



Serena Renzi

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WORK EXPERIENCE

Visiting research student

Robert Gordon University [05/02/2018 – 05/10/2018]

City: Aberdeen

Country: United Kingdom

I conducted a research aimed to investigate the possible role, in proliferative pathways, of a G-protein, overexpressed on Pancreatic Cancer Cells, in order to find a target for a new therapy.

I learned how to maintain cancer cells culture and to apply several techniques such as: Proliferative assays, gene knock-down by Transfection with siRNA, RNA extraction and Quantification, Retro Transcription and q-PCR analysis.

PhD position

Sapienza Università di Roma [01/11/2020 – Current]

City: Rome

Country: Italy

My project is focused on the development of a new vaccine-delivery technology. The first part of the work is to design a plasmid DNA (pDNA) carrying the Spike protein coding gene. After the amplification and purification, the pDNA is encapsulated into lipid nanoparticles enriched by a protein corona. The identity of the pre-formed protein corona will drive and help the selective interaction of the carriers with specific target cells. The validation of the delivery system will be performed *in vitro* using different human cell lines. In this way we will verify the effectiveness of transfection and spike protein production from cells.

Further *in vivo* studies may be needed to assess the efficacy of the vaccine in the immune response stimulation.

This technology is meant to be employed against the new SARS-Cov2 but may be easily converted to be used in different infectious diseases as preventive medicine or even in therapy as drug delivery strategy.

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 Word / Microsoft Excel / Outlook / Power Point / Microsoft Powerpoint / Google Drive / Facebook / Microsoft Office / Zoom / Google Docs / Skype

Statistics and bioinformatics tools

chemdraw / GraphPad PRISM / clustal omega / BLAST

EDUCATION AND TRAINING

Bachelor's Degree

Università degli Studi di Camerino [01/10/2008 – 16/11/2017]

Address: Camerino (Italy)

www.unicam.it

Field(s) of study: Biology

Final grade : 98/110 – Level in EQF: EQF level 6

Thesis: "Characterization of Asaia Isolated from the Malaria Vector Anopheles Darlingi"

Inorganic Chemistry, Organic Chemistry, Physic and Mathematic, Structure and function of Cell and Tissues, functional and developmental Cell Biology, Molecular biology and Heritage, biological evolution and biodiversity, Immunity and Microbiology, Diagnostics, human Biology, Parasitology.

24 CFU certification

Università degli Studi di Camerino [01/02/2019 – 01/04/2019]

Address: Camerino (Italy)

www.unicam.it

Master degree

Università di Camerino [05/10/2018 – Current]

Address: Camerino (Italy)

www.unicam.it

Field(s) of study: Biological Sciences, molecular diagnostics and biotechnology

Final grade : 110/110 cum laude – Level in EQF: EQF level 7

Thesis: "Study of 3'-tRNA^{Glu}TTC derived fragment: processing, function and delivery."

Genomics and Proteomics, High Performance Bio-analytical methods, Epigenetics and Advanced Molecular Biology, Biology of cancer and Biomolecular Therapeutic Agents, Clinical and Molecular Diagnostics (1st year)

Stem Cell Technologies and Animal Models, Molecular Parasitology, Molecular Ecology, Molecular Archeological and Forensic Anthropology, Microbial Pathogenesis and Biofilms (2nd year).

Certificate: Tropical coastal ecosystems (Tropic101x)

EDX: mMOOCs [08/01/2018 – 08/02/2018]

www.edx.org

Field(s) of study: ecology