



Società Italiana di
Immunobiologia Comparata
e dello Sviluppo



UNIVERSITÀ
di CAmERINO



PROGRAM

XXVI Meeting of the Italian Association of Developmental and Comparative Immunobiology (IADCI)

February 11th - 13th, 2026

*University of Camerino
URDIS, Ricerca e Formazione
viale Scipioni, San Benedetto del Tronto (AP)*

Organizing Committee:

Adriana Vallesi
Claudio Alimenti

Scientific Committee:

Adriana Vallesi
Davide Malagoli
Piero Julianini
Nicola Franchi
Annalisa Grimaldi
Maria Giovanna Parisi
Maria Rosaria Coscia
Marco Gerdol
Loriano Ballarin
Jacopo Vizioli

Wednesday, February 11th, 2026

13:00 - 14:00 Registration

14:00 - 14:30 Opening of the Congress and Welcome address

Graziano Leoni- Rector of the University of Camerino

Roberto Canullo- Director of the School of Biosciences and Veterinary Medicine, University of Camerino

Davide Malagoli- President of the Italian Association of Developmental and Comparative

Immunobiology

Historical Perspective

14:30-15:00

Loriano Ballarin (University of Padua)

Thirty years of IADCI: past, present and future of the Society

Main Lecture

15:00-16:00

Maria Maisano (University of Messina)

Resilience in biological systems: adaptive cellular responses of mussels to environmental changes

16:00-16:30 coffee break

Session I/1. Defence mechanisms in response to environmental stresses

Chair: *Tiziana Cappello (University of Messina), Nicolò Baranzini (University of Insubria)*

16:30-16:45

Gualandris Davide, Rotondo Davide, Bonetto Valentina, Calisi Antonio, Dondero Francesco

Immunotoxicological evaluation of a new generation PFAS mixture in the earthworm *Eisenia fetida*

Università del Piemonte Orientale, Dipartimento di scienze e innovazione tecnologica, Alessandria, Italy

16:45-17:00

Cortese Martina¹, Pacchini Sara¹, Drago Laura¹, Piva Elisabetta¹, Khodihaghghi Shaghayegh^{1,2}, Bottacin-Busolin Andrea³, Irato Paola¹, Marion Andrea³, Santovito Gianfranco¹

The Role of Superoxide Dismutase Across Organs and Time Following Chronic PFAS Exposure in the Veneto Region

¹*Department of Biology, University of Padua, Padua, Italy*; ²*Department of Environmental Sciences, Informatics and Statistics, Ca' Foscari University of Venice, Venice, Italy*; ³*Department of Industrial Engineering, Università degli Studi di Padua, Padua, Italy*

17:00-17:15

De Luca Rosi¹, Cammilleri Gaetano², Longo Francesco¹, Restivo Ignazio¹, Ferrantelli Vincenzo², Tesoriere Luisa¹, Arizza Vincenzo¹, Vazzana Mirella¹, Mauro Manuela¹

First assessment of the effects of copper and cadmium on *Clibanarius erythropus*

¹*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Palermo, Italy*; ²*Experimental Zooprophylactic Institutes of Sicily "A. Mirri" (IZS) Palermo, Italy*

17:15-17:30

Rotondo Davide, Repetto Simone, Gualandris Davide, Calisi Antonio, Dondero Francesco

Congener-Specific PFAS Modulate Lysenin-Mediated Humoral Cytolysis in the Earthworm *Eisenia fetida*

Università del Piemonte Orientale, Dipartimento di scienze e innovazione tecnologica, Alessandria, Italy

17:30-17:45

Pacchini Sara¹, Cunha Marta², Cortese Martina¹, Piva Elisabetta¹, Vanzan Giacomo¹, Drago Laura¹, Kholdihaghghi Shaghayegh^{1,3}, Irato Paola¹, Bottacin-Busolin Andrea⁴, Marion Andrea⁴, Freitas Rosa², Santovito Gianfranco¹

Energetic and oxidative costs of chronic PFAS exposure in riverine fish *Squalius cephalus*

¹Department of Biology, University of Padua, Padua, Italy; ²CESAM, Department of Biology, University of Aveiro, Aveiro, Portugal; ³Department of Environmental Sciences, Informatics and Statistics, Ca' Foscari University of Venice, Mestre (VE), Italy; ⁴Department of Industrial Engineering, University of Padua, Padua, Italy

17:45-18:00

Rihan Alberto¹, Pulze Laura^{1,2}, Grimaldi Annalisa^{1,2}, Tasselli Stefano³, Baranzini Nicolò^{1,2}

Galaxolide (HHCb) exposure impairs innate immune homeostasis and alters metabolic pathways in the medicinal leech *Hirudo verbana*

¹Department of Biotechnology and Life Sciences, University of Insubria, Varese, Italy; ²Italian Leech Farm (ILFARM) Srl, Varese, Italy; ³ Water Research Institute, CNR-IRSA, Brugherio, Italy

18:00-19:30 Welcome cocktail

Thursday, February 12th, 2026

Session I/2. Defence mechanisms in response to environmental stresses

Chair: *Antonio Calisi (Università del Piemonte Orientale), Gianfranco Santovito (University of Padua)*

9:00-9:15

Ciacci Caterina¹, Canesi Laura², Mancin Nicoletta³, Lo Bue Giusto³, Frontalini Fabrizio⁴

Hidden Impacts: Does Microplastic Accumulation Affect the Physiology of Reef-Building Organisms?

¹*Department of Biomolecular Sciences, University of Urbino "Carlo Bo", Urbino, Italy;* ²*Department of Earth, Environment and Life Sciences, University of Genoa, Genoa, Italy;* ³*Department of Earth and Environmental Sciences, University of Pavia, Pavia, Italy;* ⁴*Department of Pure and Applied Sciences, University of Urbino "Carlo Bo" – Urbino, Italy*

9:15-9:30

Sabbadin Giacomo¹, Sunanaga Takeshi², Fujiwara Shigeki², Ballarin Loriano¹

Effects of polyethylene nanoplastics on immune- and stress-related genes of ascidians

¹*Department of Biology, University of Padua, Padua, Italy;* ²*Faculty of Science and Technology, Kochi University, Japan*

9:30-9:45

De Marco Giuseppe¹, Galati Mariachiara¹, Randazzo Basilio², Cristaldi Antonio^{3,4}, Maricchiolo Giulia², Genovese Giuseppa¹, Oliveri Conti Gea³, Ferrante Margherita³, Cappello Tiziana^{1,5}, Maisano Maria¹

Histological and cellular alterations by dexamethasone affecting the defence mechanisms of *Mytilus galloprovincialis* and the promising use of ulvans as eco-friendly solution

¹*Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy;* ²*IRBIM-Institute for Marine Biological Resources and Biotechnologies, CNR-National Research, Messina, Italy;* ³*Department of Medical, Surgical and Advanced Technologies "G.F. Ingrassia", University of Catania, Catania, Italy;* ⁴*Department of Medicine and Surgery, University of Enna "Kore", Enna, Italy;* ⁵*Universal Scientific Education and Research Network (USERN)*

9:45-10:00

Galati Mariachiara, Oueldi Mohamed Anouar, Romeo Marika, Cappello Tiziana, Maisano Maria

Impact of climate change on reproductive health of marine invertebrates: the case study of *Mytilus galloprovincialis*

Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy

10:00-10:15

Staropoli Mariele¹, Bisanti Luca¹, Dara Mariano¹, Vazzana Irene², Carbonara Pierluigi³, La Corte Claudia¹, Bertini Federica¹, Marcianò Lucia Therese⁵, Parrinello Daniela¹, Parisi Maria Giovanna¹, Cammarata Matteo¹

Stress coping styles influence serum protein electrophoretic patterns in *Sparus aurata* following *Vibrio anguillarum* stimulation

¹*Marine Immunobiology Laboratory, Department of Earth and Marine Sciences (DiSTeM), University of Palermo, Palermo, Italy;* ²*Experimental Zooprophylactic Institute of Sicily "A. Mirri", Italy;* ³*Fondazione COISPA ETS, Bari, Italy*

10:15-10:45 Coffee break

Main Lecture

10:45-11:45

Giuseppe Scapigliati (University of Tuscia)

Insights from the animal immune system

Session II/1. Basic and applied advances in comparative and developmental immunobiology

Chair: Jacopo Vizioli (University of Tuscia), Piero Julianini (University of Trieste)

11:45-12:00 Peronato Anna, Franchi Nicola, Drago Laura, Domenichi Simone, Venier Paola, Bortoletto Enrico, Ballarin Loriano

Immune priming in the colonial ascidian *Botryllus schlosseri*.

Department of Biology, University of Padua, Padua, Italy

12:00-12:15 Drago Laura¹, Frisoni Francesca², Santovito Gianfranco¹, Ballarin Loriano¹

MAPK signaling integrates immune and stress responses during colonial blastogenesis in *Botryllus schlosseri*.

¹*Department of Biology, University of Padua, Padua, Italy*; ²*Department of Biology, University of Konstanz, Konstanz, Germany*

12:15-12:30 Bortoletto Enrico¹, Kaczmarek Beata², Frizzo Riccardo¹, Cendron Laura¹, Bernecky Carrie², Venier Paola¹, Rosani Umberto¹

Revealing the unknown: Approaching oyster antiviral immunity using gene-centered network analysis

¹*Department of Biology, University of Padua, Padua, Italy*; ²*Institute of Science and Technology Austria (ISTA), Vienna, Austria*.

12:30-12:45 Costantini Giorgia¹, Pulze Laura¹, Baranzini Nicolò¹, Campodoni Elisabetta², Sandri Monica², Sugni Michela³, Grimaldi Annalisa¹

The medicinal leech *Hirudo verbana* as an *in vivo* model to evaluate the efficacy of 3D patches in wound healing and tissue regeneration

¹*Department of Biotechnology and Life Science, University of Insubria, Varese, Italy*; ²*Institute of Science Technology and Sustainability for Ceramics (ISSMC), National Research Council (CNR), Faenza, Italy*;

³*Department of Environmental Science and Policy, University of Milan, Milan, Italy*

12:45-13:00 Mariele Staropoli Mariele¹, La Corte Claudia¹, Dara Mariano¹, Bisanti Luca¹, Jakas Andreja², Roje Marin², Parrinello Daniela¹, Parisi Maria Giovanna¹, Cammarata Matteo¹

From marine-derived peptides of *Actinia equina* to therapeutic antimicrobial potential

¹*Marine Immunobiology Laboratory, Department of Earth and Marine Sciences (DiSTeM), University of Palermo, Palermo, Italy*; ²*Ruđer Bošković Institute, Division of Organic Chemistry and Biochemistry, Zagreb, Croatia*

13:00-14:00 Light lunch

14:00 Session II/2. Basic and applied advances in comparative and developmental immunobiology

Chair: Loriano Ballarin (University of Padua), Umberto Rosani (University of Padua)

14:00-14:15 Marcolli Gaia¹, Baranzini Nicolò^{1,2}, Pulze Laura^{1,2}, Zorzetto Sara¹, Barone Ludovica¹, Rossi Federica¹, Gornati Rosalba¹, Grimaldi Annalisa^{1,2}

***Hirudo verbana*: a translational model for studying hDPSC secretome-enhanced angiogenesis in ECM-based biomaterials for wound healing**

¹Department of Biotechnology and Life Sciences, University of Insubria, Varese, Italy; ²Italian Leech Farm (ILFARM) S.r.l, Varese, Italy

14:15-14:30 Fabrello Jacopo¹, Matozzo Valerio²

On the morpho-functional features of haemocytes from the blue crab *Callinectes sapidus*

¹Department of Comparative Biomedicine and Food Science, University of Padua, Legnaro, Italy; ²Department of Biology, University of Padua, Padua, Italy

14:30-14:45 Losi Chiara¹, Ferri Anita², Montanari Monica², Sacchi Sandro², Rosani Umberto³, Sansalone Gabriele², Malagoli Davide^{2,4}

Cytosolic PCNA is localised in *Pomacea canaliculata* circulating hemocytes, independently from active cell proliferation

¹Department of Chemical and Geological Sciences, University of Modena and Reggio Emilia, Italy;

²Department of Life Sciences, University of Modena and Reggio Emilia, Italy; ³Department of Biology, University of Padua, Italy; ⁴NBFC, National Biodiversity Future Center, Palermo, Italy

14:45-15:00 Ferri Anita¹, Losi Chiara¹, Rosani Umberto², Sacchi Sandro¹, Malagoli Davide^{1,3}

Dynamic response of the posterior kidney to hemolymph withdrawal in *Pomacea canaliculata* involves hemocyte islet depletion and recovery

¹Department of Life Sciences, University of Modena and Reggio Emilia, Modena, Italy; ²Department of Biology, University of Padua, Padua, Italy; ³NBFC, National Biodiversity Future Center, Palermo, Italy

15:00-15:15 Kireta Dona¹, Nerelli Daniela Eugenia¹, Sacco Amaro², Bortoletto Enrico³, Rosani Umberto³, Pallavicini Alberto¹, Gerdol Marco¹

Comparative genomic study of the Australian *Mytilus planulatus* to identify lineage-specific immune genes

¹Applied and Comparative Genomics Group, Department of Life Sciences, University of Trieste, Trieste, Italy;

²Instituto de Investigaciones Marinas (IIM), Consejo Superior de Investigaciones Científicas (CSIC), Vigo, Spain;

³Department of Biology, University of Padua, Padua, Italy

15:15-15:30 Pianese Valeria¹, Kosakyan Anush^{2,3}, Moreno Patricia⁴, Garcia-Rosado Esther⁴, Fausto Anna Maria¹, Scapigliati Giuseppe¹, Picchietti Simona¹

Integrated omics analyses of the Central Nervous System and gut immune responses in RGNNV-infected European seabass

¹Department for Innovation in Biological, Agro-food and Forest systems (DIBAF), University of Tuscia, Viterbo, Italy; ²Department of Life Sciences, University of Modena and Reggio Emilia, Modena, Italy; ³National Biodiversity Future Center (NBFC), Palermo, Italy; ⁴Instituto de Biotecnología y Desarrollo Azul (IBYDA), Departamento de Microbiología, Facultad de Ciencias, 29071, Universidad de Málaga, Málaga, Spain

15:30-16.00 Coffee break

16:00 Session II/3. Basic and applied advances in comparative and developmental immunobiology

Chair: Valerio Matozzo (University of Padua), Maria Giovanna Parisi (University of Palermo)

16:00-16:15 Bertolasi Filippo¹, Sacchi Sandro¹, Vezzi Alessandro², Sales Gabriele², Ferri Anita¹, Malagoli Davide^{1,3}, Franchi Nicola¹

Controlling complement from development to immunity

¹Department of Life Sciences, University of Modena and Reggio Emilia, Modena, Italy; ²Department of Biology, University of Padua, Padua, Italy; ³National Biodiversity Future Center (NBFC), Palermo, Italy

16:15-16:30 Rosani Umberto¹, Altan Nehir¹, Venier Paola¹, Bortoletto Enrico¹, Volpi Nicola², Bernecky Carrie³
Borrowed blueprints: tracing the emergence of hyaluronic acid in invertebrates

¹*Department of Biology, University of Padua, Padua, Italy;* ²*Department of Life Sciences, University of Modena and Reggio Emilia, Modena, Italy;* ³*Institute of Science and Technology Austria, Vienna, Austria.*

16:30-16:45 Nerelli Daniela Eugenia¹, Ozeki Yasuhiro², Fujita Hideaki³, Fujii Yuki³, Gerdol Marco¹
First insights into the repertoire of secretory lectins in Ctenophora

¹*Università degli studi di Trieste, Trieste, Italy;* ²*Graduate School of NanoBio Sciences, Yokohama City University, Yokohama, Japan;* ³*Graduate School of Pharmaceutical Sciences, Nagasaki International University, Sasebo, Japan*

16:45-17:00 Sacchi Sandro¹, Ferri Anita¹, Losi Chiara¹, Franchi Nicola¹, Rosani Umberto², Malagoli Davide^{1,3}
Characterization of the interleukin-17 gene family in the gastropod *Pomacea canaliculata*

¹*Department of Life Sciences, University of Modena and Reggio Emilia, Modena, Italy;* ²*Department of Biology, University of Padua, Padua, Italy;* ³*NBFC, National Biodiversity Future Center, Palermo, Italy*

17:00 - 18:00 Members General Assembly

20:30 Social Dinner at Ristorantino sul Mare

Friday, February 13th, 2026

Main Lecture 3

9:00-10:00

Guido Favia (University of Camerino)

Symbiotic microbes and mosquito vectors: impact on vector biology and disease control

Session III. Immunity and Environmental Adaptations: Immunological Plasticity in Extreme Habitats

Chair: Maria Rosaria Coscia (CNR, Naples), Simona Picchietti (University of Tuscia)

10:00-10:15 Bidoli Carlotta¹, Greco Samuele¹, Small Hamish², Julianini Piero Giulio¹, Gerdol Marco¹

Novel case of infection by Syndiniales parasite in Antarctic amphipoda *Orchomenella rinamontiae*

¹*Department of Life Sciences, University of Trieste, Trieste, Italy;* ²*Virginia Institute of Marine Science, Gloucester Point, VA, United States*

10:15-10:30 Ametrano Alessia¹, Piva Elisabetta², Santovito Gianfranco², Coscia Maria Rosaria¹

Epigenetic plasticity of the polymeric immunoglobulin receptor gene in an Antarctic teleost under simulated marine heatwaves

¹*Institute of Biochemistry and Cell Biology, National Research Council of Italy, Naples, Italy;* ²*Department of Biology, University of Padua, Padua, Italy*

10:30-10:45 Khodihaghghi Shaghayegh^{1,2}, Piva Elisabetta¹, Pacchini Sara¹, Cortese Martina¹, Gerdol Marco³, Pellegrino Daniella⁴, Irato Paola¹, Santovito Gianfranco¹

Oxidative Stress Signatures of Chemical Pollution in the Antarctic Scallop, *Adamussium colbecki*

¹*Department of Biology, University of Padua, Padua, Italy;* ²*Department of Environmental Sciences, Informatics and Statistics, Ca' Foscari University of Venice, Venice, Italy;* ³*Department of Life Sciences, University of Trieste, Trieste, Italy;* ⁴*Department of Biology, Ecology and Earth Sciences, University of Calabria, Rende, Italy.*

10:45-11:00 La Corte Claudia¹, Scapigliati Giuseppe², Gerdol Marco³, Bisanti Luca¹, Dara Mariano¹, Cammarata Matteo¹, Parisi Maria Giovanna¹

Molecular and cellular bases of immune and stress adaptation in the Antarctic Sea anemone *Urticina rops antarctica*

¹*Marine Immunobiology Laboratory, Department of Earth and Marine Sciences (DiSTE), University of Palermo, Palermo, Italy;* ²*Department for Innovation in Biological, Agro-food and Forest Systems (DIBAF), University of Tuscia, Viterbo, Italy;* ³*Department of Life Sciences, University of Trieste, Trieste, Italy*

11:00-11:30 coffee break

11:30-11:45 Radonic Sara, Gerdol Marco

Life in the dark: molecular adaptations of the cave shrimp *Troglocaris planinensis*

Department of Life Sciences, University of Trieste, Trieste, Italy

11:45-12:00 Piva Elisabetta¹, Baroni Fabio¹, Pacchini Sara¹, Khodihaghghi Shaghayeghi^{1,2}, Cortese Martina¹, Irato Paola¹, Pellegrino Daniela³, Santovito Gianfranco¹

Oxidative imbalance induced by Bisphenol A in *Trematomus bernacchii*: evidence from brain and liver.

¹Department of Biology, University of Padua, Padua, Italy; ²Department of Environmental Sciences, Informatics and Statistics, Ca' Foscari University of Venice, Venice, Italy; ³Department of Biology, Ecology and Earth Sciences, University of Calabria, Rende, Italy.

12:00-12:15 Alimenti Claudio¹, Guella Graziano², Luporini Pierangelo¹, Vallesi Adriana¹

The polar ciliate, *Euplotes euryhalinus*, uses recycled canthaxanthin to withstand UV and oxidative damage

¹School of Biosciences and Veterinary Medicine, University of Camerino, Camerino, Italy; ²Department of Physics, University of Trento, Trento, Italy

12:15 - 12:45 Awards ceremony (Davide Malagoli and directive council)

12:45 - 13:15 Closing remarks and scientific closing of the XXVI IADCI Meeting