

ACADEMIC POSITIONS

13 May 2021 - today. General Deputy at Fondazione Monte dei Paschi di Siena.
1 October 2019 - today. Vice-Rector for Education at University of Milan-Bicocca.
2018 - 2019. Vice-coordinator of "Nucleo di Valutazione" for the University of Milan-Bicocca.
2017 - today. Full professor of Zoology (Italian SSD BIO/05), Department of Biotechnology and Biosciences, University of Milan-Bicocca.
2015 - 2017. Coordinator for the bachelor and master degrees in Biology (First and Second level), University of Milan-Bicocca.
2014 - 2017. Associate Professor of Zoology (Italian SSD BIO/05), Department of Biotechnology and Biosciences, University of Milan-Bicocca.
2005-2014. Assistant professor of Zoology (Italian SSD BIO/05), Department of Biotechnology and Biosciences, University of Milan-Bicocca.
2001-2005. Post Doc, Department of Animal Pathology, Hygiene and Veterinary Public Health, Section of General Pathology and Parasitology, University of Milan.
1999-2001. Ph.D., Department of Animal Pathology, Hygiene and Veterinary Public Health, Section of General Pathology and Parasitology, University of Milan.
1997-1999. Research Assistant, Department of Genetics, Evolution and Environment, University College London, London, UK.

EDUCATION AND MAIN ACTIVITIES

I got the upper school diploma as Agricultural Expert in 1990 and in 1996 I deserved an honours master degree (110 cum laude) in Biological Sciences at Università degli Studi di Milano (Italy). Following a period of two years at University College London, in 2001 I got a PhD in Invertebrate Biology (XIV cycle) at University of Milan. After two post-doc positions, in 2005 I got a position as Assistant Professor for the scientific area BIO-05 (Zoology), then as Associate Professor (in 2014) and finally as a Full Professor (in 2018) always at the Department of Biotechnology and Biosciences, University of Milan-Bicocca.

In the first part of my career worked mainly in entomological and nematological fields, under the common vision of biological evolution of the living beings.

In the second part, I used techniques such as DNA barcoding and High Throughput DNA Sequencing (HTS) technologies to study the evolution of organisms and communities, the ecology of waters and food.

The research activity is well supported by various publications, editor and reviewer roles for several international scientific journals. I published 87 scientific papers, 15 book chapters and a book on Zoology.

According to Scopus (15 May 2021):

| | |
|-------------------------------|------|
| Documents by author: | 87 |
| Total citations | 3464 |
| Cited by documents | 2605 |
| <i>h</i> -Index | 28 |
| Co-authors | 302 |
| Top cited article | 287 |
| Average citations per article | 40 |

I was involved in an intense teaching activity, mainly at University of Milan-Bicocca. I am very active in the communication of science.

In 2007 I established, with a colleague botanist, the ZooPlantLab[®] at University of Milan-Bicocca, a lab in which basic and applied science are successfully coupled. In 2010 I co-established a spin-off of the University of Milan-Bicocca, FEM² Ambiente S.r.l., to transfer researches directly to the society.

I was elected President of the Italian Society for Evolutionary Biology (ISEB); I am an elected member of the board of the Unione Zoologica Italiana (UZI).



WORK ADDRESSES

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Rectorate,
Piazza dell'Ateneo Nuovo, 1
20126 Milan, Italy
Dept. Biotechnology and Biosciences,
ZooPlantLab[®]
Piazza della Scienza, 2
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Italian (mother tongue)
English (C1)



EDUCATION

1990: High School for Agriculture Expert
 1996: Master Degree in Biological Sciences
 2001: Ph.D. Invertebrate Biology



ACADEMIC POSITIONS

2019 - today: Vice-Rector for Education
 2018-19: Vice-Coordinator of Nucleo di Valutazione
 2015-18: Coordinator of Bachelor and Master Degrees in Biology
 2018-today: Full Professor for Zoology
 2014-18: Associate Professor for Zoology
 2005-14: Assistant Professor for Zoology
 2001-05: Post Doc
 1999-2001: PhD
 1997-99: Research Assistant (UK)



ERC SECTORS

- LS8 Evolutionary, population and environmental biology
 LS2 Genetics, genomics, bioinformatics and system biology



ITALIAN UNIVERSITY SECTOR

SC: 05/B1 – Zoologia e Antropologia
 SSD: BIO/05 - Zoologia



PRINCIPAL TEACHING FIELDS

Zoology
 Animal Genome Evolution
 Symbiosis
 Molecular Evolution



PUBLICATIONS

87 published papers (SCOPUS)
 3464 total citations (SCOPUS)
 H-index: 28 (SCOPUS)
 1 textbook on Zoology
 17 book chapters



RESEARCH PROJECTS

12 main financed projects
 More than 1.100.000 € raised fully devoted to research activities

I am interested in the management of Education. I was elected president for the Biological Courses (first and second level), vice president of the Nucleo di Valutazione at University of Milan-Bicocca and I am now Vice-Rector for Education. I am an elected member at the Collegio dei Biologi Universitari Italiani (CBUI).

Since may 2021 I am also a General Deputy at Fondazione Monte dei Paschi di Siena, working in the Steering Body of the foundation.

SCIENTIFIC PROFILE AND CONTRIBUTION TO SCIENCE

Zoology and Evolution are the two main keywords describing my research activities. The main topic on which the two terms found a common field are biological interactions and symbiosis. It is possible to identify four periods in my researches: (1) Eco-ethology of social hymenoptera; (2) Intracellular symbiosis (bacteria within animal cells, such as *Wolbachia*); (3) Animal-microorganisms interactions at the community level (not only intracellular relationships); (4) Metagenomic approaches to food sciences.

I have always been very interested in fundamental science and technology transfer. I studied and published theoretical papers on biological evolution as well as I established, with three other colleagues, a start-up at the University of Milan-Bicocca.

To achieve these goals, I set up an interdisciplinary laboratory at the Department of Biotechnology and Biosciences of the University of Milan-Bicocca that includes: 1- Expertise in molecular biology. I equipped a laboratory space, properly conceived for environmental samples analysis to avoid cross-contamination and has specific equipment for water samples processing, DNA extraction, amplification and Sanger sequencing, being suitable for metagenomic analyses.

2- Expertise in bioinformatics. I have an infrastructure for the managing and analysis of HTS data. In particular, I set up a local server, dedicated to metagenomics analysis hosted in the University of Milan-Bicocca "Sistemi informativi" infrastructure. It is also available a high CPU virtual machine infrastructure managed by "Sistemi informativi" of University of Milan-Bicocca for data intensive analyses.

My specific contributions to science are listed below, following broadly a chronological order and starting from the oldest project:

CONTRIBUTION 1. Ecology pressure and evolution of social behaviour in Hymenoptera

Insect societies are a prominent topic in biology since Charles Darwin, On the origin of species (1859). Many theories have been proposed to explain the origin and spreading of social behaviour, that is diffused among metazoans, but it is very common in wasps, bees and ants. In particular, wasps are very interesting because phylogenetic reconstructions show these organisms are the basal branch of Hymenoptera evolution, and it is the group in which eusocial behaviour firstly appeared. Genetic contribution have been supposed as the key factor driving the social adaptations, but my work on wasps supported the idea that, even if fundamental for the spreading of societies, the initial pressures derived more from ecology rather than hymenoptera genetics. In particular, the cost of nest constructions, food limitations and conspecific interactions are the main forces driving evolution. The results of these works have been published on first rank journals (such as Nature) and have now been introduced on textbook (see for instance Davies, Krebs and West, An Introduction to Behavioural Ecology).

Key citations:

- Field J, Shreeves G, Sumner S, Casiraghi M (2000). Insurance-based advantage to helpers in a tropical hover wasp. Nature, 404: 869-871. doi:10.1038/35009097
- Sumner S, Casiraghi M, Foster W, Field J (2002). High reproductive skew in tropical hover wasps. Proceedings of the Royal Society of London, B, 269: 179-186. doi:10.1098/rspb.2001.1884

CONTRIBUTION 2. Animal evolution with intracellular bacterial symbionts

Intracellular bacterial symbiosis are fundamental in biology. Eukaryogenesis is basically a symbiotic process happened between 2 and 2,5 billion years ago, but

it is not limited to that event, because there are evidences that similar processes took place hundreds of time during metazoans evolution. Among all these cases *Wolbachia* plays a key role, because it has been calculated that up to 20% of all insect species could be in symbiosis with this bacterium, making it the commonest symbiont on the planet. *Wolbachia* in insects and other arthropods plays many roles, but the more fascinating is reproductive parasitism. In this interaction the bacterium manipulates the host reproduction maximising the spreading of the bacteria within the host populations. I started my research on *Wolbachia* in filarial nematodes (the only other animal group in which this bacterium has been found) to understand if *Wolbachia* was able to manipulate host reproduction like in arthropods do. My results allowed us to understand that *Wolbachia*-filariae interactions are different than in insects and that the bacterium is a key symbiont, essential in worm life cycle. In particular, *Wolbachia* seems essential in molting process. These results were very relevant when coupled with data on the role of *Wolbachia* in the pathology of filariasis.

Key citations:

- Casiraghi M, Anderson TJC, Bandi C, Bazzocchi C, Genchi C (2001). A phylogenetic analysis of filarial nematodes: comparison with the phylogeny of *Wolbachia* endosymbionts. *Parasitology*, 122: 93-103. doi:10.1017/S003118200007149
- Lo N, Casiraghi M, Salati E, Bazzocchi C, Bandi C (2002). How many *Wolbachia* supergroups exist. *Molecular Biology and Evolution*, 19: 341-346. doi.org/10.1093/oxfordjournals.molbev.a004087
- Casiraghi M, McCall JW, Simoncini L, Kramer LH, Sacchi L, Genchi C, Werren JH, Bandi C (2002). Tetracycline treatment and sex-ratio distortion: a role for *Wolbachia* in the moulting of filarial nematodes. *International Journal for Parasitology*, 32: 1457-1468. doi:10.1016/S0020-7519(02)00158-3

CONTRIBUTION 3. Animal-microorganisms interactions at the community level

My work on parasitological field put me in front of a key problem: identification of living beings, parasites, starting from partial body parts, or even if in their apparent absence. Molecular identification was the simplest and promising among the possible answers. Starting from that point I worked from a theoretical and practical view on DNA barcoding, and when the technologies became available, since 2008 I used High Throughput DNA Sequencing to investigate the interactions among animals and bacterial communities. I focused in particular on “difficult” microbiota such as drinking water or non-model animals.

Key citations:

- Ferri E, Barbuto M, Bain O, Galimberti A, Uni S, Guerrero, Fertè H, Bandi C, Martin C, Casiraghi M (2009). Integrated taxonomy: traditional approach and DNA barcoding for the identification of filarioid worms and related parasites (Nematoda). *Frontiers in Zoology*, 6: 1. doi:10.1186/1742-9994-6-1
- Casiraghi M, Labra M, Ferri E, Galimberti A, De Mattia F (2010). DNA barcoding: a six-question tour to improve users' awareness about the method. *Briefings in Bioinformatics*, 11: 440-453. doi:10.1093/bib/bbq003
- Sandionigi A, Vicario S, Prosdocimi EM, Galimberti A, Ferri E, Bruno A, Balech B, Mezzasalma V, Casiraghi M (2015). Towards a better understanding of *Apis mellifera* and *Varroa destructor* microbiomes: introducing ‘phyloH’ as a novel phylogenetic diversity analysis tool. *Molecular Ecology Resources*, 15: 697–710. doi: 10.1111/1755-0998.12341
- Bruno A, Sandionigi A, Galimberti A, Siani E, Labra M, Cocuzza C, Ferri E, Casiraghi M (2017). One step forwards for the routine use of high-throughput DNA sequencing in environmental monitoring. An efficient and standardizable method to maximize the detection of environmental bacteria. *Microbiology Open* 6(1). doi: 10.1002/mbo3.421

CONTRIBUTION 4. Metagenomic approaches to food sciences

The quality of food is strictly related to the microbiota associated. In the last decade we assisted to the spreading of molecular techniques for deep and detailed microbiological analyses. The application of the so-called High Throughput DNA Sequencing (HTS) technologies lead to a dramatic change of our perspective on food researches.

Key citations:

- Frigerio J, Agostinetto G, Sandionigi A, Mezzasalma V, Berterame NM, Casiraghi M, Labra M, Galimberti A (2020). The hidden ‘plant side’ of insect novel foods: A DNA-based assessment. *Food Research International*, 128:108751.
- Galimberti A, Casiraghi M, Bruni I, Guzzetti L, Cortis P, Berterame NM, Labra M (2019). From DNA barcoding to personalized nutrition: the evolution of food traceability. *Current Opinion in Food Science*, 28: 41-48.
- Valentini P, Galimberti A, Mezzasalma V, De Mattia F, Casiraghi M, Labra M, Pompa PP (2017). DNA barcoding meets nanotechnology: development of a smart universal tool for food authentication. *Angewandte Chemie* 129: 8206-8210.



MAIN FINANCED PROJECTS

MAIN FINANCED PROJECTS

As Principal Investigator

2016-2018. Xenogenetics of drinking water: Microbiome and Resistome analyses for the improvement of water safety assessment tools. Funding body: Fondazione Cariplo.

Galileo Project 2016. MetaFOOD - Design, development and implementation of standardized bioinformatics workflows for applied food traceability. Funding body: Italian-French University.

2013-2015. S.A.F.E. Gardens: Sustainable Actions For Edible Gardens (Tanzania) – Funding body: Comune di Milano.

2014-2015. “Monitoraggio ambientale e valutazione precoce di un’eventuale diffusione di organismi alloctoni al fine di ridurre o azzerare l’impatto di un inquinamento genetico sulla biodiversità autoctona in occasione dell’Esposizione Universale di Milano”. Funding body: EXPO S.p.a.

2009-2012. “Dai geni all’ecosistema: il DNA barcoding come supporto innovativo per la protezione della biodiversità e l’analisi della funzionalità delle reti ecologiche”. Funding body: Fondazione Cariplo.

2007-2009. Programmi di ricerca scientifica di rilevante interesse nazionale 2007 (PRIN 2007): “Nuova metodica per l’analisi della biodiversità: un’applicazione del pirosequenziamento allo studio degli organismi del suolo”. Funding body: National Agency MIUR.

As Unit Coordinator

2017-2020. Sistemi Alimentari e Sviluppo Sostenibile: Creare sinergie tra ricerca e processi internazionali e africani. Funding body: National Agency MIUR.

2010-2012. Il corridoio ecologico del Lambro: interventi per il consolidamento e l’implementazione della connettività e della biodiversità. Funding body: Fondazione Cariplo.

2009-2011. Le connessioni ecologiche nelle selve castanili nel Parco Regionale Campo dei Fiori: valutazione e sviluppo di sistemi di gestione” Funding body: Fondazione Cariplo.

NATIONAL AND INTERNATIONAL AWARDS, COMMISSION OF TRUST

January 2014: Abilitazione scientifica nazionale 2012 - Prima fascia - Settore Concorsuale 05/B1, up to 13/01/2020.

2002: “G.B. Grassi prize for Young Parasitologists under 40 years old” by Società Italiana di Parassitologia.

COMMISSION OF TRUST

2021: General Deputy, Fondazione Monte dei Paschi di Siena.

2020: Vice-Rector for Education - University of Milan-Bicocca.

2018: Ad hoc reviewer for the Genome Canada.

2017-present: Elected member of the Executive Board of the Unione Zoologica Italiana.

2015-present: Elected President of the degree courses in Biology (first level and master degree) at the University of Milan-Bicocca.

2010-2017: Elected member of the Executive Board of the Italian Society for Evolutionary Biology.

2012-2015: Elected President of the Italian Society for Evolutionary Biology.

2012-2015: Member of the Executive Board of the Federazione Italiana Scienze della Vita.

2012: Ad hoc reviewer for the Joint Experimental Molecular Unit (JEMU) of the Belgian Science Policy in Brussels (Belgium).

2010-2012: Secretary-treasurer of the Italian Society for Evolutionary Biology.



AWARDS, COMMISSION OF TRUST



TEACHING ACTIVITIES

TEACHING ACTIVITIES

- From 2014 to present "Zoology" (8 ECTS), First level degree in Biological Sciences, Unimib.
From 2006 to present "Molecular Evolution" now "Animal Genome Evolution" (6 ECTS), Master degree in Biology, Unimib.
- Past courses:
2003-2015 "Symbiosis" (6 ECTS), Master degree in Biology, Unimib.
2018-2020 "Making sense of Biological Data for Data Sciences", Master Degree in Data Science, Unimib.



RESEARCH COORDINATION

RESEARCH COORDINATION

Bachelor and Master Degree Thesis

I supervised 119 thesis in Bachelor and 57 in Master Degrees in Biology at the University of Milan-Bicocca.

Ph.D. school

2017-today: member of the PhD "Convergent technologies for the biomolecular systems", TECSBI (national code: DOT17C6227) at the University of Milan-Bicocca.

2014-2016: member of the PhD "Biology and Biotechnology" (national code: DOT13C6314) at the University of Milan-Bicocca.

2013: member of the PhD "Life Sciences" (national code: DOT13C6314) at the University of Milan-Bicocca.

2006-2012: member of the PhD "Biology" (national code: DOT04C6501) at the University of Milan-Bicocca.

Ph.D. supervisor

2019-today: Supervisor for Giulia Agostinetto, at the University of Milan-Bicocca. Research on bioinformatic tools.

2014-2018. Co-supervisor for Kleopatra Leontidou, Aristotle University of Thessaloniki, Faculty of Sciences, School of Biology, Department of Ecology, Greece. PhD title: "Airbone pollen patterns along an altitudinal gradient of the Italian Alps - Combination of classical pollen identification and next generation sequencing on environmental DNA".

Supervisor for Antonia Bruno, PhD in Biology (DOT04C6501), XXVIII cycle, at the University of Milan-Bicocca. PhD title: "Drinking water microbiota: from the source to the tap".

Supervisor for Anna Sandionigi, PhD in Biology (DOT04C6501), XXVI cycle, at the University of Milan-Bicocca. PhD title: "Biodiversity in the Era of Big Data. On the problem of taxonomy assignment and the distribution of diversity in complex biological systems."

Supervisor for Sara G. Baccei, PhD in Biology (DOT04C6501), XXVI cycle at the University of Milan-Bicocca. PhD title: "Epigenetic and symbioses. Analysis of DNA methylation pattern in *Apis mellifera* and *Varroa destructor* parasitic relationship".

Supervisor for Andrea Galimberti, PhD in Biology (DOT04C6501), XXIII cycle at the University of Milan-Bicocca. PhD title: "DNA barcoding: a link between basic and applied science".

Post-Doc Supervisor

11 projects from 2009 up to today.

Scholarship Supervisor

5 scholarships from 2011 up to today.



HIGHER EDUCATION

TEACHING IN POST GRADUATE HIGHER EDUCATION COURSES

2020-21: master “Sustainable Development Jobs “ at the University of Milan-Bicocca; in collaboration with Fondazione Giangiacomo Feltrinelli.

2017-18-19-20-21: master “Alimentazione e Dietetica Applicata - ADA” at the University of Milan-Bicocca.

2017-18-19-20: master “Bioeconomy in the Circular Economy (BIOCIRCE)” at the University of Milan-Bicocca; University of Naples “Federico II”; University of Turin and University of Bologna.

2018: higher education course “Think green, be cool” at the University of Milan-Bicocca.

2017: international workshop “Natural and semi-natural ecosystems”, Dubai.

2016: summer school “Forensic genetics” from Associazione Genetica Italiana (AGI) in Cortona (Arezzo, Tuscany, Italy).

2015-16: post graduate course “Population genetics and introduction to HTS” at Laboratorio Fitopatologico del Servizio Fitosanitario Regionale di Minoprio (Como).

2013: organisation and teacher in a Workshop entitled “10 years of DNA barcoding: yesterday, today and tomorrow”, Modena, Italy.

2013 :organisation and teacher in a Workshop entitled “DNA barcoding: basic course” at the University of Modena and Reggio Emilia. Supported by Società Italiana di Biologia Evoluzionistica (SIBE), Società Botanica Italiana (SBI) and Unione Zoologica Italiana (UZI).

2012: ECM course “DNA barcoding to track agro-food items” at the University of Pavia.

2011: organisation and teacher in a Workshop entitled “DNA barcoding: perspectives and applications in Italy” at the University of Modena and Reggio Emilia. Supported by Società Italiana di Biologia Evoluzionistica (SIBE), Società Botanica Italiana (SBI) and Unione Zoologica Italiana (UZI).

2010: Summer school on “Conservation Genetics of marine organisms” at the University of Padua.



SCIENTIFIC SOCIETIES

SCIENTIFIC SOCIETIES

Member:

Unione Zoologica Italiana (UZI)

Società Italiana di Biologia Evoluzionistica (SIBE)

Scientific societies board

2017-today: elected member of the Unione Zoologica Italiana (UZI).

2015-2017 elected member of the Società Italiana per la Biologia Evolutiva (SIBE).

2012-2015 elected president of the Società Italiana per la Biologia Evolutiva (SIBE).

2012-2015 member of the Federazione Italiana Scienze delle Vita (FISV).

2010-2012 elected member of the Società Italiana per la Biologia Evolutiva (SIBE).

2010-2012 treasurer of the Società Italiana per la Biologia Evolutiva (SIBE).

ORGANISATION OF SCIENTIFIC CONGRESSES AND SYMPOSIA

Organisation of scientific congresses

- 2019. Member of the scientific committee of the 80° Congress of the Unione Zoologica Italiana (Roma, 23-25 September 2019).
- 2018. Member of the scientific committee of the 79° Congress of the Unione Zoologica Italiana (Lecce, 25-28 September 2018).
- 2017. Member of the scientific committee of the 7° Congress of the Società Italiana di Biologia Evoluzionistica (Roma, 28-31 August 2017).



ORGANISATION OF CONGRESSES

- 2016. Member of the scientific committee and organising team of the 1° Joint Congress among: Società Italiana di Ecologia; Unione Zoologica Italiana; Società Italiana di Biogeografia (Milano, 30 August - 2 September 2016).
- 2015. Member of the scientific committee of the 6° Congress of the Società Italiana di Biologia Evoluzionistica (Bologna, 30 August - 3 September 2015).
- 2013. Member of the scientific committee of the 5° Congress of the Società Italiana di Biologia Evoluzionistica (Trento, 28-31 August 2013).
- 2010. Member of the scientific committee and organising team of the 4° Congress of the Società Italiana di Biologia Evoluzionistica (Milano, 2-4 September 2010).

Chairman in congresses

- 79° Congresso dell'Unione Zoologica Italiana (Lecce, 25-28 September 2018).
- 1° Joint Congress among: Società Italiana di Ecologia; Unione Zoologica Italiana; Società Italiana di Biogeografia (Milano, 30 August - 2 September 2016).
- 7° Congress of the Società Italiana di Biologia Evoluzionistica (Roma, 28-31 August 2017).
- 5° Congress of the Società Italiana di Biologia Evoluzionistica (Trento, 28-31 August 2013).
- 18th International Conference of the World Association for the Advancement of Veterinary Parasitology – WAAVP 2001; 26-30 Agosto 2001; Stresa



INVITED TALKS

PRINCIPAL INVITED TALKS IN NATIONAL AND INTERNATIONAL CONGRESSES

2017: AMITI Symposium, Lugano, Switzerland, 15 November

2016: Inauguration of the ninth academic year (2016/2017) Laurea Magistrale In Biologia Marina, University of Bologna, Campus Ravenna, 3 November.

2015: AMITI Symposium, Lugano, Switzerland, 18 November.

2015: Nelson Mandela University, Arusha, Tanzania, 27 January.

2014: EuroBiotechWeek, Parco Tecnologico Padano (PTP), Lodi, 7 October.

2013: FISV Talk, Roma, 18 November.

2013: 3-Day International Conference on Evolutionary Patterns, Calouste Gulbenkian Foundation, Lisbon, Portugal, 27-29 May.

2010: Tools for identifying biodiversity: progress and problems, Museum National d'Histoire Naturelle, 20-22 September.

2010: EuroScience Open Forum (ESOF), Turin, Italy, 9-14 July.

2010: iBOL meeting, Nairobi, Kenya, 12-14 May.

2009: Biodiversità molecolare: concetti di base, tecnologie, applicazioni, CNR, Roma, 9-10 July.

2009: Geneva Barcoding Day, Geneva, Switzerland, 22 June.

2008: Unione Zoologica Italiana, Senigallia, 22-25 settembre.

2008: X European Multicolloquium of Parasitology (EMOP X), Paris, France, 24-28 August



EVALUATION

SCIENTIFIC AND DIDACTIC EVALUATION

Peer review of national projects

- Fondazione di Sardegna 2016.
- F.A.R.O. Programme 2011, Università of Naple "Federico II";
- PRIN (Ministry for University) 2008 and 2009;
- Progetto Giovani 2003, University of Padua;

Peer review of international projects

- 2019: “ad hoc reviewer” per Genome Canada.
- 2018: “ad hoc reviewer” per Genome Canada.
- 2018: Vinci Project, Università Italo-Francese.
- 2017: Galileo Project, Università Italo-Francese.
- 2012: “ad hoc reviewer” from Belgian Federal Science Policy Office (BELSPO), Bruxelles for the evaluation on site of the Joint Experimental Molecular Unit (JEMU).
- 2012: Natural Environment Research Council (NERC), UK.

Evaluation committee

- 2020: Associate professor (SSD BIO/05 – Zoologia) at the University of Padua.
- 2020: Associate professor (SSD BIO/05 – Zoologia) at the University of Camerino.
- 2018: Assistant professor (SSD BIO/05 – Zoologia) at the University of Milan-Bicocca.
- 2018: Assistant professor (SSD BIO/05 – Zoologia) at the University of Pavia.
- 2017: Assistant professor (SSD BIO/05 – Zoologia) at the University of Pavia.
- 2016: Assistant professor (SSD BIO/05 – Zoologia) at the University of Milan-Bicocca.

PhD committee

- 2014 PhD in “Environmental Sciences - XXV cycle”, at the University of Urbino “Carlo Bo”.
- 2013 PhD in “Biosciences and Biotechnology, course in Evolutionary Biology - XXIV cycle”, at the University of Padua.
- 2011 PhD in “Animal Biology - XXII cycle”, at the University of Milan.
- 2010 PhD in “Evolutionary Biology - XXI cycle”, at the University of Catania.

Reviewer

Acta Tropica; Biological Journal of the Linnean Society; Biological Invasion; BMC Evolutionary Biology; European Journal of Entomology; Fisheries Research; Food Control; Food Research International; Genetics; Genomics; Italian Journal of Zoology; Molecular Biology and Evolution; Molecular Ecology; Molecular Ecology Resources; Molecular Phylogenetics and Evolution; Paedobiologia; PLoS ONE; Proceedings of the Royal Society of London: Biological Sciences; Scientifica; Systematic Parasitology; Tissue and Cell; ecc.

Editorial board

“PLoS ONE” (<http://www.plosone.org/>) since 2012.

“Scientifica” (<http://www.hindawi.com/journals/scientifica>), “Evolutionary Biology” since 2010.

TECHNOLOGY TRANSFER

Spin off

Funder of the academic spin-off FEM² - Ambiente S.r.l. (<http://www.fem2ambiente.com>), since 15 January 2010 at the University of Milan-Bicocca.

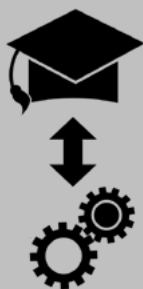
Patent

Patent n° MI2009A001643, 25/09/2009, expire 25/06/2029: “Kit for the physical-chemical analysis of drinking water”.

Patent n° 0001417402, 24/04/2013: “Acid citric based product for cleaning”.

Brand

“ZPL”, for the ZooPlantLab at the University of Milan-Bicocca (<http://www.zooplantlab.btbs.unimib.it>). Registered on 26/01/2011, n° 1410547, deposited at Ministero dello



**TECHNOLOGY
TRANSFER**

Sviluppo Economico, Direzione Generale per la Lotta alla Contraffazione, Ufficio Italiano Brevetti e Marchi.

“FEM” for the spin-off FEM2 - Ambiente S.r.l. Registered and deposited at Ministero dello Sviluppo Economico - Ufficio Italiano Brevetti e Marchi, 10/03/2011, codes: MI2011C002490 and MI2011C002496.

“Immediatest”. Registered and deposited at Ministero dello Sviluppo Economico - Ufficio Italiano Brevetti e Marchi, 10/03/2011 codes MI2011C002491 and MI2011C002493.

“Greenpharm”. Registered and deposited at office for Armonizzazione nel Mercato Interno (marchi, disegni e modelli), 22/06/2012 code 010987642.



COLLABORATIONS

COLLABORATIONS

AUSTRALIA: Nathan Lo (University of Sydney, Australia).

FRANCE: Odile Bain e Coralie Martin (Museo di Storia Naturale di Parigi).

GERMANY: William Martin (Heinrich Heine Universität Düsseldorf).

JAPAN: Shigehiko Uni (University of Osaka).

UK: Jeremy Field (University College London, UK) and Serian Sumner (University College London; University of Copenhagen; London Zoo).

SPAIN: Fernando Simon (Universidad de Salamanca).

USA: Seth Bordenstein and Jennifer Wernegreen (Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Woods Hole, MA, USA) .

USA: Scott L. Gardner (University of Nebraska).

USA: Christine A. Nalepa (North Carolina State University).

USA: John W. McCall (University of Georgia, Athens, USA).

USA: John H. Werren (University of Rochester).

VENEZUELA: Ricardo Guerrero (Universidad Central de Venezuela, Caracas).



NEW SPECIES

NEW SPECIES DEDICATION

In 2010 colleagues at the Muséum National d'Histoire Naturelle di Parigi dedicated to my name a parasitic intestinal nematode of western african chamaleon.

The species name is *Rhabdias casiraghii* Lhermitte-Vallarino, Barbuto, Bain, 2010.



SCIENCE COMMUNICATION

SCIENCE COMMUNICATION

I am involved in many activities addressed to the public. These are the principal:

Darwin Day, Natural History Museum of Milan. Organising committee member, speaker and chairman since 2012.

Darwin Day. Speaker in many cities: Como, Roma, Accademia di Brera (Milan), Pavia, Viterbo.

MeetMeTonight. In the European project “Research Night”. Since 2013.

Scientific responsible of the “Cluster Rice” at EXPO2015 Milan, Feeding the planet, energy for life!

University of Third Age, at Melzo, Arcore, Paullo since 2012.

Seminars in primary schools and colleges on education, university world and many aspects of biology.

Former blogger “Continuo proceso de cambio” (Pearson) devoted to teachers.



OPEN BADGES

OPEN BADGE ACQUIRED



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87) Galimberti A, Bruno A, Agostinetto G, Casiraghi M, Guzzetti L, Labra M (2021). Fermented food products in the era of globalization: tradition meets biotechnology innovations. *Current Opinion in Biotechnology*, 70: 36-41.

doi: 10.1016/j.copbio.2020.10.006

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doi: 10.3389/fevo.2021.615513

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85) Scolari F, Sandionigi A, Carlassara M, Bruno A, Casiraghi M, Bonizzoni M (2021). Exploring changes in the microbiota of *Aedes albopictus*: comparison among breeding site water, larvae, and adults. *Frontiers in Microbiology*, 12: 624170.

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I hereby declare that all the information furnished in this document is free of errors to the best of my knowledge.
I take full responsibility for the correctness of the said information.

Milano, 15 May 2021

Maurizio Casiraghi

