

CURRICULUM VITAE ET STUDIORUM

FRANCESCA ALLEMANNO

Info and Contacts

SSD: MVET-01/B (ex VET/02) – Veterinary Physiology

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Education

Ph.D. in Veterinary Sciences for Animal Health and Food Safety

University of Studies of Turin | 11/2024 – ongoing

Supervisor: Dr. Eugenio Martignani

Co-supervisor: Prof. Mario Baratta

Advanced Course in Diagnostic Molecular Pathology (6ZT)

University of Studies of Milan | 15/04/2022 – 14/10/2022

Master's Degree in Veterinary Biotechnological Sciences (LM-09)

University of Studies of Milan | *Graduated* on 13/10/2021 | Final Mark 109/110

Master's Thesis: "Analysis of coinfection with Chronic Bee Paralysis Virus and *Nosema ceranae* in *Apis mellifera* through molecular diagnostics"

Supervisor: Prof. Michele Mortarino

Bachelor's Degree in Animal Production and Husbandry of Livestock and Wildlife (L-38)

University of Studies of Turin | *Graduated* on 18/07/2019 | Final Mark 100/110

Bachelor's Thesis: "Using of molecular coancestry in the genetic management of small breeding populations"

Supervisor: Prof. Dominga Soglia

Professional Experience

Ph.D. Student

11/2024 – ongoing

University of Studies of Turin, Department of Veterinary Sciences (DSV). *Veterinary Physiology Unit* | *Supervisor:* Dr. Eugenio Martignani | *Co-supervisor:* Prof. Mario Baratta

Project: "An in vitro investigation of extracellular vesicles as mediators of the crosstalk between horse mesenchymal stem cells and the inflammatory environment in equine osteoarthritis"

- Horse bone marrow and fat tissue sampling
- Horse primary Mesenchymal Stem Cell isolation, confirmation of identity (flow cytometry, tri-lineage differentiation) and culture
- Extracellular vesicle isolation (ultracentrifugation)
- MiRNA extraction with automated extractor (from EVs) and retro-transcription
- RT-qPCR (gene expression analysis)
- Nanoparticles Tracking Analysis (NTA) for EV characterization

Research Period Abroad

01/10/2025 – 15/11/2025 (1,5 months)

Ghent University, Faculty of Veterinary Medicine, Department of Translational Physiology, Infectiology and Public Health. *Veterinary Stem Cell Research Unit* |

Supervisor: Prof. Catharina De Schauwer

- Horse primary Mesenchymal Stem Cell isolation (from fat tissue) and culture
- Multicolour flow cytometry (immunophenotyping specific for equine species)
- Tri-lineage differentiation (into adipocytes, osteoblasts and chondrocytes)
- Quantitative evaluation of cell differentiation (ImageJ)

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Postgraduate Research Fellow

04/2024 – 09/2024 (6 months)

Italian National Research Council (CNR), Water Research Institute (IRSA). *Molecular Ecology Group (MEG)* | *Supervisor*: Dr. Andrea Di Cesare

PRIN Project: “FUTURE: a warmer Future world: effects on plankton commUnities and paThogens in mediterranean vUIneRable Ecosystems”

- Freshwater, Sediment and leaf sampling
- Zooplankton identification at stereo microscope
- DNA extraction with commercial kits (from zooplankton and bacteria isolated from freshwater)
- Simplex/touchdown/nested PCR assay design and performance
- Electrophoresis on agarose gel for PCR products analysis
- RT-PCR (Antibiotic Resistance Genes' detection)
- Sanger Sequencing Data Analysis for species identification (FinchTV, Mesquite, BLAST, MAFFT, PhyML, FigTree)
- PhytoPAM (Evaluation of Phytoplankton's Photosynthetic Performance)

Postgraduate Research Fellow

01/2024 – 03/2024 (3 months)

University of Studies of Turin, Department of Veterinary Sciences (DSV). *Animal Genetics Unit* | *Supervisor*: Prof. Dominga Soglia

Project: “MIPoL: Milanino: una razza di Pollo Lombarda da conservare e diffondere sul territorio”

- DNA extraction with commercial kits (from poultry feathers, blood, meat)
- Simplex/Multiplex PCR assay design and performance
- Capillary electrophoresis for STRs markers analysis
- Electrophoresis on agarose gel for PCR products analysis
- Centesimal Analysis of poultry meat samples (fresh and lyophilized)
- Results Analysis (Genemapper, GenAIEx, RStudio)
- Routine maintenance of laboratory equipment

Postgraduate Research Fellow

05/2022 – 11/2023 (19 months)

Spallanzani Institute (IS), Rivolta d'Adda (CR), Italy. *Laboratory of Molecular Genetics* |

Supervisor: Dr. Graziella Bongioni

Project: “GENAPIS”

- DNA extraction with commercial kits, conventional methods and automated extractor (from bees, honey, plants, blood and semen)
- Multiplex PCR assay design and performance
- Capillary electrophoresis for STRs markers analysis
- Electrophoresis on agarose gel and on a chip for PCR products analysis
- Sanger Sequencing
- RT-PCR (SNP genotyping)
- Results analysis (Genemapper, GenAIEx, BioEdit, RStudio)
- Routine maintenance of laboratory equipment

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Graduate Trainee - Master's Thesis

03/2021 - 10/2021 (8 months)

University of Studies of Milan, Department of Veterinary and Animal Science (DIVAS).

Parasitology Unit | Supervisor: Prof. Michele Mortarino

- Sampling of bees in apiaries
- Detection of *Nosema spp* spores at light microscopy
- mRNA extraction with commercial kits (from bees) and retro-transcription
- Primers and TaqMan probes design
- RT-qPCR (*Nosema ceranae* and CBPV detection)
- Results Analysis

Undergraduate Trainee - Bachelor's Thesis

01/2019 - 07/2019 (7 months)

University of Studies of Turin, Department of Veterinary Sciences (DSV). *Animal Genetics Unit* |

Supervisor: Prof. Dominga Soglia

- DNA extraction with commercial kits (from chicken feathers and blood)
- Multiplex PCR
- Capillary electrophoresis for STRs markers analysis
- Results Analysis (Genemapper, GenAIEx, RStudio)

Languages

Italian	C2 (Native language)
English	B2 (First Certificate English, 06/2014)
French	B1 (Diplôme d'études en langue française, 05/2013)
Spanish	B1
Japanese	A2
Dutch	A1

Professional Licenses

- Professional License as Biologist (Sec.A of the Italian Professional Order of Biologists) (University of Studies of Parma, session n. 1 of year 2022)
- Artificial Insemination Technician for Equine Species (Piedmont Code: TO1258L)

Scientific Societies

- Member of "Italian Society of Veterinary Physiology" (SoFiVet) [07/2025-present]
- Member of "Italian Mesenchymal Stem Cell Group" (GISM) [01/2025-present]

Grants & Awards

- Winner of the *SoFiVet Award* for national and international scientific collaboration projects for young researchers (2026 Call)
- Winner of the *Erasmus+ Traineeship Grant* for doctoral research mobility (2025 Call)

Research projects

- *UNITA Starting Grant - Call: "Cellular and Molecular Human and Veterinary Medicine"*
Project: "Veterinary Cell Therapies in a One Health World – VetCellOH"
Role: Team member
Duration: 1 year (11/2025 – 10/2026)

Courses, Trainings & Seminars

- Webinar "Ultracentrifugation Meets Nano-Flow Cytometry: A Practical Workflow for Extracellular Vesicle Enumeration and Integrity Assessment" (Beckman Coulter) (1h, 25/09/2025)
- Webinar "Extracellular Vesicle Essentials 1: Methods for Isolating and Characterizing Extracellular Vesicles" (Promega, INOVIQ) (1h, 09/07/2025)
- Cycle of Seminars on Scientific Writing (Springer Nature) (8h, 7/05/2025 – 25/06/2025)
- Course "Light Field and Fluorescence Microscopy" (Nikon) (8h, 19/06/2025)
- Workshop "Biology and Applications of Extracellular Vesicles" (University of Tuscia) (4h, 12/02/2025)
- Online Course "Study of microbial communities in freshwater: from isolation to -omics" (SUS-MIRRI.IT) (11h, 22-24/04/2024)
- Online Course "Advanced Apiculture, for the protection of bees and beekeepers" (Foundation for Zooprophyllaxis and Zootechnical Initiatives) (14h, final test on 20/04/2023)

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- Training course for QuantStudio™ 6 Pro (ThermoFisher Scientific) (8h, 20/12/2022)
- Cycle of Seminars “Insight into statistics, management and the ability of tracing an experimental design” (University of Milan) (17-31/03/2021)
- Online Course “Introductory Course to Animal Experimentation” (University of Milan) (01-05/02/2021)
- Workshop “Scientific Communication” (University of Milan) (2h, 15/05/2020)

Scientific Publications

- Sabatino R., Pulina S., Sbaffi T., Kamburska L., Titocci J., Cherchi M., Pittalis C., Piscia R., Vaccarelli I., Rosati I., Padedda B.M., **Allemanno F.**, Casiddu P., Di Cesare A. Lakes and lagoons used for drinking water supply and fisheries as sources of potentially pathogenic bacteria and antimicrobial resistance [Under revision in Journal of Environmental Management]
- Meroni G., Tsikopoulos A., Tsikopoulos K., **Allemanno F.**, Martino P. A., Soares Filipe J. F. A Journey into Animal Models of Human Osteomyelitis: A Review. *Microorganisms* 2022, 10, 1135. <https://doi.org/10.3390/microorganisms10061135>

Posters

- **Allemanno F.**, Miretti S., Accornero P., Manenti I., Martignani E. Equine osteoarthritis-related microRNA analysis in extracellular vesicles from horse mesenchymal stromal cells: a preliminary investigation. Poster Presentation, Third International StemNet Meeting, Bologna (IT), page 40, 12-13 March 2026
- **Cherchi M.**, Padedda B.M., Di Cesare A., **Allemanno F.**, Casiddu P., Kamburska L., Lugliè A., Manca B., Piscia R., Pittalis C., Rosati I., Sabatino R., Satta C.T., Titocci J., Pulina S. Effects of experimental heatwaves on plankton communities from different Mediterranean aquatic ecosystems. Poster Presentation, XXXIII Congress of the Italian Society of Ecology (S.It.E), Rome (IT), page 17, 23-26 September 2024
- **Pittalis C.**, Pulina S., Di Cesare A., **Allemanno F.**, Casiddu P., Cherchi M., Kamburska L., Lugliè A., Manca B., Piscia R., Rosati I., Sabatino R., Satta C.T., Titocci J., Padedda B.M. Warming effects on plankton communities from Mediterranean freshwater and coastal lagoon ecosystems. Poster Presentation, XXXIII Congress of the Italian Society of Ecology (S.It.E), Rome (IT), page 18, 23-26 September 2024
- **Cambuli C.**, **Allemanno F.**, Bongioni G., Galli A., Cenadelli S., Montedoro M. Sequencing of the Complementary Sex Determiner (CSD) gene in *Apis mellifera*. Poster Presentation, VII International Congress on Domestic Animal Breeding, Genetics and Husbandry-23 (ICABGEH-23), Krakow (PL), page 4, 18-20 September 2023
- **Allemanno F.**, Rizzi R., Villa L., **Mortarino M.** A Reverse Transcriptase-Quantitative PCR Study on Honeybees Co-infected With *Nosema ceranae* and Chronic Bee Paralysis Virus. Poster Presentation, XXXII Congress of the Italian Society of Parasitology (SolPa), Naples (IT), page 162, 27-30 June 2022. ISBN 978-88-943575-2-3

Conference Attendance

- Third International StemNet Meeting. Bologna, Italy, 12-13 March 2026
- 19th International Symposium of Microbial Ecology (ISME19). Cape Town, South Africa, 18-23 August 2024
- Dairy at Guelph: Annual Research Showcase. Elora, (ON) Canada, 2 November 2023

Public Engagement & Third Mission

- **Allemanno F.**, Martignani E. The secret language of horse mesenchymal stem cells: extracellular vesicles and their microRNAs towards a better understanding of equine osteoarthritis. Oral presentation, Game of Research 2025, Turin, Italy, 11 December 2025
- Cambuli C., **Allemanno F.**, Bongioni G., Cenadelli S., Montedoro M. (2022). GENAPIS, un Progetto per l'Apicoltura Italiana. *Apinsieme: National Journal of Apiculture*, year VIII n.7, 20-25

Turin, 16/03/2026

Francesca Allemanno