Open position for Senior Biologist, having at least 2-3 years of experience after PhD

Place: TNHLab at the Department of Applied Science and Technology, Politecnico di Torino

Supervisor: Prof, Valentina Cauda

Info on lab activities and projects: https://areeweb.polito.it/TNHlab/

The TrojaNanoHorse Laboratory (in brief TNH LAB), led by Prof. Valentina Cauda, is looking for a senior biologist for a 2 years post doc position.

The laboratory leads the field of multifunctional theranostic nanosystems for drug delivery, stimuli-responsive therapy, and nanoconstrast agents for imaging mainly driven against cancer cells. Currently, 20 people operate in the lab, including 5 post-docs, 6 PhDs and 9 Master students at DISAT- Politecnico di Torino. The laboratory expertise goes from wet chemical synthesis of nanomaterials, specifically metal oxide inorganic nanoparticles, like zinc oxide, mesoporous silica, titania and their chemical functionalization. The lab is equipped with several state of the art and advanced instrument useful for the physical-chemical characterizations of such metal oxide nanomaterials and their stimuli-responsive activation by physical stimuli. From a biological perspective, a biosafety II lab is available for state-of-the-art cell culture and related cell biology tests, including fluorescence microscopy techniques and flow cytometry. The laboratory is also expert in the extraction of extracellular vesicles from both cancer and healthy cultured cells and their re-engineering for advanced drug delivery and nanoimaging vehicles. More info at the web-site: www.polito.it/TNHlab.

We are looking for brilliant, enthusiastic senior scientist with main expertise in biology, whose role is to undertake the responsibility of the cell culture laboratory and carry in-vivo test using the nanoparticles developed within the TNH Lab. Experience to manage experiments with autonomy, a problem-solving attitude, fluent English, ability to work in a multidisciplinary environment and team work are considered as strength.

Requested skills: Cell and tumor biology, flow cytometry, fluorescence microscopy (confocal and possibly live-cell imaging with time-lapse fluorescence microscopy); molecular biology techniques, animal manipulation and in-vivo test with tumor xenograft, statistical data analysis.

Preferred experience with: extracellular vesicle extraction, including differential ultracentrifugation; techniques for EVs characterization; experience on 3D cell models, spheroids; techniques for antibody manipulation and cell targeting; nanoparticles tests with cells for cancer therapy; sonodynamic therapy