



Mohamed Saqawa



EDUCATION AND TRAINING

PhD Student

Institute of Science, Technology and Sustainability for Ceramics (CNR-ISSMC) [Oct 2023 – Current]

City: Faenza

Country: Italy

Website: <https://www.issmc.cnr.it/>

Utilizing the concept of tumor engineering, we aim to construct a 3D in-vitro model that replicates the osteosarcoma microenvironment, thus improving the biological validation of the therapeutic agent. This research area holds significant potential for accelerating drug screening and advancing personalized medicine. Additionally, we will utilize this in-vitro model to investigate various innovative therapeutic platforms for osteosarcoma developed through our collaboration within the STRIKE MSCA network.

Erasmus Master Degree

European master of Bio & pharmaceutical material science (BIOPHAM) [Aug 2021 – Current]

Address: 42 Rue Paul Duez, Lille, France, 59000 Lille (France)

Website: <https://www.master-biopham.eu/>

BIOPHAM is an Erasmus master's degree that aims to provide qualified material science students for the pharmaceutical industry. It is divided into three academic semesters followed by a 6-month research thesis. During this degree, I was exposed to some of the essential topics in pharmaceutical development that induces out-of-equilibrium systems, soft matter, molecular mobility in the amorphous system, and thermodynamics & phase transition. In addition gained a hands-on experience with different characterization techniques used across the pharma industry including DSC, XRD, TGA, DRS, and optical microscopy. Furthermore, I studied and prepare different drug formulations with a focus on the production of tablets.

Bachelor of Science

University of Science and Technology at Zewail City [Aug 2017 – Jul 2021]

Address: 6th of October City, Giza Governorate, 12578 Giza (Egypt)

Website: <https://www.zewailcity.edu.eg/>

Field(s) of study: Nanoscience/ Nanomedicine concentration

Final grade: 3.54/4

Thesis: A Tissue Engineering Scaffold of Nanofibers and Hydrogel for Peripheral Nerves Regeneration.

High School Certificate

STEM Egypt high school for boys [Jul 2014 – Jun 2017]

Address: 6th of October, Giza governorate, Giza (Egypt)

Website: <https://www.stemegypt.net/>

WORK EXPERIENCE

Visiting student at centre for 3D models of health and disease

University college London [Feb 2023 – Aug 2023]

Country: United Kingdom

This experience will be done as my master's thesis. The aim of the project is to study the different parameters affecting the development of Pancreatic Ductal Adenocarcinoma. My duties will involve 3D tissue culturing, immunohistochemistry, scaffold fabrication and characterization.

R&D trainee

MyBiotech GmbH [Jun 2022 – Aug 2022]

City: Überherrn, Saarland

Country: Germany

First, I was trained on different standard operating procedures (SOPs) and good manufacturing practices (GMP) guidelines that are followed in the company.

Secondly, I was assigned to a project that aims to optimize an innovative polymeric drug delivery system loaded with monoclonal antibodies at therapeutically relevant concentrations whilst protecting and investigating their mucoadhesion properties for intranasal administration.

Keywords that summarize my experience in MyBiotech:

Nanoformulation development, process optimization, continuous nanoformulation manufacturing, release testing, Analytical methods development and validation including spectrophotometric methods and HPLC-UV/Vis, DLS, NanoDis.

Junior Research Assistant

Center of Material Science, University of Science & Technology, Zewail City [Jun 2018 – Jun 2021]

City: Giza

Country: Egypt

- Conduct different physical and chemical synthesis techniques for metallic and polymeric nanoparticles.
- Experienced with electrospinning, spray drying, lyophilization, and rotary evaporator methods for producing nanostructures and composites.
- Familiar with SEM, TEM, cyclic voltammetry, EIS, AFM, XRD, FTIR, UV-Vis, TGA, and Zetasizer devices for nanomaterials characterization.
- Trained on different software like EndNote, ImageJ, Pymol, MOE, MATLAB, and COMSOL.

Trainee at New Trends in Functional Foods training program

City of Scientific Research and Technological Applications [Jan 2021]

City: Alexandria

Country: Egypt

Research assistant

UN ESCWA technology center [Oct 2020 – Jan 2021]

- Design roadmap for Science and Technology implementation to achieve the sustainable development goals in the Arab region.
- Attending lectures about personal developing skills.

HONOURS AND AWARDS

Cum Laude Graduation Honor

University of science and technology at Zewail city [Aug 2021]

1st place On-Campus 2021 HULT Prize

Zewail city, Egypt [Dec 2020]

Silver medal at the International Natural Sciences Tournament (INST) Grand Final

International Natural Sciences Tournament [10 Feb 2020]