

Angela Piersanti

EDUCATION AND TRAINING

- 01/12/2015 – 08/03/2019 PhD in Life and Health Sciences - Molecular Biology and Cellular Biotechnology. XXXI cycle. International School of Advanced Studies, University of Camerino, Italy. Thesis title: “Genes and genomes in ciliates: • Gene expression analysis in *Tetrahymena thermophila* under stress conditions • Approach to the characterization of the germline (micronuclear) genome in *Euplotes crassus*”. Supervisors: Prof. Cristina Miceli, Prof. Sandra Pucciarelli.
- 01 – 31/08/2018
04/03 – 04/12/2017 Research stage. Epigenetic Mechanisms of Complex Genome Editing in Eukaryotes Laboratory. Institute of Cell Biology, University of Bern, Switzerland.
- 26/10/2014 – 26/04/2015 Scholarship holder. Protozoan Functional Genomic Research Group. Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan, China.
- 31/05 – 07/06/2015
07 – 17/10/2014 COST Action – Short-Term Scientific Mission. From University of Camerino to the Laboratory of Environmental Toxicology. National Institute of Chemical Physics and Biophysics, Tallinn, Estonia.
- 10/04/2014 Master Degree in Biological Sciences (110/110 cum laude). Molecular Diagnostics and Biotechnology. University of Camerino, Italy. Thesis title: “Gene silencing as a tool to study the mechanisms of intron retention in ciliates”. Supervisors: Prof. Cristina Miceli, Dr. Sandra Pucciarelli, Dr. Daniela Sparvoli.
- 15/03/2012 Bachelor Degree in Biotechnology (102/110). Curriculum: Microbial. University of Camerino, Italy. Thesis title: “Standardization of an ex vivo assay to evaluate the effect of plant extracts on ookinete development of Malaria parasite”. Supervisors: Prof. Annette Habluetzel, Prof. Giulio Lupidi.
- 05/10/2007 Scientific High School Diploma (90/100). P.N.I. Liceo Scientifico Leonardo Da Vinci, Jesi (AN), Italy.

SCIENTIFIC QUALIFICATIONS

- From 15/05/2022 Research Fellowship: “Microplastics in the Adriatic Sea: characterization of the associated microbiota, of the adsorbed toxic compounds, and of the impact on unicellular model organisms.” School of Biosciences and Veterinary Medicine, University of Camerino, Italy.
- 05 - 12/11/2022
05/03 - 03/04/2022 Visiting researcher at Laboratory of Environmental Toxicology, National Institute of Chemical Physics and Biophysics, Tallinn, and Institute of Chemistry, University of Tartu, Estonia.
- 15/05/2021 – 14/05/2022 Research Fellowship: Fondazione CRUI project “Go For IT” “Microplastics in the Adriatic Sea: characterization of the associated microbiota, of the adsorbed toxic compounds, and of the impact on unicellular model organisms”. <https://www.progetto-goforit.it/microplastics-in-the-adriatic-sea-characterization-of-the-associated-microbiota-of-the-adsorbed-toxic-compounds-and-of-the-impact-on-unicellular-model-organisms/> School of Biosciences and Veterinary Medicine, University of Camerino, Italy; Institute of Environmental and Health Sciences, China Jiliang University, Huangzhou, Zhejiang, China; Hangzhou Lianchuan Biotech, Zhejiang, China.
- 01/07/2019 – 14/05/2021 Research Fellowship: “Study of the biological response to pollution from nanomaterials using freshwater and marine ciliates as models”. School of Biosciences and Veterinary Medicine, University of Camerino, Italy.
- 28/07/2019 - 02/08/2019 Participate in the Local Organizing Committee of “VIII European Congress of Protistology - Italian Society of Protistology joint meeting”. Rome, Italy.
- 10/06/2015 – 16/07/2015 Participate in the Local Organizing Committee of “2015 Ciliate Molecular Biology”. University of Camerino, Italy.

Publications

- Pucciarelli S, Sparvoli D, Ballarini P, Piersanti A, Mozzicafreddo M, Arregui L, Miceli C. “Ciliate Microtubule Diversities: Insights from the EFBTU3 Tubulin in the Antarctic Ciliate *Euplotes focardii*”. **Microorganisms**. (2022) 10(12):2415. <https://doi.org/10.3390/microorganisms10122415>.
- Di Q, Piersanti A, Zhang Q, Miceli C, Li H, Liu X. “Genome-wide association study identifies candidate genes related to the linoleic acid content in soybean seeds”. **Int J Mol Sci**. (2022) 23, 454. <https://doi.org/10.3390/ijms23010454>.
- Mozzicafreddo M, Pucciarelli S, Swart EC, Piersanti A, Emmerich C, Migliorelli G, Ballarini P, Miceli C. “The macronuclear genome of the Antarctic psychrophilic marine ciliate *Euplotes focardii* reveals new insights on molecular cold adaptation”. **Scientific Reports** (2021) 11, 18782. <https://doi.org/10.1038/s41598-021-98168-5>.
- Chen H, Mozzicafreddo M, Pierella E; Carletti V; Piersanti A; Ali SM; Ame SM; Wang C; Miceli C. “Dissection of gut microbiota in mothers and children suffering from chronic helminth infection in Pemba Island, Tanzania”. **Parasites Vectors** (2021) 14, 62. <https://doi.org/10.1186/s13071-021-04580-1>.
- Piersanti A, Juganson K, Mozzicafreddo M, Wei W, Zhang J, Zhao K, Ballarini P, Mortimer M, Pucciarelli S, Miao W, Miceli C. “Transcriptomic responses to silver nanoparticles in the freshwater unicellular eukaryote *Tetrahymena thermophila*”. **Environmental Pollution** (2021) Volume 269, 115965. <https://doi.org/10.1016/j.envpol.2020.115965>.

6. Liu X, Qin D, Piersanti A, Zhang Q, Miceli C, & Wang P. "Genome-wide association study identifies candidate genes related to oleic acid content in soybean seeds". *BMC Plant Biology* (2020) 20(1), 399. <https://doi.org/10.1186/s12870-020-02607-w>.
7. Faktorová D, Nisbet RER, Fernández Robledo JA, Casacuberta E, Sudek L, Allen AE, Ares M Jr, Aresté C, Balestreri C, Barbrook AC, Beardslee P, Bender S, Booth DS, Bouget FY, Bowler C, Breglia SA, Brownlee C, Burger G, Cerutti H, Cesaroni R, Chiurillo MA, Clemente T, Coles DB, Collier JL, Cooney EC, Coyne K, Docampo R, Dupont CL, Edgcomb V, Einarsson E, Elustondo PA, Federici F, Freire-Beneitez V, Freyria NJ, Fukuda K, García PA, Girguis PR, Gomia F, Gornik SG, Guo J, Hampl V, Hanawa Y, Haro-Contreras ER, Hehenberger E, Highfield A, Hiraoka Y, Hopes A, Howe CJ, Hu I, Ibañez J, Irwin NAT, Ishii Y, Janowicz NE, Jones AC, Kachale A, Fujimura-Kamada K, Kaur B, Kaye JZ, Kazana E, Keeling PJ, King N, Klobutcher LA, Lander N, Lassadi I, Li Z, Lin S, Lozano JC, Luan F, Maruyama S, Matute T, Miceli C, Minagawa J, Moosburner M, Najle SR, Nanjappa D, Nimmo IC, Noble L, Novák Vančlová AMG, Nowacki M, Nuñez I, Pain A, Piersanti A, Pucciarelli S, Pyrih J, Rest JS, Rius M, Robertson D, Ruaud A, Ruiz-Trillo I, Sigg MA, Silver PA, Slamovits CH, Jason Smith G, Sprecher BN, Stern R, Swart EC, Tsaousis AD, Tsy-pin L, Turkewitz A, Turšček J, Valach M, Vergé V, von Dassow P, von der Haar T, Waller RF, Wang L, Wen X, Wheeler G, Woods A, Zhang H, Mock T, Worden AZ, Lukeš J. "Genetic tool development in marine protists: emerging model organisms for experimental cell biology". *Nature Methods* (2020) 17, 481–494. <https://doi.org/10.1038/s41592-020-0796-x>.

Conferences

- Invited speaker: "Genome organization in marine ciliates and gene manipulation in Euplotes". Microbiology Society Annual Conference 2019. ICC Belfast, UK. 08-11/04/2019.
- Oral presentation: "Ciliates as models for the response to environmental changes: toxicity tests and gene expression studies". XXXIII Congresso della Società Italiana di Protistologia onlus, Calci (Pisa), Italy, 21-22/10/2022.
- Oral presentation: "Ciliates as models for the response to environmental changes". 2021 Ciliate Molecular Biology Meeting (on Zoom). 19-22/07/2021.
- Oral presentation: "Response to changes in salinity in a tropical Euplotes species by cysts formation". 2020 Junior Investigator Ciliate Molecular Biology Meeting (held virtually). 20-23/07/2020.
- Oral presentation: "RNA-seq analysis of stress response to silver nanoparticles in Tetrahymena thermophila". Italian Society of Protistology, XXXI National Conference. Pineto (TE), Italy. 14-16/09/2016.
- Oral presentation: "RNA-seq analysis of stress response to silver nanoparticle in Tetrahymena thermophila". The Allied Genetics Conference 2016. 2016 Ciliate Molecular Biology Meeting. Orlando, Florida, USA. 13-17/07/2016.
- Oral presentation: "RNA-seq analysis of stress response to silver nanoparticles in Tetrahymena thermophila". A New Age of Discovery for Aquatic Microeukaryotes. Heidelberg, Germany. EMBL Advanced Training Centre. 26-29/01/2016.
- Poster presentation: "Ciliates as models for the response to environmental changes". The 4th Asian Congress of Protistology – internet. 19-21/11/2021.
- Poster presentation: "Response to Increase in Salinity in a Tropical Euplotes Species". VIII European Congress of Protistology - Italian Society of Protistology joint meeting. Rome, Italy. 28/07-02/08/2019.
- Poster presentation: "Transfection approaches in Euplotes". Paramecium [epi]Genome Organization, Dynamics and Evolution. Nohfelden, Germany. 03-06/10/2017.
- Poster presentation: "Using RNA-seq to test the effect of silver nanoparticles on Tetrahymena thermophila". 2015 Ciliate Molecular Biology Meeting. Camerino, Italy. 10-16/07/2015.
- Abstract: "The impact of heavy metals on multitrophic interactions in the soil microbiome: how soil pollution influences amoebic predation and bacterial interactions". Protistology-UK's Autumn meeting 2022. London, UK. 01-02/12/2022.
- Abstract: "The impact of heavy metals on multitrophic interactions in the soil microbiome: how soil pollution influences amoebic predation and bacterial interactions". XXXIII Congresso della Società Italiana di Protistologia onlus, Calci (Pisa), Italy. 21-22/10/2022.
- Abstract: "Associations among gut microbiome, nutritional habits, and gut parasites: a case study of mothers and children in Zanzibar (Tanzania)". 9th World Congress on Targeting Microbiota, Paris, France. 19-21/10/2022.
- Abstract: "Antibiotic resistance profiles of microplastics-associated microbial communities in the Adriatic Sea". 50° Congresso Nazionale della Società Italiana di Microbiologia", Napoli, Italy. 18-21/09/2022.
- Abstract: "Establishing RNAi in Euplotes crassus by feeding with bacteria". Paramecium [epi]Genome Organization, Dynamics and Evolution. Nohfelden, Germany. 03-06/10/2017.
- COST Meeting. ENS, Paris, France. 03-04/12/2015.

Workshops

- Theoretical/practical training course about Python Tissue Dissociation Instrument and Matrix Single Cell Preparation Instrument. Diotech Lab Line. 17-18/04/2023
- Training and seminar: "Introduction to Nanopore Sequencing and Data Analysis". Dr. Tim Walker - Oxford NANOPORE Technologies. 14-16/03/2023
- 33th International workshop on "Bioinformatics, Genomics, Transcriptomics, Microbiome, and NGS data analysis". Nextgenhelper. 13-29/03/2023
- Oral presentation: "Microplastics in the Adriatic Sea sandy sediment: characterization of the associated microbiota and of the toxic impact on unicellular model organisms". Young researchers bilateral meeting (online). School of Biosciences and Veterinary Medicine, University of Camerino, Italy and Institute of Environmental and Health Sciences, China Jiliang University, China. 21/12/2021.
- OPEN SCIENCE. Elena Giglia – Università di Torino. 13-19/09/2021.
- Il software R - Corso base. Prof. Damiano Preatoni – Università dell'Insubria. 07-09/07/2021.
- Oral presentation: "Cell response to environmental changes in ciliates". SNAPSHOTS seminars. School of Biosciences and Veterinary Medicine, University of Camerino, Italy. 17/05/2021.
- Elementi Cross Cutting nella Progettazione Europea: Etica, la Questione di Genere e la Standardizzazione in Horizon Europe. APRE. 13-15/04/2021.
- Theoretical-Practical Marketing Course. University of Camerino, Italy. 12-16/02/2018.

- CRISPR Genome Editing - Cutting, Inserting & Deleting. CamBioScience, Cambridge, UK. 27-28/02/2017.
- Eukaryotic microbes and beyond, their use for the environment and the human health. Italian Society of Protistology, XXXI National Conference, Pineto (TE), Italy. 15/09/2016.
- Model Organisms to Face Environmental Problems. TAGC 2016, Orlando, Florida, USA. 16/07/2016.

Seminars

- Oral presentation: "Why ciliates?". University of Camerino – Orientation - at Liceo Linguistico Statale "Enrico Medi" Senigallia (AN). 10/06/2022.
- Symposium: "Protists as model organisms to face environmental problems". Organizers: Cristina Miceli, Wei Miao. The 4th Asian Congress of Protistology -internet. 20/09/2021.
- OPEN SCIENCE: non ci sono alternative. Paola Masuzzo. 08/09/2021.
- Programma Horizon Europe 2021-2027. Percorso Formativo Marche Abruzzo - corso di formazione online. APRE - Agenzia per la Promozione della Ricerca Europea. 08-10-15-17-22/06/2021.
- Virtual FISV Symposium on SARS-CoV-2 Biology and COVID-19: Current research and perspectives. 16/09/2020.
- Communication, Collaboration, and Career Readiness. Dr. Gloria Bader. University of Camerino, Italy. 22-25/05/2017.
- Transposons and Programmed Genome Rearrangement. Prof. Lawrence A. Klobutcher. University of Camerino, Italy. 09-12/05/2017.

TEACHING EXPERIENCE

- AY 2019/20 In presence: Genetic Engineering teaching course in the "Cooperative Biotechnology Bachelor Degree Education Program between Jilin Agricultural University and University of Camerino". Jilin Agricultural University, Changchun, Jilin, China.
- AY 2020/21 Online Mode: Genetic Engineering course teaching at the "Cooperative Biotechnology Bachelor Degree Education Program between Jilin Agricultural University and University of Camerino". Jilin Agricultural University, Changchun, Jilin, China.
- 2021/22
- 2022/23

ADDITIONAL INFORMATION

- Habilitation
 - Lecturer (Cultore della Materia) in Cell Biology and Biotechnology.
 - Enabled to enroll in O.N.B (National Order of Biologists).

PERSONAL SKILLS

Mother tongue Italian

Other language

Certificate in Advanced English				
UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user. Common European Framework of Reference for Languages.

Computer skills MS Office/ intermediate level. Use of bioinformatics webservices.

Driving licence B

I hereby authorize the use of my personal data in accordance to the GDPR 679/16 - "European regulation on the protection of personal data".

Tutto quanto dichiarato nel curriculum vitae et studiorum corrisponde a verità ai sensi degli artt. 46 e 47 del D.P.R. 28 dicembre 2000, n. 445 e successive modificazioni e integrazioni.

Date: 15/05/2023

Angela Piersanti