

Kimi Ishizaka

Training young scientists

Since the Subdepartment of Immunology started at Johns Hopkins, I was in charge of the Ph.D. program of Immunology. However, I devoted my efforts mainly to training postdoctoral fellows. Dr. Yuichi Yamamura, President Emeritus of Osaka University, described my style as “hands-on training.” When I hired postdocs, the first thing I did for each of them was to learn their strengths and weaknesses as a researcher. For this purpose, it was very useful to perform experiments together with a postdoc. Generally speaking, individuals who want to be a basic researcher have a strong personality. It is important to take advantage of their interests and strengths so that fellows will become totally fascinated by their projects. Tomio Tada and Tadamitsu Kishimoto said, “You were very strict and tough in those days. But, it was absolutely fun to work with you. That was the best time in my career.” This kind of feeling is a good sign. The project should go well. I felt more rewarded when I saw young fellows skyrocket in science than when I made good progress in my own projects.

Because of my strong principles in training, I never had more than five to six postdocs at one time. If you have too many postdocs, you can't give them personal attention and training. I spent one to two hours a week with each of them to discuss his or her project. I even performed a part of their experiments. Sharing a practical goal helped me think from their point of view. During the 30 years of my career in the U.S., I only had about 50 postdocs, but more than 20 of them later became a professor or department head. I believe this is the result of their continuous efforts in their research after their postdoctoral training with me. At the same time, this indicated to me that I was more successful as a mentor than as a researcher.

Another incident in my days at Johns Hopkins occurred in 1978, when I was nominated to the Council of the American Association of Immunologists (AAI). If elected, I would have to serve as the President of AAI five years later. One of the most important missions of the President of AAI is to lobby to increase the national budget for immunology research. Because I am not a U.S. citizen, I thought I was not the right person. However, my wife Terry said, “You will not be elected anyway. Why not accept the nomination?” Unexpectedly, I was elected to the Council, and had to serve as the President from 1984 to 1985. It was the first time in U.S. history that a non-citizen was elected President not only to AAI, but also to any association/society of medicine and experimental biology in the United States. Such a thing cannot possibly happen in any other country than the U.S. The election honored me more than any prize. In my Presidential Address, I shared my thoughts: “You should remember that your competitor is the person who understands your work best. You and your competitors have a common goal - to let other people know how significant your work is. Therefore, it is more important to collaborate with them for this purpose, rather than to kick them out.” The audience gave my talk a standing ovation.

La Jolla

In the mid 1980s, the American economy was bad, which slowed down the increase in government funding for research. If you lose funding, you cannot keep hiring your staff. My wife Terry and I maintained our funding, but were concerned about talented young scientists who might lose a job because they lost an NIH grant.

It was in 1988 that Kirin Brewery inquired about the possibility that I become the President of a new Institute for Immunology. Since I was not interested in making money or doing something for a company, I turned down the offer. However, Kirin said they wanted to launch a non-profit public benefit institute. Although Bayh-Dole Act had been implemented to facilitate collaboration between academia and industry, there was no precedent for a non-profit institute sponsored by a for-profit company. However, if such an institute could be realized, it would become a milestone for the future of basic science. Kirin was planning to build the new institute in La Jolla, California. La Jolla was one of the centers of immunology research and I had several friends there. They were enthusiastic about the plan and offered help.

It was a very difficult job to start an institute. The conditions required for a non-profit institute are basically unfavorable to a for-profit company that funds the institute. The U.S. attorney that represented Kirin was supposed to protect Kirin's benefit, which made him set aside our thoughts for the institute when he started negotiations. I learned that scientists and attorneys have different starting points of discussion: we scientists start to talk about what is most likely, whereas attorneys start with something most unlikely. It was a whole new world for me considering I had spent the past 20 years at a university. In order to found the La Jolla Institute for Allergy and Immunology, I had to force myself to forget about all the difficulties.

It was in November 1989, when our group moved from Johns Hopkins to La Jolla. The biggest concern I had was whether it makes sense to start a small institute in La Jolla. I thought we should try to work on some unique research projects that were impossible to pursue at Johns Hopkins. I requested Dr. Frank Dixon, my friend of 30 years, to be the chairman of the Board of Directors. He established The Scripps Research Institute in the 1960s and made it a world famous institution. To him, success in running an institute meant growth and expansion. In contrast, I thought it was not important to make our institute bigger because there were already enough institutes that were big and famous. Therefore, we had fierce arguments at each of the Board of Directors meetings. Although the Board of Directors had the power to appoint or eliminate the President, I stuck to my principles. However, we had a common goal: to make a fine institute. Arguments were inevitable in our effort to achieve our goal. Therefore, we continued a strong friendship with each other outside the Board. This sort of friendship is unusual in Japan.

La Jolla Institute for Allergy and Immunology currently has approximately 200 employees. Approximately 70% of the total budget is supplied by funding from NIH. I am pleased that LIAI has grown to be the most active institute in southern California in the field of immunology.

Terry's illness

It took us two years to launch the institute. We were able to recruit a prestigious international research faculty. However, there was a problem: some people in the administration staff did not get along with each other. It was not my job, but Terry's to talk to them separately and help them reconcile. Finally, in the spring of 1990, Terry said, "Let's have a beach party and invite all the employees and their families." She thought this should help them get to know each other. She is very generous. She paid all the cost for the party out of her own pocket.

She also hosted a Christmas party every year, where she gave a present to each child. The children enjoyed the presents and this also made their parents feel happy. This way people knew that Terry and I wished them happiness. Since then, LIAI has had a beach party and a Christmas party every year. LIAI is now well known for the close friendship between scientists and willingness to help each other. I have heard people saying it is a "scientists' utopia." I am glad that the spirit we left there is still surviving.

It was the summer of 1990 when Terry suffered from a headache that was so severe that she almost lost consciousness. After that she declined slowly, but steadily and lost cheerfulness. In the autumn, she won the Behring Kitasato Prize for "The study of mast cells and elucidating the mechanism of allergy." She was the first woman scientist to be so honored. Her mother, then alive, was exuberant.

In the spring of 1991, Terry was suspected of having Parkinson's Disease. Her major symptom was low back pain. There were no significant neurological symptoms. The CT scan detected no abnormalities. However, she started to worry about the possibility that she was suffering from a terminal disease.

The other problem we faced in 1992 was that the health of both Terry's mother and Dr. Keizo Nakamura, the mentor of myself and Terry's, declined seriously. We flew to Japan a couple of times a year to visit them. Terry visited her mother more often no matter how bad her Parkinson's was. Terry's mother died in 1993. The frequent travel to Japan accelerated the progress of Parkinson's. Because of the illness, she decided to retire at the end of 1993 and wrote her last review article on mast cells.

Terry and I exchanged cards on our anniversary and Christmas every year. Her last card was the one on our anniversary in 1994. It said, "Now I resign myself to my fate. I just appreciate that I live every day. You loved me so deeply for the past 45 years. I am sorry about any inconvenience that my illness imposes on you. I love you forever. Forgive my leaving you behind."

To us scientists, Mother Nature has the absolute power. Both Terry and I had no choice but to accept the rigorous rules.

How we are right now

Two-and one-half years after we moved back to Japan, Terry became unable to swallow. Since then, she has been hospitalized in Yamagata University Hospital. It has been six -and one-half years now. I go to her room in the hospital everyday before nine o'clock in the morning and stay there until five or six in the afternoon. I talk to her and

play a music CD to stimulate her brain. She cannot speak any more. However, she understands what I tell her.

While she is asleep, I write emails and manuscripts. In the field of allergy, I could not study the strategy of how to prevent allergy. I no longer have the opportunity to perform experiments, although I am busy discussing this issue with scientists at Riken Allergy and Immunology Research Center.

What surprised me when I moved to Japan after 35 years was that the way of thinking has drastically changed during my absence. Students' first priority is to go to a prestigious school just for job security. The elite care about fame. In my youth, basic researchers did not expect anything like that. Nevertheless, we jumped into this job because we were fascinated by the beauty in nature and science. Terry and I shared this enthusiasm.

No matter what a basic researcher discovers, it has been created by Mother Nature, and not a human being. Nevertheless, the beauty within attracts and moves scientists. A basic scientist should be satisfied when he or she discovers the beauty of nature, even though nobody praises them. If you can't feel like this, you should not work in science.

However, this type of work does not contribute to the economy. Unless somebody finds out how to make use of basic discoveries, this type of research cannot be a profession. Fortunately, what Terry and I discovered turned out to be useful for many more people than we had expected. This was the reason why I was given The Japan Prize. I am simply happy that our discovery was helpful to other scientists.

When I got married, I was concerned whether the marriage would be disadvantageous to Terry's career. In those days, there did not exist a married woman scientist in Japan. However, the situation changed as we moved to the U.S. I did what I wanted to do, Terry did what she wanted to do. Our lab generated more than 20 professors and department heads, who have pioneered the research in immunology.

The biggest reason for our success in science is that we were honest and tactless. I did not know how to lie in English. That helped me be honest. Terry was even worse. Fortunately, the most important characteristic of being a good scientist is honesty. Tactless frankness is also very important if you are to live with your principles in a multicultural country like the U.S. We were perhaps unusual Japanese who could understand people and could be understood by people in the U.S.

We had a fairly interesting life.