

Veronica Rivi

PhD | RTT Researcher | National Scientific Qualification (ASN) Associate Professor (Pharmacology)

PERSONAL INFORMATION

SURNAME **RIVI**
NAME **VERONICA**
PLACE AND DATE OF BIRTH **CARPI (MODENA), 26 OCT 1993**
NATIONALITY **ITALIAN**
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METRICS

Publications: **60**
Citations: **733**
H-Index: **16**
Updated: March 2026

RESEARCH PROFILE

My research focuses on translational neuroscience and neuropharmacology, with particular emphasis on the neurobiological mechanisms underlying stress, learning, and memory. I integrate behavioral, molecular, and pharmacological approaches across vertebrate and invertebrate models, especially *Lymnaea stagnalis*, to investigate how environmental and pharmacological factors modulate cognitive processes. My work aims to bridge preclinical models and clinical applications, contributing to the understanding of neuropsychiatric and neurodegenerative disorders and supporting the development of personalized therapeutic strategies.

Keywords: Translational Neuroscience; Neuropharmacology; Stress Biology; Learning and Memory; Preclinical Models; Neuroplasticity

WORK EXPERIENCE

April 2025 – ongoing
RESEARCHER IN TENURE TRACK (RTT)
SSD: BIOS11/A

March 2025
NATIONAL SCIENTIFIC QUALIFICATION FOR ASSOCIATE PROFESSORSHIP (ASN)
05/G1-PHARMACOLOGY, CLINICAL PHARMACOLOGY AND PHARMACOGNOSY

01 Mar 2023 – 31 Mar 2025
SENIOR FELLOWSHIP
Department of Biomedical, Metabolic and Neural Sciences
University of Modena and Reggio Emilia, Italy

01 Dec 2021 – 28 Feb 2023
JUNIOR FELLOWSHIP
Department of Biomedical, Metabolic and Neural Sciences

CLINICAL RESEARCH

01 Nov 2023 – 01 Nov 2025
CLINICAL STUDY COORDINATOR

- Digital and Predictive Medicine, Clinical and Metabolic Pharmacology and Toxicology Structure
- University of Modena and Reggio Emilia, Italy

INTERNATIONAL FELLOWSHIP

01 – 30 Jun 2025

07 Oct 2020 – 31 Oct 2021

- Hotchkiss Brain Institute
- Department of Pharmacology and Physiology
- University of Calgary, Canada

CAREER BREAKS

October 2025 – March 2026

Maternity leave (birth of child)

EDUCATION

A.Y. 2022-2023 – TO DATE

RESIDENCY IN CLINICAL PHARMACOLOGY

Digital and Predictive Medicine, Pharmacology and Clinical Metabolic Toxicology Department
Laboratory of Clinical Pharmacology and Pharmacogenomics
University of Modena and Reggio Emilia, Italy

A.Y. 2018-2021

PhD IN NEUROSCIENCE *cum laude*

XXXIV cycle

Department of Biomedical, Metabolic and Neural Sciences
University of Modena and Reggio Emilia, Italy

A.Y. 2016-2017

MASTER'S DEGREE IN EXPERIMENTAL AND APPLIED BIOLOGY (LM-6) *cum laude and commendation*

Department of Life Sciences
University of Modena and Reggio Emilia, Italy

A.Y. 2014-2015

BACHELOR'S DEGREE IN BIOLOGICAL SCIENCES

Department of Life Sciences
University of Modena and Reggio Emilia

FUNDED RESEARCH PROJECTS

2022 – 2025

Project: "FACILITATE – Framework for Clinical Trial Participants' Data Reutilization for a Fully Transparent and Ethical Ecosystem", funded by the Innovative Medicines Initiative 2 Joint Undertaking Project. Role: Project management

2023 – 2024

Project: "Study of the protective potential of flavonoids on memory and learning in *Lymnaea stagnalis* (FL@VO)", funded by the Department of Life Sciences (FAR 2023), University of Modena and Reggio Emilia, Italy. Role: Principal researcher

2021-2022

Project: "Dopamine-dysbindin genetic interaction: a multidisciplinary approach to characterize cognitive phenotypes of schizophrenia and develop personalized treatment". PRIN-MIUR Prot. 2017K2NEF4. Role: Principal researcher

2020-2021

Projects funded by the Natural Sciences and Engineering Research Council of Canada (NSERC-227993-2019) under the supervision of Prof. Ken Lukowiak, Hotchkiss Brain Institute, University of Calgary, Canada. Role: Principal researcher

2017-2019

Project: "Development and characterization of a new invertebrate model for the study of neuropsychiatric disorders and related drug treatments" funded by Regione Emilia Romagna (L.R. n. 20/2002) and the Department of Life Sciences (FAR 2016), University of Modena and Reggio Emilia, Italy. Role: Principal researcher

SELECTED PUBLICATIONS (10 most relevant)

1. **Rivi V**, Pele G, Yakubets G, Batabyal A, Dominici R, Blom JMC, Tascetta F, Benatti C, Lukowiak K. Effects of neonicotinoid and diamide-contaminated agricultural runoff on *Lymnaea stagnalis*: insights into stress, neurotoxicity, and antioxidant response. *Aquat Toxicol*. 2025. doi:10.1016/j.aquatox.2025.107535
2. **Rivi V**, Sarti P, Fodor I, Pirger Z, Batabyal A, Lukowiak K, Pani L, Blom JMC, Tascetta F, Benatti C. First evidence of anxiety-like behavior and its pharmacological modulation in *Lymnaea stagnalis*. *Transl Psychiatry*. 2025. doi:10.1038/s41398-025-03399-z
3. **Rivi V**, Rigillo G, Alboni S, Pani L, Lukowiak K, Tascetta F, Blom JMC, Benatti C. Unraveling lipopolysaccharide-induced behavioral and molecular effects in *Lymnaea stagnalis*, an emerging model organism for translational neuroscience. *Int Immunopharmacol*. 2025. doi:10.1016/j.intimp.2025.114418
4. **Rivi V**, Caruso G, Caraci F, Alboni S, Pani L, Tascetta F, Lukowiak K, Blom JMC, Benatti C. Behavioral and transcriptional effects of carnosine in the central ring ganglia of the pond snail *Lymnaea stagnalis*. *J Neurosci Res*. 2024. doi:10.1002/jnr.25371
5. **Rivi V**, Rigillo G, Batabyal A, Lukowiak K, Pani L, Tascetta F, Benatti C, Blom JMC. Different stressors uniquely affect the expression of endocannabinoid-metabolizing enzymes in the central ring ganglia of *Lymnaea stagnalis*. *J Neurochem*. 2024. doi:10.1111/jnc.16147
6. **Rivi V**, Batabyal A, Lukowiak K, Benatti C, Rigillo G, Tascetta F, Blom JMC. LPS-induced Garcia effect and its pharmacological regulation mediated by acetylsalicylic acid: behavioral and transcriptional evidence. *Biology*. 2023. doi:10.3390/biology12081100
7. **Rivi V**, Benatti C, Blom JMC, Pani L, Brunello N, Drago F, Papaleo F, Caraci F, Geraci F, Torrisi S, Leggio GM, Tascetta F. The role of dopamine D3 receptors, Dysbindin, and their functional interaction on the expression of key genes for neuroplasticity and neuroinflammation in the mouse brain. *Int J Mol Sci*. 2023. doi:10.3390/ijms24108699
8. Blom JMC, Barisone E, Bertolotti M, Caprino D, Cellini M, Clerici CA, Colliva C, di Giuseppe S, Jankovic M, Pancaldi A, Pani L, Poggi G, **Rivi V**, Tascetta F, Torta R, Scarponi D. The use of psychotropic medication in pediatric oncology for acute psychological and psychiatric problems: balancing risks and benefits. *Children*. 2022. doi:10.3390/children9121878
9. **Rivi V**, Batabyal A, Benatti C, Blom JM, Tascetta F, Lukowiak K. Aspirin reverts lipopolysaccharide-induced learning and memory impairment: first evidence from an invertebrate model system. *Naunyn Schmiedebergs Arch Pharmacol*. 2022. doi:10.1007/s00210-022-02286-4
10. Benatti C, **Rivi V**, Alboni S, Grilli A, Castellano S, Pani L, Brunello N, Blom JMC, Tascetta F. Identification and characterization of the kynurenine pathway in the pond snail *Lymnaea stagnalis*. *Sci Rep*. 2022. doi:10.1038/s41598-022-19652-0

Full publication list available upon request

COLLABORATIONS

Established and ongoing collaborations supporting multidisciplinary research in translational neuroscience and neuropharmacology with leading international research groups, integrating behavioral, molecular, and clinical approaches:

- Hotchkiss Brain Institute, University of Calgary (Canada) – Prof. Ken Lukowiak. Long-term collaboration on invertebrate models of learning and memory and stress-related cognitive processes.
- Balaton Limnological Research Institute (Hungary) – Prof. Zsolt Pirger, Dr. Istvan Fodor. Joint research on neurobiological mechanisms of stress and behavioral plasticity.
- FLAME University (India) – Prof. Anuradha Batabyal. Collaborative work on comparative neuroscience.
- Vrije Universiteit Amsterdam (The Netherlands) – Prof. Joris Koene. Research collaboration on invertebrate neurobiology and stress behavior.
- University of Miami (USA) – Prof. Luca Pani. Collaboration on clinical pharmacology and translational approaches.
- University of Catania (Italy) – Prof. Filippo Caraci. Joint research on neuropharmacology and neurodegenerative disorders.
- IRCCS Policlinico Sant’Orsola (Bologna, Italy) – Prof. Dorella Scarponi. Clinical collaborations on neuropsychiatric and cognitive disorders.

PROFESSIONAL COURSES AND CERTIFICATES

2023

LICENSE TO PRACTICE AS A BIOLOGIST

University of Sannio, Italy

COURSES AND CERTIFICATES FOR WORKING, HOUSING, AND EUTHANIZING ANIMAL MODELS FOR SCIENTIFIC PURPOSES

2026

Certified theoretical training in laboratory animal science (Italian Decree D.M. 5 August 2021), including legislation, ethics/3Rs and laboratory rodent welfare and management.

2023

Training to house and euthanize rodents (*Mus musculus* and *Rattus norvegicus*) for scientific and educational purposes. Accredited training activity by the Italian Ministry of Health - General Direction of Animal Health and Veterinary Medicines

2021

Course for Science communication provided by the Natural Sciences and Engineering Research Council of Canada

COURSES AND CERTIFICATES FOR CLINICAL DATA AND BIOLOGICAL SAMPLES MANAGEMENT

2023

- Certification in Clinical Data Management (CDMS).
- Dangerous and goods training certificates - 172.700/IATA 1.5
- CDMS 23R1 certification for clinical research coordination and Medidata professional certification
- ICH good clinical practice E6 Certificate. Global Health Network

GRANTS AND AWARDS

2024

- TRAVELLING FELLOWSHIPS worth £3500 funded on a competitive basis by “The Company of Biologists' journals” to perform the experiments related to the project: “Characterization of anxiety-like behaviors and their pharmacological regulation in pond snails”, at the Hotchkiss Brain Institute of the Department of Physiology and Pharmacology of the University of Calgary (Alberta, Canada) in June 2025 (01-30 June 2025).

2023

- TRAVEL GRANT to attend the XX Catania International Summer School of Neuroscience "The psychosis constellation: from animal models to treatment of resistant psychoses' funded by the Italian Society of Pharmacology (SIF).

2021

- YOUNG RESEARCHER TRAVEL GRANT worth €4800, funded on a competitive basis by the University of Modena and Reggio Emilia (Italy) for a research stay at the Hotchkiss Brain Institute – Cumming School of Medicine of the University of Calgary (Canada) from June 1, 2021, to October 31, 2021.
- TRAVEL GRANT worth €3000, funded on a competitive basis by the Italian Consortium for Biotechnology for a research stay at the Hotchkiss Brain Institute – Cumming School of Medicine of the University of Calgary (Canada) from April 2021 to June 2021.
- YOUNG RESEARCHER AWARD worth €4000, funded on a competitive basis by the Francesco Manni Foundation (Maranello, Modena, Italy).

2020

- YOUNG RESEARCHER TRAVEL GRANT worth €6000, funded on a competitive basis by the University of Modena and Reggio Emilia (Italy) for a research stay at the Hotchkiss Brain Institute – Cumming School of Medicine of the University of Calgary (Canada) from October 7, 2020, to April 1, 2021.

SCIENTIFIC CONFERENCES AND MEETINGS

INVITED SPEAKER AT CONFERENCES AND SEMINARS

2025

- INTERNATIONAL CONGRESS - "Modeling psychiatric-like symptoms in the pond snail *L. stagnalis*: from evolutionarily conserved behavior to pharmacological studies". Symposium on Invertebrate Neuroscience (SIN) HUN-REN Balaton Limnological Research Institute, Hungary. 3-6 Sept 2025
- NATIONAL SEMINAR - "Animal models for Depressive-like behaviors". Organizer: Prof. Pellegrini. University of Trieste, Italy. 29 May 2025
- INTERNATIONAL CONGRESS - "A translational and multidisciplinary approach to studying the Garcia effect, a higher form of learning with deep evolutionary roots". Annual Meeting of the Hungarian Neuroscience Society (MITT 2025). University of Debrecen, Hungary, 22-24 Jan 2025

2024

- INTERNATIONAL SEMINAR - "Unraveling the biology of fear and anxiety: insights from invertebrates". Organizer: Prof. Hoffman. Universidad Autonoma de Tlaxcala, Mexico. 30 May 2024
- NATIONAL SEMINAR - "Translational Neuroscience and major depressive disorder: bridging the gap between animal models and the human condition". Organizer: Prof. Tongiorgi. University of Trieste, Italy. 27 May 2024

2023

- INTERNATIONAL SEMINAR - "*Lymnaea stagnalis*: what can we teach snails? What snails can teach us?". Organizer: Prof. Koene, Vrije Universiteit Amsterdam, The Netherlands. 6 Dec 2023
- INTERNATIONAL SEMINAR - "*Lymnaea stagnalis* as a model organism for Translational Neuroscience". Organizer: Prof. Hoffman, Universidad Autonoma de Tlaxcala, Mexico. 23 May 2023

ABSTRACTS PRESENTED AT NATIONAL AND INTERNATIONAL CONFERENCES AS FIRST AUTHOR

2024

- "Embracing the healthcare digital revolution: pioneering an ethical and legal framework for individual participant clinical data return". 42° National Meeting of the Italian Society of Pharmacology. Sorrento (Italy), 13-16 Nov 2024
- "Anti-CGRP monoclonal antibodies improve cognitive function in patients affected by chronic migraine complicated with medication overuse-headache". IV Franciacorta Headache Meeting. Iseo (Italy), 16-17 Sept 2024
- "Effects of Alprazolam on anxiety-related behavior in an invertebrate model: advancing translational neuroscience". Federation of European Neuroscience Societies (FENS) Forum 2024. Wien (Austria), 25-29 Jun 2024

2023

- "Dysbindin, D3 dopamine receptors, and their genetic interaction differently regulate the mRNA levels of neuroplasticity-related genes in the mouse brain". European College of Neuropsychopharmacology (ECNP) Workshop for Early Career Scientists. Nice (France), 14-17 Mar 2023

2022

- "Role of dopamine D3 receptors, Dysbindin, and their functional interaction on the expression of key genes for neuroplasticity in the mouse brain". 41° National Meeting of the Italian Society of Pharmacology. Rome (Italy), 16-19 Nov 2024

2019

- "Transcriptional effect of food deprivation in the ganglia of *Lymnaea stagnalis*". National Meeting of PhD students in Neuroscience. Naples (Italy), 1 Mar 2019
- "New frontiers in Translational Medicine: *Lymnaea stagnalis* as a model for neurological diseases". XX National Meeting of the Italian Society of Neuropsychopharmacology. Milan (Italy), 30-31 Jan 2019

EDITORIAL ACTIVITY

GUEST ASSOCIATE EDITOR

- Frontiers in Human Neuroscience
- Topic: Women in Brain Health and Clinical Neuroscience

TOPIC COORDINATOR

- Frontiers in Pharmacology
- Topic Model Organisms in Neuropharmacology 2024

TEACHING ACTIVITIES AND MENTORSHIP

TEACHING

Active involvement in undergraduate and postgraduate teaching in pharmacology, pharmacogenomics, toxicology, and translational neuroscience at the University of Modena and Reggio Emilia.

- **Courses delivered:** Pharmacology, Pharmacogenomics, Clinical Research, Toxicology, Stress and Health
- **Degree programs:** Biosciences, Medical Biotechnology, Biology, Psychological Sciences

MENTORSHIP AND ACADEMIC SUPERVISION

Active involvement in undergraduate and postgraduate supervision and mentorship

- Supervision and training of 45 students in experimental neuroscience and neuropharmacology (Italy and Canada)
- Co-supervision of >40 MSc and Bachelor theses across multiple degree programs
- Continuous mentoring of students in experimental design, data analysis, and scientific writing

UNIVERSITY THIRD MISSION

PROJECTS SUPPORTED BY PUBLIC ENGAGEMENT CALLS

Editions 2022, 2023 and 2024

'From the micro to the macro: let's transform experience into knowledge through the tools of science'.

- Department of Biomedical, Metabolic and Neural Sciences
- University of Modena and Reggio Emilia and 'Marco Biagi' Foundation of Modena, Italy

SCIENTIFIC MEMBERSHIP

- Italian Society of Pharmacology (SIF)
- Italian Society of Neuroscience (SINS)
- Italian Society of Toxicology (SITOX)

SKILLS

TECHNICAL EXPERTISE

- Behavioral neuroscience (rodent and invertebrate models)
- Molecular biology (qPCR, Western blot, ELISA)
- Experimental design and translational models
- Data analysis (SPSS, GraphPad, Origin)

LANGUAGE SKILLS

- Excellent knowledge of written and spoken English (C2)

I authorize the processing of personal data present in the CV under the Legislative Decree. Lgs. 101/2018 and of the GDPR (EU Regulation 2016/679).

Modena, March 16th, 2026