# PERSONAL INFORMATION Jussara Amato



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Sex Female | Date of birth 13/02/1980 | Nationality Italian

Enterprise	University	EPR
☐ Management Level	☐ Full professor	Research Director and 1st level Technologist /
		First Researcher and 2nd level Technologist / Principal Investigator
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☐ Mid-Management Level		Level III Researcher and Technologist
☐ Employee / worker level	Researcher and Technologist of IV, V, VI and VII	Researcher and Technologist of IV, V, VI and VII
	level / Technical collaborator	level / Technical collaborator

### WORK EXPERIENCE

From 2020 - to date Member of the Board of the PhD Course in Pharmaceutical Sciences

University of Naples Federico II

From 2019 – to date Associate Professor of Medicinal Chemistry

Department of Pharmacy, University of Naples Federico II

From 2018 – to date Member of the Steering Committee of the Division of Chemistry of Biological Systems

of the Italian Chemical Society

From 2011 – to 2019 Research activity as Chemical Technologist

University of Naples Federico II

From 2010 – to date Member of the Italian Chemical Society (SCI)

From 2009 – to 2011 Postdoc

Department of Chemistry of Natural Substances, University of Naples Federico II

From Aug. 2009 – to Sept. 2009 Visiting Scientist, short-term scientific mission in the frame of the COST Action

MP0802

Department of Chemistry, University of Liège, Belgium

From Jan. 2008 – to Jun. 2008 Visiting Scientist

Department of Chemistry, University of Liège, Belgium

From 2006 – to 2007 Postdoc

Department of Chemistry of Natural Substances, University of Naples Federico II

**EDUCATION AND TRAINING** 

2011 2<sup>nd</sup> level professional master (2-year) in "Cosmetic Science and

Technology", with top marks and honours

University of Naples Federico II

High formation school (1-year) in the field of "Advanced Biology and its applications:

formation of professional profiles in the field of Molecular Diagnostics and

Pharmaceutics"

Centro di Competenza Regionale - Campania Region

2006 PhD in Biotechnological Sciences University of Naples Federico II

2003 Degree (M.Sc. equivalent) in Pharmaceutical Chemistry and Technology, with top marks and honours University of Naples Federico II

#### WORK ACTIVITIES

#### Honours and awards

• 2015 - "Gastone De Santis" Award from the Italian Chemical Society and Italfarmaco Spa.

### Funded projects as PI

- 2021 Project title: "G-quadruplex structures in SARS-CoV-2 genome: a new target in antiviral therapy - G4antiCoV" (FISR2020IP\_04932). Funding organization: Italian Ministry of University and Research (MUR).
- 2021 Project title: "COVID-19 Targeting G-quadruplex structures in SARS-CoV-2 genome" (n. 20217014). Funding organization: Central European Research Infrastructure Consortium (CERIC).
- 2021 Project title: "Ligand interaction with G-quadruplex and i-motif DNA by means of UV Resonant Raman spectroscopy" (n. 20202166). Funding organization: Central European Research Infrastructure Consortium (CERIC).
- 2019 Project title: "Investigation of i- motif/hairpin equilibrium by means of UV Resonant Raman Spectroscopy" (n.20192149). Funding organization: Central European Research Infrastructure Consortium (CERIC).
- 2018 Project title: "Ligand interaction with different topology structures of G-quadruplex DNA by means of UV Resonant Raman Spectroscopy" (n. 20182116). Funding organization: Central European Research Infrastructure Consortium (CERIC).
- 2017 Co-PI, Project title: Discovery of new ligands, specifically targeting bile acid receptors, for the treatment of liver and metabolic disorders - BARLIG" (DR/2017/409, 07/02/2017). Funding organization: University of Naples Federico II.

### Editorial activity

- Member of the Editorial Board of Molecules.
- Associate Editor of Frontiers in Chemistry.
- Guest Editor of Pharmaceuticals, Special Issue "Nucleic Acids in Medicinal Chemistry".
- Guest Editor of International Journal of Molecular Sciences, Special Issue "Chemistry and Biology of Noncanonical Nucleic Acid Structures: From Physicochemical Properties to Therapeutic Applications".
- Guest Editor of Molecules. Special Issue "Targeting Innovation in Medicinal Chemistry".

## **Presentations**

Speaker at several national and international conferences. Selected lectures in the last 5 years:

- 2023 "Ultraviolet resonance Raman spectroscopy to study noncanonical DNA structures and their drug targeting". Innovative therapeutic targets in non-canonical nucleic acids structures Winter International School 2023 (INTERACTION WINS 2023).
- 2022 "Studying noncanonical DNA structures and their drug targeting: new insights from ultraviolet resonance Raman spectroscopy". Advances in Noncanonical Nucleic Acids – ANNA 2022, Ljubljana, Slovenia.
- 2022 "Nucleic acid aptamers: potential therapeutic agents for cancer and neurodegenerative disorders". XXVII National Meeting on Medicinal Chemistry (NMMC27), University of Bari, Bari, Italy.
- 2022 "Studying Anticancer activity of G-quadruplex DNA-targeting monohydrazone based compounds". 3rd Molecules Medicinal Chemistry Symposium – Shaping Medicinal Chemistry for the New Decade (MMCS 2022). Sapienza University, Rome, Italy.
- 2018 "Development and application of high throughput screening methods for the identification of conformation-selective nucleic acids ligands". XXIII International Roundtable on Nucleosides, Nucleotides and Nucleic Acids, La Jolla, CA, USA.

## Conferences

- Chair of the Organizing Committee of "National Conference of the Division of Chemistry of Biological Systems" of the Italian Chemical Society, Naples, Italy (2022).
- Delegate of the Division of Chemistry of Biological Systems for the XXVII National Meeting of the Italian Chemical Society - SCI2021.
- Member of the Scientific Committee of the National Congress of the Division of Chemistry of Biological Systems of the Italian Chemical Society, Siena, Italy (2019).
- Member of the Scientific Committee National Congress of the Division of Chemistry of Biological Systems of the Italian Chemical Society, Caserta, Italy (2018).

#### International agreements

- Member of the Joint Committee of the International agreement between the University of Naples Federico II and the Urmia University, Iran (2022-today).
- Member of the Joint Committee of the International agreement between the University of Naples Federico II and the University of Lodz, Poland (2018-today).

#### Reviewer activity

Reviewer for the following Journals: Analyst (Royal Society of Chemistry); Analytical Chemistry (ACS Publications); Antiviral Research (Elsevier); Biochimica et Biophysica Acta (BBA) - General Subjects (Elsevier); Biochimie (Elsevier); Biologics (MDPI); Biomaterials (Elsevier); Bioorganic Chemistry (Elsevier); Bioorganic & Medicinal Chemistry (Elsevier); Bioorganic & Medicinal Chemistry Letters (Elsevier); ChemBioChem (Wiley); Computational and Structural Biotechnology Journal (Elsevier); European Journal of Medicinal Chemistry (Elsevier); European Journal of Pharmacology (Elsevier); Genes (MDPI); International Journal of Biological Macromolecules (Elsevier); International Journal of Molecular Sciences (MDPI); Journal of Medicinal Chemistry (ACS Publications); Journal of Molecular Liquids (Elsevier); Journal of Molecular Structure (Elsevier); Mammalian Genome (Springer); Marine Drugs (MDPI); Metabolites (MDPI); Molecules (MDPI); Nucleic Acids Research (Oxford University Press); Nucleic Acid Therapeutics (Mary Ann Liebert, Inc. publishers); Organic & Biomolecular Chemistry (Royal Society of Chemistry); Pharmaceuticals (MDPI); Pharmacological Research (Elsevier); RSC Advances (Royal Society of Chemistry); Scientific Reports (Nature Research); Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (Elsevier).

**Publications** 

H-index\*: 30

Total number of publications in peer-reviewed journals\*: 103

Number of publications in the last 10 years\*: 71

Total number of citations\*: 1992

\*Source Scopus

Selected publications in the last 5 years:

- Ligand-based drug repurposing strategy identified SARS-CoV-2 RNA G-quadruplex binders (2022)
  Chemical Communications, 58 (85), 11913-11916.
- Balancing Affinity, Selectivity, and Cytotoxicity of Hydrazone-Based G-Quadruplex Ligands for Activation of Interferon β Genes in Cancer Cells (2022) Journal of Medicinal Chemistry, 65 (18), 12055-12067.
- Monohydrazone Based G-Quadruplex Selective Ligands Induce DNA Damage and Genome Instability in Human Cancer Cells (2020) Journal of Medicinal Chemistry, 63 (6), 3090-3103.
- Bio-inspired dual-selective BCL-2/c-MYC G-quadruplex binders: Design, synthesis, and anticancer activity of drug-like imidazo[2,1-i]purine derivatives (2020) Journal of Medicinal Chemistry, 63 (5), 2035-2050.
- Insights into telomeric G-quadruplex DNA recognition by HMGB1 protein (2019) Nucleic Acids Research, 47 (18), 9950-9966.
- Targeting multiple G-quadruplex-forming DNA sequences: Design, biophysical and biological evaluations of indolo-naphthyridine scaffold derivatives (2019) European Journal of Medicinal Chemistry, 182, 111627.
- Screening of DNA G-quadruplex stabilizing ligands by nano differential scanning fluorimetry (2019)
  Analyst, 144 (22), 6512-6516.

Naples, 08/05/2023

Joshu Juch