

CV Profile

I *Stefano Gambera* (Outgoing+return candidate)

Research interests

During my career I developed a great interest in stem cell biology, oncology, and immunology. I am fascinated by translational biomedical research, where cell-based and cell-derived therapies could represent really interesting approaches for treating cancers, inflammatory diseases, and COVID-19 induced acute and chronic effects. In oncology, I also have a strong interest in cancer evolution, pre-clinical models, and personalized medicine. Last year, my project received the seal of excellence for the development of zebrafish Avatars able to predict patients' responses to chemotherapies. Similarly, lab-on-chip devices and organoids represent another interesting way to predict cell-intrinsic determinants of drug efficacy and toxicity. However, I consider also really fascinating therapies designed to target host-microenvironment, where immune checkpoint regulators and CAR-T/NK cells represent the most promising and recent advancement in the field. On this topic, NGS technologies represent really fascinating tools for immunological landscape determination and network biomarkers identification, able to guide the design of patient-specific immunotherapies. To conclude, I am motivated to explore the field of artificial intelligence and its application in biomedicine. I am available to discuss any project of your interest.

Education

Ph.D. Student: (Sept 2015 - Today) (5 years of research experience)
National Institute of Health Carlos III and University Complutense of Madrid, (Spain)
Specialistic Degree in Medical Biotechnology: (Dic 2009 – Jul 2012)
University Magna Grecia, Catanzaro (Italy)
Degree in Biotechnology: (Oct 2006 – Oct 2009)
University Magna Grecia, Catanzaro (Italy)

Experience

Clinical training courses, (Spain) 2019–2020
Stethotelephone - ARCON srls, (Italy) Jan 2018–Jan 2019
Position: Collaborator
Achievements: Acquisition of knowledge in project management, start-up companies, and marketing. Development of medical devices.
On-the-job learning: Development of specific methodologies, techniques, data review, validation, and interpretation, production of internal reports/communications, technical and scientific advisory support, establishment of collaborations, and market development.
Hospital 12 de Octubre, (Spain) Jul 2017–Dic 2017
Position: Research Assistant
Achievements: Acquisition of advanced knowledge in brain tumors models, brain tumors pathology, and immunology. Pre-clinical testing of new therapeutic strategies based on natural compounds with antioxidant and immunomodulatory activity (Ocoxin+Viusid, Catalysis S.L).
On-the-job learning: Immunological response studies to chemical compounds.
National Institute of Health Carlos III, (Spain) Oct 2015–Jul 2017

Position: Research Assistant

Achievements: Acquisition of advanced knowledge in sarcomas biology and immunology. Development of pre-clinical murine and human cancer models (osteosarcoma, chondrosarcoma, and soft tissue sarcomas), and platforms for live testing cancer evolution, circulating tumor cells, and anti-tumor immunological response. Development of advanced methods for single-cell data analysis. Participation at national and international congresses, establishment of collaborations, publications, and patent.

On-the-job learning: Cell engineering (lentiviral and adenoviral vectors), cellular barcoding (RGB-marking, and LAM-PCR insertion site analysis), cancer stem cells isolation methods, flow cytometry (multiparametric immunophenotyping, clonal studies, and cell sorting), histology (sample processing for FFPE, cryosectioning, and staining), immunohistochemistry, immunofluorescence, and confocal microscopy. Knowledge of bioinformatics tools for pathway analysis, immune cell estimation, and software for image and data processing, statistical analysis, and data presentation.

University Hospital Niño Jesús, (Spain) Sept 2013–Sept 2015

(2 years of research experience)

Position: Staff biologist

Achievements: Acquisition of advanced knowledge in cellular therapies manufacturing and development. Pre-clinical development of cellular therapies based on mesenchymal stem cells for the treatment of bronchopulmonary dysplasia, osteoarticular degeneration, and cell-based oncolytic viro-immunotherapies. Participation at national and international congresses, establishment of collaborations, and licensed for animal experimentation.

On-the-job learning: Molecular biology (DNA, RNA and protein manipulation, amplification and sequencing), cellular biology (eukaryotic cells handling, primary cells isolation and characterization, 2D and 3D cultures), in vitro assays (differentiation, migration, proliferation, cytotoxicity, transformation, cytokine release, and stress-response), small animal imaging (X-rays, bioluminescence, and fluorescence), and in vivo studies (biosafety, biodistribution, and therapeutic efficacy).

IMDEA Nanoscience, (Spain) Jan 2013–Apr 2013

(3 months of research experience)

Position: Staff biologist

Achievements: Acquisition of basic knowledge on the biophysical properties of DNA and DNA-binding proteins.

On-the-job learning: Optical tweezers, DNA cloning, protocols and reports elaboration, technological surveillance, and data presentations.

University Complutense of Madrid, (Spain) Oct 2011–Jan 2012

Position: Undergraduate research

Achievements: Acquisition of basic knowledge on synthetic surfactant peptides and techniques for biophysical and functional studies. Participation at an international congress.

On-the-job learning: Protocols and reports elaboration, technological surveillance, and data presentations.

University Medical Center, (The Netherlands) Jun 2011–Sept 2011

Position: Undergraduate research

Achievements: Acquisition of basic knowledge of bone tissue engineering and 3D bio-printing.

On-the-job learning: Mesenchymal stem cells and osteosarcoma cell lines handling, hydrogels formulation, osteoinductive biomaterials, 3D bio-printing, cell viability assays, ELISA, protocols and reports elaboration, technological surveillance, and data presentations.

Contact information

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