Curriculum Vitae

Personal information

First name/Surname **Gabriele Maiorano**

Address [redacted]

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Work experience

Researcher with proved ability to face and solve new questions and challenges in the field of design, characterization, risk assessment and regulation of nanomaterials for human health. Biotechnological background with a demonstrated track record of valuable multidisciplinary skills and experiences in chemistry, nanotechnology and biophysics.

Dates	June 2023 - now
Occupation or position held	Technologist at NANOTEC – CNR
Main activities and responsibilities	Desing, synthesis, characterization and biological evaluation of nanomaterials for drug/gene delivery.
Name and address of employer	Institute of Nanotechnology (NANOTEC) – National Research Council (CNR) Via Lecce-Monteroni, 73100 Lecce (LE)
Sector	Research

Dates	June 2020 – Dec 2022
Occupation or position held	Postdoctoral Research Fellow at NANOTEC – CNR
Main activities and responsibilities	Developing nanotechnology-based cancer immunotherapies, including nanovectors for the delivery of nucleic acids and drugs to immune cells.
Name and address of employer	Institute of Nanotechnology (NANOTEC) – National Research Council (CNR) Via Lecce-Monteroni, 73100 Lecce (LE)
Sector	Research

Dates	May 2016 – May 2020
Occupation or position held	Postdoctoral Research Fellow at ISPA – CNR
Main activities and responsibilities	Synthesis and characterization of modified polyphenols and polyphenols-based polymers. Nanostructuration via self-assembly with metallic nanocluster –particles (e.g. Ag, Au and Pt). Design of a high-throughput screening platform to monitor nanoparticle activities against biofilm-forming bacteria
Name and address of employer	Institute of Food Science (ISPA) – National Research Council (CNR) Via Lecce-Monteroni, 73100 Lecce (LE)
Sector	Research

Dates	May 2016 – May 2020
Occupation or position held	Postdoctoral Research Fellow at CBN-IIT
Main activities and responsibilities	Synthesis of highly controlled nanoparticles (NPs) for bio-applications with tuneable shape, size, surface chemistry by means of original synthetic routes that were published, patented and standardized. Characterization and *in vitro* and *in vivo* investigations, body distribution, and potential adverse biological effects induced by NPs and hybrid protein-NPs couplings. Specific methods and SOP protocols were created, which have been exploited as golden standard approaches in several European research clusters.
Name and address of employer	Center for BiomolecularNanotechnologies –Istituto Italiano diTecnologia (CBN-IIT) Via Eugenio Barsanti, 14, 73010 Arnesano LE
Sector	Research

Education and training

Dates	19/04/2011
Title of qualification awarded	PhD in Nanotechnology
Principal subjects	Dissertation title*: Impact of nanotechnology on biological systems: the role of nano-biointeractions*
Name and type of organisation providing education and training	Università del Salento, Italy

Dates	24/07/2007
Title of qualification awarded	M.Sc. in Industrial Pharmaceutical Biotechnology
Principal subjects	Chemistry, Molecular Biology, Biochemistry, Pharmacology
Name and type of organisation providing education and training	Università del Salento, Italy

ORCID, Researcher ID, ORCID	https://orcid.org/0000-0003-2205-2293
H-index, Total Citation Index	19, 2469
Relevant publications	Giulimondi, F., Digiacomo, L., Renzi, S., Cassone, C., Pirrottina, A., Molfetta, R., Palamà I.E., Maiorano G., ... & Caracciolo, G. (2024). Optimizing transfection efficiency in CAR-T cell manufacturing through multiple administrations of lipid-based nanoparticles. ACS Applied Bio Materials, 7(6), 3746-3757. Russo, A., Maiorano, G., Cortese, B., D'Amone, S., Invidia, A., Quattrini, A., ... & Palamà, I. E. (2024). Optimizing TDP-43 silencing with siRNA-loaded polymeric nanovectors in neuronal cells for therapeutic applications: balancing knockdown and function. Nanoscale, 16(48), 22337-22349. Maiorano, G., Guido, C., Russo, A., Giglio, A., Rizzello, L., Testini, M., ... & Palamà, I. E. (2022). Hybrid Polyelectrolyte Nanocomplexes for Non-Viral Gene Delivery with Favorable Efficacy and Safety Profile. Pharmaceutics, 14(7), 1310. Guido, C., Maiorano, G., Cortese, B., D'Amone, S., & Palamà, I. E. (2020). Biomimetic nanocarriers for cancer target therapy. Bioengineering, 7(3), 111. Maiorano, G., Mele, E., Frassanito, M. C., Restini, E., Athanassiou, A., & Pompa, P. P. (2016). Ultra-efficient, widely tunable gold nanoparticle-based fiducial markers for X-ray imaging. Nanoscale, 8(45), 18921-18927. Maiorano, G., Sabella, S., Sorce, B., Brunetti, V., Malvindi, M. A., Cingolani, R., & Pompa, P. P. (2010). Effects of cell culture media on the dynamic formation of protein− nanoparticle complexes and influence on the cellular response. ACS nano, 4(12), 7481-7491.

Additional information

Co-PI for the project "Nanodelivery of Slpi Prevents Inflammatory-associated UC Development in the Spontaneous Model Winnie" - Progetti di Ricerca di Rilevante Interesse Nazionale – PRIN 2022 PNRR - Prot. P2022EPK9B

Lecce, 27/03/2024

Gabriele Maiorano

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