

## PERSONAL INFORMATION

Simona Manuguerra

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## ACTUAL POSITION

Grant holder in the project: "**Centro Internazionale di Studi Avanzati su Ambiente, ecosistema e Salute umana - Cisas**" Work Package 5 "**Molecular Epidemiology**" -Task 5.4 - **Biomolecular markers related to exposure in vitro**. Research activity on effect of antioxidants and xenobiotics on the modulation of markers involved in the metabolism, for the definition of sensors from environmental exposure.

*Dept DiSTeM- University of Palermo (Italy). Laboratory of Marine Biochemistry and Ecotoxicology c/o Marine-Biology Institute*

## WORK EXPERIENCE

From 1 March 2017 to 17 September 2017

Voluntary participation at the research activity of the laboratory

Research activity on cell cultures and molecular stress markers with enzymatic tests, immunoblotting and gene expression analysis by RT-PCR.

Evaluation of the effect of antioxidants and xenobiotics through the study of markers involved in the metabolism, in marine organisms, exposed to environmental stress conditions.

Evaluation of oxidative stress markers (ROS-MDA) by spectrofluorimetry.

*Dept DiSTeM- University of Palermo (Italy). Laboratory of Marine Biochemistry and Ecotoxicology c/o Marine-Biology Institute*

From 31 May 2016 to 31 January 2017

Grant holder in the project **Recupero e valorizzazione degli scarti di lavorazione del gambero rosa (*Parapenaeus Lonjrostris*) nella Marineria di Portopalo di C.P. (SR): estrazione, isolamento, qualificazione di composti bioattivi e valutazione delle proprietà bioattive**).

Maintenance of fish cell cultures and evaluation of the effects of antioxidants in cell cultures through dosage of stress markers. Extraction and evaluation of bioactive compounds in *Parapenaeus Lonjrostris* with HPLC and evaluation of bioactive properties. Preparation of protein hydrolysates with enzymatic and ultrafiltration techniques.

*Marine-Biology Institute - Consorzio Universitario della Provincia di Trapani*

From October 2015 to December 2015

Grant holder in the project: "**Innovazione tecnologica e sviluppo sostenibile nel settore della trasformazione dei prodotti ittici del Litorale Trapanese**"

Characterization of toxicity markers on marine organisms through the evaluation of the degradation of the nitrogenous component and the evaluation of primary and secondary products of lipid degradation; extraction, isolation, identification of bioactive compounds and evaluation of in vitro properties; gene expression analysis by RT-PCR.

*Marine-Biology Institute - Consorzio Universitario della Provincia di Trapani*

From 25 July 2014 to 31 December 2015

Grant holder in the project: "**SecurAqua – Sécurité et qualité des produits aquacoles: le développement d'une voie commune tuniso - sicilienne**". **Programma di cooperazione transfrontaliera (IEVP) Italia-Tunisia 2007-2013**

Study on the effect of farmed systems on well-being, metabolism and also on the quality of fish products. Evaluation of the lipid component: lipidic classes and fatty acids. Evaluation of the nitrogen component: protein dosage, SDS-PAGE electrophoresis, immunoblotting..

*Marine-Biology Institute - Consorzio Universitario della Provincia di Trapani*

## EDUCATION AND TRAINING

July 2011

Qualified as a biologist

University of Palermo, (Italy)

April 2011

Master Degree in Biology and Biomedical Applications

Master thesis: Activation of arginosis from PKC in human enhancer: transduction mechanisms

University of Parma

December 2007

Bachelor Degree in Marine Biology

Thesis title: alternative methods - animal experiment in marine biology

University of Palermo

#### ADDITIONAL INFORMATION

##### Publications

- Messina C., Bono G., Arena R., Randazzo M., **Manuguerra S.** and Santulli A., 2016. Polyphenols from halophytes and modified atmosphere packaging improve sensorial and biochemical markers of quality of common dolphinfish (*Coryphaena hippurus*) filets. Food Science and Nutrition: 1-10 DOI: 10.1002/fsn3.337.
- Morghese M., **Manuguerra S.**, Randazzo M., Arena R., Gharbi S., Sadok S., La Barbera L., Messina C.M., Santulli A., 2016. Indicateurs Biochiques-nutritionnels pour la distinction de l'origine et de la methode de production des poissons d'elevage. Procceedeing de Association tunisienne des Sciences Biologiques. 27ème Forum International, 28-31 Mars 2016-Hammamet-Tunisie: 254.
- Renda G. Randazzo M., Pizzo F., Laudicella V.A., **Manuguerra S.**, Arena R., Messina C.M., Santulli A. 2016. Technique d'extraction verte et a faible cout de composes bioactifs issus de dechets de crevette. Procceedeing de Association tunisienne des Sciences Biologiques. 27ème Forum International, 28-31 Mars 2016-Hammamet-Tunisie: 256.
- **Manuguerra S.**, Morghese M., Arena R., Renda G., Laudicella A., Sadok S., La Barbera L., Messina C. M. Santulli A. 2016. Effet du stress d'abattage sur la qualité de de loup de mer (*Dicentrarchus labrax*) eleve. Procceedeing de Association tunisienne des Sciences Biologiques. 27ème Forum International, 28-31 Mars 2016-Hammamet-Tunisie: 252.
- Messina C.M., Pizzo F., **Manuguerra S.**, Péricot Y., Randazzo M., La Barbera L., Santulli A. 2016. Utilisation de composes bioactif d'origine marine pour des application cosmetiques. Procceedeing de association tunisienne des Sciences Biologiques. 27ème Forum International, 28-31 Mars 2016-Hammamet-Tunisie: 253.
- Messina C, **Manuguerra S.**, Morghese M., Arena R., Gharbi S., Fortino G., La Barbera L., Sadok S., And Santulli A. 2016. Production d'hamburger de filet de dorade (*sparus aurata*) d'elevage: caracterisation nutritionnelle et sensorielle au cours du shelf-life. Bull. Inst. Natn. Scien. Tech. Mer de Salammbô, Vol. 43, (Numéro Spécial). ISSN 0330-0080.
- Messina C., Randazzo M., **Manuguerra S.**, Morghese M., Renda G., Arena R., Gharbi S., La Barbera L., Fortino G., Sadok S., Santulli A. 2016. Diversification de la production de l'aquaculture sicilienne a travers la production de filets de maigre (*argyrosmus regius*) fumes: de la caracterisation nutritionnelle au consumer test. Bull. Inst. Natn. Scien. Tech. Mer de Salammbô, Vol. 43, 2016 (Numéro Spécia). ISSN 0330-0080.
- **Manuguerra S.**, Morghese M., Randazzo M., Arena R. , Gharbi S., Renda G., Laudicella A., Pizzo F., La Barbera L., Messina C. M. 2016. Indicateurs biochimiques pour la révélation du stress induit par différentes méthodes d'abattage, et des effets sur la qualité du produit de loup de mer (*Dicentrarchus labrax*). Qualité des produits aquacoles: les cas d' études, pp. 16-33. ISBN: 9788890790225.
- **Manuguerra S.**, Morghese M., Randazzo M., Arena R., Gharbi S., Renda G., Laudicella A., Pizzo F., La Barbera L. et Messina C. M et Santulli A. 2016. Indicateurs biochimiques pour l'évaluation de la qualité du loup de mer (*Dicentrarchus labrax*) et de la daurade (*Sparus aurata*), sauvages et élevés en intensif. Qualité des produits aquacoles: les cas d' études, pp. 41-56. ISBN: 9788890790225.
- Randazzo M., Morghese M., Renda G., **Manuguerra S.**, Gharbi S., Laudicella A., Arena R., Pizzo F, La Barbera L. et Santulli A. 2016. L'aquaculture en Sicile – 2013. Qualité des produits aquacoles: les cas d' études, pp. 69-94. ISBN: 9788890790225.
- Pizzo F., **Manuguerra S.**, Randazzo M., Arena R. , Messina C. M. and Santulli A. 2015. Fish oils influence adipogenesis in preadipocytes of European sea bass (*Dicentrarchus labrax*), in relation to the incidence of omega-3 fatty acids. In Biologia e Salute umana Ricerca pura e traslazione: 124-126. ISBN 978-88-7544-323-8.
- Messina C, Catalano G, **Manuguerra S.**, Vento R, & Santulli A. 2005. Evaluation of biomolecular pattern in fish cell line exposed to chemical compounds. Paper presented at "Incontro Scientifico della Società Italiana di Immunobiologia Comparata e dello Sviluppo. October 2017- 90th Congress Of The Italian Society Of Biology Experimental

Communications to congress