

## ALUMNI STORIES

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**Marta M. Alonso, Ph.D.**

Associate Professor, Department of Pediatrics  
Clinica Universidad de Navarra

Pamplona (Navarra), Spain

## What do a firefighter, licensed truck driver, teacher, and brain tumor researcher have in common?

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The answer is Marta M. Alonso, Ph.D., a researcher focusing on the development of advanced therapies, specifically oncolytic viruses, for pediatric brain tumors.

While Dr. Alonso pursued Ph.D. studies in her native Spain and because she was unsure of what she wanted to do with her career, she trained to be a firefighter and a licensed truck driver and was prepared to go to Peru to teach underprivileged children. Her mother is to be credited with keeping Dr. Alonso on track. She assured Dr. Alonso that when she finished her Ph.D., she could do anything she wanted to do. But in the meantime, her mother's advice was "please finish your Ph.D.!" Heeding her mother's plea, Dr. Alonso earned a Ph.D. in Biological Sciences and pursued postdoctoral training at MD Anderson Cancer Center in Houston. And today many parents of children with brain tumors around the world are grateful Dr. Alonso chose cancer research as her career.

Dr. Alonso was raised in the small town of Lodosa (Navarra) in Spain. As a child she described herself as a "happy camper" with a normal childhood. As she began to think about what she wanted to do with her life, she knew she wanted to be in a career where her work made a positive difference in the lives of others. She gravitated toward biological sciences, and it was a high school teacher who helped "spark her light" in deciding to pursue a research career. Following high school, she moved to Spain's capital of Pamplona where she earned undergraduate and graduate degrees as well as a Ph.D. in biological sciences from 2 universities located in the town famous for the Pamplona Bull Run, also known as the Running of the Bulls.

What turned the tide for Dr. Alonso's career choice occurred during a 3-month internship at MD Anderson Cancer Center in Houston, Texas. During the internship she met people who would become her future coaches and mentors. She flourished during the internship – so much so that she was invited to remain in Houston for long-term postdoctoral studies.

During her postdoctoral training at MD Anderson, she was fortunate to receive the opportunity for fellowship studies with the Chicago-based American Brain Tumor Association. The fellowship was funded by a family with a child with a medulloblastoma brain tumor. While in Chicago, she

met this family and child and saw how much work needed to be done in the field of pediatric brain tumor research. At the time she didn't know a lot about pediatric brain tumors. Yet her visit with the family defined her career trajectory. She decided she would pursue a research career focusing on developing therapies for pediatric brain tumors, especially Diffuse Midline Gliomas and Atypical Teratoid Rhabdoid Tumors which are amongst the most aggressive of brain tumors. And off she went and has never looked back.

Dr. Alonso was at MD Anderson for 10 years, eventually serving as an instructor. During this time, she met and married her husband and added two children to their family. A third child was born into the family after moving back to Spain where Dr. Alonso continued to work with her academic and career mentors, [Juan Fueyo, M.D.](#), and [Candelaria Gomez-Manzano M.D.](#), both of whom are MD Anderson Cancer Center faculty members in the Department of Neuro-Oncology.

Upon relocating to Spain, Dr. Alonso became an independent Principal Investigator, or PI, and opened her own lab with the help of several funding sources, including a United States Department of Defense grant. This grant specifically addressed unmet needs that are important to the military, such as the impact on a family caring for a child with a brain tumor. Dealing with such a life-changing event can be both distracting and can impact the performance of the military family member.

Like so many researchers that have come before Dr. Alonso, she went into her career thinking that doing the work she had trained for would be enough. She quickly learned that beyond being bright, bold, and knowing how to apply a scientific method, she needed a set of softer skills not taught in the classroom. With the support of her mentors, [Dr. Fueyo](#) and [Dr. Gomez-Manzano](#), she learned how to collaborate with people, how to interact with others as a PI, how to handle behind-the-scenes politics, and how to balance work and home life as well as key leadership traits that bring out the best in those with whom you work, not letting their attitudes or behaviors deter your career path and decisions.

Dr. Alonso's career and the *Running of the Bulls* in Pamplona, Spain have some commonalities. The *Running of the Bulls* began in olden times when the town butchers were responsible for bringing in the bulls from the ranches. Young apprentice butchers began to accompany the bull minders – *the pastores* – who would shepherd the bulls throughout the narrow course. Often, they would run ahead of the bulls to entice them forward. Although the course is a relatively short

distance, it is impossible for a runner to cover the whole course due to distance, the presence of many runners and, above all, the enormous speed of the bulls.

At the time Dr. Alonso chose to focus on pediatric brain tumors, there were few tools available to aid what little research was being done on the topic. Aware of the challenge before her, she collaborated with her *pastores*, Drs. [Fueyo](#) and [Gomez-Manzano](#), to help navigate the narrow course before her. Aware of the challenges in the field and with the speed, determination, and strength of a bull, she has moved forward and today contributes significantly toward developing therapies for pediatric brain tumors.

### **Current Employer**

Clinica Universidad de Navarra Pamplona (Navarra), Spain

### **Current Location**

Pamplona, Spain

### **Current Position**

Associate Professor, Department of Pediatrics

### **Works of Interest**

- [Oncolytic DNX-2401 Virus for Pediatric Diffuse Intrinsic Pontine Glioma](#)
- [Link to all of Dr. Alonso's published works](#)

### **Fellowships, Awards & Recognitions**

- 2018 – Scientist of the Year – Cadena Ser (Navarra)
- 2018 – Rural Award – Rural Women
- 2013 – VIII Edition of “L'oreal-Unesco For Women in Science” Award – L'oreal Foundation
- 2011 – Selected as Young Investigator to participate in the RNAREG Consolider Consortium

- Program sponsored by the Spanish Ministry of Science. This is an excellence research network that focuses on RNA.
- 2010 – 2014 – Ramón y Cajal Fellow, Spain
- 2007 – MD Anderson Cancer Center Alumni and Faculty Association Trainee Excellence Award
- 2006 – American Association for Cancer Research (AACR) “Bristol-Myers Squibb in Training” Award
- 2005 – 2007 – ABTA Postdoctoral Fellowship, MD Anderson Cancer Center (USA)
- 2002 – 2003 – Postdoctoral Fellowship, Public University of Navarra, Pamplona, Spain
- 1997 – 2000 – Predoctoral Fellowship, University of Navarra, Spain, Caja Navarra Foundation

## Mentors

*“I had two MD Anderson Cancer Center mentors, and both are great people and great professionals. Dr. Juan Fueyo and Dr. Candelaria Gomez-Manzano were instrumental in preparing me for a career in pediatric brain tumor research. They taught me scientific ways and gave me opportunities to shine and explore my ideas. They guided me in how to balance my personal life with my scientific life and so many other issues that arise in the life of a scientist. They taught me many of the softer skills required of a successful researcher, and they led by example. They are awesome leaders in their field, and I continue to collaborate with both of them today.”*

- **Juan Fueyo, M.D., F.A.A.N., F.A.A.A.S.**, Professor, Department of Neuro-Oncology - Research, Division of Cancer Medicine, MD Anderson Cancer Center, Houston, Texas, serves as the Director of Neuro-Oncology Experimental Research and is a regular member of The University of Texas Graduate School of Biomedical Sciences, also in Houston. [Click here](#) to read more about Dr. Fueyo’s research interests, education and training, experience and service, honors and awards, professional memberships, selected publications, and grant and contract support.

- **Candelaria Gomez-Manzano, M.D.**, is a Professor, Department of Neuro-Oncology - Research, Division of Cancer Medicine, MD Anderson Cancer Center, Houston, Texas. [Click here](#) to read more about Dr. Gomez-Manzano's research interests, education and training, experience and service, honors and awards, professional memberships, selected publications, and grant and contract support.

## Family

Married with 3 children, 2 of which were born in the United States and the third one born in Spain. *"My husband speaks Spanish with a Mississippi southern accent!"*

## Online profiles

- [Visit Dr. Alonso's research lab website](#)
- [LinkedIn profile](#)
- [Twitter](#) – @pumorister

## MD Anderson program in which I trained

Research Postdoctoral Fellowship Program, Department of Neuro-Oncology – 2003-2008

## Academic area of specialization

Brain tumor therapies

## Graduate school(s) and training

- MD Anderson Cancer Center – Houston, TX  
Postdoctoral Fellow, Neuro-Oncology – Research, 2003-2008
- Public University of Navarra – Pamplona, Spain  
Postdoctoral Fellowship, 2002-2003  
Ph.D. – Health Sciences, 2001

### **Undergraduate school from which I received a degree**

University of Navarra – Pamplona, Spain  
B.S. & M.S., Biological Sciences – 1997  
Teaching Certificate - 1996

### **High school from which I graduated**

Pablo Sarasate High School  
Navarra, Spain – 1992

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*This article was published and is up-to-date as of January 2023.*

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