



## **Angela Tellez**

PhD 2009

**Interviewed by Amelia Forstner**

### **What year did you start at the OAC or the University of Guelph?**

I arrived in Canada on September 15, 2003, and started the PhD program almost immediately in October of 2003.

### **Where did you grow up?**

I grew up in Colombia and lived there until I was 35 years old. Following that, I went to the US to complete my master's degree. After graduation, I returned to Colombia for two more years and then moved to Canada as a PhD student at the University of Guelph.

### **What school did you attend for your undergraduate degree?**

I studied Chemical Engineering at Universidad Industrial de Santander. My options were limited as my parents wanted me to be either a physician or a dentist. Despite that, I knew I loved math, physics, and chemistry, so I decided to become an engineer. It was a five-year degree that required a thesis to graduate. I chose to work in a project focused on solving a problem in the Petrochemical industry. At the time, there were not very many women in the chemical engineering program, but it was an excellent school and going there was the best decision.

### **When did you graduate from the OAC or the University of Guelph?**

I finished all the program requirements in March 2009. As a PhD student, I was required to publish papers based on my research and the topic of my thesis included lab work in vivo and in vitro involving areas such as microbiology, chemistry, and immunology. The group where I did my PhD was very good and my professor is a world known researcher.

## **What made you decide to go to the OAC/University of Guelph for your PhD?**

That's a very good question. When I started searching for research programs to continue my education, one of the options was to go back to the US to do my PhD. I got an offer to do a PhD in chemical engineering, but it was on skin research and cosmetics, and I wasn't really interested. I was already working in the food industry in Colombia and wanted to do a PhD in food science. At the time, I was 39 and back home the maximum age to do a PhD was 35. So, I started looking for other options, and I found out that U of Guelph was the most prestigious university in food and agriculture, and I decided to apply. I contacted Dr. Mansel Griffiths, and he offered me a scholarship to come and work with him. His multiple publications and the topics of research were very interesting. I was particularly interested in the studies he was conducting on probiotics.

## **That's really good you got a scholarship and were going to school for something you're passionate for.**

Yes, it was a great opportunity, and he was very generous to accept me as it was a highly competitive group of very talented people who were all very good at what they were doing. I got accepted in May and was supposed to start in September so that's why I arrived a bit later. I was trying to start in 2004 but, the project was slated to start in 2003 so I had to move to Canada as soon as possible.

## **I can see how that would have been rushed.**

Yes, I had two children, my daughter 15 and my son 9 years old. I had to look for schools and a house in Guelph, prepare them for a new life in a new country. I was very excited about the opportunity to get a PhD from the best food university in Canada, but it was a very difficult decision to leave my family back home. We are a very close family and moving far from them was not easy.

## **I can definitely see how that would have been hard.**

The opportunities in Canada for my career were great and, equally importantly, so were the prospects for my children. The idea was to study for a while and decide whether applying for permanent residence was a good option. My family, and particularly my mom, were very sad to see us leave, but she advised me to stay in Canada and give my children stability and the opportunity to grow in one place. After the first winter and seeing how my children adjusted, I made the life changing decision of applying for permanent residency.

## **After you got accepted, did you visit the campus before you started?**

I was in Colombia when I got accepted and I did a lot of research on the campus and the size of the university, the programs, and the support for international students. I researched the type of jobs available, the city, schools, housing and in general what it was like to live in Guelph as student. I decided to live in the family housing complex for international students at the University. It was a very nice surprise when I arrived and saw the campus because my idea of a North American university was very different. I did my master's degree at Texas A&M, which has two 2 campuses and 50,000 international students. I was looking for a smaller university, a university which paid closer attention to students. As a PhD student you work independently, but the research group plays a big role in the type of experience that one has as graduate student. At the time that I applied, Dr. Griffiths, had an open position for a PhD candidate at the Canadian Research Institute for Food Safety. That was another factor in my decision. I researched the center, the labs and all the resources and concluded that it was a great opportunity. And the fact that U of Guelph was not such a big university, but it was located close Toronto was also a positive.

## **Did you live in a graduate residence when you first moved to Guelph?**

Yes, my first house in Canada was in U of Guelph family housing complex for international students on College Avenue. It was a small house with two bedrooms, a very small living room, dining room and a tiny kitchen. It was a big change. Back home my children and I were living in a large house and had everything we needed. Overnight I was an international student in another country with two children and no friends or family. It was not an easy adjustment.

## **What did you study when you were here?**

I did my PhD in food science and my project was in food microbiology. The research was focused on extracting small proteins from fermented milk that had the ability to stimulate the immune system to fight Salmonella infection. I extracted the small proteins, did in vitro research with cell culture and then in vivo. I gave mice the proteins to make their immune system stronger and then infected them with Salmonella. My research was part of a large project in which Dr. Griffiths had to develop these compounds that had the ability to stimulate the immune system to fight these pathogens in animals that ultimately get transmitted to people.

## **Was Dr. Griffiths your supervisor?**

Yes, he was my supervisor and the director of the center when I did my research. He did a lot of international work. He's retired from the University and has patents from his work on probiotics. He's an Emeritus Professor at University of Guelph. He is the scientific

director in a private company that commercializes proteins that prevent infections in pigs and chickens.

### **Were there lots of other students in the lab?**

Yes, we were a very large group because his research group was focusing in different areas of food microbiology. We had about 40 people in the labs. It was a centre with many labs, we had about 8 or 9 labs. We used to have meetings to share data and ideas. It was a very productive group in terms of publications.

### **What was the lab atmosphere like?**

It was very focused on the projects and the ideas behind the projects. It was very international, there were only maybe one or two Canadian-born students, the rest were all international so there were people from many different countries. It was very interesting because we learned from different cultures, and they bring different ideas and points of view. We also used to do a lot of potlucks, and everybody would bring food from different countries. It was a very culturally enriching experience, and we learnt a lot from each other. The centre used to have visiting scientists, so there were also people with very good research experience that were professors and researchers in other countries.

**That definitely does seem like a really good experience, especially since you're not just learning from the other people around you, but also working in an environment that's supportive and where you have those people there to help.**

Yes, it was. It was easier because we shared the challenges of living in a different country. We were all PhD and master students, mainly PhD so we were not teenagers, everybody was over 30. We talked about our problems getting adjusted to the system and where to get information and help. Things that are easy for people who have lived in the country forever are not so easy or obvious for new comers. I remember chatting about our experience of getting our drivers' licenses and how some of us failed. It was hard. The winter was cold and getting the driver's license to drive was essential. Sharing the different experiences of adjusting to another country was good. It was important to feel that the people around you understood what you're going through. For most of us English was not the first language, and it took time to understand how the system works. We also talked about the challenges we faced with our own children and getting adjusted to a new school. It is important for an international student to be in contact with other newcomers because it helps to overcome the feeling of loneliness.

### **Was there a lot of pressure in the lab?**

There was a lot of pressure because Dr. Griffiths is a world-class researcher. He has ideas that would blow your mind. The way he thinks; I haven't seen anybody else who thought like that. He's a very nice person, but as a professor, he is not the type of person who is going to be holding your hand. You're a PhD student, you're going to find your own path and get to the other side eventually not without facing many disappointments. Dr. Griffiths had high expectations of his students, so it was very difficult to get good results to publish. My thesis had a component of chemistry, microbiology, and immunology. I had to do the purification of the compounds before I used them, and it has cell culture, which isn't easy for someone that had never worked with cell culture before. I had to learn a lot of different skills and went into territory that was completely unknown. It was an interdisciplinary project and the idea of working in vivo was terrifying. One of my best memories was from the first animal trial I did. The mice did not react like I expected, they died, and I had to explain to the Director of the Ethics Committee why they died and what I did to prevent that. It was a very difficult moment and I felt that he allowed me to handle the problems on my own, which was hard but rewarding in the end.

The members of my PhD committee like Dr. Milena Corredig and Dr. Shayan Sharif played a paramount role in my success. I went through very different areas that allowed me to develop different types of skills and I think the fact that I didn't have my professor holding my hand made me a very strong person who learned how to analyze problems and that's the main skill you get with a PhD.

I look back and I see that everything I learned during my PhD made me very strong and prepared me to face complex problems in my job and make assertive decisions.

### **Throughout your time in the OAC, were you involved in any extra curriculars on campus throughout your education?**

Not during my PhD. During the PhD, I didn't have time for anything aside from my studies, work and my children. I worked for the OAC while I was doing my PhD. I worked as a teaching assistant one semester, and then I got a work study with the Department of Food Science. I was very grateful for that because, at that time, international students were not allowed to work off-campus. Later, they allowed me to work 20 hours a week, but not when I originally arrived. So, for me it was very important that the university gave me the opportunity to work while studying. When I finished my doctorate, I was employed by the university for about four years. In 2013 I left the University to work for a large manufacturing company and came back to work for the University for another three years. It has been a very long relationship and it started when I was a student. I was very involved in the OAC activities and in 2013 I became the president of the OAC alumni association.

## **I may already know the answer to this next question, but did you feel a part of the OAC?**

One of my objectives as President of the OAC alumni association was to get food science students motivated to participate in the OAC events. All the other schools of the OAC were more integrated and the students in food science did not understand the traditions and the events were not very well promoted amongst us.

Later on, when I was president of the association, things were different. I felt more integrated and learned a lot about the college. I found out that one of the objectives of all those activities, in addition to promoting the college and the University, was to motivate donors to contribute with scholarships and sponsor laboratories and projects. I got a scholarship twice. In that way, I felt very close to the university and appreciated everything that they gave me.

## **Do you remember taking part in any OAC traditions at all?**

Yes, I went to the College Royal once, and I also went to the Good Times banquet. It was very interesting. I learned more about the Canadian culture and the OAC traditions.

## **What are your favourite memories of your time at the University of Guelph or the OAC?**

The day that I defended my thesis. That was an amazing feeling of achievement. You work so hard to get to that moment!

Another fond memory was when we celebrated Dr. Griffith's 60<sup>th</sup> birthday and we made this huge cake that was a soccer field because he's a soccer fanatic. We had a lot of fun organizing the party. But probably the best, is my graduation day. I thought it was amazing, I graduated from Texas A&M, I graduated back home from the university that I did my undergrad at. I went to the University of Toronto, my daughter's graduation, and the University of Waterloo, my son's graduation. But I thought that the university did an amazing job with the graduation, and it was very special. Something I remembered is that the person who was calling the names of the students who were graduating went around and asked every one of us how to pronounce our names correctly. Everyone got their name pronounced correctly. Everything that they did was amazing.

## **Are you still friends with people that you went to graduate school with?**

Yes, I keep in touch with some of them. I keep in touch with Dr. Griffiths and with some of the other professors in my committee like Doctor Corredig. I'm also in touch with some of the people that were in food science, some of the people who were students



there. We email each other sometimes. We haven't been able to get together because when you finish the PhD, many people go and move to another country, particularly to the US.

**The next question is a little more personal, you don't need to answer this at all if you don't feel comfortable, but did you go through any tough times during your university years? And if so what caused the difficulties and how did you deal with them?**

The tough times were the first two years in Canada. I was trying to balance my time and do my best as a PhD student and as a mom. I came to Canada as a single mom recently divorced. So being with two children, working on my PhD, and having a part time job was not easy. Dr. Griffiths gave me the opportunity to come to Canada and the Department of Food Science gave me my first Canadian job. In that way, I think the university was amazing to me. And the most important part, God helped me and gave me two fantastic children, considerate and great students. I was determined to succeed and take advantage of all the opportunities for me and my children. There were moments when I thought that it would've been easier to just say I cannot finish my PhD. I'm going to do a master's only, but I was committed, my objective was clear, and I went for it. You need to have people who are willing to help you in that moment. Many people helped. I could not name all of them. I hope one day I can give back in the same way I got from them.

**Would you be willing to share any photos of your years at the OAC/University of Guelph?**

I will have to look if I have photos, it has been such a long, long time but I think I have a couple of photos of that time. I will try to find it and send it to you.