



CURRICULUM VITAE
Marilena Vita Di Natale



Institute for Coastal Marine Environment, National Research Council (IAMC-CNR)
Via del Mare 3, 91021, Campobello di Mazara (loc. Torretta Granitola), Trapani, Italy

OCCUPATION FIELD: Molecular Biologist

PLACE AND DAY OF BIRTH: Mazara del Vallo (TP), Italy, 11 of December 1985

GENDER: Female

CITIZENSHIP: Italian

MOBILE: +39 328 0391170

SKYPE: marilenadnt

E-MAIL: marilena.dinatale@gmail.com

EDUCATION AND TRAINING

Training course (from 1/03/2017 to 31/02/2017): Project “*Progetto di Formazione sui sistemi avanzati per il monitoraggio dell'ambiente urbano, extraurbano e marino - MAGINOT*”, PON01_02309 (Rif. CUP Formazione B69G15004290007); training objective 2 - Technical analyst for the environment: technical and professional figure with a high degree of specialization, with specific skills in the design, development and evaluation of systems for control and conservation of the environment.

Certificate of attendance (8-9-10/03/2017): “Thermo Fisher-Dionex ICS5000: Maintenance & Troubleshooting IC Theory and Applications”, supplied by Sales Support Team di Thermo Scientific.

Certificate (6/04/2017): EU DIR.2010/63 and D.L.n.26 04/03/2014 “What’s going to change for lab animals? -Course of protection of animals used for scientific purposes – and certificate: Humane endpoint in lab animal research. Institute of Biomedicine and Molecular Immunology - National Research Council (IBIM-CNR), Palermo (Italy).

Training course (from 29/02/2016 to 16/12/2016): Project “*Progetto di Formazione sui sistemi avanzati per il monitoraggio dell'ambiente urbano, extraurbano e marino - MAGINOT*”, PON01_02309 (Rif. CUP Formazione B84B14000200009); training objective 1 - Expert in Environmental Measurement Systems and Supervision: a highly specialized professional figure with specific skills in the principles and methods to describe and represent environmental matrices, including their physical characteristics, and to develop sampling methods.

Summer School (from 1/06/2015 to 13/06/2015): First Module “DNA & Forensic Summer School in Scienze Forensi”, at Research Center and Directional Studies (CERISDI), Castello Utveggi, Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF) - University of Palermo.

Training course (from 13/10/2014 to 12/07/2015): “Tecnologie e processi per il miglioramento della shelf-life dei prodotti del comparto agroalimentare attraverso l'uso di film edibili innovativi a base di pectine”, (“PON FILM EDIBILI”, Cod. PON01_02286) – CUP: B88F11000670005, training objective 2 – Shelf-life specialist in agro-food products

Certificate of attendance (18/12/2014): “Managing and analyzing biodiversity data with ModestR and R wizard”, Institute for Coastal Marine Environment, National Research Council (IAMC-CNR).

Enrollment for the exercise of the profession of biologist (5/03/2014) - Section A; University of Palermo (Italy)

MSc (25/03/2013) in Cellular and Molecular Biology, 110/110 (*magna cum laude*), University of Palermo (Italy), Department of Biological, Chemical and Pharmaceutical Science and Technology (STEB-ICEF). Experimental thesis in: “Validation study for complex DNA profiling”.

BSc (20/10/2009) in Biological Sciences, 98/110, University of Palermo (Italy), Department of Biological, Chemical and Pharmaceutical Science and Technology (STEB-ICEF), curricula Biosafety. Experimental thesis in: “*Molecular screening for Toxoplasma Gondii in wild animals*”.

RESEARCH ACTIVITIES

Design, management and development of research in the field of molecular biology, genomics, gene expression patterns, marine biotechnology and molecular ecology.

Molecular biology, molecular genomics, biotechnology, computational and comparative genomics, homology modelling, marine

molecular ecology, molecular evolution, molecular ecotoxicology, DNA barcoding.

Treatment and preparation of the sample for micro pollutants analysis in different matrices (water, sediment, biota); AVS-SEM - Simultaneously Extracted Metals- and Hexavalent Chromium determination.

Microbiological Research and Diagnostics: Culture Isolation, Gram Coloring, Catalase and Oxidase assay, Multi-test Biochemical Identification.

RNA and DNA extraction from tissues, PCR amplification, Real Time PCR, comparison of sequences obtained through DNA barcoding databases (main PubMed database in NCBI and the European PMC database in EBI), nucleotide and amino acid composition analysis, intraspecific and interspecific variability analysis, cluster reconstruction and processing, phylogenetic tree building using dedicated software (Mega 7, Chromas 2.6, Clustal W).

Extraction and analysis of low copy number DNA from biological material of different nature by phenol chloroform or resin Chelex method, analysis of the main STR polymorphisms used in forensic genetics, DNA typing by electrophoresis on gel of polyacrylamide and nitrate silver coloring, analysis and interpretation of mixed or complex allelic profiles.

PUBLISHED TECHNICAL REPORTS

- 1) **M.V. Di Natale**, C. Bennici, G. Biondo, C. Monastero, T. Masullo, A. Nicosia, C. Patti, M. Tagliavia, A. Cuttitta. (2017) Procedures for high quality RNA extraction from *Paracentrotus lividus* (LAMARCK, 1816) embryos and gonadal tissue.
- 2) C. Bennici, A. Nicosia, G. Biondo, **M.V. Di Natale**, T. Masullo, C. Monastero, G.M. Armeri, M. Tagliavia, A. Cuttitta. (2017) Technical procedures for stimulation with organic and inorganic pollutants, in a controlled environment, of model organism *Mytilus galloprovincialis* (Lamarck 1819).
- 3) Marco Fasola, Stefania Russo, Aldo Nicosia, Girolama Biondo, Marcello Tagliavia, Gabriele Gallì, Carlo Patti, Isa Maneiro, **Marilena Di Natale**, Nicola Giaramita, Carmelo Bennici, Marco Torri, Angela Cuttitta. – (2017) Ideazione, progettazione e costruzione di un packaging per il kit “FishProfiler DNA Kit”
- 4) Monastero C., Armeri G.M., Biondo G., Bennici C., **Di Natale M.V.**, Nicosia A., Maggio A., Maneiro I., Masullo T., Mazzola A., Orecchio S., Patti B., Tagliavia M., Torri M., Mazzola S. and Cuttitta A. – (2017) Analytical method and characterization of bioactive fatty acids from biological matrices: property and recent trend.
- 5) Carmelo Bennici , Girolama Biondo , Marco Torria , M. L. Carelli , **Marilena Di Natale** , Calogera Monastero , Isabel Maneiro , Grazia Maria Armeri , Tiziana Masulloa, Carlo Patti , Aldo Nicosia , Marcello Tagliavia , Marianna Musco , Nunzio Gabriele Gallì , Salvatore Mazzola , A. Cuttitta. (2016) Nuove specie per l'acquacoltura: tecniche di produzione di novellame di *Sardina pilchardus*.
- 6) Savoca D., Bennici C., Arculeo M. Salamone M., Masullo T., Biondo G., **Di Natale M.V.**, Mazzola S., Cuttitta A. – (2016) Tecniche di campionamento di sostanze bioattive da aculei di *Scorpaena porcus*.
- 7) Biondo G., Nicosia A., Tagliavia M., Armeri G.M., Bennici C. D., Maneiro I., Torri M., Masullo T., Monastero C., **Di Natale M.V.**, Mangiaracina F., Arculeo M., Mazzola S. and Cuttitta A – (2016) Development of a simple and fast “DNA extraction kit” for sea food identification and marine species.
- 8) Biondo G., Armeri G.M., Bennici C. D., Nicosia A., Tagliavia M., Maneiro I., Torri M., Masullo T., Monastero L., **Di Natale M.V.**, Mangiaracina F., Giaramita N., Maggio T., Lo Brutto S., ArculeoM., Mazzola S.C and Cuttitta A. - (2016) DNA Barcoding as a tool for Zoological Taxonomy: Identification of bonyfish in the Mediterranean Sea.
- 9) C. Patti, A. Cuttitta, M. Musco, A. Nicosia, G. Giacalone, I. Fontana, G. Gallì, A. Di Maria, P. Calandrino, M. Tagliavia, L. Giaramita, M. Torria, E. M. Quinci, F. Filiciotto, G. Biondo, R. Larosa, C. Bennici, V. Calandrino, V. Di Maria, E. Macaluso, M. V. Cani, E. Cusimano, I. Maneiro, G. M. Armeri, F. Alfano, R. Bakiu, W. Aly, M. Hassan, M. Dyurovic, V. Corrias, S. Napoli, **M. Di Natale**, G. Uzzo, A. Cucina, M. Li Greci, S. Mazzola, B. Patti – (2015) Rapporto finale della campagna oceanografica “BANSIC 2014”
- 10) Masullo T., Bennici C., Salamone M., Tagliavia M., D’Agostino F., Nicosia A., Cuttitta A., Monastero C., **Di Natale M.**, Ranalli M., Mirabello D., Stincone P., Abbate L., Motisi A., La Bella F., Fontana E., Carra A., Mercati F., Stampone G., Di Pierro M., Ciancimino C., Di Noto A.M., Oliveri G., Alio V., Carimi F., Mazzola S. – (2015) Protocolli di pretrattamento sul prodotto agroalimentare fresco o minimamente processato e individuazione del processo ottimale.
- 11) C. Bennici, A. Cuttitta, A. Nicosia, M. Musco, M. Torri, G. Biondo, C. Patti, **M.V. Di Natale**, B. De Luca, A. Di Maria, S. Mazzola. – (2014) *Procambarus Clarkii* (Girard 1852): Rapporto tecnico scientifico sulla riproduzione in ambiente controllato e acquisizione dei dati biometrici.