

## CV Profile

1 *Magdiel Perez-Cruz, Ph.D.*

### Research interests

I have been interested in biomedicine to study immunity, infection diseases and tolerance. I am author of several publications in the field of immunology and immunotherapy. I have been awarded different international grants from Carolina and IDIBELL Foundations, among others. In addition, I have worked on the development of novel immunology-based therapies using antibodies and cell therapy to prevent or treat exacerbation of inflammatory diseases and cancer, as well as to induce immune tolerance in transplantation. Several international patents protect these innovations; some of them have been licensed to RemAb Therapeutics and Triursus Therapeutics.

### Education

- 2012 Ph.D. in Biomedicine (sub-program of Immunology), University of Barcelona, Spain.
- 2009 Master's in Biomedicine, University of Barcelona, Spain.
- 2007 Accreditation (Research Staff): Handling of experimental animals, Generalitat de Catalunya, Spain.
- 2007 Master's in Biochemistry (sub-program of Molecular Biology), University of Havana, Cuba.
- 2003 B.Sc. in Biology, Faculty of Biology, University of Havana, Cuba. (Degree accredited by the Spanish Ministry of Education).

### Sector of activity

Infection diseases; Inflammation; Tolerance; Immune regulation; Immunotherapy

### Experience

- October 2019-September 2020 Research scientist, Le STUDIUM Valley Institute for Advanced Studies, ARD2020 Biomedicaments, INEM UMR7355, CNRS and University d'Orleans, France. (12 months)*
- June - September 2019 Basic life research scientist, Blood and Marrow Transplantation division, Department of Medicine, Stanford University, United State of America. (4 months)*
- March 2016- May 2019 Post-doctoral investigator, Blood and Marrow Transplantation division, Department of Medicine, Stanford University, United State of America. (39 months)*
- 2014-2015 Post-doctoral investigator, Center of Infection and Immunity from Lille, INSERM U1019 – CNRS UMR 8204, University of Lille 2, Pasteur Institute from Lille, France. (22 months)*
- 2012-2013 Post-doctoral investigator, New Gene Therapy and Transplantation Laboratory, Bellvitge Biomedical Research Institute (IDIBELL), Spain. (10 months)*

2007-2012 Pre-doctoral investigator, New Gene Therapy and Transplantation Laboratory, Bellvitge Biomedical Research Institute, Spain. (60 months)

2007 Collaborating Investigator: Internship in Ramón y Cajal Hospital – University of Alcala, Madrid, Spain. Diagnostic and genetic investigation of auditory diseases. (6 months)

2003-2007: Production Manager, Allergenic Extracts and T-Biomoduline (Specialist A in bioproducts). National Center of Bioproducts (BioCen), Cuba. (41 months)

In Production Manager position, I was responsible for vaccine production management, scaling-up production, protein purification, quality management, process validation, stability studies and ultra-cleaning and maintenance of clean rooms. The results obtained contributed to six Institutional Achievements.

### **General indicator of research activity and quality of scientific production**

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Total publication records: 20 per-reviewed international papers Inventor of 11 patents, and 3-chapter book and over 27 presentations in international conferences.

### **Laboratory Skills**

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Immunology: Innate immunology: Natural antibodies, Complement system, Inflammation and Infection. Adaptive immunology: Vaccines and immunotherapies, Regulatory T cells biology, Allergy, Autoimmunity.

Animal Models: Diabetes models; Islet and skin transplantation; Colitis model; Chronic obstructive pulmonary disease and exacerbation, Idiopathic pulmonary fibrosis or Allergy models; Bone marrow transplantation; Xenograft and Cecal Ligation and Puncture (CLP) models in rats and mice; Pancreas cancer and angiogenesis model in mouse RIP-Tag2. Histological analysis of tissue. In Vivo fluorescence and luminescence imaging (in vitro and in vivo).

Cell Biology Techniques: Cell and bacteria culture, isolation of regulatory T cells by cell sorting, PBMCs and porcine chondrocytes, co-culture assay, culture and screening of hybridoma clones, production and purification of monoclonal antibodies, antibody cross-reactivity, protein expression and molecule deposition in live cells by Flow cytometry.

Molecular Biology Techniques: ELISA, Western blotting, Preparation of cDNA, DNA and protein extraction from cells, PCR, DNA sequencing, transfection, Chimeric Antigen receptor (CAR), antibodies specificity by Glycan arrays, liquid chromatography, Biacore™ T200 (initial training), bioinformatics analysis.

Statistical analyses and interpretation of results.

**Languages:** Spanish: Native speaker; English and French: Professional.

**Lab Software:** Diva, Cell Quest, FlowJo and Kaluza program for acquisition and analysis by Flow cytometry; Cell sorting, IVIS 100 system, Irradiator system, ScanArray Express program (PerkinElmer) for acquisition and analysis by Glycan arrays, Bioinformatics analysis.

## Contact information

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