Opening Article

What connects "synthetic organic chemistry" and "coelacanth"?

Norihiro OKADA

Professor, Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology

Soon after I entered university, I joined a drama club through the influence of a senior at my high school (the Kaisei Academy). This senior was a bright student who went on to the Faculty of Law from the Junior Division of Humanities and Social Sciences I at the University of Tokyo, passed the higher civil service exam with good marks and entered the Ministry of International Trade and Industry, while belonging to a drama club. I, on the other hand, was a dropout repeating the same year and took four years to get out of the Komaba Campus. I was participating in dramas and really enjoying the feeling of "being alive." During stage rehearsals, I barely had time to sleep for almost a week, making arrangements with lighting, effects, and large props. This affection for drama, as though being possessed by something, was like a revelation to this twenty year old youth, who thought "this is life!"

However, after considering the matter calmly, it was easy to see that I could not make a living as an actor for the rest of my life. The world of acting seemed to have no norms, but to be built only on the actor's individuality. It was clear that I had no such talent. While I wished to live a life of excitement, I asked myself, "Can't I get this excitement in the world of research?" When I realized that I could not become an actor, I seriously became interested in becoming a researcher. If I could be a researcher, wouldn't I be able to spend the rest of my life excited about new discoveries and enthused just as actors are by drama? Consequently, not being a born biologist who had loved insects from childhood, I think I intentionally made a scientist of myself wishing to spend a life filled with excitement.

Since synthetic organic chemistry was a field I had an interest in, the time I spent working desperately to catch up on my studies is now a good memory. In my graduation thesis, I synthesized a new insect hormone that belongs to terpene after taking a dozen or more steps. While studying for the graduate school entrance exam, I was fascinated by the progress made in the field of biochemistry and advanced to the graduate school of pharmaceutical sciences. After receiving my doctorate, I spent one year abroad studying in the United States. Then, I left for a new post as lecturer at the Institute of Biological Sciences, University of Tsukuba. It was there that I changed my course from biochemistry to evolutionary studies.

The start for me was my discovery of the short interspersed nuclear elements (SINEs). I advocated that SINE is a powerful tool for determining firm phylogenetic relationships, and determined that whales and hippopotamuses are close relatives using the SINE system. This discovery is now introduced in every textbook on evolutionary studies throughout the world. Later, I was fascinated by the speciation mechanism of the tropical fish "cichlid" in Lake Victoria, and came to often visit Tanzania, where I became acquainted with Professor Philip Bwathondi, Director General of the Tanzania Fisheries Research Institute. It was a real surprise when he offered to present me with a coelacanth.

Although I have contributed to the development of the field as if driven by discoveries, I think what lies at the base of my contributions is the excitement that I experienced in the drama club. In recent years, scientific activities are carried out in projects, making it difficult for the individual to be seen gradually. But, shouldn't the excitement of the individual researcher be at the base of science? I believe it is also our important mission to transmit the excitement of science to young people.

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