

CURRENT POSITION: Associate Professor of Zoology (SSD BIO / 05) since October 2017.

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#### EDUCATION AND TRAINING

- 1993: Degree in Biology (University of Milan),
- Scholarship 1994-1996 (University of Insubria)
- 1998-2000: PhD in Evolutionary and Developmental Biology
- 2001- July 2017: Researcher in Zoology (SSD BIO / 05) (DBSV, University of Insubria)
- October 2017-present: Associate Professor in Zoology
- 2022 - National Scientific Qualification for the functions of full university professor in the in the scientific sector 05/B1 - ZOOLOGY AND ANTHROPOLOGY

#### INSTITUTIONAL TEACHING ACTIVITIES:

- 2001-2015: Reference teacher of the course "Laboratory of histological techniques" (Three-year degree course in Health Biology)
- 2005-present: Reference teacher of the course "Animal Biology" (Bachelor's degree in Biological Sciences)
- 2011-2013: Reference teacher of the course "Microscopic techniques" (Master's degree course in Biology)
- 2011-2013: Reference teacher of the course "Origin and modulation of structures and functions" (Master's degree course in Biology)
- 2020-present: Reference teacher of the course "Animal models and techniques in biomedical research" (Master's degree course in Biomedical Science)
- 2021-present: Reference teacher of the course "Animal models for biotechnology" "(Master's degree course in Biotechnology for the Bio-based and Health Industry)

Furthermore, since 2005 AG has been a member of the teaching staff of the research doctorate in "Cell and molecular biology and biotechnology", "Biosciences and surgical technologies" and in "Life sciences and biotechnology". AG has been and is tutor for the following research projects:

- 2007-2010: Muscle development and differentiation in the urodele *Ambystoma mexicanum*.
- 2011-2013: Allograft Inflammatory Factor-1 (AIF-1) homologous in the medicinal leech *Hirudo medicinalis* "
- 2014-2016: Immune response induced by multi-wall carbon nanotubes: in vivo and in vitro studies on the medicinal leech
- 2017-2019: Role of RNASET2 in innate immune response regulation
- 2019-2022: The medicinal leech *Hirudo verbana* as a valuable model for studying muscle development and regeneration in relationship to the microenvironment, growth factors and extracellular matrix stiffness.

#### OTHER TEACHING ACTIVITIES AND THIRD MISSION:

-2000: TEACHING ACTIVITIES IN THE COURSE OF THE LOMBARDY REGION ESF 1999 n ° 18027 ob. 2.3.2 "Person in charge of cataloging, protection and enhancement of environmental-naturalistic assets", University of Insubria, Varese

-2005: TEACHING ACTIVITIES WITHIN THE MASTER: AQUALAB Training Course in Fish Welfare organized by AQUATT (european network for training and technology transfer in aquaculture).

-2019: TEACHING ACTIVITIES IN THE FIELD OF THE TRAINING EVENT "OPEN DEBATES IN ANIMAL EXPERIMENTATION: OTHER SPECIES AS MODEL BODIES", n. 273991, edition no. 1, ORGANIZED BY IZSLER University of Milan and held in Gargnano del Garda.

-2015-present: Coordination of the various activities carried out within the PNLs (Piano Nazionale Lauree Scientifiche) projects 2015-2017, 2018-2019, 2020-2021 (<https://pls-dbsm-insubria.it/>).

#### INSTITUTIONAL TASKS

-2001-2021: Coordinator of the internship commission for the three-year degree course in Biological Sciences

-2015- present: Departmental coordinator of the National Scientific Degree Plan project

-2016- present: Member of the departmental and university events and orientation committee

-2017-2018 Member of the committee responsible for the "24 CFU COURSE FOR THE TEACHERS TRAINING "

-2020- present: Member of the Departmental and University Placement Commission

-2020- present: Member of the AiQua Commission for the three-year degree course in Biological Sciences

#### INTERNATIONAL RESEARCH EXPERIENCE:

-1997-1998 Visiting Scientist (King's College, London)

#### RESEARCH TOPICS:

-ANELLIDES-CNIDAR-MOLLUSCS: study of the innate immune response and tissue regeneration, identification of bioactive molecules

-INSECTS: host-parasitoid interactions, characterization of Odorant-binding Proteins (OBP) in the sensory systems of Aphids

#### PARTICIPATION IN SCIENTIFIC ASSOCIATIONS:

-1996-2010: Member of the Zoological Union Society (UZI)

-2007-present: Member of the Society of Comparative Immunology and Development (SIICS) and member of the board since 2002

#### RESPONSIBILITY FOR RESEARCH ACTIVITIES WITH OTHER INSTITUTIONS / UNIVERSITIES:

- Research contract with Mario Negri IRCCS Institute of Pharmacological Research for "Molecular analysis of extracellular vesicles as possible biomarkers for cognitive decline"

- Member of the Research Center for Successful Aging (CRI) and involved in the research project INFLAMMAGING: INFLAMMATION DURING AGING

-Co-founder of the Start-up ILFARM - VAT: 03890760121 - Tax code: 03890760121-INIZIO ACTIVITY 03.31-2022

Furthermore, as can be seen from the numerous scientific publications, AG has collaborated and collaborates with numerous colleagues belonging to universities and national and international research bodies.

#### CONFERENCE ORGANIZATION:

-September 2003: Member of the organizing committee of the 64th National Convention of the Italian Zoological Union (UZI)

-June 2013: Member of the organizing committee of the 59th congress of the Italian Embryological Group (GEI)

-February 2008 and 2020: Member of the organizing committee of the IX and XXI congress of the Society of Comparative Immunology (SIICS).

#### EDITORIAL ACTIVITY:

-Current Pharmaceutical Design. Executive Guest Editor of the issue "Current perspectives on muscle regeneration and diseases".

-International journal of molecular sciences. Executive Guest Editor of the issue "Invertebrate Models in Innate Immunity and Tissue Remodeling Research"

-Frontiers in Physiology. Executive Guest Editor of the issue "Advances in cell biology of invertebrate parasites".

-Member of the Editorial Board of Frontiers, Invertebrate Survival (ISJ), International Journal of Molecular Sciences (MDPI).

REVIEWER FOR THE FOLLOWING SCIENTIFIC JOURNALS: PLOSone, Integrative and Comparative Biology, Stem cells, Development Dynamics, ISRN Developmental Biology, STEM CELLS, World Journal of Stem Cells, Gene Expression Patterns, Developmental and Comparative Immunology, Scientific Reports, Frontiers, International Journal of Molecular Sciences (MDPI).

#### REVIEWER FOR FWO CALL FOR JUNIOR AND SENIOR POSTDOCTORAL FELLOWSHIPS

(<https://www.fwo.be/en/fellowships-funding/postdoctoral-fellowships/junior-postdoctoral-fellowship/>)

#### SCIENTIFIC PUBLICATIONS AND CONGRESSES

In bibliometric terms, the Scopus database indexes AG, as of February 4th, 2022, for a number of 120 peer-reviewed publications with index  $h = 27$ , for 2085 citations. To date, AG has participated in more than 100 national and international conferences presenting her data in the form of talks and posters.

#### GRANTS

- 2001: Young Researchers Project, D.R. n. 10 of 11/28/2001 "Study of muscular development and differentiation in the tentacle of *Sepia officinalis*".

- 2001/2003: MIPAF (Ministry of Agricultural Policies) prot. 2008/0031465 "Genetic resources of organisms useful for the improvement of species of agricultural interest and for sustainable agriculture".

- 2004-2006: PRIN (Scientific research program of relevant national interest), prot. 004077251\_005 "Intestinal transport mechanisms in the insect and strategies for the rapid passage of proteins with insecticidal activity".

- 2007-2009 PRIN (Program of scientific research of relevant national interest), prot. 2006079417\_002 "Permeabilization of the larval gut of lepidoptera with proteins having insecticidal activity".

- 2013-2016 PRIN (Scientific research program of relevant national interest) prot. 2010NECHBX\_003 "Immunological microenvironment in patients with multiple myeloma as a system to understand and overcome the mechanisms of clinical recurrence and resistance"

- 2015-2016: FOCOVA (Unitary Foundation of Varese) prot. 152/2015 "D-amino acids and human pathologies: a multi-disciplinary approach". AMOUNT:

- 2016-2019: CARIPLO foundation. Prot. 2016-0835 "Amyloidogenesis, A Highly Evolutionary Conserved Mechanism, as Contribution to Inflamm-Aging and Frailty Syndrome (FRAMYEVO)".

- 2015-2018: Departmental referent of the MIUR Funding for three-year Project PLS (Piano Nazionale Lauree Scientifiche) (DM 1047/2017, art. 4, paragraphs 4 and 5 and art. 6). Project title: National Project of BIOLOGY and BIOTECHNOLOGY.

- 2018: Funding of the JUNIOR RESEARCH GRANT project Prot. INAJ183477: "An invertebrate model to study innate immunity modulation and tissue regeneration: basic research and innovative applications"

- 2020: Funding of the JUNIOR RESEARCH GRANT project Prot. 2019-UNINCLE -0101071: "An invertebrate model for evaluating the antimicrobial activity of RNASET2 enzyme: basic research and innovative applications".

- 2019-2020: Departmental referent of the MIUR Funding Project PLS (Piano Nazionale Lauree Scientifiche, DM 435/2020). Project title: National Project of BIOLOGY and BIOTECHNOLOGY

- 2022: CARIPLO foundation. Prot. 2022-0542. "4theLINE – Learn, Innovate, Network in the Transregional Ecosystem".

CO-FOUNDER OF THE STARTUP ILFARM (Italian Leech Farm S.R.L.S.): founded on March 31, 2022, with the aim of producing genetically modified leeches and bioactive molecules derived from them for scientific and therapeutic purposes.