



# Elena Maroto Martín, PhD

**Biomedical scientist (PhD)** with over 8 years of experience in advanced immunotherapy development, specializing in CAR-T/NK cell engineering and biologics. Proven expertise in project management, translational research, and preclinical validation of therapeutic candidates. Skilled in integrating omics data, designing preclinical models, and leading cross-functional teams. Strong international experience and results-driven approach to drug development. Seeking to apply my expertise in a pharmaceutical or biotechnology setting to advance innovative therapies from research to market.

## 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)

## CONTACT

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Currently based in Boston, USA  
(6-hour time difference with Spain)

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## CORE COMPETENCIES

- **Project Leadership. Expertise in managing and executing complex research projects**
- **Regulatory & Compliance.** Knowledge of industry standards (GMP, GCP, FDA/ICH) and regulatory frameworks.
- **Therapeutic Development.** Proficient in antibody engineering, ADCs, CAR-T/NK therapies, and biologics.
- **Data Analysis & Omics.** Skilled in integrating omics data and driving translational research.
- **Scientific Communication.** Strong background in presenting complex data to diverse audiences.
- **Cross-Functional Collaboration.** Effective team leader, collaborating with multidisciplinary teams to drive therapeutic innovation.

## SKILLS

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

## OTHER INFO

- Driving license: B
- 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

## LANGUAGES

Spanish ●●●●●

English ●●●●○