biella G "**Physiological evaluation of a new riuzole-based compound as neuroprotective agent**" FENS 2024 (**Vienna, June 25 th-29th, 2024**)

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 preclinal model of Huntington's disease during the progression of the pathology**". Fresco international workshop on synaptic plasticity and advances in Parkinson's disease (**Milazzo, September 19 th-21st, 2024**), also **selected for an oral presentation**

Cazzola J, Spaiardi P, Talpo F, Trucco A, Raffin F, Faravelli G, Scolz A, Maramai S, Saletti M, Anzini M, Zuccato C, Biella G **"Identifying synaptic and biophysical targets to counteract neurodegenerative diseases"**. Annual meeting of Young Researchers in Physiology (Catania, May **21st-23rd, 2025**)

PUBBLICATIONS IN EXTENSO

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.

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.

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.

DECLARATION AND SIGNATURE

I allow the use and processing of my personal data according to the *Dlgs 196/2003* concerning the handling of personal data