

# Dr. Gennaro Roberto ABBAMONDI

May 17<sup>th</sup> 1985, Napoli (Italy)

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<https://publons.com/researcher/B-9343-2014/>

[https://www.researchgate.net/profile/Gennaro\\_Roberto\\_Abbamondi](https://www.researchgate.net/profile/Gennaro_Roberto_Abbamondi)

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**CURRENT POSITION** From February 1<sup>st</sup> 2022 to date. **Researcher** (III level) at the National Research Council of Italy (CNR) - Institute of Biomolecular Chemistry (ICB) - Via Campi Flegrei, 34 - 80078, Pozzuoli (NA), Italy.

Research interests: Chemistry of natural products, Biological activity assays, Microorganisms associated with marine sponges and plants, Quorum sensing, Evaluation of nutritional properties and design of new tomato hybrids, Plant Growth Promotion, Extremophilic microorganisms.

## EDUCATION

March 25<sup>th</sup> **2013**

"Parthenope" University of Napoli, Napoli (Italy) - Joint PhD with Hasselt University, Hasselt (Belgium)

**International PhD** in "Environment, Resources and Sustainable Development" (Label of *Doctor Europaeus*)

October 19<sup>th</sup> **2009**

"Federico II" University of Napoli, Napoli (Italy)

**Master Degree** in "Pharmaceutical Chemistry and Technology" with grade of 107/110

## LANGUAGES

Italian

(native language)

English

(Abroad experience as Researcher in multiple countries, Trinity Grade 6, PET certificate)

French

## WORK EXPERIENCE

From September 2019 to January 2022  
Province of Naples - Italy

### MIUR - Italian Ministry of Education, Universities and Research

Teacher - Lower secondary school

Main activities and responsibilities: Technology Teacher and Special education Teacher.

September 27<sup>th</sup> 2019 - June 30<sup>th</sup> 2020. Special education Teacher. NAIC8GS00V

October 6<sup>th</sup> 2020 - June 30<sup>th</sup> 2021. Technology Teacher. NAIC8DZ00T

September 7<sup>th</sup> 2021 - January 31<sup>st</sup> 2022. Special education Teacher. NAIC8DV00E

From April 9<sup>th</sup> 2019 to June 11<sup>th</sup> 2019  
Fez - Morocco

### Sidi Mohamed Ben Abdellah University - Faculté des Sciences Dhar El Mahraz

Fellow visiting Researcher

Main activities: Mobility fellowship in the frame of the Horizon 2020 Project "VAHVISTUS - "Integrative development of smart drug-vector nanostructures for adaptive delivery to target cells". CNR-IPCB. Bioactivity (antimicrobial and analgesic) assays, *in vitro* and *in vivo*, on extracts of tomato grown with EM (Effective Microorganisms) technology.

December 23<sup>rd</sup> 2018 - February 10<sup>th</sup> 2019  
Mario Zucchelli Station - Antarctica

### Mario Zucchelli Station - 74 ° 42 'S, 164 ° 07' E - Altitude: 15 m, on the Ross Sea

Fellow Researcher

Main activities: Participation in the XXXIV Antarctic Expedition 2018-2019 as part of the project PNRA16\_00274 "Trophic - Symbiotic interactions between bacteria, Macrobenthos and Meiobenthos in the Antarctic Environment".

From September 16<sup>th</sup> 2016 to September 26<sup>th</sup> 2019, from June 16<sup>th</sup> 2014 to March 31<sup>st</sup> 2015, from June 1<sup>st</sup> 2010 to December 31<sup>st</sup> 2013  
Pozzuoli (NA) - Italy

### National Research Council of Italy (CNR) - Institute of Biomolecular Chemistry (ICB)

Fellow Researcher / Scholarship Holder / PhD Student

Main activities: Biochemical (nutritional) and microbiological (endophytic bacteria associated with plant roots) analysis of different tomato cultivars and new tomato hybrids (as fresh and processed product), also obtained by means of Effective Microorganism (EM) technology.

Chemical and ecological study of high and low molecular weight molecules isolated from Antarctic bacterial communities.  
 "Smart" methodologies and technologies for the realization of innovative molecular and macromolecular systems for biomedical, food processing, environmental protection and advanced material applications.  
 Valorisation of agricultural crops typical of Campania Region: re-use of lemon oversupply and processing waste.  
 Experimental PhD thesis in "Environment, Resources and Sustainable Development", "Parthenope" University of Napoli, Napoli (Italy) - Joint PhD with Hasselt University, Hasselt (Belgium). Title: "The role of Quorum Sensing in marine bacteria, Archaea and inter-kingdom communication".

From July 6<sup>th</sup> 2015 to July 5<sup>th</sup> 2016  
 Toulon - France

**Université de Toulon - SeaTech - Laboratoire MAPIEM**

Post-doctoral Researcher

Main activities: Structural characterization of exopolysaccharides produced by marine biofilm-forming bacteria.

From April 1<sup>st</sup> 2015 to June 30<sup>th</sup> 2015  
 Hasselt - Belgium

**Hasselt University - Environmental Biology - Centre of Environmental Sciences**

Post-doctoral Researcher

Main activities: Investigation of the role of Quorum Sensing in biofilm formation of selected strains.

From January 8<sup>th</sup> 2017 to January 29<sup>th</sup> 2018, 8 months from January 7<sup>th</sup> 2014 and October 24<sup>th</sup> 2014, 6 months between October 16<sup>th</sup> 2011 and November 1<sup>st</sup> 2012, 6 months between October 16<sup>th</sup> 2011 and November 1<sup>st</sup> 2012  
 Hasselt - Belgium

**Hasselt University - Environmental Biology - Centre of Environmental Sciences**

Visiting Researcher, PhD Student

Main activities: The changes in endophytic bacterial and fungal communities of maize caused by nanosilver, adding the microbiome to nanosilver toxicology (Short-term mobility Program of CNR).

The role for plant-associated endophytes in improving production and quality of tomato (Short Term Scientific Mission - COST Action FA1103).

Plant-growth promotion – specific assays (Visiting Researcher).

Implication of Quorum Sensing in bioremediation processes: screening of signal molecules produced by a consortium of diesel degrading strains / bacteria-plant association (PhD student).

From April 20<sup>th</sup> 2011- May 11<sup>th</sup> 2011  
 Villejuif - France

**Institut de cancérologie Gustave Roussy (IGR)**

Fellow visiting Researcher

Main activities: Study of the distribution of o,p' -DDD (Mitotane), o,p' -DDE and o,p' -DDA among serum lipoproteins (Short-term mobility Program of CNR).

From September 8<sup>th</sup> 2008 to October 19<sup>th</sup> 2009  
 Pozzuoli (NA) - Italy

**National Research Council of Italy (CNR) - Institute of Biomolecular Chemistry (ICB)**

Master Student

Main activities: Experimental Master thesis in "Pharmaceutical Chemistry and Technology" - "Federico II" University of Naples.

Title of the thesis: "Purification and chemical characterization of secondary metabolites of *Adiantum capillus veneris* and their biological activity".

## MAIN 5 PUBLICATIONS

- 1) Abbamondi GR**, Tommonaro G, Weyens N, Thijs S, Sillen W, Gkorezis P, Iodice C, de Melo Rangel W, Nicolaus B, Vangronsveld J (2016) Plant growth-promoting effects of rhizospheric and endophytic bacteria associated with different tomato cultivars and new tomato hybrids. *Chem. Biol. Technol. Agric.*, 3:1. doi: 10.1186/s40538-015-0051-3
- 2) Tommonaro G, Abbamondi GR**, Iodice C, Tait K, De Rosa S (2012) Diketopiperazines Produced by the Halophilic Archaeon, *Haloterrigena hispanica*, Activate AHL Bioreporters. *Microbial Ecology*, 63(3):490-5. doi: 10.1007/s00248-011-9980-y
- 3) Sillen, W., Thijs, S., Abbamondi, G. R., De La Torre Roche, R., Weyens, N., White, J. C., & Vangronsveld, J. (2020).** Nanoparticle treatment of maize analyzed through the metatranscriptome: compromised nitrogen cycling, possible phytopathogen selection, and plant hormesis. *Microbiome*, 8(1), 127. doi: 10.1186/s40168-020-00904-y
- 4) Başaran, T. I., Berber, D., Gökalsın, B., Tramice, A., Tommonaro, G., Abbamondi, G. R., Erginer Hasköylü, M., Toksoy Öner, E., Iodice, C., & Sesal, N. C. (2020).** Extremophilic *Natrinema versiforme* Against *Pseudomonas aeruginosa* Quorum Sensing and Biofilm. *Frontiers in microbiology*, 11, 79. doi: 10.3389/fmicb.2020.00079
- 5) Poli A, Di Donato P, Abbamondi GR** and Nicolaus B (2011) Synthesis, production and biotechnological applications of exopolysaccharides (EPSs) and poly-hydroxyalkanoates (PHAs) by *Archaea. Archaea*, Article ID 693253, 13 pages. doi: 10.1155/2011/693253