Meeting my dream

by Rai Yuen

I have always been attracted to light since I was a child. Especially the light on a stereo system, which blinks in accordance with the loudness of the sound coming through the speakers. As a child, I found this seemingly random and unpredictable fluctuation of light so fascinating. I was totally absorbed by it that I could spend hours just staring at that irregular blinks of light. Slowly and gradually, the love and affection of wonders implanted in me.

Then, the reality hit and I became practical about living. I turned to occupations that could give me security to build a life. I moved on to the then very promising career field in information technology. It was not super hard to land a well-received job in computing, which offered considerable salary even for an average programmer. I could spend hours and hours over countless nights in front of a computer working on something that I believed would change the world. I learnt how to produce digital games, construct communication networks, crack software and identify information on the internet which was otherwise hidden from ordinary people. Most importantly, I had come to learn how to forget my dream! Life to me was like an illusion. I was still living, walking in the street, went to my job and performed my daily routines. I felt like even if I tried to make a tiny change, examine a little, or explore something new, nothing would ever work. Sun still rose and set, Clock kept ticking, but the little blinking lights from my childhood had died out!

May be it is just a fact of life that one day you will wake up empty and scared, and your inner self start to call with the question: Where am I? A question that I had long buried deep down in my memory. I chose to respond to the question and began to re-think about my future. There were two options for me. One was to continue with what I had been doing and ignored my inner calls, or followed my heart and flew with it. I remembered my eyes got moist at that moment because I knew I would never see my dream again if I gave it up this time. I remember it was so real that I could feel the world stopped and everything dissolved into illusion. Suddenly, I saw that little blinking light from my childhood again before me. I chose to acknowledge my dream.

I decided to be a scientist because science is not just a profession, it is a passion. I chose pulsars because of the flashes of light they send from the darkness of the Universe are familiar to me. No two pulsars are alike and the light flashes are related to their ‘personalities’. Some flash faster, some are slower, others are irregular, and yet others may never be seen. I suddenly understood the reason for the blinking light from my childhood – may be they came from the Universe.

However, the road to scientific research was not straightforward for me. First, I quitted my job and began the training as a scientist at the University of Sydney, where I pursuit my passion in Physics, Mathematics and Astronomy. However, I was facing a major problem when I graduated. The job market for research in Australia was tight and shrinking because the funding assigned for scientific research was cut. Some research departments at universities were even closed because of shortage of grants. This meant that I had to turn to overseas if I wish to continue my dream.

From history, we learnt that people always gone to where their skills are most in demand, or, even simpler, where the economy is booming. At the same time, China was looking to bridge with the rest of the world, and is seeking out people with a keen understanding of how things are done in the west. The country is powerful in economic growth and opportunities and it is getting richer by the year. This is great news for foreigners that more jobs and more demands are waiting for anyone ambitious enough to give it a go. This is especially important for scientists because scientific research needs money. Working in a country with limited funding would mean that my work must be attractive and profitable enough to secure a grant. This usually translates into comprising your interests or, in the worst case scenario, changing your research field altogether. Therefore, the seemingly unlimited supplies of funding aiming for science promotion in China provide researchers with enough freedom to pursuit their interests and dreams. But China is more than just money; it represents a wealth of career opportunities that are open to foreigners for developing a better understanding of contrasting traditions in science.

Deciding to come to Xinjiang as my stop in China is no coincidence. In fact, my first job application was with the 500-metre Aperture Spherical radio Telescope (FAST) at NAOC in Beijing. However, the Xinjiang Astronomical Observatory has already had a well-established pulsar group that publishes. There were not many universities or research organizations in China with resources devoted to pulsar research that could match or even came close to Xinjiang Astronomical Observatory. The transition for me, in terms of research, would also be smoother if I came to Xinjiang as I could begin my research immediately. This is critical to a researcher because productivity is one very important measure of the successfulness in science. But there was an additional bonus. At that time, they had a plan for building the world largest full-steerable radio telescope with 110 metres in aperture known as QTT for short. Although not particularly stunning, in the sense that there already exists big telescopes or large telescope arrays in the world, and the project was still in the planning phase without a firm completion date, the feeling of belonging to a big telescope that you are a part of it is quite unique. The choice was obvious.

Everything was all right until when it came to actually living and adapting to a new country. I remembered my first arrival at Urumqi was in November, it was midnight and cold. Everything was new to me and I basically did not know where to start. It was a feeling mixed with excitement, confusion, anxiety and hesitation. I did not know the local lifestyles or how to go about achieving things. I was shocked, alone and lost. I remember once a wise man said that one must identify common points from a foreign country which you could agree on in order to find strength to stay and keep going. At that time, I had nothing but my passion in science. So I would spend hours on research both at home and at work. My conversation was also largely about work (although there were not many people to talk to anyway due to language barrier). However, the turning point came about when I met Ruby. She taught me everything about China and about the ‘Chinese way’ of seeing things and dealing with problems. She would take me to other places in China, including her home town, for visits and holidays. Through her, my view of China has broadened with extra dimensions. She is my whole reason and support for staying in China. Eventually, we decided to make the ultimate sacrifice and commitment to each other – We got married. Then the most wonderful thing in my life has happened –our daughter was born. We are now beginning a new chapter in life together.

Scientific research today is more global than ever. Survival in any unfamiliar environments and still have the ability to think and perform differently and effectively at a competitive edge is an essential skill to have in the future. A stretch of career to overseas is unquestionably a best opportunity to gain insight into the best practices and strategies for building valuable scientific connections. Working in China where the professional culture and ethics are completely different equips me with a fresh perspective on approaching to various challenges and becoming creative for overcoming unforeseen problems. The benefit of having the ability to take initiative and work independently put me at a better position to implement innovative problem-solving techniques to scientific as well as everyday problems. This is particularly important for me as a scientist when trying to convey and exchange my research with people of a hugely different background. In addition, being able to learn and become fluency in a new language is an enormous asset which can also boost my confidence and prepare me to face any future challenges in my career. I finally understand that through science I would be able to fulfill my inner soul and make contributions to shape the world of tomorrow.

Living and working in China is no easy walk in the park. It is not just about the feeling of being separated and left out from others with a culture that is totally different from yours. Each day will present you with a new ‘adventure’ that you must overcome. A typical ‘bad China day’ can come in many varieties, such as language barrier challenges or the inconceivable traffic chaos, which can make you irritated and short-tempered. But those can be easily forgotten to days when you discover a steak house opens not too far away from where you live, or to days when you solve a long-standing problem in your research, or to days when you finally appreciate that Chinese was actually the first to migrate to the Moon. Science is to discover, explain and understand. With the new perspective in mind, I wonder, imagine and dream differently. Ultimately, the QTT will be built and allows looking at something that is very far away and make out details that would otherwise be impossible to see. It is a dream machine into reality. We expect new discoveries that will reveal further and deeper ‘spinning’ of the Universe. More and more missing links in science will be found and more and more questions will be answered.