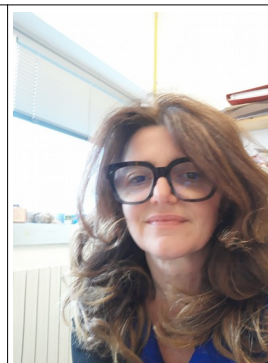


Sandra Pucciarelli, PhD

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Birth date: 23/10/1969, Civil status: married, two kids
Languages: Italian (mother tongue); English (fluent); French (fluent).



Professional preparation

- 22-07-1993 **Master Degree in Biology**: 110/110 cum laude. Tutor: Prof. C. Miceli, University of Camerino, Italy.
- 1993/1997 **Doctorate Degree in "Biology"**. Tutor: Prof. C. Miceli, University of Camerino.
- 13-03/03-04-1994. **ERASMUS** intensive program: "Blaise Pascal" University, Clermont Ferrand, France.
- 28-03/10-05-1997. **Antarctic field campaign** at Palmer Station, Antarctica.
- 11-1998/06-2000 **Post-doctoral course**. Tutor: Dr. R. Melki. Laboratoire d'Enzymologie et Biochimie Structurales. CNRS, Gif-Sur-Yvette, France

Appointments

- 1- President of the Spin off IrIdES srl (<http://www.irides.eu/wp/>).
- 2- Present position (from 2008): **Assistant professor** (Area of research: Ecology-Bio/07) h-index: 15
- 3- Member of the Scientific Reports (<https://www.nature.com/srep/>) and Marine Drugs Editorial Boards
- 4- principal investigator (PI) of the H2020-Marie Sklodowska-Curie Actions RISE-Metabl – 645693. Title: Advanced bioinformatics for genome and metagenome analyses with discovery of novel bio-catalysts from extremophiles: implications for improving industrial bio-processes.

List of honors and awards

- 1- Antarctica Service Medal of the United States of America in recognition of the valuable contribution to exploration and Scientific Achievement under the US Antarctic Research Program (March 1, 2000).
- 2- CO-ORGANIZER OF CIBB (*Computational Intelligence methods for Bioinformatics and Biostatistics*) special session: Multi Omic metabolic models and statistical Bioinformatics of adaptations and biological associations. CNR Research Area, Naples 10th-12th September 2015. H2020-RISE METABL
- 3- CO-ORGANIZER OF THE TRAINING-SCHOOL/WORKSHOP: "Bioinformatics approaches to adaptations, genome evolution and biological associations", Computer Laboratory, University of Cambridge, 23th-27th March 2015. H2020-RISE METABLE/COST ACTION BM1102
- 4- Member of the executive committee of the Italian Society of Protozoology (from 2013)
- 5- Member of the Committee of Gender Guarantee at the University of Camerino (till 2016)

Selected publications (last five years)

- 1- Vallesi A, **Pucciarelli S**, Buonanno F, Fontana A, Mangiagalli M. Bioactive molecules from protists: Perspectives in biotechnology. *Eur J Protistol.* 2020 Jun 4;75:125720. doi: 10.1016/j.ejop.2020.125720. Epub ahead of print. PMID: 32569992.
- 2- John MS, Nagoth JA, Ramasamy KP, Mancini A, Giuli G, Natalello A, Ballarini P, Miceli C, **Pucciarelli S**. Synthesis of Bioactive Silver Nanoparticles by a *Pseudomonas* Strain Associated with the Antarctic Psychrophilic Protozoon *Euplotes focardii*. *Mar Drugs.* 2020 Jan 3;18(1):38. doi:10.3390/md18010038. PMID: 31947807; PMCID: PMC7024347.
- 3: John MS, Nagoth JA, Ramasamy KP, Ballarini P, Mozzicafreddo M, Mancini A, Telatin A, Liò P, Giuli G, Natalello A, Miceli C, **Pucciarelli S**. Horizontal gene transfer and silver nanoparticles production in a new *Marinomonas* strain isolated from the Antarctic psychrophilic ciliate *Euplotes focardii*. *Sci Rep.* 2020 Jun 23;10(1):10218. doi: 10.1038/s41598-020-66878-x. PMID: 32576860; PMCID: PMC7311414.

- 4: Mancini A, **Pucciarelli S**. Antibiotic activity of the antioxidant drink effective Microorganism-X (EM-X) extracts against common nosocomial pathogens: an in vitro study. *Nat Prod Res.* 2020 Jun;34(11):1575-1580. Doi: 10.1080/14786419.2018.1517344. Epub 2018 Oct 4. PMID: 30284916.
- 5: Mangiagalli M, Lapi M, Maione S, Orlando M, Brocca S, Pesce A, Barbiroli A, Camilloni C, **Pucciarelli S**, Lotti M, Nardini M. The co-existence of cold activity and thermal stability in an Antarctic GH42 β -galactosidase relies on its hexameric quaternary arrangement. *FEBS J.* 2020 May 4. doi: 10.1111/febs.15354. Epub ahead of print. PMID: 32363751.
- 6: Faktorová D,**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, Turnšek 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. *Nat Methods.* 2020 May;17(5):481-494. Doi: 10.1038/s41592-020-0796-x. Epub 2020 Apr 6. Erratum in: *Nat Methods.* 2020 Apr 15;: PMID: 32251396; PMCID: PMC7200600.
- 7: Mancini A, Eyassu F, Conway M, Occhipinti A, Liò P, Angione C, **Pucciarelli S**. CiliateGEM: an open-project and a tool for predictions of ciliate metabolic variations and experimental condition design. *BMC Bioinformatics.* 2018 Nov 30;19(Suppl 15):442. doi: 10.1186/s12859-018-2422-9. PMID: 30497359; PMCID: PMC6266953.
- 8: Pischedda A, Ramasamy KP, Mangiagalli M, Chiappori F, Milanese L, Miceli C, **Pucciarelli S**, Lotti M. Antarctic marine ciliates under stress: superoxide dismutases from the psychrophilic Euplotes focardii are cold-active yet heat tolerant enzymes. *Sci Rep.* 2018 Oct 3;8(1):14721. doi: 10.1038/s41598-018-33127-1. PMID: 30283056; PMCID: PMC6170424.
- 9: Lobanov AV, Heaphy SM, Turanov AA, Gerashchenko MV, **Pucciarelli S**, Devaraj RR, Xie F, Petyuk VA, Smith RD, Klobutcher LA, Atkins JF, Miceli C, Hatfield DL, Baranov PV, Gladyshev VN. Position-dependent termination and widespread obligatory frameshifting in Euplotes translation. *Nat Struct Mol Biol.* 2017 Jan;24(1):61-68. doi: 10.1038/nsmb.3330. Epub 2016 Nov 21. PMID: 27870834; PMCID: PMC5295771.
- 10: Mangiagalli M, Bar-Dolev M, Tedesco P, Natalello A, Kaleda A, Brocca S, de Pascale D, **Pucciarelli S**, Miceli C, Braslavsky I, Lotti M. Cryo-protective effect of an ice-binding protein derived from Antarctic bacteria. *FEBS J.* 2017 Jan;284(1):163-177. doi: 10.1111/febs.13965. Epub 2016 Dec 26. Erratum in: *FEBS J.* 2017 Mar;284(5):831. Bravslavsky, Ido [corrected to Braslavsky, Ido]. PMID: 27860412.
- 11: Juganson K, Mortimer M, Ivask A, **Pucciarelli S**, Miceli C, Orupöld K, Kahru A. Mechanisms of toxic action of silver nanoparticles in the protozoan *Tetrahymena thermophila*: From gene expression to phenotypic events. *Environ Pollut.* 2017 Jun;225:481-489. doi: 10.1016/j.envpol.2017.03.013. Epub 2017 Mar 16. PMID: 28318795.
- 12: Yang G, Yao H, Mozzicafreddo M, Ballarini P, **Pucciarelli S**, Miceli C. Rational Engineering of a Cold-Adapted α -Amylase from the Antarctic Ciliate Euplotes focardii for Simultaneous Improvement of Thermostability and Catalytic Activity. *Appl Environ Microbiol.* 2017 Jun 16;83(13):e00449-17. Doi: 10.1128/AEM.00449-17. PMID: 28455329; PMCID: PMC5478988.
- 13: **Pucciarelli S**, Devaraj RR, Mancini A, Ballarini P, Castelli M, Schrollhammer M, Petroni G, Miceli C. Microbial Consortium Associated with the Antarctic Marine Ciliate Euplotes focardii: An Investigation from Genomic Sequences. *Microb Ecol.* 2015 Aug;70(2):484-97. doi: 10.1007/s00248-015-0568-9. Epub 2015 Feb 24. PMID: 25704316; PMCID: PMC4494151.

14: Ghazal P, Corsi M, Roth A, Faggioni F, Corti C, Merlo Pick E, **Pucciarelli S**, Ciccocioppo R, Ubaldi M. Paradoxical response to the sedative effects of diazepam and alcohol in C57BL/6J mice lacking the neuropeptide S receptor. *Peptides*. 2014 Nov;61:107-13. doi: 10.1016/j.peptides.2014.09.010. Epub 2014 Sep 18. PMID: 25240770.