

Erica Quagliarini

WORK EXPERIENCE

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

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

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

Microsoft Excel / MathLab / OriginPro 85 / Fiji-ImageJ

PUBLICATIONS

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

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

**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]