



Elena Maroto Martín, PhD

Senior biomedical scientist (PhD) with 8+ years immersed in the exciting world of immunotherapy and drug development, I specialize in CAR-T/NK cell engineering and molecular biology. I thrive on transforming innovative ideas into real therapeutic strategies, optimizing preclinical models, and pushing the boundaries of **oncology**. I've led complex projects and **international collaborations**, with hands-on expertise in antibody engineering, ADC development, and cell therapy. My goal is to translate groundbreaking laboratory discoveries into clinically relevant therapies, accelerating the development of next-generation treatments for patients.

PROFESSIONAL EXPERIENCE

Senior Research Scientist

04/2023 - Present

Harvard Medical School / Dana-Farber Cancer Institute (DFCI), Boston USA

- Led novel immunotherapy projects targeting hematological cancers, managing them from concept to execution.
- Identified and validated new therapeutic targets in vitro and in vivo using advanced data analysis, supporting biologic and cell therapy development.
- Engineered next-generation CAR-T therapies, contributing to targeted cancer treatments.
- Secured funding through successful grant writing, strategic project planning, and cross-institutional collaboration.
- Ensured compliance with industry regulations (SOPs, GCP, FDA/ICH).
- Collaborated with clinician and industry experts to translate research into therapeutic applications.
- Prepared and delivered scientific presentations at major conferences and international meetings.
- Mentored junior researchers, fostering career growth and team development.

Visiting Research Scientist

07/2023 - Present

Massachusetts Institute of Technology (MIT), Cambridge USA

- Developed antibody-dug conjugates (ADCs) for targeted cancer therapies, including synthesis, purification, and evaluation.
- Designed and implemented binding assays to assess antibody specificity and functionality, supporting drug development and quality control.
- Led collaborative research projects, coordinating cross-disciplinary teams to advance antibody-based immunotherapies.
- Prepared and presented results, driving strategic decisions and project direction.

Scientific Research Assistant

02/2018 - 04/2023

Fundación de Investigación Biomédica, Hospital U. 12 de Octubre, Madrid

- Designed and optimized two CAR-NK products for treating multiple myeloma, enhancing therapeutic efficacy.
- Contributed to the scale-up of cell-based therapies and GMP-compliant manufacturing processes.
- Ensured compliance with EMA and GMP standards in research.
- Presented research at 2+ national and 4+ international congresses, earning two awards for outstanding presentations.
- Led and mentored BSc and MSc students, providing guidance on research projects and professional development.

Research Intern

09/2014 - 07/2015

University of Ljubljana, Slovenia

- Collaborated on cancer research projects, focusing on protein-based studies in the Department of Biochemistry.
- Developed strong problem-solving and technical skills, contributing to advancing oncology research.

EDUCATION

PhD in Biomedical Research

Universidad Complutense de Madrid (2018-2023)

Title: Development of allogeneic CAR NK therapies for relapsed multiple myeloma patients. *Summa Cum Laude*

MSc in Health Analysis

Universidad Complutense de Madrid (2015-2017)

BSc in Biochemistry

Universidad Complutense de Madrid (2011-2015)

COURSES

Course Data Management for Clinical Research | Vanderbilt University | 2022
Course Introduction to Bioinformatics in Drug Discovery | Universidad Complutense de Madrid | 2021
Course Immunotherapy and Cellular Therapy in Hemato-Oncology | Clínica Universidad de Navarra | 2019
Course Handling of laboratory animals (functions A, B, and C). National Cancer Research Center (CNIO) | 2018.

CONTACT

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CORE COMPETENCIES

- Cross-functional Collaboration & Project Leadership
- CAR-T/NK Cell Engineering & Advanced Immunotherapies
- Hematology, oncology & molecular biology
- Translational Research & Drug Development
- Preclinical model design & Validation
- Data Analysis & Omics Data Integration
- Antibody Engineering & ADC Development
- Regulatory Strategy & IND-Enabling Studies

SKILLS

- Project management
- Scientific communication skills
- Proactivity
- Fast learning and adaptability
- Problem solving
- Assertiveness and empathy
- Strategic planning
- Cross functionality
- Team work

HONORS

- **2021, Vienna (Austria). Young Investigator Award for Exemplary Abstract.** 18th International Myeloma Workshop Annual Meeting
- **2019, Boston (USA). Young Investigator Award for Exemplary Abstract.** 17th International Myeloma Workshop Annual Meeting

OTHER INFO

- Spanish: Native
- English: fluent (C1)
- Driving license: B



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