Aging is associated with multiple degenerative conditions, such as sarcopenia. No matter social status, genetics, or lifestyle, after 30, we all start to lose muscel mass. The mechanisms underlying ageing of tissues are complex and not fully understood, and I research the contribution of microRNAs to the ageing process, as well as their potential as therapeutic candidates. In my research, I focus on muscle ageing, sarcopenia and resulting frailty.

My mother was a single mother that worked in the library of a computer research center. She had to sacrifice everything for us to be able to have a decent life. She wanted us to get somethig more that what she could get and took us to work with her so we can wonder around of the labs of CITEDI ( Centro de Investigación y Desarrollo de Tecnología Digital) while she worked. I started formal programming at 12 years old and excell in mathematics, going to a couple of state competitions.

With the cards on my favor, I did my undergrad degree in Computer System Engineer. During my years in the undegrad I realized that I could join my talent in computers with my other passion; biology, specially aging. For my thesis I created a classifier for Antimicrobial Peptides using Suport Vector Machines and Multiobjective Optimization in the Ensenada Center for Scientific Research and Higher Education (CICESE). But my jump in aging was still to be done.

I got accepted in a Computer Data Science master program in CICESE, where my PIs worked with me in order to direct my project to aging; Autophagy and scencese. I searched for autophagy inductor peptides combining diferent machine leargning aproaches, and also being the first student in my department to validate their results in wetlab, since I had no background in biology, I was advised on Cell Physiology Department in UNAM (National Autonomous University of Mexico).

I was selected as a PhD student in the SFI Cenre for Reseach Training, CRT. As a part of this programme, I was able to select a project that would interest me and I have followed my passion to use my data science skill to find novel therapeutic targets for aging, in this case, specifctly to sarcopenia.

I aspire to develop computer system products and algorithms for aging research and modeling. Each day I learn more about how to apply my expertise in the area of aging research. During my Ph.D., I have learnt about biology of aging more than ever before.

Attending the AGE conference would allow me to learn about the state-of-the-art in the field and learn from peers who apply computational and mathematic techniques in aging research, at the same time that will allow me to contruct my networking. Aging is an area that I want to continue. I want to dedicate my professional career to aging and computer science, being the USA one of the best places for it.

My PhD scholarship comes with limited resources for conferences and travel. Just tickets to the USA exhaust my foundings for the year.

Finally, I consider myself inquisitive and creative. I have come up more than once with novel techniques for my projects. I believe that I have a lot to learn and offer. That is why I am now applying for this award of the American Aging Association: to be exposed to the cutting edge science in terms of aging, and to network with people in the area that can help me polish my techniques, to share my ideas and expertise as well as learning form the experts around the world.