

VALENTINA MASTRANTONIO

Curriculum Vitae

Part I – General Information

Mother tongue(s)	Italian
Other language(s)	English (C1)
	French (B1)

Part II – Education and Training

IIA – Academic studies

2015	PhD in Ecology and Management of Biological Resources Tuscia University, Viterbo, Italy
2011	Msc Ecobiology (110/110 cum laude) Title: “ <i>Genetic diversity of a vector and its epidemiological implications: the system Ixodes ricinus - Lyme disease</i> ” Sapienza University of Rome
2008	Bsc Natural Sciences Title: “ <i>Genetic research on the quality of mass breeding in an autocide control program for the control of Aedes albopictus (Diptera: Culicidae)</i> ” Sapienza University of Rome

IIB – Training activities

2019	First Annual Conference on <i>Aedes</i> Invasive Mosquito COST ACTION CA17108 Athens, Greece
2017	Short-term scientific mission “<i>Diflubenzuron resistance investigations in Culex mosquitoes</i>”, Heraklion, Crete Supported by COST Action “European Network for Neglected Vectors and Vector-Borne Infections”
2016	Training Course “<i>NGS for evolutionary biologists: from basic scripting to variant calling</i>”, Naples, Italy Elixir-Italy
2014	Short Visit Grant “<i>ConGenOomics Research Networking Programmes</i>”, Imperial College, London Supported and funded by the European Science Foundation
2011	Corso GIS avanzato Sapienza University of Rome

2011	Introduction to Evolutionary Genetics Workshop (2ECT) , Vienna, Austria Institute of Science and Technology (ISF)
2011	“Approximate Bayesian Computation (ABC) in population genetics: some practical guidelines” Sapienza University of Rome
2011	“Basic Course of Naturalistic photography” Associazione FNUR (Fotografi Naturalisti Università di Roma)
2003	Preliminary English Test Cambridge ESOL Italy

Part III – Appointments

IIIA – Research Appointments

2 nd Jan 2020-1 st Jan 2023	RTDA art. 24, comma 3, lett. a) della legge 30 dicembre 2010, n. 240 (SC 05/C1 – SSD BIO/07) Department of Environmental Biology, Sapienza University of Rome <i>Project title:</i> “Rafts on the water, for mosquito control: hydrogel-based delivery systems and inhibition of insect defence mechanisms to improve sustainable use of insecticides and counteract resistance development”
2023	Incarico per attività di ricerca Department of Biosciences, University of Milan, Italy <i>Project title:</i> “Monitoraggio e controllo di specie invasive di zanzara nel Nord Italia”
2019	Incarico per attività di ricerca Centro Agricoltura Ambiente “G. Nicoli S.r.l”, Crevalcore (BO), Italy <i>Oggetto:</i> Messa a punto di linee di <i>Culex pipiens</i> gestibili con sistemi di allevamento completamente artificiali al fine di avere a disposizione individui su cui realizzare esperimenti sull’insorgenza di fenomeni di resistenza
2019	Incarico per attività di ricerca Department of Environmental Biology, Sapienza University of Rome <i>Oggetto:</i> Studio della risposta agli insetticidi in popolazioni di artropodi vettori mediante esperimenti condotti sui diversi stadi del ciclo vitale
2018-2019	Post-doc Researcher (Assegno di Ricerca) Department of Environmental Biology, Sapienza University of Rome <i>Project title:</i> “Inhibition of cellular defenses by means of Antisense Oligomers for an eco-friendly control of <i>Anopheles</i> mosquitoes
2017-2018	Research fellowship Department of Environmental Biology, Sapienza University of Rome <i>Title:</i> “Effects of climate change on vectors of diseases for humans and animals”
2016-2017	Post-doc Researcher (Assegno di Ricerca) Department of Environmental Biology, Sapienza University of Rome <i>Project title:</i> “Inhibition of the multidrug-resistance efflux pumps as a new strategy for the control of ticks and their transmitted diseases
2015-2016	Post-doc Researcher (Assegno di Ricerca) Department of Environmental Biology, Sapienza University of Rome <i>Project title:</i> “Inhibition of the multidrug-resistance efflux pumps as a new strategy for the control of ticks and their transmitted diseases

IIIB – Academic Appointments

- 2022 Member of PhD committee in Ecology and Sustainable Management of the Environmental Resources (36° CICLO)
Tuscia University
- 2021 Member of PhD committee in Ecology and Sustainable Management of the Environmental Resources (37° CICLO)
Tuscia University
- 2021-2022 Membro della Commissione Osservatorio della Didattica nel Consiglio d'Area Didattica in Scienze Applicate ai Beni Culturali
Sapienza University of Rome

Part IV – Teaching

IVA – Academic Courses

- 2022-2023 Course of “*Fundaments of Environmental Sciences*” for the Bsc in Technologies for conservation and restoration of cultural heritages (CHIM/12) (6 CFU, 52 hours)
Sapienza University of Rome
- 2022-2023 Module of “*Ecology*” (Course of “*Elements of Chemistry and Ecology*”) for the Bsc in Tecniche della Prevenzione nell'Ambiente e nei Luoghi di Lavoro (BIO/07) (1 CFU, 10 hours)
Sapienza University of Rome
- 2021-2022 Course of “*Fundaments of Environmental Sciences*” for the Bsc in Technologies for conservation and restoration of cultural heritages (CHIM/12) (6 CFU, 52 hours)
Sapienza University of Rome
- 2021-2022 Module of “*Ecology*” (Course of “*Elements of Chemistry and Ecology*”) for the Bsc in Tecniche della Prevenzione nell'Ambiente e nei Luoghi di Lavoro (BIO/07) (1 CFU, 10 hours)
Sapienza University of Rome
- 2020-2021 Course of “*Ecology*” for the Bsc in Agro-industrial Biotechnology (BIO/07) (6 CFU, 52 hours)
Sapienza University of Rome
- 2019-2020 Course of “*Ecology*” for the Bsc in Agro-industrial Biotechnology (BIO/07) (6 CFU, 52 hours)
Sapienza University of Rome
- 2018-2019 Course of “*Conservation of mountain ecosystems*” for the Bsc in Mountain Sciences (BIO/07) (6 CFU, 48 hours)
Tuscia University

IVB – SUPERVISIONING & MENTORING

- 2015-2023 Supervisor and Co-supervisor of 20 students of bachelor's and master's degrees of Sapienza University (BSc degrees: Natural Sciences; Agro-industrial Biotechnology; MSc degrees: Ecobiology; Industrial and Environmental Genomic Biotechnologies)

IVC – PhD SCHOOLS

2022 **Course of Scientific Writing**
Tuscia University

Part V - Awards and Honors

2022 **Abilitazione Scientifica Nazionale a “Professore di II fascia” in Ecologia, 05/C1**
Italian Ministry of Education, University and Research

Part VI - Funding Information

- 2023 **PROGETTO PRIN** (Protocol: 20222SYWHP) Progetto ammesso al finanziamento
Title: *HYPHEN: Hybridization, phenotypic plasticity, and the moulding of the perfect alien* (Role: Responsabile di Unità alla sottomissione del progetto)
Ministero dell'Università e della Ricerca (MUR)
- 2023 **PROGETTO SEED 2022** (Protocol: SP12218482508AF0; Role: PI)
Title: *Resistenza agli insetticidi e strategie di controllo: impatto dei meccanismi metabolici e cuticolari sull'efficacia del larvicida dislubenzuron*
Sapienza University of Rome
- 2020-2023 **PROGETTO PRIN** (Protocol: 2017JBJR57; Role: Researcher)
Title: *Rafts on the water, for mosquito control: hydrogel-based delivery systems and inhibition of insect defence mechanisms to improve sustainable use of insecticides and counteract resistance development*
Sapienza University of Rome
- 2021 **PROGETTO DI ATENEO** Protocol: RM12117A5D48AA22; Role: Researcher)
Title: *RNA-based bioinsecticides for a sustainable pest control*
Sapienza University of Rome
- 2020 **PROGETTO DI ATENEO** (Protocol: RM120172A00E125B; Role: Researcher)
Title: *Origin, diffusion and selective advantage of insecticide resistance: a longitudinal study to control the vector Culex pipiens*
Sapienza University of Rome
- 2018 **PROGETTO PER AVVIO ALLA RICERCA** (Tipo 2) (Protocol: AR21816427169B50; Role: PI)
Title: *Anthropogenic pressure and development of resistance to insecticides: monitoring of Culex pipiens mosquito populations by molecular tools*
Sapienza University of Rome
- 2016 **PROGETTO DI ATENEO** (Protocol: C9CFDE3B; Role: Researcher)
Title: *Transcriptomic analysis for the study of cell defense mechanisms to insecticides in the malarial vector Anopheles stephensi*
Sapienza University of Rome
- 2015 **PROGETTO DI ATENEO** (Protocol: C26A1573ST, Role: Researcher)
Title: *Eco-friendly control of the malarial vector Anopheles stephensi through the inhibition of ABC-multidrug transporters by RNA interference*

- Sapienza University of Rome
 2014 **PROGETTO DI ATENEO** (Protocol: C26A149B88, Role: Reserchear)
 Title: *Development of a new strategy for the control of Anopheles mosquitoes by inhibiting cellular defenses linked to ABC-multidrug transporters*
 Sapienza University of Rome
- 2012 **PROGETTO DI ATENEO** (Protocol: C26A12PNL8; Role: Researcher)
 Title: *Inhibition of multidrug-resistance efflux pumps as a new strategy for controlling ticks and diseases they transmit*
 Sapienza University of Rome

Part VII – Research Activities

VIIA - Research Interests

My research activity moves in the fields of Molecular and Evolutionary Ecology. By using molecular, behavioral and phenotypic analyses, my main interests focus to understand the eco-evolutionary processes affecting the origin and maintenance of biological diversity at the population and species level. The main topics addressed so far include: i) the hybridization process in relation to the ecological context in which it occurs and its effect on inter- and intra-specific diversity; ii) the study of species interactions with biotic and physical environment in ephemeral aquatic habitats; iii) the origin of adaptive polymorphisms and the forces promoting their spreading within and among populations. The study-systems are represented by arthropod species, also of medical-veterinary interest; therefore, research is also focused to develop species-specific and eco-friendly control strategies.

VIIB –Participation to national and international research groups

Since 2012, my research activity has been characterized by collaborations with research groups of qualified National and International Institutions, as witnessed by co-authored publications (see Part X). The major collaborations include:

- Department of Crop Science, Agricultural University of Athens, Greece
- Institute of Molecular Biology and Biotechnology (IMBB)-FORTH, Crete
- Centro Agricoltura Ambiente “G. Nicoli”, Crevalcore (BO), Italy
- Department of Plant Protection, Ankara University, Turkey
- Department of Evolutionary and Environmental Biology, University of Haifa, Israel
- Ecole Pratique des Hautes Etudes, Paris, France
- Department of Parasitology, Chiang Mai University, Thailand
- Department of Immunology, Aggeu Magalhães Institute, Oswaldo Cruz Foundation, Brazil
- Università degli Studi di Milano, Italia
- CISM-Centro di servizi di Spettrometria di Massa, Università di Firenze, Italia
- Dipartimento di Biologia e Biotecnologia, Università di Pavia, Italia
- Università di Parma, Italia

- Università di Camerino, Italia
- Università degli Studi della Tuscia, Italia
- Università degli Studi di Napoli Federico II, Italia
- Università di Bari, Italia

Below a detailed description of the research themes addressed.

- Collaboration with the Ecole Pratique des Hautes Etudes, Paris (Dr. Stefano Mona) and the University of Pavia (Prof. Davide Sassera). The research activity addressed the effects of Pleistocene climatic changes on the geographical distribution of genetic diversity in population of *Ixodes* ticks along the western Palearctic region.
- Collaboration with the Chiang Mai University, Thailand (Prof. Pradya Somboon). The research activity addressed the impact of past climatic changes on patterns of intraspecific diversity in species with wide ecological flexibility in the Southeast Asian regions.
- Collaboration with Tuscia University, Italy (Prof. Giuseppe Nascenti); CISM University of Florence, Italy (Dott. Giuseppe Pieraccini). The research activity focused to study the effects of hybridization and introgression on biological diversity. In this context, the interest focused: i) to understand the role of the ecological context in which hybridization and introgression occur in determining their outcome and direction; ii) to study the action of hybridization as a promoter of diversity within populations.
- Collaboration with University of Milan, Italy (Prof. Sara Epis), University of Camerino (Prof. Guido Favia), “Aldo Moro” University of Bari (Prof. Domenico Otranto). The research activity focused on the interaction between organisms and the abiotic environment. In this context, research aimed to study the response of organisms exposed to anthropogenic xenobiotic compounds.
- Collaboration with the Centro Agricoltura Ambiente “G. Nicoli” (Dott. Romeo Bellini). The research activity focused on the study of ecological interactions in species living in ephemeral aquatic environments. The attention was mainly focused on predation between co-specifics and the ecological factors that influence its extent and its impact within populations.
- Collaboration with the University of Athens, Greece (Prof. John Vontas); Ankara University (Dr. Nurper Güz) and Centro Agricoltura Ambiente “G. Nicoli” (Dott. Romeo Bellini). The research activity concerned the relative role of new mutations, standing variation and the ecological context on the evolution of adaptive polymorphisms within insect populations and its implications for vector control.
- Collaboration with the Aggeu Magalhães Institute, Oswaldo Cruz Foundation, Brazil (Dr. Filipe Dantas Torres). The research activity focused to study the effects of hybridization on the intra-specific diversity of *Rhipicephalus* populations
- Collaboration with the University of Haifa, Israel (Prof. Leon Blaustein). The research activity concerned the characterization of the community living in extreme ephemeral environments along the eastern Mediterranean coasts
- Collaboration with the University of Milan, Italy (Prof. Claudio Bandi), University of Parma (Dr. Laura Giovati), University Federico II of Naples (Prof. Silvia Caccia). The research activity focused to develop alternative strategies to control Culicidae species based on eco-friendly and low-impact tools

Part VIII – Editorial Activity

Reviewer of scientific papers for ISI-ranked journals, such as Insects, International Journal of Environmental Research and Public Health, International Journal of Molecular Sciences Pathogens, Parasite and Vectors, PlosOne, Scientific Reports

Part IX – Summary of Scientific Achievements

Total number of publications in peer-review journals (2012-2023)	28 (82% Q1; 43% Relevant position)
<i>H</i> -index	15
Total number of citations/Mean number of citations for publication	557/20
Total Impact Factor (IF) (average IF/paper)	94.0 (3.4)

Last 10 years (2013-2023) number of publications in peer-review journals	27 (82% Q1; 43% Relevant position)
<i>H</i> -index	14
Total number of citations/Mean number of citations for publication	489/18
Total Impact Factor (IF) (average IF/paper)	90.2 (3.3)

Part X– Full List of Publications

1. Pitton S., Negri A., Pezzali G., Piazzoni M., Locarno S., Gabrieli P., Quadri R., **Mastrantonio V.**, Urbanelli S., Porretta D., Bandi C., Epis S., Caccia S. (2023). MosChito rafts as effective and eco-friendly tool for the delivery of a *Bacillus thuringiensis*-based insecticide to *Aedes albopictus* larvae. *Scientific Reports*, 13(1): 3041
2. Lucchesi V., Grimaldi L., **Mastrantonio V***., Porretta D., Di Bella L., Ruswandini T., Di Salvo M.L., Vontas J., Bellini R., Negri A., Epis S., Caccia S., Bandi C., Urbanelli S. (2022). Cuticle modifications and over-expression of the chitin-synthase gene in diflubenzuron resistant phenotype. *Insects*, 13(12), 1109 (*corresponding author)
3. Porretta, D., **Mastrantonio, V.**, Lucchesi, V., Bellini, R., Vontas, J., Urbanelli, S. (2022). Historical samples reveal a combined role of agriculture and public-health applications in vector resistance to insecticides. *Pest Management Science*, 78: 1567-1572.

4. **Mastrantonio V.**, Porretta D., Lucchesi V., Güz N., Cagatay N.S., Bellini R., Vontas J., Urbanelli S. (2021). Evolution of adaptive variation in the mosquito *Culex pipiens*: Multiple independent origins of insecticide resistance mutations. *Insects*, 12:8.
5. **Mastrantonio V.**, Crasta G., Urbanelli S., Porretta D. (2021). Cannibalism and necrophagy promote a resource loop and benefit larval development in insects of temporary waters. *Insects*, 12, 657.
6. Fotakis* E.A. **Mastrantonio*** V., Grigoraki* L., Porretta D, Puggioli A, Chaskopoulou A., Osório H., Weill M., Bellini R, Urbanelli S. Vontas J. (2020). Identification and detection of a novel point mutation in the chitin synthase gene of *Culex pipiens* associated with diflubenzuron resistance. *PLoS Neglected Tropical Diseases*, 14, 1-10 [*co-primary author]
7. **Mastrantonio V.**, Urbanelli S. and D. Porretta. (2019). Ancient hybridization and mtDNA introgression behind current paternal leakage and heteroplasmy in hybrid zones. *Scientific Reports*, 9: 19177
8. Negri A., Ferrari M., Nodari R., Coppa E., **Mastrantonio V.**, Zanzani S., Porretta D., Bandi C., Urbanelli S. and S. Epis. (2019). Gene silencing through RNAi and antisense Vivo-Morpholino increases the efficacy of pyrethroids on larvae of *Anopheles stephensi*. *Malaria Journal*, 18: 294
9. Porretta, D., Fotakis, E.A., **Mastrantonio, V.**, Chaskopoulou, A., Michaelakis, A., Kioulos, I., Weill, M., Urbanelli, S., Vontas, J., Bellini, R. (2019). Focal distribution of diflubenzuron resistance mutations in *Culex pipiens* mosquitoes from Northern Italy. *Acta Tropica*, 193: 106-112
10. **Mastrantonio V.**, Ferrari M., Negri A., Sturmo T., Favia, G., Porretta, D., Epis, S., Urbanelli, S. (2019). Insecticide exposure triggers a modulated expression of ABC transporter genes in larvae of *Anopheles gambiae* s.s. *Insects*, 10(3),66.
11. **Mastrantonio V.**, Latrofa M.S., Porretta D., Lia R.P., Parisi A., Iatta R., Dantas-Torres F., Otranto D., Urbanelli S. (2019). Paternal leakage and mtDNA heteroplasmy in *Rhipicephalus* spp. ticks. *Scientific Reports*, 9:146.
12. Rosenfeld S., Porretta D., Rahav E., **Mastrantonio V.**, Duchet, C., Blaustein L. (2018) Molecular identification of *Aedes phoeniciae* (Diptera: Culicidae) in rockpools along the northern Israeli coast. *Journal of vector ecology*, 43, 344-346.
13. **Mastrantonio V.**, Crasta G., Puggioli A., Bellini R., Urbanelli S., Porretta D. (2018) Cannibalism in temporary waters: Simulations and laboratory experiments revealed the role of spatial shape in the mosquito *Aedes albopictus*. *Plos One* 13(5): e0198194.
14. **Mastrantonio V.**, Ferrari M., Epis S., Negri A., Scuccimarra G., Montagna M., Favia G., Porretta D., Urbanelli S., Bandi C. (2017) Gene expression modulation of ABC transporter genes in response to permethrin in adults of the mosquito malaria vector *Anopheles stephensi*. *Acta Tropica*, 171:37-43
15. De Marco L., Sassera D., Epis S., **Mastrantonio V.**, Ferrari M., Ricci I., Comandatore F., Bandi C., Porretta D., Urbanelli S. (2017). The choreography of the chemical defensome response to

insecticide stress: insights into the *Anopheles stephensi* transcriptome using RNA-Seq. *Scientific Reports*, 7:41312.

16. De Marco L., Epis S., Comandatore F., Porretta D., Cafarchia C., **Mastrantonio V.**, Dantas-Torres F., Otranto D., Urbanelli S., Bandi C., Sassera D. (2017). Transcriptome of larvae representing the *Rhipicephalus sanguineus* complex. *Molecular Cellular Probes*, S0890-8508(16)30013-5.
17. Porretta D., Epis S., **Mastrantonio V.**, Ferrari M., Bellini R., Favia G., Urbanelli S. (2016). How heterogeneous is the involvement of ABC transporters against insecticides? *Acta Tropica*, 157: 131-5.
18. Porretta D., Latrofa M.S., Dantas-Torres F., **Mastrantonio V.**, Iatta R., Otranto D., Urbanelli S. (2016). Exon-intron structure and sequence variation of the calreticulin gene among *Rhipicephalus sanguineus* group ticks. *Parasites & Vectors*, 9:640.
19. Porretta D., **Mastrantonio V.**, Crasta G., Bellini R., Comandatore F., Rossi P., Favia G., Bandi C., Urbanelli S. (2016) Intra-instar larval cannibalism in *Anopheles gambiae* (s.s.) and *Anopheles stephensi* (Diptera: Culicidae). *Parasites & Vectors*, 9:566.
20. **Mastrantonio V.**, Porretta D., Urbanelli S., Crasta G., Nascetti G. (2016). Dynamics of mtDNA introgression during species range expansion: insights from an experimental longitudinal study. *Scientific Reports*, 6:30355.
21. **Mastrantonio V.**, Porretta D., Bellini R., Nascetti G. and Urbanelli S. (2015). Molecular systematic and origin of the Mediterranean Sea rock-pool mosquitoes of the *Aedes mariae* complex. *Annals of the Entomological Society of America*, 108(4): 593-599.
22. Cafarchia C., Porretta D., **Mastrantonio V.**, Epis S., Sassera D., Iatta R., Immediato D., Ramos R.A.N., Lia R.P., Dantas-Torres F., Urbanelli S., Otranto D. (2015). Potential role of ATP-binding cassette transporters against acaricides in the brown dog tick *Rhipicephalus sanguineus* sensu lato. *Medical and Veterinary Entomology* 29(1): 88–93.
23. Urbanelli S., Porretta D., **Mastrantonio V.**, Bellini R., Pieraccini G., Romoli R., Crasta G., and Nascetti G. (2014) Hybridization, natural selection and evolution of reproductive isolation: a 25-years survey of an artificial sympatric area between two mosquito sibling species of the *Aedes mariae* complex. *Evolution*, 68(10):3030-3038
24. Epis S., Porretta D., **Mastrantonio V.**, Comandatore F., Sassera D., Rossi P., Favia G., Bandi C., Urbanelli S. (2014). Temporal dynamics of the ABC transporter response to insecticide treatment: insights from the malaria vector *Anopheles stephensi*. *Scientific Reports*, 4,7435.
25. Epis S., Porretta D., **Mastrantonio V.**, Comandatore F., Sassera D., Rossi P., Cafarchia C., Otranto D., Favia G., Genchi C., Bandi C., Urbanelli S. (2014). ABC transporters are involved in defense against permethrin insecticide in the malaria vector *Anopheles stephensi*. *Parasites and Vectors*, 7 (1), 349.

26. Porretta D., **Mastrantonio V.**, Amendolia S. et al. (2013) Effects of global changes on the climatic niche of the tick *Ixodes ricinus* inferred by species distribution modelling. *Parasites and Vectors*, 6(1):271.
27. Porretta D*, **Mastrantonio V***, Mona S. Epis S., Montagna M., Sassera D., Bandi C., Urbanelli S. (2013) The integration of multiple independent data reveals an unusual response to Pleistocene climatic changes in the hard tick *Ixodes ricinus*. *Molecular Ecology*, 22, 1666–1682. [*co-primary author].
28. Porretta D., **Mastrantonio V.**, Bellini R., Somboon P. and Urbanelli S. (2012) Glacial history of a modern invader: phylogeography and species distribution modelling of the Asian Tiger Mosquito *Aedes albopictus*. *Plos One*, 7, e44515.

Part XI– Congress contributions

1. **Mastrantonio V.**, Urbanelli S., Porretta D. 2023. A hidden road to diversity: mtDNA introgression promotes intra-specific paternal leakage and heteroplasmy in hydraenid beetles. Society of Molecular Biology and Evolution (SMBE) 2023, Ferrara, Italy
2. Lucchesi V., **Mastrantonio V.**, Bellini R., Vontas J., Urbanelli S., Porretta D, 2022. Agriculture and public health promote diflubenzuron resistance in the West Nile vector *Culex pipiens*. 22th Congress of the Society of Vector Ecology (SOVE), Sofia
3. **Mastrantonio V.**, Fotakis E.A., Grigoraki L., Porretta D., Puggioli A., Chaskopoulou A., Osório H., Weill M., Bellini R., Urbanelli S., Vontas J. 2021. Snapshot of the insecticide resistance in Southern European populations of the mosquito *Culex pipiens*. 10th European Mosquito Control Association (EMCA) Conference, Vienna
4. **Mastrantonio V.**, Crasta G., Puggioli A., Bellini R., Urbanelli S., Porretta D. 2021. The topology of the breeding site affects intra-specific predation in the mosquito vector *Aedes albopictus*. Virtual Meeting of the Society of Vector Ecology (SOVE)
5. Porretta D., **Mastrantonio V.**, Lucchesi V., Güz N., Çağatay N.S., Bellini R., Vontas J., S. Urbanelli. 2021. Insecticide resistance evolved multiple times in the mosquito *Culex pipiens*. 10th European Mosquito Control Association (EMCA) Conference, Vienna
6. Porretta D., **Mastrantonio V.**, Crasta G., Urbanelli S., 2021. Conspecific consumption promotes a resource loop in the vector *Aedes albopictus*. SOVE Meeting. Virtual Meeting of the Society of Vector Ecology (SOVE)
7. Porretta D., **Mastrantonio V.**, Urbanelli S. Vontas J, Bellini R. 2018. Spread of diflubenzuron resistance in the mosquito *Culex pipiens* in Northern Italy. 21th Conference European- Society of Vector Ecology E-SOVE, Palermo.
8. M. Ferrari, L.D. Marco, D. Porretta, **Mastrantonio V.**, Negri A., Urbanelli S., Favia G., Sassera D., Bandi C., Epis S. (2017). Temporal patterns of insecticide response in *Anopheles stephensi* and identification of molecular targets for gene silencing. Annual meeting of the Italian Malaria Network. Roma
9. Ferrari M., Porretta D., **Mastrantonio V.**, De Marco L., Negri A., Urbanelli S., Favia G., Bandi C., Epis S. (2016) The involvement of ABC transporters in the resistance to permethrin insecticide in the malaria vector *Anopheles stephensi*, Congresso Nazionale Italiano di Entomologia (CNIE). Padova, Italia

10. Porretta D., **Mastrantonio V.**, Latrofa M.S., Dantas-Torres F., Urbanelli S., D. Otranto. 2016. Nuclear genetic markers for multilocus phylogeny of *Rhipicephalus* ticks. Società Italiana di Parassitologia (SOIPA), Bari
11. Cafarchia C., Porretta D., Dantas-Torres F., Iatta R., Immediato D., **Mastrantonio V.**, Epis S., De Marco L., Ferrari M., Negri A., Sassera D., Urbanelli S., D. Otranto. 2016. The “first line of defense” against acaricides in the brown tick *Rhipicephalus sanguineus* sensu lato. Società Italiana di Parassitologia (SOIPA), Bari
12. **Mastrantonio V.**, Porretta D., Nascetti G., Urbanelli S. 2015. Ecological and evolutionary consequences of a colonization event: the case study of the mosquitoes *Aedes mariae* and *Ae. zammitii*. Congresso ‘Ecology at the Interface: Science-Based Solutions for Human well Being’, SITE e EEF, Roma
13. Porretta D., **Mastrantonio V.**, and Urbanelli S. 2014. Natural selection and Speciation in *Ochthebius* beetles. Xth EUROPEAN CONGRESS OF ENTOMOLOGY University of York, York, UK
14. **Mastrantonio V.**, Porretta D., Epis S., Bandi C., Otranto D., and Urbanelli S. 2014. “Staying alive”: persistence of the hard tick *Ixodes ricinus* across Europe under past and future climatic changes. Xth EUROPEAN CONGRESS OF ENTOMOLOGY, University of York, UK.
15. **Mastrantonio V.**, Amendolia S., Porretta D., Gaiarsa S., Epis S., Genchi C., Bandi C., Otranto D., and Urbanelli S. 2013. Effects of climatic changes on the distribution of the ticks *Ixodes ricinus* and *Ixodes persulcatus* inferred by Species Distribution Modelling. XXIII congresso S.It.E. Ancona.
16. Porretta D., **Mastrantonio V.**, S. Epis, C. Bandi, D. Sassera, M. Pajoro, L. Kramer, L. Rinaldi, Genchi and S. Urbanelli 2010. Connectivity among European *Ixodes ricinus* populations and its implication for pathogens diffusion: a genetic population approach. XX congresso S.It.E. Roma.
17. Porretta D., **Mastrantonio V.**; S. Epis, C. Bandi, D. Sassera, D. Pistone, L. Kramer, L. Rinaldi, Genchi and S. Urbanelli 2010. Influence of the cellular endoparasite *Midichloria mitocondrii* on the mitochondrial genetic diversity in *Ixodes ricinus* tick. IV congresso Società Italiana di Biologia Evolutiva SIBE. Milano.

Date 08/06/2023

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Elenco delle pubblicazioni più significative sottoposte alla valutazione della Commissione giudicatrice, codice concorso 2023RTTR008

1. Lucchesi V., Grimaldi L., **Mastrantonio V[†]**, Porretta D., Di Bella L., Ruspandini T., Di Salvo M.L., Vontas J., Bellini R., Negri A., Epis S., Caccia S., Bandi C., Urbanelli S. (2022). Cuticle modifications and over-expression of the chitin-synthase gene in diflubenzuron resistant phenotype. *Insects*, 13(12), 1109 ([†]corresponding author)
2. Porretta, D., **Mastrantonio, V.**, Lucchesi, V., Bellini, R., Vontas, J., Urbanelli, S. (2022). Historical samples reveal a combined role of agriculture and public-health applications in vector resistance to insecticides. *Pest Management Science*, 78: 1567-1572.
3. **Mastrantonio V.**, Porretta D., Lucchesi V., Güz N., Cagatay N.S., Bellini R., Vontas J., Urbanelli S. (2021). Evolution of adaptive variation in the mosquito *Culex pipiens*: Multiple independent origins of insecticide resistance mutations. *Insects*, 12:8.
4. **Mastrantonio V.**, Crasta G., Urbanelli S., Porretta D. (2021). Cannibalism and necrophagy promote a resource loop and benefit larval development in insects of temporary waters. *Insects*, 12, 657.
5. Fotakis* E.A. **Mastrantonio* V.**, Grigoraki* L., Porretta D, Puggioli A, Chaskopoulou A., Osório H., Weill M., Bellini R, Urbanelli S. Vontas J. (2020). Identification and detection of a novel point mutation in the chitin synthase gene of *Culex pipiens* associated with diflubenzuron resistance. *PLoS Neglected Tropical Diseases*, 14, 1-10 [*co-primary author]
6. **Mastrantonio V.**, Urbanelli S. and D. Porretta. (2019). Ancient hybridization and mtDNA introgression behind current paternal leakage and heteroplasmy in hybrid zones. *Scientific Reports*, 9: 19177
7. **Mastrantonio V.**, Latrofa M.S., Porretta D., Lia R.P., Parisi A., Iatta R., Dantas-Torres F., Otranto D., Urbanelli S. (2019). Paternal leakage and mtDNA heteroplasmy in *Rhipicephalus* spp. ticks. *Scientific Reports*, 9:146.
8. **Mastrantonio V.**, Crasta G., Puggioli A., Bellini R., Urbanelli S., Porretta D. (2018) Cannibalism in temporary waters: Simulations and laboratory experiments revealed the role of spatial shape in the mosquito *Aedes albopictus*. *Plos One* 13(5): e0198194.
9. **Mastrantonio V.**, Porretta D., Urbanelli S., Crasta G., Nascetti G. (2016). Dynamics of mtDNA introgression during species range expansion: insights from an experimental longitudinal study. *Scientific Reports*, 6:30355.
10. **Mastrantonio V.**, Porretta D., Bellini R., Nascetti G. and Urbanelli S. (2015). Molecular systematic and origin of the Mediterranean Sea rock-pool mosquitoes of the *Aedes mariae* complex. *Annals of the Entomological Society of America*, 108(4): 593-599.

11. Urbanelli S., Porretta D., **Mastrantonio V.**, Bellini R., Pieraccini G., Romoli R., Crasta G., and Nascetti G. (2014) Hybridization, natural selection and evolution of reproductive isolation: a 25-years survey of an artificial sympatric area between two mosquito sibling species of the *Aedes mariae* complex. *Evolution*, 68(10):3030-3038 (Allegato 38)
12. Porretta D*., **Mastrantonio V***., Mona S. et al. (2013) The integration of multiple independent data reveals an unusual response to Pleistocene climatic changes in the hard tick *Ixodes ricinus*. *Molecular Ecology*, 22, 1666–1682. [*co-primary author]. (Allegato 39)

Rome, 08/06/2023

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV