EUROPEAN CURRICULUM VITAE FORMAT

PERSONAL INFORMATION

Name	**ANTONELLA LEONE** **Senior Researcher**
Work Address	**CONSIGLIO NAZIONALE DELLE RICERCHE** ISTITUTO DI SCIENZE DELLE PRODUZIONI ALIMENTARI (CNR-ISPA), Campus ECOTEKNE, Via Prov.le Lecce-Monteroni, 73100 –Lecce, Italy
Telephone	+39 0832 422615; Mobile: (+39) 347 7789208;
E-mail	**antonella.leone@cnr.it; antonella.leone@ispa.cnr.it;**
Date of Birth	[redacted]
Nationality	Italian
SCOPUS links	Scopus Author ID: 55367241300; https://www.scopus.com/authid/detail.uri?authorId=55367241300
Other link /Website	ORCID ID: orcid.org/0000-0002-5610-4031 / Website: http://www.cnr.it/people/antonella.leone

WORK EXPERIENCE

January 2021 – Today	- **Senior Researcher** at Consiglio Nazionale delle Ricerche (CNR), Istituto di Scienze delle Produzioni Alimentari, Unit of Lecce (CNR-ISPA, Lecce) http://www.ispacnr.it/en/
From 3/03/2011- Today	- Member of CoNISMa (Consorzio Nazionale Interuniversitario per le Scienze del Mare, http://www.conisma.it/)
December 2001 - December 2020	- Permanent position as **Researcher** at Consiglio Nazionale delle Ricerche (CNR), Istituto di Scienze delle Produzioni Alimentari,CNR-ISPA, Lecce, Italy
12/01/2000 – 13/12/2001	- **Temporary researcher** at CNR-Istituto di Ricerca sulle Biotecnologie Agroalimentari, CNR-IRBA of Lecce, Italy.
1999	**- Temporary Researcher** at CNR- Istituto di Nematologia Agraria, Bari, on EU Project "Ultrastructural study of the hairy roots containing the NR constructs after nematode infection "FAIR CT96 1714
3/02/1997 - 22/05/1998	- **Temporary Researcher** at CNR- Istituto di Nematologia Agraria, Bari, on EU Project - CNR/CE BIO 40318 – Biotechnology: "Basis and Development of Molecular Approaches to Nematode Resistance".
1997-2008	Researcher as collaboration with the Occupational Medicine Section of the University of Foggia and Policlinic of Bari, for a study on the effect of professional carcinogens on intercellular communication mediated by gap junctions (GJIC) in human keratinocytes.

EDUCATION AND TRAINING

2022	COURSE 4 - Risk Assessment in Nutrition - Organisation and implementation of training activities on principles and methods of risk assessment in the food chain – Chafea/2018/BTSF/05 - under the "Better Training for safer Food" Initiative of European Commission.
2003	4th International Advanced Course on "Chemistry and Biochemistry of Antioxidants" graduate school VLAG, Wageningen, The Netherlands. - Training course at Department of Experimental Botany, Radboud University Nijmegen, (The Netherlands), by means of CNR educational grant.
1991-1994	- **PhD in "Agricultural Genetics"** at University of Tuscia, Viterbo, Italy
1986-1990	**- Graduated cum Laude in Biological Sciences** at University of Salento 17/12/1990, Lecce, Italy
MOTHER TONGUE	**ITALIAN**
OTHER LANGUAGES	**ENGLISH**

PERSONAL SKILLS AND COMPETENCES

SCIENTIFIC SKILLS AND COMPETENCES

Living and working with other people, in multicultural environments, in positions where communication is

RESEARCH INTERESTS

Keywords: jellyfish; marine collagen; nutraceuticals; novel foods; natural bioactive compounds; bioresources; innovative food/feeds,

Use of marine neglected biomasses as source of novel foods (e.g., jellyfish). Study of biological activities (antioxidant, anti-cancer, anti-inflammatory) of natural compounds extracted from marine invertebrates,

important and situations where teamwork is essential (for example culture and sports), etc

microalgae and plants (including by-products of agroindustries). Study of action mechanisms underlying the bioactivity of natural compounds acting as nutraceuticals, pharmaceuticals or/and cosmeceuticals.

- Currently responsible for the EU H2020 project "GoJelly - A gelatinous solution to plastic pollution" Grant n. 779944 (2018-2021), aimed at the development of new food processes/products based on the food use of jellyfish (novel food) and at the bioprospection of the jellyfish biomass for the extraction of bioactive compounds for nutraceutical, cosmeceutical and pharmaceutical product development. Development of feeds/fertilizers from jellyfish and other innovative bioresources.
- Focusing on nutraceutical potential and health promoting effect of dietary components by studying some underling action mechanisms, such as the ability of some bio-compounds to modulate cell-cell communication mediated by gap junctions (GJIC), considered as target of tumor promotion as well as a basic mechanism of cellular homeostasis, development and differentiation.
- Interest in the sustainability of production processes through the use of neglected resources (jellyfish biomasses, grape seeds, OMWW, and other by-products of agroindustry, etc.) and the use of innovative processes, such as supercritical CO2 extraction and membrane filtration systems.

Expertise in: cell biology, molecular-chemical-biochemical analyses, optical and confocal microscopy, biological assays, animal cell cultures, immunofluorescence.

RELEVANT ROLES AND COMPETENCES

Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.

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2019 to present - Role as CNR expert at **EFSA** (European Food Safety Authority), for thematic areas "Human nutrition, dietetic products, allergens and/or novel foods: human nutrition, diet and allergens; food products with nutrition or health benefit claims; dietary reference values for nutrients and energy intake; novel foods". (art.36, Reg. (CE) n. 178/2002)

2019 to present- Member of the Apulia Regional Commission "Local Advisory Commission for Fisheries and Aquaculture" ("Commissione Consultiva locale per la Pesca e l'Acquacoltura")

October 2014 - Short Term Attachment at EFSA (European Food Safety Authority), Unit of Nutrition program "Guest Scientist and Staff Exchange Scheme - Programme 2014" - 2152/P-27/11/2013 del Ministero della Salute - Direzione generale degli organi collegiali per la tutela della salute (DGOCTS)

2007-2012 – Visiting scientist

2012 -Zhejiang Ocean University, No.18, Rd. Haiyuan, Dinghai District, Zhoushan City, Zhjiang, PR China;

2015 - Masaryk University, University of Brno (Check Republic),

2007 and 2009 - National Food Safety and Toxicology Center, Michigan State University, (USA)

TEACHING,TUTORING AND SCIENCE COMMUNICATION

- Teaching in the II level Master "Gestione e Controllo della Qualità nella Filiera Ittica (Ge.Co.Qua.Fi)" AA 2018-2019 at University of Foggia.
- Tutor to 5 CNR Research Grants (at least 10 years total) and at least 4 international fellowships (Erasmus scholarships, MAE, etc.)
- Co-Tutor PhD student and Tutor of at least 20 students for Master Degree
- Lectures in advanced courses as CNR Expert (novel foods, biodiversity, natural resources)
- Organization and Communication in Congresses and Workshops at national and international level
- Participation, as novel food expert, in documentaries, radio, media, national and international TV (Aljazeera, Hong Kong TV, Pro7, Deutsche Welle TV, RAI1, RAI2, RAI3, etc.) .

PROJECT RESPONSIBILITY

2018-2021 - Scientific Responsible - PI of **EU H2020 project GoJelly**- A gelatinous solution to plastic pollution" - Project Grant N. 774499 https://cordis.europa.eu/project/id/774499 (call H2020-BG-2017, Blue Growth - Demonstrating an ocean of opportunities) From 01/01/2018 al 31/12/2021.

2017-2019 Responsible of operational Unit CNR –PI, **PRIN-PHENIX** "From cell fate plasticity to tissue homeostasis to longevity: insights from two emerging model invertebrates, the "immortal jellyfish" Turritopsis dohrnii and the budding ascidian Botryllus schlosseri" (PRIN: Progetti di Ricerca di Rilevante Interesse Nazionale – National Project MiUR, 2015 - prot. 2015NSFHXF. From: 5/02/2017 al 04/02/2020; Activity: Study of the role of GJIC in the transdifferentiation and regeneration processes in animal models.

2016-2020 - Participant as Conisma member in **H2020 EU project: CERES**, Climate change and European aquatic RESources, Project ID: 678193 (http://cordis.europa.eu/project/rcn/200289_en.html) from 01/03/2016 to 29/02/2020.

2015 - Responsible –PI of **EuroMarine funds**, EM/PFB/BR/2015.003 "Research, Innovation and Sustainability in Novel Foods" "Jellyfish as resource" in EXPO2015.

2012-2015 – Participant as Conisma member in MED-JELLYRISK, Project founded by **ENPI-CBC MED** (http://jellyrisk.eu/it/) Integrated monitoring of jellyfish outbreaks under anthropogenic and climatic impacts in the Mediterranean Sea coastal zones: trophic and socio-economic risk".

2013 - Program Short Term Mobility: "Extraction, analysis and evaluation of bioactive compounds from jellyfish" at Marine Science Institute ICM-CSIC Barcelona, Spain.

2013 Responsible –PI of EU-**Project ASSEMBLE**: "Role of Gap Junction Intercellular Communications in Morphogenesis of Basal Metazoa" Assemble/CNRS-FR424/National Research Council Italy, N° SPV/AF/EM/B237-13 del 22/04/2013. Partner: CNRS - Station Biologique de Roscoff, France.

(https://www.assembleplus.eu/). Activity: Study of the role of GJIC in morphogenesis and regeneration in model organisms, evaluation of the effect of GJ inhibitor tumor promoters in higher organisms.
2011-2013 Participant in **EU Project: BIO-OLEA** "Utilization of biophenols from Olea Europea products - Olives, virgin olive oil and olive mill wastewater", **INTERREG** European Territorial Cooperation Programme "Greece-Italy 2007–2013".
2012-2013 Participant in PRU.MA.FRU project (International Cooperation Italy-Israel, funded by **Ministero degli Affari Esteri e della Cooperazione Internazionale, MAE)**: From 02/01/2012 to 30/06/2013; Activity: Effect of plant extracts on GJIC in human cancer cells, MCF7.
2010-2013 Participant as Conisma member in **EU-Project FP7-Ocean of Tomorrow** - OCEAN.2010-2 VECTORS- "Vectors of change in marine life, impact on economic sectors". For the aspects related to the exploitation, biotechnological processes (food, bioactive molecules, aquaculture feeds).
2012 - Participant in **ASSEMBLE project** "MORPHOS-GAP - Role of intercellular gap junction communications in morphogenesis and neural development of the basal metazoan *Clava multicornis* (Hydrozoa, Cnidaria)" Sven Lovén Center for Marine Sciences - Tjärnö & Kristineberg, SWEDEN.
2008 –2010 Participant in **PRIN_PROTOBRAIN** - Origin of central nervous system and extraretinal photoreception in basal metazoans. (PRIN – National Project MiUR, 2007 - prot. 20075WCPWM_001).
2009 - Program Short Term Mobility: "Biological properties and effect on gap junction intercellular communications in animal and human cell cultures of grape seed extracts from Negramaro cultivar" at Food Safety and Toxicology Center, Michigan State University (USA).
2007 - Program Short Term Mobility: "Study of biological properties of an innovative food product derived from tomato (lycopene)" at Food Safety and Toxicology Center, Michigan State University (USA).
2003 –2006 Responsible of Operational Unit - National grant, **Industrial Research Project** "Innovative Systems SCO_2 for Lycopene Production from Tomato Berries" (MIUR, L. 297/99).
2001-2002 FISR_National grant, Valorisation of Italian Biotype of Wild Strawberry (*Fragaria Vesca*, L.) by Molecular and Biochemical Analyses of Aroma. FISR D.M. 10/5/00 in G.U. 195, 22/8/00 .

PUBLICATION INDEXES (SCOPUS)

NUMBER OF PUBLICATIONS: 65
TOTAL NUMBER OF CITATIONS: 1312
H-INDEX: 23

PATENT

Leone A, Bleve G, Gallo A, Ramires FA, De Domenico S, Perbellini E. *Method for the treatment of jellyfish intended for human consumption without the use of aluminium salts and products/ingredients obtained by this process.* Granted Italian Patent (**2020**) – Filed EU Patent EP3763224A1. (2021*) https://worldwide.espacenet.com/patent/search/family/068582148/publication/EP3763224A1?q=pn%3DEP3763224A1*

MOST RELEVANT PUBLICATIONS

1. De Domenico, S.; De Rinaldis, G.; Mammone, M.; Bosch-Belmar, M.; Piraino, S.; Leone, A. The Zooxanthellate Jellyfish Holobiont Cassiopea andromeda, a Source of Soluble Bioactive Compounds. *Mar. Drugs 2023, 21, 272. https://doi.org/10.3390/md21050272*
2. *Bleve G., Ramires FA., De Domenico S. and* ***Leone A.*** *(**2021**).* An Alum-Free Jellyfish Treatment for Food Applications. *Front. Nutr. 8:718798. doi: 10.3389/fnut.2021.718798;*
3. De Rinaldis G, **Leone A*,** De Domenico S, Bosch-Belmar M, Slizyte R, Milisenda G, Santucci A, Albano C, Piraino S. *(**2021**).* Biochemical Characterization of *Cassiopea andromeda* (Forsskål, 1775), Another Red Sea Jellyfish in the Western Mediterranean Sea. *Mar Drugs*. 2021 Aug 31;19(9):498. doi: **https://doi.org/10.3390/md19090498**.
4. Lecci RM, D'Antuono I, Cardinali A, Garbetta A, Linsalata V, Logrieco AF, **Leone A***. *(**2021**).* Antioxidant and Pro-Oxidant Capacities as Mechanisms of Photoprotection of Olive Polyphenols on UVA-Damaged Human Keratinocytes. *Molecules*. 2021 Apr 8;26(8):2153. doi: **https://doi.org/10.3390/molecules26082153**.
5. Bosch-Belmar,M., Milisenda, G., Basso, L., Doyle, T.K., **Leone, A**., Piraino, S. (**2020**). Jellyfish Impacts on Marine Aquaculture and Fisheries, Reviews in Fisheries Science & Aquaculture, DOI: 10.1080/23308249.2020.1806201
6. Torri L., Tuccillo F., Bonelli S., Piraino S. & **Leone A***. (**2019).** The attitudes of Italian consumers towards jellyfish as novel food. Food Quality and Preference, 79 103782, https://doi.org/10.1016/j.foodqual.2019.103782.
7. **Leone A***., Longo, C., Gerardi, C., Trosko, JE. (**2019**). Pro-Apoptotic Effect of Grape Seed Extract on MCF-7 Involves Transient Increase of Gap Junction Intercellular Communication and Cx43 Up-Regulation: A Mechanism of Chemoprevention. Int. J. Mol. Sci. 2019, 20(13), 3244; https://doi.org/10.3390/ijms20133244 .
8. Bleve, G. Ramires F.A., Gallo, G. & **Leone A. (2019).** Identification of Safety and Quality Parameters for Preparation of Jellyfish Based Novel Food Products. *Foods* 2019, *8*(7), 263; https://doi.org/10.3390/foods8070263
9. **Leone**, A., Lecci, R.M., Milisenda, G., Piraino, S. (**2019).** Mediterranean jellyfish as novel food: effects of thermal processing on antioxidant, phenolic, and protein contents European Food Research and Technology, 245(8) 1611-1627 https://doi.org/10.1007/s00217-019-03248-6

10. De Domenico, S.; De Rinaldis, G.; Paulmery, M.; Piraino, S. & **Leone** A. **(2019)**. Barrel Jellyfish (*Rhizostoma pulmo*) as Source of Antioxidant Peptides. *Mar. Drugs*, 17, 134. https://doi.org/10.3390/md17020134
11. Moeini A, Cimmino A, Dal Poggetto G, Di Biase ME, Evidente, A, Masi M, Lavermicocca P, Valerio F, **Leone** A, Santagata G, Malinconico M. (**2018)** Effect of pH and TPP concentration on chemico-physical properties, release kinetics and antifungal activity of Chitosan-TPP- Ungeremine microbeads. Carbohydrate Polymers, 195, 631-641
12. Gerardi C, Frassinetti F, Caltavuturo L, **Leone A**, Lecci R, Calabriso N, Carluccio MA, Blando F, Mita G. (**2016)**. Anti-proliferative, anti-inflammatory and anti-mutagenic activities of a Prunus mahaleb L. anthocyanin-rich fruit extract. Journal of Functional Foods, 27 (2016) 537–548 https://doi.org/10.1016/j.jff.2016.09.024
13. **Leone A**, Piraino S. (**2015)**. Jellyfish: old Eastern food becomes the Western novel food. Shaping the Future of Food Safety, Together: Proceedings of the 2nd EFSA Scientific Conference. Milan, Italy, 14–16 October 2015. EFSA Journal, 2015;13(10):s1310, 137 pp. doi:10.2903/j.efsa.2015.s1310
14. **Leone A**, Lecci RM, Durante M, Meli F, Piraino S. (**2015)**. The bright side of gelatinous blooms: nutraceutical value and antioxidant properties of three Mediterranean jellyfish (Scyphozoa). Marine Drugs, 13, 4654-4681; Special Issue "Marine Functional Food" doi:10.3390/md13084654
15. Lecci RM, Logrieco A. **Leone A. (2014)**. Pro-oxidative action of polyphenols as action mechanism for their pro-apoptotic activity. Anticancer Agents in Medicinal Chemistry, 14(10): 1363-75.
16. **Leone A***, Lecci RM, Durante M, Piraino S. (**2013)**. Extract from the zooxanthellate jellyfish Cotylorhiza tuberculata modulates gap junction intercellular communication in human cell cultures. Marine Drugs 11, 1728-1762; doi:10.3390/md11051728.
17. **Leone A*,** Longo C, Trosko JE. (**2012)**. The chemopreventive role of dietary phytochemicals through gap junctional intercellular communication. Phytochemistry Reviews, 1-23 (23 May 2012) SI "Phytochemicals in Nutrition and Health". DOI: 10.1007/s11101-012-9235-7.
18. Longo C. Leo L. **Leone A***. (2012) Carotenoids, Fatty Acid Composition and Heat Stability of Supercritical Carbon Dioxide-Extracted-Oleoresins. International Journal of Molecular Sciences. 2012, 13(4), 4233-4254; doi:10.3390/ijms13044233.
19. Gnoni VG, Rochira A, **Leone A,** Damiano F, Marsiliante S. Siculella L (**2012)**. 3,5,3'triiodo-L-thyronine induces SREBP-1 expression by non-genomic actions in human Hep G2 cells. Journal of cellular physiology 227 (6), 2388-2397; DOI: 10.1002/jcp.22974
20. Melillo MT, Leonetti P, **Leone A**, Veronico P, Bleve-Zacheo T. (**2011)**. ROS and NO production in compatible and incompatible tomato-Meloidogyne incognita interactions. European Journal of Plant Pathology, 130:489-502 (DOI: 10.1007/s10658-011-9768-4)
21. Piraino S, Zega G, Di Benedetto C, **Leone A**, Dell'Anna A, Pennati R, Candia Carnevali D, Schmid V, Reichert H. (**2011)**. Complex neural architecture in the diploblastic larva of *Clava multicornis* (Hydrozoa, Cnidaria). Journal of Comparative Neurology. 519(10):1931–1951, DOI: 10.1002/cne.22614.
22. **Leone A**, Zefferino R, Longo C, Leo L, Zacheo G. (**2010)** Supercritical CO2-extracted tomato oleoresins enhance gap junction intercellular communications and recover from mercury chloride inhibition in keratinocytes. J. Agric. Food Chem, 58(8): 4769-78.
23. Mangiullo R, Gnoni A, **Leone A**, Gnoni GV, Papa S, Zanotti F. (**2008)**. Structural and functional characterization of FoF1-ATP synthase on the extracellular surface of rat hepatocytes. Biochim. Biophys. Acta - Bioenergetics 1777:1326-1335.
24. Leo L, **Leone A**, Longo C, Lombardi D, Raimo A, Zacheo, G. (**2008)**. Antioxidant Compounds and Antioxidant Activity in "Early Potatoes" J. Agric. Food Chem., 56, 4154–4163.
25. Zefferino R, **Leone A**, Piccaluga S, Cincione R, Ambrosi L. (**2008)**. Mercury modulates interplay between IL-1β, TNF-α, and gap junctional intercellular communication in keratinocytes: mitigation by lycopene. J Immunotoxicol. Oct;5(4):353-60
26. Fornelli F, **Leone A**, Verdesca I, Minervini F, Zacheo G. (**2007)** The influence of lycopene on the proliferation of human breast cell line (MCF-7). Toxicol in vitro;21(2):217-23.

Books (relevant to the topic)

27. D'Amico P, **Leone** A, Giusti A, Armani A. (**2016)**. Jellyfish and humans: not just negative interactions. In: "Jellyfish: Ecology, Distribution Patterns and Human Interactions" Nova Publishers, Hauppauge, NY, USA. p:331-351
28. ***Leone A****. European Jellyfish Cookbook. New perspectives on marine food resources. CNR Edizioni, Roma, Italy (**2020**) www.edizioni.cnr.it. https://doi.org/10.48257/BLE-001;*
29. **Leone A**. *"Dalle meduse una potenziale fonte alimentare nel mirino della ricerca". In: Italian EFSA Focal Point Newsletter, Volume 2, N. 6 - Giugno **2014***

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Lecce, 16/06/2023