Donatella de Pascale

Sex Female | Date of birth 07/08/1967 | Nationality Italy

WORK EXPERIENCE

February 2020 - Present	Director of the Marine Biotechnology Department Stazione Zoologica Anton Dohrn, Villa Comunale, 80125 Naples, Italy
June 2019 – Present	Senior Technologist – Principal Investigator Stazione Zoologica Anton Dohrn, Villa Comunale, 80125 Naples, Italy
01January 2008- June 2019	Researcher III Liv- Principal investigator Institute of Protein Biochemistry- National Research Council, Naples (Italy), Head of Laboratory of Marine Biodiscovery. Head of the Marine Biodiscovery lab, composed by 1 Post-doc, 5 PhD students, 5 undergraduate students.
01 July 2001 – 01 January 2008	Post Doc position Institute of Protein Biochemistry- National Research Council, Naples (Italy), in the framework of National Program for Antarctic Research grants.

Donatella de Pascale has been hired at the Institute of Protein Biochemistry of the CNR in the 2008, becoming Principal Investigator in the 2012, and head of the Marine Biodiscovery Lab in 2015. During the employment at the CNR, she has held various positions for the institution's instrument responsibility. She has extensive experience in administrative practices, covering the role of RUP for all funded projects. She is an expert in tenders for the purchase of instruments. She has served in many commissions for fellowships and research grants. She has been also the scientific manager of the Mass Spectrometry Facility for the joint lab Dompè-IBP at the IBP-CNR.
Since June 2019 she has been hired as Senior Technologist at the Stazione Anton Dohrn, at the Department of Blue Biotechnology.
From February 2020 she is the Director of the Marine Biotechnology Department at the Stazione Zoologica Anton Dohrn, Naples.

EDUCATION AND TRAINING

19 January 1998 – 19 December 2000	Doctorate – PhD in Applied Biotechnology University of Campania “Luigi Vanvitelli”, Caserta Naples, ITALY
January 1994 – December 1997	Specialisation School in Biotechnology University of Naples “Federico II” Three-years post-lauream diploma with experimental thesis obtained with 50/50 cum Laude focused on Biotechnological Application.
September 1989 – February 1992	Magistral Degree in Biological Science University of Naples “Federico II” Magistral degree in Biological Science obtained discussing an experimental thesis on Molecular Biology, with 110/110 cum LAUDE.

Donatella de Pascale has a long-lasting experience in Coordinating and participating in many International and National projects in the FP7 and H2020 Framework program.

International and National Funded Project

2021. **Partner in H2020-FNR 11-2020 call Food and Natural Resources: Secreted – Sustainable exploitation of bio-based compounds revealed and engineered from Natural sources, (2021-2025)** Total funds: 7.787.817,75

2019. **Blue Bio COFUND call:** Partner in the Funded project **BlueCC Commercial exploitation of marine collagen and chitin from marine sources,** Total funds: € 1.975,872.

Partner in the **MIUR PNRA project: DISCOVERY** Monitoring ***DIS****sostichus mawsoni* in sea-ice **COVER**ed areas of the Ross Sea Region MPA b**Y** low-impact technologies, Total Funds: € 140.000,00.

Assemble Plus: Medicines from the SEA – MedSea. User: Carmine Buonocore, H2020-Infrastructure GA 730984

2018. **Assemble Plus: Antioxidants from the sea- SEAOX**. User: Dr Giovanni Andrea Vitale. H2020-Infrastructure GA 730984

Partner in the project: **Genomics for a Blue Economy**– Executive program for Scientific and Technological cooperation between Italy and South Africa for the years 2018-2020. Total funds: € 100.000,00.

2017. **EMBRIC Transnational Access Program:** Learning from Metagenome: From Culture-independent methods to lab cultivation. User: Dr. Fortunato Palma Esposito

Partner and team leader in H2020- MSCA-RISE- 2018-2021 entitled **NO PROBLEMS -** Nourishing PRObiotics to Bees to Mitigate Stressors. Total funds € 346.500,00.

Partner and team Leader in the ERA-NET: Marine Biotech II call: "BlueShell: Exploring by-products as sources of Blue bioactivities." Funded by **MIPAAF** and **NRC** (National Research Council of Norway). Total funds € 1.319.000,00.

Partner and Team Leader in the CNR PRONAT project: Isolation and characterization of small molecules as novel bioactive compounds from the sea. Total funds € 280.000,00.

2016. **Coordinator of H2020-ITN-ETN, 2016-2020** entitled**: MarPipe –** Improving the flow in the pipeline of the next generation of marine biodiscovery scientists. GA n°72142, 11 partners. Total funds € 2.853.005,40.

2015. **Coordinator** of **H2020-MSCA-RISE, 2015-2019** entitled**: Ocean Medicines.** GA n° 690944, 9 partners. Total funds € 373.500,00.

2014. **Coordinator** of the **PNRA 2014-2016** (National Programme of Antarctic Research) project: Genome scanning and characterization of novel antifreeze proteins for industrial application. Total funds € 60.000,00.

Partner and Team leader within **PNRA 2014-2016** project: Sea-ice associated methylated osmolytes: biogenesis and contribution to oceanic methane production (SIAMO). Total funds € 80.000,00.

Partner and Team leader within **PNRA 2014-2016** project: New drugs for Cystic Fibrosis opportunistic pathogens from Antarctic microorganisms. Total funds € 60.000,00.

Partner and Team leader within **PNRA 2014-2016** project: Exploiting Antarctica biotechnological potential: metabolic modelling for optimization of bioactive molecules biosynthesis from Antarctic bacteria. Total funds € 120.000,00

2012. **Partner and Team Leader** in the **FP7 EU** Project entitled **PharmaSea** in the **KBBE.2012.3.2-01**: Innovative marine biodiscovery pipelines for novel industrial products. GA n° 312184. Total funds € 9.000.000,00.

2011. **Project leader** of the Cooperation agreement between National Research Council (CNR) and Chinese Academy of Science (CAS) **2011-2013**, entitled: Discovery of new extremozymes for biotechnological applications".

2009. **Partner and Team leader** within **PNRA 2009-2011** <PROP09_47> research project: "Omics approaches to unravel biodiversity and evolution of polar microorganisms in view of climate changes and future biotechnological applications." Total funds € 80.000,00

2005. **Partner and Team leader** of the research group within **PNRA 2005-2007** <MICELI7> research project: "Genomics and Proteomics of the Antarctic ciliate *Euplotes focardii."* Total funds € 80.000,00.

2004. **Partner and Team leader** within **PNRA 2004-2006** <BRUNIXO> research project: "Antarctic bacteria and cyanobacteria: biodiversity and production of compounds to be potentially exploited in biotechnology." Total funds € 80.000,00.

2002. **Partner and Team leader** within **PNRA 2002-2003** <BRUNIXO> research project entitled: "Bacteria from Antarctica environment diversity and possible applications." Total funds € 80.000,00.

Donatella de Pascale has a deep knowledge of the International and National research system, as demonstrated by the intense activity as Evaluator in the FP7, H2020 programs, as reviewer REPRISE for MIUR and as Expert for other EU and extra EU funding agencies.

2020
- **Expert in the H2020 MSCA- Individual fellowship** Env Panel, Oct 2020 Bruxelles
- **Expert in the BBI JU Call for Proposals 2020,** Panel F3, Oct 2020 Bruxelles

2019
- **Evaluator** for The Austrian Academy of Sciences, PhD program evatuation.
- **Expert for the Project Peer Review of the Science Fund of the Republic of Serbia**
- **Expert MIUR REPRISE** for the ERA-NET call Cofund WW2017 – Call 2018 for the project BLOOWATER, D.M. 593/2016.
- **Expert in the H2020 MSCA- Individual fellowship** Env Panel, Oct 2019 Bruxelles.

2018
- **Expert in the H2020 MSCA- Individual fellowship** Env Panel, Oct 2018 Bruxelles.
- **Expert in the Evaluation of BG-08 TOPIC BG-08:** Atlantic Ocean Research Alliance Flagship, Subtopic [C]: New value chains for aquaculture production, April 2018, Bruxelles.
- **Expert** in the EASME/EMFF/2017/1.2.1.12/Strand.1 - Demonstration projects in the **"Sustainable Blue Economy"** call for proposals, May 2018, Bruxelles.

2017
- **Expert in the EUROSTARS Funding Excellence in Innovation,** 8th cut-off, Oct 2017.
- **Expert in the BBI JU Call for Proposals 2017,** Panel S1 and S2, Oct 2017.

- Expert in the H2020 MSCA- Individual fellowship Env Panel, Oct 2017 Bruxelles.
- Expert for the **"Grandi Progetti R&S – PON 2014/2020" –** Agenda Digitale o Industria Sostenibile. MISE, Italy.

2016 **- Expert** for the **"Bando MISE –** FONDO PER LA CRESCITA SOSTENIBILE". MISE, Italy.
- Expert in the H2020 MSCA- Individual fellowship Env Panel, Nov 2016, Bruxelles.
- Expert for the executive government agency of **National Science Centre**, Poland, calls for proposal evaluation.

2015 **- Expert in the H2020 MSCA-I Individual fellowship** Env Panel, 8-13 Nov 2015, Bruxelles.
- Expert for the The **Chilean Antarctic Institute**, INACH, call for proposals for the National Fund for Scientific and Technological Research in Antarctica.
- Expert for the executive government agency of **National Science Centre**, Poland, calls for proposal evaluation.
- Expert for the UK-Biotechnology and Biological Sciences Research Council (**BBSRC**) call for proposal.

2014 **- Expert** for **Bando MISE, Italian Minister of Economy.**
- Expert in the H2020 Marie S Curie Individual fellowship Env Panel, 27-31 October 2014, Bruxelles.
- Expert for the International Cooperation Programme (PCI) of the National Commission for Scientific and Technological Research of the Government of Chile (**CONICYT**).
- Expert for the UK Biotechnology and Biological Sciences Research Council (**BBSRC**) call for proposal.

2013 **- Expert** for the South African Medical Research Council (**MRC**) in the call of South African Medical Research Council for 2013 African Traditional Medicine and Drug Discovery.
- Expert in the **FP7 EU Marie Curie Actions IF** Evaluation Env Panel, 6-11 October 2013, Bruxelles.
- Member of the Advisory Board in the CNR **Technology Transfer Project**: **BIOTTASA**-Department of Biomedicine, CNR, Italy.

2012 **- Expert for Miur** in the "FIRB giovani 2011" call.

Donatella de Pascale has been invited for plenary lectures and Invited talks and seminars in many International and National Congresses and Meetings as follows:

Oct 2019. **Vrnjacka Banja (Serbia). Invited Plenary Lecture** at the **VI Congress of the Serbian Genetic Society 13-17 October 2019.** Plenary Lecture intitled: "Marine Environment as source of new multiactivity pigments and bioactive molecules".

Apr 2017. **Tenerife (Spain). Invited speaker** at the SPRING Session of the European Marine Board, Tenerife 25-26 Aprile, 2017. Invited talk, Dr Donatella de Pascale "Exploitation of marine microorganisms as source of novel drugs"

Feb 2017. **Bruxelles, Invited Speaker** at the General Assembly of the EuroMarine Network: "Exploitation and Legal Aspect in the Marine Genetic and Chemical Resources" Bruxelles 7-8 Feb, 2017.

Nov 2016. **Aberdeen. Invited Speaker at** the 35th European Culture Collections' Organisation Meeting, "The Biodiscovery Pipeline: An integrated omics approach for the discovery of novel bioactive compounds". 2- 4 Nov 2016, Aberdeen, UK.

Jun 2016. **Berlin. Invited Speaker** at the Macumba final Conference at the Panel Discussion: The ocean - a treasure chest for future applications? Macumba: Marine Microbioma, Discovery and Innovation, Berlin 27-30 Jun, 2016.

Sept 2015. **Glasgow. Invited Speaker** at 9th European Congress of Marine Natural Product, "Antimicrobial compounds from Antarctic Bacteria". ECNMP, Glasgow 31 Aug-4 Sept, 2015 Glasgow, UK

Nov 2012. **Cork. Invited Speaker at** FEMS meeting: Marine Microbiology and Biotechnology: Biodiscovery, Biodiversity and Bioremediation, "Exploring Arctic and Antarctic Frontiers: a source of novel powerful biocatalysts." 12-14 Nov 2012, Cork, Ireland.

May 2016. **Milano. H2020- RISE-MSCA Project:** "Metabolites from Antarctic organisms" Dr. Donatella de Pascale. Milan 22 May, 2016 **-** University of Milano-Bicocca. Hosted by Prof. Marina Lotti

Jan 2012. **University of Bergen, Norway:** Bioprospecting for enzymes and drugs discovery from Antarctic and Arctic sub-sea sediments. 24 Jan 2012 University of Bergen, hosted by Prof. Ida Stein.

Jan 2012. **University of Tromsoe, Norway:** Bioprospecting for enzymes and drugs discovery from Antarctic and Arctic sub-sea sediments. 28 Jan 2012 University of Tromsoe, hosted by Prof. Niels Peter Willassen.

Jun 2011. **Institute of Microbiology, Chinese Academy of Science,** Beijing, China: "Microorganisms from Polar Environments: Bioprospecting out of Biodiversity". 8 June, 2011, hosted by Prof. Yan Mah.

Donatella de Pascale has spent several periods abroad as Visiting Scientist, and she has participated in some field expeditions and Sampling Campaign as listed below:

2017. **Cape Town (South Africa). Invited Science Visit** at the University of Western Cape and from the South Africa Academia, Prof. Marla Trindade. September 2017.

2011. **Beijing (China). Visiting scientist** in the laboratory of Prof. Yanfen Xue, at the Institute of Microbiology, Chinese Academy of Science, **Beijing, China**. June 2011.

2010. **Tromso (Norway). Visiting scientist** in the laboratory of Prof. Bjarne Landfald at the Norwegian College of Fishery Science, University of Tromsø, **Tromsø, Norway,** May 2010

2004. **Participant** at XIX **PNRA 2004** Antarctic Expedition**,** Italian scientific expeditions of PNRA at Terra Nova Bay, Ross Sea, Antarctica. Participant at the "Victoria Land Transect Cruise" on board the R/V Italica, January-March 2004.

2003. **Participant** in the TUNU-II International Programme Expedition in Arctic, on board of R/V Jan Majen in collaboration with the Norwegian College of Fishery Science, University of Tromsø, **Tromsø, Norway**, September-October 2003.

2002. **Participant** in the TUNU-I International Programme expedition in Arctic, on board of R/V Jan Majen in collaboration with the Norwegian College of Fishery Science, University of Tromsø, **Tromsø, Norway,** September-October 2002.

1997. **Stockholm (Sweden). Visiting scientist** in the laboratory of Prof. R. Ladenstein at the Karolinska Institutet of **Stockholm, Sweden**, November 1997

Donatella de Pascale has long-lasting experience in tutoring and mentoring of Master Students and PhD students as listed below:

Master Students in Biological Science, Industrial Biotechnology, Biotechnology of Pharmaceutical Science

1. Luca Meoli- Anno accademico 2002-2003 Relatore Prof. Francesco Aniello **Correlatore Dr Donatella de Pascale**

2. Raffaella Ruggiero – Anno Accademico 2005-2006 Relatore Prof. Francesco Aniello **Correlatore Dr Donatella de Pascale**

3. Marco Visone - Anno Accademico 2012-2013 Relatore Prof. Ezio Ricca **Correlatore Dr Donatella de Pascale**

4. Federica Galati – Anno Accademico 2013-2014 Relatore Prof. Eliodoro Pizzo **Correlatore Dr Donatella de Pascale**

5. Alessia Di Scala – Anno Accademico 2013-2014 Relatore Prof. Paola Costanzo **Correlatore Dr Donatella de Pascale**

6. Emiliana Tortorella – Anno Accademico 2014-2015 Relatore Prof. Ezio Ricca **Correlatore Dr Donatella de Pascale**

7. Rosalinda Abatemarco – Anno Accademico 2014-2015 Relatore Prof. Raffaella Pero **Correlatore Dr Donatella de Pascale**

8. Antonio Mondini – Anno Accademico 2014-2015 Relatore Prof. Maria De Falco **Correlatore Dr Donatella de Pascale**

9. Antonio Masino – Anno Accademico 2015-2016 Relatore Prof. Eliodoro Pizzo **Correlatore Dr Donatella de Pascale**

10. Angela Falco – Anno Accademico 2015-2016 Relatore Prof. Eliodoro Pizzo **Correlatore Dr Donatella de Pascale**

11. Maurizio Capuozzo Tesi Triennale – Anno Accademico 2015 – 2016 Relatore Prof. Marco Guida **Correlatore Dr Donatella de Pascale**

12. Marianeve Vertolomo – Anno accademico 2016-2017 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

13. Marianna Aurilio - Anno accademico 2016-2017 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

14. Giovanna Santaniello - Anno accademico 2016-2017 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

15.Valentina Salvati - Anno accademico 2016-2017 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

16. Carmine Buonocore **-** Anno accademico 2017-2018 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

17. Marilena Pacelli **-** Anno accademico 2017-2018 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

18. Elisa Perrella **-** Anno accademico 2017-2018 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

19. Lisa Ambrosino– Anno accademico 2018-2019 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

20. Rosa Giuliano - Anno accademico 2018-2019 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

21. Salvatore Stavola- Anno accademico 2018-2019 Relatore: Prof Vincenzo delli Bovi **Correlatore Dr Donatella de Pascale**

22. Vincenzo Cioffi - Anno accademico 2018-2019 Relatore: Prof Veronica Esposito **Correlatore Dr Donatella de Pascale**

23. Pietro Riccio - Anno accademico 2018-2019 Relatore: Prof Marco Guida **Correlatore Dr Donatella de Pascale**

24. Marianna Giaccio - Anno accademico 2018-2019 Relatore: Prof Mario Varcamonti **Correlatore Dr Donatella de Pascale**

25. Maria Teresa Svato Anno accademico 2018-19 Relatore: Prof Marco Guida **Correlatore Dr Donatella de Pascale**

26. Francesco Casolaro Anno Accademico 2018-19 Relatore: Prof. Gennaro Piccialli **Correlatore Dr Donatella de Pascale**

27 Fabio De Panicis Anno accademico 2018-19

Relatore: Prof Marco Guida
Correlatore Dr Donatella de Pascale

PhD students

1. Dr. Concetta De Santi - PhD in Industrial Biotechnology, Università "Federico II" di Napoli **Ciclo XXVI**. PhD Thesis defense: Metagenomics of Polar Marine Sediments: Study of Microbial Biodiversity and Isolation of New Biocatalysts for Use in Industrial Processes**.**

2. Dr. Pietro Tedesco PhD in Industrial Biotechnology, Università "Federico II" di Napoli **Ciclo XXVIII**. PhD Thesis defense: Drug Discovery for new therapeutic targets: Strategies to counteract human pathogens using *Caenorhabtidis elegans* and cold-adapted bacteria.

3. Dr. Fortunato Palma Esposito - PhD in Industrial Biotechnology, Università "Federico II" di Napoli **Ciclo XXX**. PhD Thesis defense: Exploiting marine biodiversity: the potential of uncultivable microorganisms for the identification of novel antimicrobial compounds*.*

4. Dr. Emiliana Tortorella - PhD in Industrial Biotechnology, Università "Federico II" di Napoli **Ciclo XXXII**. PhD Thesis: Marine Organisms as source of new anti-cancer drugs.

5. Dr Grant Garren January – **H2020 -MSCA – ITN-ETN MarPipe** PhD student, PhD at University Luigi Vanvitelli **Ciclo XXXII**. PhD Thesis: Exploitation of new strains from drug discovery from deep sea sediments

6. Dr Giovanni Andrea Vitale – PhD in Biomolecular Science, University Luigi Vanvitelli, Caserta, **Ciclo XXXIII**. PhD Thesis: Extreme environments as a source of new potential drugs

7. Dr Janhardan Ausuri – PhD in Biomolecular Science, University Luigi Vanvitelli, Caserta, **Ciclo XXXIV**. PhD Thesis: Isolation and Characterization of poly aromatic hydrocarbons (PAH's) degrading microorganisms

8. Dr Carmine Buonocore - PhD in Biomolecular Science, University Luigi Vanvitelli, Caserta, **Ciclo XXXV**. PhD Thesis: Biosurfactants from microbial strains: application in Biotechnology

Honours and Awards

2017. **Euromarine consortium.** Dr Donatella de Pascale has been elected in the Steering Committee of the EuroMarine Consortium.

2017 INABIO- Instituto Nacional de Biodiversidad Quito, Equador. Recognition as Permanent Research Associate

2019. Euromarine consortium. Dr Donatella de Pascale has been nominated as representative in Euromarine for Stazione Zoologica Anton Dohrn in the Steering Committee of the EuroMarine Consortium.

Activity as Reviewer

Donatella de Pascale is Associated Editor of Frontiers in Marine Science; she is also member of the Editorial Board of Marine Drugs (MPDI).

Donatella de Pascale is reviewer for the following peer reviewed journal: Plos One, BMC microbiology, Journal of Molecular Catalysis: B Enzymatic, Marine Drugs, BMC Biotechnology, Extremophiles, International Journal of Molecular Sciences, Scientific Report, Journal of Biotechnology, FEMS Microbiology Ecology, Vaccines, Applied Microbiology and Biotechnology, Biocatalysis and Biotransformation

Meeting Organization

2016. EuroMarine foresight meeting: Exploitation and Legal Aspects in the Marine Genetic and Chemical Resources. April 4-5, 2016. The meeting was funded by EuroMarine Network after winning the "EuroMarine call for proposal, 2015".

2019. Genomics for a blue economic meeting. Bilateral meeting South Africa-Italy, 11-12 December 2019, SZN, Naples, Italy.

Research Interest

The research activity of Dr. Donatella de Pascale is mainly focused on the exploration of extreme marine environments such as the Antarctic, the Arctic and the terrestrial habitat like Tibetan glaciers, in order to isolate and characterize new strains of bacteria and fungi hyper-producers of bioactive compounds such as antimicrobials and anti-biofilm and anti-cancer.

A classic biodiscovery pipeline has been implemented for the identification of new bioactive compounds, starting from the collection of sediments from extreme marine environments and the isolation of bacteria and fungi adapted to the cold, up to purification and their structural elucidation. Among the selected targets, the aim is to discover new antimicrobials aimed at multi-resistant human pathogens.

New anthelmintic compounds are also selected using *Caenorhabditis elegans* as a model system, and tests are available for anti-biofilm and anti-cancer activity. The research activity is also aimed at the biochemical characterization of small antimicrobial peptides and at the development of new methods for the isolation of microorganisms in order to improve the isolation of bacteria belonging to the so-called "non-cultivable fraction of microorganisms".

The exploration of bacteria for biotechnological purposes is also aimed at the discovery of new biocatalysts, in fact the antifreeze proteins and the hydrolases, which have a high potential for biotechnological applications are widely investigated. These enzymes are isolated using both the genomic and functional metagenomics approaches, using plate-based screening.

Donatella de Pascale has published 66 peer reviewed papers on International ISI journals, and 6 peer reviewed papers on International journals without Impact Factor. Her h-Index is 27 (Google Scholar), i-10 index is 52. She has reached 1780 citation in total.

1) Coppola D, Lauritano C, Palma Esposito F, Riccio G**,** Rizzo C, **de Pascale D.** Fish Waste: from problem to valuable resource. (2021) Marine Drugs (Basel), in press

2) Vitale GA, Coppola D, Palma Esposito F, Buonocore C, Ausuri J, Tortorella E and **de Pascale D.** Antioxidant molecules from marine fungi: methodologies and perspectives. Antioxidants (Basel). 2020 Nov 26;9(12):1183. doi: 10.3390/antiox9121183.

3) Riccio G, Ruocco N, Mutalipassi M, Costantini M, Zupo V, Coppola D, **de Pascale D**, Lauritano C. Ten-Year Research Update Review: Antiviral Activities from Marine Organisms. Biomolecules. 2020 Jul 7;10(7):1007. doi: 10.3390/biom10071007

4) Coppola D, Oliviero M, Vitale GA, Lauritano C, D'Ambra I, Iannace S, **de Pascale D.** Marine Collagen from Alternative and Sustainable Sources: Extraction, Processing and Applications. Mar Drugs. 2020 Apr 15;18(4):214. doi: 10.3390/md18040214.

5) Sorrentino I, Gargano M, Ricciardelli A, Parrilli E, Buonocore C, **de Pascale D**, Giardina P, Piscitelli A. Development of anti-bacterial surfaces using a hydrophobin chimeric protein. Int J Biol Macromol. 2020 Aug 5:S0141-8130(20)34060-5. doi: 10.1016/j.ijbiomac.2020.07.301.

6) Buonocore C, Tedesco P, Vitale GA, Esposito FP, Giugliano R, Monti MC, D'Auria MV, **de Pascale D**. Characterization of a New Mixture of Mono-Rhamnolipids Produced by Pseudomonas gessardii Isolated from Edmonson Point (Antarctica). Mar Drugs. 2020 May 20;18(5):269. doi: 10.3390/md18050269.

7) Vitale GA, Sciarretta M, Cassiano C, Buonocore C, Festa C, Mazzella V, Núñez Pons L, D'Auria MV, **de Pascale D.** Molecular Network and Culture Media Variation Reveal a Complex Metabolic Profile in Pantoea cf. eucrina D2 Associated with an Acidified Marine Sponge.
Int J Mol Sci. 2020 Aug 31;21(17):6307. doi: 10.3390/ijms21176307.

8) Y Zou, E Tortorella, J Robbens, M Heyndrickx, J Debode, D de Pascale, K Raes.
Bioactivity Screening of Hydrolysates From Brown Crab Processing Side Streams Fermented by Marine Pseudoalteromonas Strains
Waste and Biomass Valorization (2020) https://doi.org/10.1007/s12649-020-01195-y

9) Vitale GA, Sciarretta M, Palma Esposito F, January GG, Giaccio M, Bunk B, Spröer C, Bajerski F, Power D, Festa C, Monti MC, D'Auria MV, **de Pascale D**. Genomics-metabolomics profiling disclosed marine *Vibrio spartinae* 3.6 as producer of prodigiosin derivatives with unprecedented structural features. J Nat Prod. 2020 May 22;83(5):1495-1504. doi: 10.1021/acs.jnatprod.9b01159. Epub 2020 Apr 10

10) Parrilli E, Tedesco P, Fondi M, Tutino ML, Lo Giudice A, **de Pascale D**, Fani R.The art of adapting to extreme environments: The model system Pseudoalteromonas. Phys Life Rev. 2019 Apr 4. pii: S1571-0645(19)30066-1. doi: 10.1016/j.plrev.2019.04.003

11) Tortorella E, Tedesco P, Palma Esposito F, January GG, Fani R, Jaspars M, **de Pascale D**. Antibiotics from Deep-Sea Microorganisms: Current Discoveries and Perspectives. Mar Drugs. 2018 Sep 29;16(10). pii: E355. doi: 10.3390/md16100355. Review**.**

12) Chianese G, Esposito FP, Parrot D, Ingham C, **de Pascale D**, Tasdemir D, Linear Aminolipids with Moderate Antimicrobial Activity from the Antarctic Gram-Negative Bacterium *Aequorivita* sp. Mar Drugs. 2018 May 28;16(6). pii: E187. doi: 10.3390/md16060187**.**

13) Palma Esposito F, Ingham C, Hurtado-Ortiz R, Bizet C, Tasdemir D, **de Pascale D**. Isolation by Miniaturized Culture Chip of an Antarctic bacterium *Aequorivita* sp. with Antimicrobial and Anthelmintic Activity. Biotechnology Reports, in press 2018.

14) Tedesco P, Palma Esposito F, Masino A, Tortorella E, Nicolaus B, Joaquim Van Zyl L, Trindade M, de Pascale D Draft genome sequence of *Exiguobacterium sp*. KRL4, producer of bioactive secondary metabolites. Standards in Genomic Sciences, in press 2018.

15) Corral P, Palma Esposito F, Tedesco P, Falco A, Tortorella E, Tartaglione L, Festa C, D'Auria MC, Gnavi G, Varese MC, **de Pascale D**. Identification of a sorbicillinoid-producing Aspergillus strain with antimicrobial activity against *Staphylococcus aureus*: a new potential poliextremophilic marine fungus from Barents Sea. Marine Biotechnology 2018 Aug;20(4):502-511. doi: 10.1007/s10126-018-9821-9.

16) Sannino F, Sansone C, Galasso C, Kildgaard S, Tedesco P, Fani R, Marino G, **de Pascale D**, Ianora A, Parrilli E, Larsen TO, Romano G, Tutino ML. Pseudoalteromonas haloplanktis TAC125 produces 4-hydroxybenzoic acid that induces pyroptosis in human A459 lung adenocarcinoma cells. Scientific Report 2018 Jan 19;8(1):1190. doi: 10.1038/s41598-018-19536-2.

17) Mocali S, Chiellini C, Fabiani A, Decuzzi S, **de Pascale D**, Parrilli E, Tutino ML, Perrin E, Bosi E, Fondi M, Lo Giudice A, Fani R. Ecology of cold environments: new insights of bacterial metabolic adaptation through an integrated genomic-phenomic approach. Scientific Report 2017 Apr 12;7(1):839. doi: 10.1038/s41598-017-00876-4.

18) Bosi E, Fondi M, Orlandini V, Perrin E, Maida I, **de Pascale D**, Tutino ML, Parrilli E, Lo Giudice A, Filloux A, Fani R. The pangenome of (Antarctic) Pseudoalteromonas bacteria: evolutionary and functional insights. BMC Genomics. 2017 Jan 17;18(1):93. doi: 10.1186/s12864-016-3382-y.

19) Sannino F, Parrilli E, Apuzzo GA, **de Pascale D**, Tedesco P, Maida I, Perrin E, Fondi M, Fani R, Marino G, Tutino ML. Pseudoalteromonas haloplanktis produces methylamine, a volatile compound active against Burkholderia cepacia complex strains. N Biotechnol. 2017 Mar 25; 35:13-18. doi: 10.1016/j.nbt.2016.10.009.

20) 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.

21) Sannino F, Giuliani M, Salvatore U, Apuzzo GA, **de Pascale D**, Fani R, Fondi M, Marino G, Tutino ML, Parrilli E. A novel synthetic medium and expression system for subzero growth and recombinant protein production in Pseudoalteromonas haloplanktis TAC125. Appl Microbiol Biotechnol. 2017 Jan;101(2):725-734. doi: 10.1007/s00253-016-7942-5.

22) Presta L, Inzucchi I, Bosi E, Fondi M, Perrin E, Miceli E, Tutino ML, Lo Giudice A, **de Pascale D** and Fani R. Draft genome sequence of *Flavobacterium* sp. Strain TAB 87 able to inhibit the growth of Cystic Fibrosis bacterial pathogens belonging to the Burkholderia cepacia complex. 2016 Genome Announcements-Prokaryotes, 2016 May 19;4(3). pii: e00410-16. doi:10.1128/genomeA.00410-16.

23) Gnavi G, Palma Esposito F, Festa C, Poli A, Tedesco P, Fani R, Monti MC, **de Pascale D**, D'Auria MV, Varese GC. The antimicrobial potential of algicolous marine fungi for counteracting multidrug resistant bacteria: phylogenetic diversity and chemical profiling. 2016 Research in Microbiology, Jul-Aug;167(6):492-500. doi: 10.1016/j.resmic.2016.04.009.

24) Tedesco P, Maida I, Palma Esposito F, Tortorella E, Subko K, Ezeofor CC, Zhang Y, Tabudravu J, Jaspars M, Fani R and **de Pascale D**. Antimicrobial activity of monoramnholipids produced by bacterial strains isolated from Ross sea (Antarctica). Mar Drugs. 2016 Apr 26;14(5). pii: E83. doi: 10.3390/md14050083.

25) Jaspars M, **de Pascale D**, Andersen HJ, Reyes F, Crawford AD, Ianora A. The marine biodiscovery pipeline and ocean medicines of tomorrow. 2016 Journal of Marine Biological Association of the United Kindom, 96(1), 151-158.

26) De Santi C, Leiros HS, Di Scala A, **de Pascale D**, Altermark B, Willassen NP. Biochemical characterization and structural analysis of a new cold-active and salt-tolerant esterase from the marine bacterium *Thalassospira* sp. Extremophiles. 2016 May; 20(3):323-36. doi: 10.1007/s00792-016-0824-z.

27) De Santi C, Altermark B, Pierechod MM, Ambrosino L, **de Pascale D**, Willassen NP. Characterization of a cold-active and salt tolerant esterase identified by functional screening of Arctic metagenomic libraries. BMC Biochem. 2016 Jan 19;17(1):1. doi: 10.1186/s12858-016-0057.

28) De Santi C, Altermark B, **de Pascale D**, Willassen NP. Bioprospecting around Arctic islands: Marine bacteria as rich source of biocatalysts. J Basic Microbiol. 2015 Dec 11. doi: 10.1002/jobm.201500505.

29) Tedesco P, Visone M, Parrilli E, Tutino ML, Perrin E, Maida I, Fani R, Ballestriero F, Santos R, Pinilla C, Di Schiavi E, Tegos G, **de Pascale D**. Investigating the Role of the Host Multidrug Resistance Associated Protein Transporter Family in Burkholderia cepacia Complex Pathogenicity Using a Caenorhabditis elegans Infection Model. PLoS One. 2015 Nov 20;10(11):e0142883. doi: 10.1371/journal.pone.0142883.

30) De Santi C, Ambrosino L, Tedesco P, Zhai L, Zhou C, Xue Y, Ma Y, **de Pascale D.** Identification and characterization of a novel salt-tolerant esterase from a Tibetan glacier metagenomic library. Biotechnol Prog. 2015 Apr 28. doi: 10.1002/btpr.2096

31) Maida I, Bosi E, Fondi M, Perrin E, Orlandini V, Papaleo MC, Mengoni A, de Pascale D, Tutino ML, Michaud L, Lo Giudice A and Fani R. Antimicrobial activity of *Pseudoalteromonas* strains isolated from the Ross Sea (Antarctica) *vs* Cystic Fibrosis opportunistic pathogens. Hydrobiologia, 2015.

32) F Buonocore, E Randelli, P Trisolino, A Facchiano, **D de Pascale**, G Scapigliati. Molecular characterization and antibacterial activity of a g-type lysozyme from the european sea bass (*Dicentrarchus labrax*). Molecular Immunology, 2014, 62: 10-18.

33) De Santi C, Tedesco P, Ambrosino L, Altermark B, Willassen NP, **de Pascale D.** A New Alkaliphilic Cold-Active Esterase from the Psychrophilic Marine Bacterium *Rhodococcus* sp.: Functional and Structural Studies and Biotechnological Potential. Appl Biochem Biotechnol. 2014 Mar 172(6): 3054-3068.

34) Barone R, De Santi C, Palma Esposito F, Tedesco P, Galati F, Visone M, Di Scala A, **de Pascale D.** Marine metagenomics, a valuable tool for enzymes and bioactive compounds discovery. Frontiers Marine Science, 04 September 2014 | doi: 10.3389/fmars.2014.00038

35) Fondi M, Orlandini V, Perrin E, Maida I, Bosi E, Papaleo MC, Michaud L, Lo Giudice A, **de Pascale D**, Tutino ML, Liò P, Fani R. Draft genomes of three Antarctic *Psychrobacter* strains producing antimicrobial compounds against *Burkholderia cepacia* complex, opportunistic human pathogens. Mar Genomics. 2014 Feb 13:37-38.

36) I Maida, M Fondi, MC Papaleo, E Perrin, V Orlandini, G Emiliani, **D de Pascale,** E Parrilli, ML Tutino, L Michaud, A Lo Giudice, R Romoli, G Bartolucci, R Fani. Phenotypic and genomic characterization of the Antarctic bacterium *Gillisia* sp. CAL575, a producer of antimicrobial compounds. Extremophiles 2014, Jan, 18(1):35-49

37) V. Orlandini, I. Maida, M Fondi, E Perrin, MC Papaleo, E Bosi, **D. de Pascale,** ML Tutino, L Michaud, A Lo Giudice, R Fani. Genomic analysis of three sponge-associated *Arthrobacter* Antarctic strains, inhibiting the growth of *Burkholderia cepacia* complex bacteria by synthesizing volatile organic compounds. Microbiology Research 2014, Jun-Aug 169(7-8) 35-49.

38) G. Yang, C. De Santi, D. de Pascale, S. Pucciarelli, S Pucciarelli, C Miceli Structural/functional characterization of the first eukaryotic cold-adapted patatin-like phospholipase from the psychrophilic Antarctic protozoan *Euplotes focardii*: identification of putative determinants of thermal-adaptation. Biochimie 2013, Sep;95(9):1795-806.

39) R Romoli, MC Papaleo, **D de Pascale**, ML Tutino, L Michaud, A Lo Giudice, R Fani, G Bartolucci**.** GC-MS Volatolomic Approach to Study the Antimicrobial Activity of the Antarctic Bacterium *Pseudoalteromonas* sp.TB41. Metabolomics. 2013 vol. 10, pp. 42-51, ISSN:1573-3882.

40) Papaleo MC, Romoli R, Bartolucci G, Maida I, Perrin E, Fondi M, Orlandini V, Mengoni A, Emiliani G, Tutino ML, Parrilli E, **de Pascale D**, Michaud L, Lo Giudice A, Fani R. Bioactive volatile organic compounds from Antarctic (sponges) bacteria. New Biotechnology 2013 Apr 22. doi:pii: S1871-6784(13)00044-7. 10.1016/j.nbt.2013.03.011.

41) de Pascale D, De Santi C, Fu J, Landfald B. The microbial diversity of Polar environments is a fertile Ground for bioprospecting. Marine Genomics. 2012 Dec; 8:15-22.

42) Fondi M, Orlandini V, Maida I, Perrin E, Papaleo MC, Emiliani G, **de Pascale D**, Parrilli E, Tutino ML, Michaud L, Lo Giudice A, Fani R. Draft Genome Sequence of the Volatile Organic Compound-Producing Antarctic Bacterium Arthrobacter sp. Strain TB23, Able To Inhibit Cystic Fibrosis Pathogens Belonging to the Burkholderia cepacia Complex. Journal Bacteriology 2012 Nov;194(22):6334-5.

43) Buonocore F, Randelli E, Casani D, Picchietti S, Belardinelli MC, **de Pascale D**, De Santi C, Scapigliati G. A piscidin-like antimicrobial peptide from the icefish Chionodraco hamatus (Perciformes: Channichthyidae):

Molecular characterization, localization and bactericidal activity. Fish Shellfish Immunol. 2012 Nov;33(5):1183-91.

44) Fu J, Leiros HK, **de Pascale D**, Johnson KA, Blencke HM, Landfald B. Functional and structural studies of a novel cold-adapted esterase from an Arctic intertidal metagenomic library. Appl Microbiol Biotechnol. 2012 May;97(9):3965-78.

45) De Santi C, Durante L, Del Vecchio P, Parrilli E, Tutino ML and **de Pascale D**. Thermal stabilization of psychrophilic enzymes: a case study of the cold-active Hormone-Sensitive Lipase from Psychrobacter sp. TA144. 2012 Biotechnology Progress, Jul; 28 (4):946-52

46) Ascione G, **de Pascale D**, De Santi C, Pedone C, Dathan NA, Monti SM. Native expression and purification of hormone-sensitive lipase from Psychrobacter sp. TA144 enhances protein stability and activity. Biochem Biophys Res Commun. 2012 420,542-6.

47) Mandrich L, De Santi C, **de Pascale D**, Manco G. Effect of low organic solvents concentration on the stability and catalytic activity of HSL-like carboxylesterases: Analysis from psychrophiles to (hyper)thermophiles. 2012 Journal Molecular Catalysis: B enzymatic.

48) Romoli R, Papaleo MC, **de Pascale D**, Tutino ML, Michaud L, LoGiudice A, Fani R, Bartolucci G. Characterization of the volatile profile of Antarctic bacteria by using solid-phase microextraction-gas chromatography-mass spectrometry. J Mass Spectrom. 2011 46, 1051-9.

49) Mandrich L., and **de Pascale D.** An overview on thermal adaptation of esterases and lipases belonging to the HSL family: new insight on the computational analysis. 2011 Current Chemical Biology 5, 17-28.

50) De Santi C, Tutino ML, Mandrich L, Giuliani M, Parrilli E, Del Vecchio P, **de Pascale D.** The hormone-sensitive lipase from *Psychrobacter* sp. TA144: New insight in the structural/functional characterization. 2010 Biochimie. Aug;92(8):949-57.

51) D. de Pascale, M. Giuliani, C. De Santi, N. Bergamasco, A. Amoresano, A. Carpentieri, E. Parrilli and M.L. Tutino. *Ph*AP protease from *Pseudoalteromonas haloplanktis* TAC125: gene cloning, recombinant production in *E. coli* and enzyme characterization. 2010 Polar Science, 4 285-294.

52) Tutino M.L., Parrilli E., De Santi C., Giuliani M., Marino G., **de Pascale D.** Cold-Adapted Esterases and Lipases: A Biodiversity Still Under-Exploited. 2010 Current Chemical Biology. 4; 74-83.

53) Tutino ML, di Prisco G, Marino G, **de Pascale D.** Cold-adapted esterases and lipases: from fundamentals to application. 2009. Protein Pept Lett. 16(10); 1172-1180.

54) de Pascale D, Cusano A M., Autore F, Parrilli E, di Prisco G, Marino G and Tutino M L. The cold-active Lip1 lipase from the Antarctic bacterium *Pseudoalteromonas haloplanktis* TAC125 is a member of a new bacterial lipolytic enzyme family. 2008 Extremophiles.12(3);311-23.

55) Marino K, Boschetto L, **de Pascale D**, Cocca E. Organisation of the Hb 1 genes of the Antarctic skate *Bathyraja eatonii*: New insights into the evolution of globin genes. 2007 Gene. 406;199-208.

56) Verde C, Balestrieri M, **de Pascale D**, Pagnozzi D, Lecointre G and di Prisco G The oxygen transport system in three species of the boreal fish family Gadidae. Molecular phylogeny of hemoglobin. 2006 J Biol Chem. 281; 22073-22084.

57) Lo Giudice A, Michaud L, **de Pascale D**, De Francesco M, di Prisco G, Fani R, Bruni V. Lipolytic activity of Antarctic marine cold-adapted bacteria (Terra Nova Bay, Ross Sea) 2006 J Appl Microbiol. 101; 1039-1048.

58) Verde C, De Rosa MC, Giordano D, Mosca D, **de Pascale D**, Raiola L, Cocca E, Carratore V, Giardina B and di Prisco G. Structure, function and molecular adaptations of haemoglobins of the polar cartilaginous fish *Bathyraja eatonii* and *Raja hyperborea*. 2005 Biochem J. 389; 297-306.

59) Verde C, Cocca E, **de Pascale D**, Parisi E, di Prisco G. Adaptation and lifestyle in polar marine environments: a biological challenge for the study of fish evolution. 2004 Polar Research. 23; 3-10.

60) de Pascale D, Di Lernia I, Sasso MP, Furia A, De Rosa M, Rossi M. A novel thermophilic chimera for trehalose production. 2002 Extremophiles. 6; 463-468.

61) de Pascale D, Di Lernia I, Sasso MP, Rossi M, De Rosa M. Cloning, high level expression in *E. coli*, and down-stream purification of trehalose forming enzymes from *Sulfolobus solfataricus* strain MT4. 2001 The Journal of Molecular Catalysis B: Enzymatic. 11; 777-786.

62) Ren B, Tibellin G, **de Pascale D**, Rossi M, Bartolucci S, Ladenstein R. A protein disulphide oxidoreductase from the archeon *Pyrococcus furiosus* contains two thioredoxin fold units. 1998 Nature Structural Biology. 5; 602-611.

63) Ren B, Tibellin G, **de Pascale D**, Rossi M, Bartolucci S, Ladenstein R. Crystallization and preliminary X-Ray structure analysis of a hyperthermostable thioltransferase from the archaeon *Pyrococcus furiosus*. 1997 Journal of Structural Biology. 119; 1-5.

64) Bartolucci S, Guagliardi A, Pedone E, **de Pascale D**, Cannio R, Camardella L, Rossi M, Nicastro G, de Chiara C, Facci P, Mascetti G, Nicolini C. Thioredoxin from *Bacillus acidocaldarius*: characterization, high-level expression in *E. coli* and molecular modelling. 1997 Biochem J. 328; 277-285.

65) Guagliardi A, **de Pascale D**, Cannio R, Nobile V, Rossi M, Bartolucci S. The purification, cloning, and high-level expression of a glutaredoxin-like protein from the hyperthermophilic archaeon *Pyrococcus furiosus.* 1995 J BIOL CHEM. 270; 470-478.

66) Cannio R, **de Pascale D**, Rossi M, Bartolucci S. Gene expression of a thermostable ß-galactosidase in mammalian cells and its application in assays of eukaryotic promoter activity. 1994 Biotechnology and Applied Biochemistry 19; 233-244.

Donatella de Pascale has published 6 papers on journal without IF

1) Tedesco P, Di Schiavi E, Esposito FP, **de Pascale D**. Evaluation of *Burkholderia cepacia* Complex Bacteria Pathogenicity Using *Caenorhabditis elegans*. Bio Protocols. 2016 Oct 20;6(20). pii: e1964. doi: 10.21769/BioProtoc.

2) Tedesco P, Visone M, Parrilli E, Tutino ML, Perrin E, Maida I, Fani R, Tegos G and **de Pascale D**. 2014 Analysis of virulence factors of *Burkholderia cepacia* complex strains in the *Caenorhabtidis elegans* host model J Biotechnol Biomater 2014, 3:5, 219-220.

3) de Pascale D. Exploiting the cold environments: Psychrophilic bacteria as a promising source of novel bioactive compounds. Journal of Biotechnology and Biomaterials 2014, 3:108-109

4) Mandrich L. and **de Pascale D**. Microbial marine community as source of hydrolytic enzymes. Study on thermal adaptation of esterases and lipases from marine micro-organisms. 2011 on: The marine environment: Ecology, Management and Conservation. Editor Adam Nemeth, Nova Science Publishers**.**

5) Verde C, Parisi E, **de Pascale D**, Riccio A, di Prisco G. The haemoglobin system of the Arctic spotted wolfish *Anarhichas minor.* Comparison of northern and southern polar marine environments. 2003 Proceedings of the SCAR 8Th Backhuys Publishers, Leiden, The Netherlands 187-192.

6) Bartolucci S, **de Pascale D**, Rossi M. The disulphuric oxidoreductase protein from *Pyrococcus furiosus*. 2001 Methods in Enzymology. 334; 62-73.

Tutto quanto dichiarato in questo documento corrisponde a verità, ai sensi delle norme in materia di dichiarazione sostitutive di cui agli artt. 46 e 47 del D.P.R. n. 445/2000.

Napoli, 3rd February 2021 **FIRMA**