

## 人生万事塞翁が馬 – Difficulties Brought Me Good Fortune

Note: My Japanese title “人生万事塞翁が馬” is a proverb and it came from a Chinese ancient story. It describes the literal translation as “Everything in life is like Saio’s horse.” and “good can come out of a misfortune” as the meaning. “Every Cloud Has a Silver Lining” might be the English equivalent of that proverb.... More poetic.

*The happenings in my life that I thought were unfortunate were actually the connecting doors to good fortune. If I had continued graduate studies to earn my Ph.D. directly after my Master’s degree, or if I had gotten to conduct organic chemistry research in industry, my life would be totally different today. All aspects of my present enjoyable life in the US stemmed from the difficulties I confronted in Japan.*

### **Chemistry is Amazing!**

One of the reasons I came to love chemistry is because of my father, who is a chemist. When I was a child, he explained the small phenomena of our daily life with chemistry. I asked him many simple questions, and chemistry had answers! I was so impressed, and my curiosity was drawn to chemistry. I was thinking of becoming a chemistry major in college, and when my mom died from leukemia when I was 16 years old, I thought simply, “I can make medicines to cure cancer through the power of chemistry!” I decided to go to the Department of Pharmaceutical Sciences at Osaka University.

### **Graduate Studies -> Industry -> Graduate Studies**

When I was a senior undergraduate, I started working with Professor Kita. In his laboratories, I was absolutely charmed by organic chemistry. I had been thrilled with what was happening in flasks every day. As a master’s student, also at Osaka, I studied electrolytic organic reactions under Professor Ohmori (deceased) and was thinking of continuing on to get my Ph.D degree. However, one day he told me; “It is very hard to find a job as a female chemist with a Ph.D degree. For companies, the younger, the better. You should get a job right after you get your master’s degree.” This was the first time I encountered the harsh reality as a female. I wanted to do work in organic chemistry, and got a job as a chemist at Toray Industries, Inc. I believed I was going to work on organic chemistry research, but they put me in the division of analytical chemistry. I really wanted to do organic chemistry and asked the company for internal transfer again and again. After five years, I was still working at the same place, so I decided to quit my job. I thought, “All right. I’ll go back to school to get my Ph.D! Then, I’ll try to get a new job actually doing organic chemistry!” But when I started to look for a graduate school, I again faced gender bias. I was told by some

professors; “Hmm... By the time you finish your Ph.D, you will be in your thirties. On top of that, you are a woman.... I cannot be responsible for your future.” They hesitated to accept me. Yet Professor Takahashi at Hokkaido University told me; “Everybody is welcome!”, and so I became a Ph.D student when I was thirty years old.

### **Postdoc Life in the US <Paradise for Organic Chemists>**

During the last year of my Ph.D. studies, the Banyu Sapporo Symposium was held, and I received the “Best Discussion Award” as the student who asked the best question during the scientific talks. The prize was an invitation to the Nagoya Medal Symposium. Since I was an invited student, I thought, “I should ask questions” In the symposium. The first speaker was Professor Makoto Fujita of Tokyo University, and I asked him a question after his talk. That year, Professor David Evans from Harvard University was the Gold medalist of the symposium, and he was in attendance. During a coffee break, just when I was feeling very relaxed after having “done my job” by asking a question, Professor Evans beckoned to me. After having a chat, he asked me; “What are you doing now? Are you still a graduate student? After you graduate, you should come to Boston to join my group as a postdoc.” I couldn’t believe my ears because it was too good to be true. Unfortunately, I had already arranged a postdoctoral position at Kyoto University with Professors Osuka and Shinokubo, so I turned down his offer right then and there. But, even six months later, I remembered his offer and was still pondering it. I had nothing to lose, so I wrote a letter to Dave: “Do you still remember me?” I received a reply very quickly: “I already gave you an offer in Nagoya. It still stands!” I was so surprised -- I didn't expect an answer at all. So that is how it came to be that I moved to the US to be a postdoc at Harvard. The Evans lab was paradise for me. I couldn’t help being thrilled! During the years of my postdoc at Harvard, I came to realize that I felt much more comfortable in the US than in Japan, so I started to look for a job in the US. I was fortunate to become a faculty member at the University of Texas at El Paso. When I returned to Boston for a visit after I got my job, and told Dave, “You totally changed my life!”, he replied, “When I met you, I was very impressed. You asked me questions and shared your opinions in a straightforward manner with a big smile! I thought, ‘It will be fun to work with this woman, and she will fit in well in the US.’” When I heard it, I was very happy and almost brought to tears, remembering my hard time in Japan. I felt reassured that I was cut out for the US, while people told me I was UNUSUAL in Japan.

When I quit my job in industry in Japan, I never even imagined that someday I would have my own lab and teach organic chemistry in the US. I was able to run full speed toward my passion -- “I love organic chemistry” -- and I have been incredibly fortunate to meet many wonderful people. They are now the treasure in my life. Academia in the US is not easy at all, but this is the life I got to choose. When I enter my twilight years, I hope I can look back on my life happily. To that end, I am enjoying chemistry with a big smile today, as always!