

Erica Quagliarini

WORK EXPERIENCE

[11/2021 – Current] **Post-Doctoral researcher**, prof. Giulio Caracciolo, Department of Molecular Medicine, Sapienza University of Rome

[10/2018 – 11/2021] **PhD student**, prof. Anna Laura Capriotti, Department of Chemistry, Sapienza University of Rome

[01/2018 – 06/2018] **Master Internship**, University of Zaragoza, Instituto de Nanociencia de Aragon, Zaragoza, Spain

[01/10/2019 – 01/12/2021] Tutoring Camplus-Roma, Rome, Italy

[20/10/2020 – 21/11/2021] Science and Mathematics teacher secondary school Istituto comprensivo Paolo Stefanelli

EDUCATION AND TRAINING

[10/2018 – 11/2021] **Ph.D. in Chemical Science**, Sapienza, University of Rome

[01/2016 – 09/2018] **Master's degree in Organic Chemistry**, Alma Mater Studiorum, University of Bologna, Bologna, Italy

[10/2011 – 05/2015] **Bachelor's degree in Chemistry**, Sapienza, University of Rome, Rome, Italy

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s): English

Listening B2 Reading B2 Writing B2

Spoken production B2 Spoken interaction B2

DIGITAL SKILLS

Microsoft Excel, MathLab, OriginPro 85, Fiji-ImageJ

PUBLICATIONS

Number of publications= 16

h-index (Scopus)= 7

1. Di Santo, R. et al., Microfluidic-generated lipid-graphene oxide nanoparticles for gene delivery. *Applied Physics Letters*, 2019, 114.23: 233701.
2. Quagliarini, E. et al., Effect of protein corona on the transfection efficiency of lipid-coated graphene oxide-based cell transfection reagents. *Pharmaceutics*, 2020, 12.2: 113.
3. La Barbera, G. et al., A comprehensive analysis of liposomal biomolecular corona upon human plasma incubation: The evolution towards the lipid corona. *Talanta*, 2020, 209: 120487.
4. Quagliarini E. et al., Protein corona-enabled serological tests for early stage cancer detection. *Sensors International*, 2020, 1: 100025.
5. Di Santo, R. et al., Personalized graphene oxide-protein corona in the human plasma of pancreatic cancer patients. *Frontiers in bioengineering and biotechnology*, 2020, 8: 491.
6. Quagliarini, E. et al., Mechanistic insights into the release of doxorubicin from graphene oxide in cancer cells. *Nanomaterials*, 2020, 10.8: 1482.
7. Perini, G et al., Inhibiting the Growth of 3D Brain Cancer Models with Bio-Coronated Liposomal Temozolomide. *Pharmaceutics*, 2021, 13.3: 378.
8. Di Santo, R. et al., Protein corona profile of graphene oxide allows detection of glioblastoma multiforme using a simple one-dimensional gel electrophoresis technique: a proof-of-concept study. *Biomaterials Science*, 2021.

9. Quagliarini, E. et al., Microfluidic Formulation of DNA-Loaded Multicomponent Lipid Nanoparticles for Gene Delivery. *Pharmaceutics*, 2021 13(8), 1292.
10. Quagliarini, E. et al., Magnetic Levitation of Personalized Nanoparticle–Protein Corona as an Effective Tool for Cancer Detection. *Nanomaterials*, 2022 12(9), 1397
11. Digiaco, L. et al., Detection of Pancreatic Ductal Adenocarcinoma by Ex Vivo Magnetic Levitation of Plasma Protein-Coated Nanoparticles. *Cancers*, 2021 13(20), 5155.
12. Cui, Lishan, et al. "Protein corona reduces the anticancer effect of graphene oxide in HER2-positive cancer cells." *Nanoscale Advances* (2022). DOI: [10.1039/D2NA00308B](https://doi.org/10.1039/D2NA00308B)
13. Quagliarini, Erica, et al. "Magnetic Levitation of Personalized Nanoparticle–Protein Corona as an Effective Tool for Cancer Detection." *Nanomaterials* 12.9 (2022): 1397.
14. Digiaco, Luca, et al. "Magnetic Levitation Patterns of Microfluidic-Generated Nanoparticle–Protein Complexes." *Nanomaterials* 12.14 (2022): 2376.
15. Cui, Lishan, et al. "Efficient Delivery of DNA Using Lipid Nanoparticles." *Pharmaceutics* 14.8 (2022): 1698.
16. Caputo, Damiano et al. "Nanotechnology Meets Oncology: A Perspective on the Role of the Personalized Nanoparticle-Protein Corona in the Development of Technologies for Pancreatic Cancer Detection" *International Journal of Molecular Sciences* (2022) 23, 10591
17. Caputo, Damiano, et al. "Multiplexed Detection of Pancreatic Cancer by Combining a Nanoparticle-Enabled Blood Test and Plasma Levels of Acute-Phase Proteins." *Cancers* 14.19 (2022): 4658.

CONFERENCES AND SEMINARS

[20/06/2022-23/06/2022] SYNC2022 First Symposium for YouNg Chemists: Innovation and Sustainability, Rome, Italy, **Oral**

[04/07/2022-07/07/2022] XLVIII National Congress of Physical Chemistry, Physical Chemistry and the challenges of ecological transition. Genova, Italy, **Oral**

[13/04/2022-15/04/2022] 16th EUROPEAN SYMPOSIUM ON CONTROLLED DRUG DELIVERY, Egmond and Zee, The Netherlands, **Poster**

[15/12/2021] PNI TeaTime webinar series of Precision Nanosystem online event, **Oral**

[23/09/2019-27/09/2019] Graphene Week 2019 Marina Congress, Helsinki, Finland, **Poster**

[02/05/2019-03/05/2019] Workshop Nanomedicine 2019 Università la Bicocca, Milan, Italy, **Poster**

PATENT APPLICATIONS

[2020] Test sierologico per coadiuvare la diagnosi e il monitoraggio del glioblastoma multiforme. p.number P3666IT00

PROJECTS

[2022-current] Participant in the research activities of the project: "Nanotechnology-based rapid in vitro diagnostic test for pancreatic cancer" funded by the AIRC Foundation, Project Code: Id. 24521; Project manager: Prof. Daniela Pozzi

HONOURS AND AWARDS

[2020] Progetto Avvio alla Ricerca, Tipo 1, Sapienza, University of Rome Project title: 'Personalized Graphene Oxide-Protein Corona for early stage cancer detection', Number of protocol: AR120172B93937F3