



## Erica Quagliarini

**Nationality:** Italian

**Phone:** (+39) 3923890672

**Date of birth:** 19/04/1992

**Gender:** Female

**Email address:** [erica.quagliarini@uniroma1.it](mailto:erica.quagliarini@uniroma1.it)

**Address:** residence: Via della Giuliana 6, 00195 domicile: Via Mario Fascetti 5, 00136, Rome (Italy)

### WORK EXPERIENCE

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#### Internship

**University of Zaragoza, Instituto de Nanociencia de Aragón (INA)** [ 01/01/2018 – 15/06/2018 ]

City: Zaragoza

Country: Spain

Synthesis and functionalization of gold nanospheres with peptidomimetics for the treatment of Multiple Sclerosis. Biological validation of the systems obtained through cell viability assay and ICP-MS analysis.

#### Tutoring

**Camplus-Roma** [ 01/10/2019 – 01/08/2021 ]

City: Rome

Country: Italy

Tutoring for university students in many field such us : Organic Chemistry, Inorganic Chemistry, Chemical Engineering, Analytical Chemistry

#### Science and Mathematics teacher secondary school

**Istituto comprensivo Paolo Stefanelli** [ 01/11/2020 – 30/11/2020 ]

City: Rome

Country: Italy

Manage class of 30 first, second and thirs grade students by teaching them the basic of biology, chemistry and mathematics

### EDUCATION AND TRAINING

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#### Bachelor Degree in Chemistry

**Univerisity of Rome, La Sapienza** [ 03/10/2011 – 25/05/2015 ]

**Address:** Pzz.le Aldo Moro 5, 00185 Rome (Italy)

**Field(s) of study:** Analytical Chemistry

**Final grade :** 104/110

**Thesis:** Peptidome characterization of food matrix using nano-HPLC chromatography and hr mass spectrometry

## Master Degree in Organic Chemistry

*Univeristy of Bologna, Alma Mater Studiorum* [ 01/01/2016 – 14/09/2018 ]

Address: Department of Chemistry 'Giacomo Ciamician', Via Francesco Selmi 2 , 40126 Bologna (Italy)

Field(s) of study: Nanoscience, Organic Chemistry

Final grade : 110/110

Thesis: Synthesis and functionalization of gold nanospheres with peptidomimetics for MS treatment

## PhD in Chemical Science, 34th cycle

*Univeristy of Rome, la Sapienza* [ 03/10/2018 – Current ]

Address: Pzz.le Aldo Moro, 5, 00185 Rome (Italy)

Field(s) of study: Nanomedicine, Gene Therapy, Drug delivery, Graphene Oxide

Thesis: Synthesis and development of new nanomaterials for theranostic applications

## LANGUAGE SKILLS

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Mother tongue(s): **Italian**

Other language(s):

### English

LISTENING B2 READING C1 WRITING C1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

### Spanish

LISTENING B1 READING B1 WRITING A2

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

## DIGITAL SKILLS

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Microsoft Excel / MathLab / OriginPro 85 / Fiji-ImageJ

## PUBLICATIONS

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**Di Santo, R.; Quagliarini, E.; Palchetti, S.; Pozzi, D.; Palmieri, V.; Perini, G.; Papi, M.; Capriotti, A. L.; Lagana, A.; Caracciolo, G. Microfluidic-generated lipid-graphene oxide nanoparticles for gene delivery. Applied Physics Letters, 2019, 114.23: 233701.**

[2019]

<https://aip.scitation.org/doi/10.1063/1.5100932>

<https://doi.org/10.1063/1.5100932>

**Quagliarini, E.; Di Santo, R.; Palchetti, S.; Ferri, G.; Cardarelli, F.; Pozzi, D.; Caracciolo, G.; Effect of protein corona on the transfection efficiency of lipid-coated graphene oxide-based cell transfection reagents. Pharmaceutics, 2020, 12.2: 113.**

[2020]

<https://www.mdpi.com/1999-4923/12/2/113>

<https://doi.org/10.3390/pharmaceutics12020113>

**La Barbera, G.; Capriotti, A. L.; Caracciolo, G.; Cavaliere, C.; Cerrato, A.; Montone, C. M.; Piovesana, S.; Pozzi, D.; Quagliarini, E.; Laganà, A.; A comprehensive analysis of liposomal biomolecular corona upon human plasma incubation: The evolution towards the lipid corona. Talanta, 2020, 209: 120487.**

[2020]

<https://www.sciencedirect.com/science/article/abs/pii/S0039914019311208?via=ihub>

<https://doi.org/10.1016/j.talanta.2019.120487>

**Quagliarini E.; Di Santo R., Pozzi D., Caracciolo G., Protein corona-enabled serological tests for early stage cancer detection. *Sensors International*, 2020, 1: 100025.**

[2020]

<https://www.sciencedirect.com/science/article/pii/S2666351120300255?via=ihub>

<https://doi.org/10.1016/j.talanta.2019.120487>

**Di Santo, R.; Digiaco, L.; Quagliarini, E.; Capriotti, A. L.; Laganà, A.; Zenezini Chiozzi, R.; Caputo, D.; Cascone, C.; Coppola, R.; Pozzi, D.; Caracciolo, G.; Personalized graphene oxide-protein corona in the human plasma of pancreatic cancer patients. *Frontiers in bioengineering and biotechnology*, 2020, 8: 491.**

[2020]

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7261887/>

doi: 10.3389/fbioe.2020.00491

**Quagliarini, E.; Di Santo, R.; Pozzi, D.; Tentori, P.; Cardarelli, F.; Caracciolo, G.; Mechanistic insights into the release of doxorubicin from graphene oxide in cancer cells. *Nanomaterials*, 2020, 10.8: 1482.**

[2020]

<https://www.mdpi.com/2079-4991/10/8/1482>

<https://doi.org/10.3390/nano10081482>

**Perini, G.; Giulimondi, F.; Palmieri, V.; Augello, A.; Digiaco, L.; Quagliarini, E.; Pozzi, D.; Papi, M.; Caracciolo, G.; Inhibiting the Growth of 3D Brain Cancer Models with Bio-Coronated Liposomal Temozolomide. *Pharmaceutics*, 2021, 13.3: 378.**

[2021]

<https://doi.org/10.3390/pharmaceutics13030378>

<https://doi.org/10.3390/pharmaceutics13030378>

**Di Santo, R.; Quagliarini, E.; Digiaco, L.; Pozzi, D.; Di Carlo, A.; Caputo, D.; Cerrato, A.; Montone, C. M.; Mahmoudi, M.; Caracciolo, G.; 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.**

[2021]

<https://pubs.rsc.org/en/content/articlelanding/2021/BM/D1BM00488C#!divAbstract>

<https://doi.org/10.1039/D1BM00488C>

## **CONFERENCES AND SEMINARS**

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### **Workshop Nanomedicine 2019**

[ Università la Bicocca, Milan, Italy, 02/05/2019 – 03/05/2019 ]

Poster 'Lipid-coated graphene oxide as an efficient gene delivery nanovector' Quagliarini, E., Di Santo, R., Palchetti, S., Pozzi, D., Palmieri, V., Perini, G., Papi, M., Capriotti, A.L., Laganà, A., & Caracciolo, G.

### **Graphene Week 2019**

[ Marina Congress, Helsinki, Finland, 23/09/2019 – 27/09/2019 ]

Poster 'Microfluidic-generated lipid-coated graphene oxide as an efficient gene delivery nano vector' Quagliarini, E., Di Santo, R., Palchetti, S., Pozzi, D., Palmieri, V., Perini, G., Papi, M., Capriotti, A.L., Laganà, A., & Caracciolo, G.

## **PATENTS**

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**Test sierologico per coadiuvare la diagnosi e il monitoraggio del glioblastoma multiforme/ Caracciolo, Giulio; Di Carlo, Angelina; Pozzi, Daniela; Digiacomo, Luca; Di Santo, Riccardo; Quagliarini, Erica. -p.number P3666IT00 (2020).**

[ 2020 ]