A Career in Science and Politics: Guy Ourisson (1926-2006)

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I first met Dr. Guy Ourisson in 1978 at the 11th IUPAC Symposium on Natural Products that was held in Varna, a resort city on the Black Sea, in Bulgaria. A rising interest in medicinal plants at that time had attracted a lot of attention to Bulgaria, because of the unique plants that grow in its beautiful mountains. In the 70s, UNESCO sponsored the Center for Phytochemistry at the Bulgarian Academy of Sciences, and many conferences related to the chemistry of natural products were organized on the Black Sea.

This particular conference was quite exceptional, as it brought together some of the best scientists working in the field. Dr. Ourisson was then Secretary General of IUPAC and delivered the keynote lecture. I still remember how passionately he talked about a new class of lipids called hopanoids that his lab in Strasbourg (France) had discovered in bacterial deposits in rocks. At that time, I had just finished my PhD in the field of bacterial lipids, and it was a revelation to me that sterol-like compounds could be found in prokaryotes. These new data were raising some very intriguing questions about the evolution of biological membranes and the transition from "lower to higher life." A review co-authored by Dr. Ourisson and published in the *Annual Reviews of Microbiology* gives more details about the chemistry and biology of these interesting compounds [1]. Another celebrity at this conference was Koji Nakanishi who ended his brilliant presentation with something that everybody loved—his magician tricks that have contributed to his fame as much as his research in bioorganic chemistry [2].

I remember many things that happened at this conference, including a discussion that we had with Dr. Ourisson about a recent article by Eugene Garfield, "Isn't French science too provincial?" that had been published in the French journal *La Recherche*. This article had stirred a lot of emotions in France, as many scientists and politicians took it as a personal and national offence. Even a former prime minister, Michel Debré, wrote a letter to Dr. Garfield that was published in the same journal. Dr. Garfield later discussed this French reaction in an essay published in the *Current Contents* (www.garfield.library.upenn.edu/essays/v3p089y1977-78.pdf).

This conference was the first for Sir Derek Barton, who had shared the 1969 Nobel Prize in Chemistry for his work on conformational analysis [3], in his new position as director of the Instutut de Chimie des Substances Naturelles (www.icsn.cnrs-gif.fr) in Gif-sur-Yvette, near Paris. He had just left Imperial College, London, where he had worked for 20 years, to move to France to lead one of the largest institutes of the Centre National de la Recherche Scientifique (CNRS). Dr. Barton entertained the audience with descriptions of his new office in Gif-sur-Yvette, clarifying that "Yvette is a river [not a woman]." It seemed quite unusual to have a British scientist lead one of the largest French institutes, but as a French colleague has put it: "Why not? His wife is French, he speaks French, and he is fond of France. And Nobel laureates are a different category." There might have been another reason, too—finding in France, at that time, someone who could measure up to such a legendary figure as Edgar Lederer, founder and long-time director of this institute who had pioneered the research on the chemistry of natural products in France [5].

I had the opportunity to meet Dr. Ourisson later, in the 80s, when I worked in Paris as a fellow of the International Atomic Energy Agency. He had not changed much—his sense of humor, his energy, and his ability to make people feel comfortable with him were still there. He just had added more former and present titles to his name. In the early 80s, he served as General Director of Higher Education and Research at the Ministry of Education in the government of then president François Mitterrand.

A noted chemist and chemistry educator, Guy Ourisson earned a PhD from Harvard in 1952 and a Doctor of Science degree from the Université de Paris in 1954. At the age of 28, he was appointed professor and became a founding president of the Université Louis Pasteur in Strasbourg. An organic chemist with a taste for interdisciplinary research, he worked at the borderline between chemistry, biology and geology. Much of his research was devoted to the chemistry, mechanisms of action, and synthesis of natural products; the biosynthesis of sterols in plants; the structure and functions of bacterial lipids; structure and maturation of sedimentary organic matter; and prebiotic synthesis and biochemical evolution of biological membranes (relevant to the question of the origins of life). A search in SciFinder Scholar produced 469 hits for his works that include 451 journal articles, 37 reviews, eight conference abstracts, eight books, and one patent. His papers have been cited more than 9,000 times. More than 100 students and 180 postdocs from 40 countries have been trained in his lab.

There was something fascinating about Dr. Ourisson–you would have called him now "cool." In spite of the high positions that he had held, he was very approachable and easy to talk to. I remember discussing with him topics related to bacterial lipid chemistry; we also talked about people who were working in this area, and Edgar Lederer was one of them. In 1985 Guy Ourisson succeeded Derek Barton as director of the Institut de Chimie des Substances Naturelles, the institute that Lederer had led for more than 20 years. My research at that time allowed me to establish close professional and even personal ties to scientists who were trying to elucidate the chemistry and biological properties of a complex lipid called "cord factor" found in *Mycobacterium tuberculosis*. This is how I got to know professor Lederer and his wife Hélène. I still keep in touch with their daughter, Florence Lederer, who is a director of research at CNRS. By some coincidence, she happened to do her PhD work in Dr. Ourisson's lab, in Strasbourg.

Guy Ourisson, during his tenure as president of the French Academy of Sciences.

Photo by Brigitte Eggmann.

The Académie des Sciences is a 200 years-old institution that has served as a model for establishing academies of sciences in many other European countries. It is part of Institut de France. Guy Ourisson was elected president of the Académie in 2000.

Photo by Svetla Baykoucheva.

The last time I met Dr. Ourisson was in 2002, when I was in Paris for a conference. With his intervention as past president of the French Academy of Sciences, I was allowed to visit some of the "sacred" libraries and the Archives of the Academy that are not open to the public.

It is not very easy to visit some places in France, if you don't have some arrangements made in advance. For example, I was not allowed to visit the research division of the National Library in Paris, as the person who had to give me a pass stubbornly refused to do so; he kept asking me to present some evidence that I had been working on a research project. My explanation that I am a librarian visiting Paris for a few days did not impress him at all.

Guy Ourisson has made a tremendous impact on European and world science. As president of the French Academy of Sciences, he has worked to broaden international collaboration and to extend the benefits of chemical knowledge and education to developing countries. He has been a member of 12 national academies, including the American Academy of Letters and Sciences. He was also awarded titles such as Commander, French Orders of Légion d'Honneur, Honorary Fellow of the Swiss Chemical Society and of the Royal Society of Chemistry. He was editor of several chemistry journals and has served as European editor of *Tetrahedron Letters*. Dr. Ourisson was also an early and active member of the Editorial Advisory Board of *Index Chemicus*, which started in 1960. He maintained strong ties with researchers in the United States and was a member of the ACS for 50 years.

Guy Ourisson passed away on November 3, 2006. He will long be remembered by his students, colleagues and those who had the privilege of knowing him. An obituary for him has been published in *Angewandte Chemie International Edition* [5]. In 2002 I took an interview from him in which he reminiscences about chemistry in Europe, the public opinion about science in France, and the young generation of chemists. The interview can be viewed at www.lib.umd.edu/CHEM/interviews.html.

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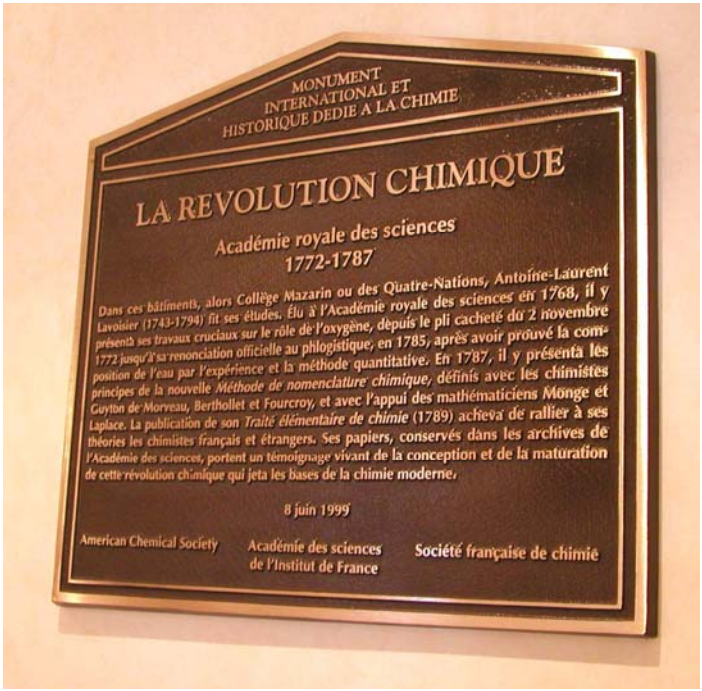

On June 8, 1999, the ACS joined with the Société Française de Chimie in Paris to dedicate an International Historic Chemical Landmark plaque to Antoine-Laurent Lavoisier. Guy Ourisson, then president-elect of the Académie, which once housed the college in which Lavoisier studied, was instrumental in planning this event. *Photo by Svetla Baykoucheva.*

1. Ourisson, G., Rohmer, M., and Poralla, K. Prokaryotic hopanoids and other polyterpenoid sterol surrogates. *Ann. Rev. Microbiol.* **1987,** 41, 301-333.

2. Nakanishi, K. *A Wandering Natural Products Chemist.* American Chemical Society: Washington, DC, 1991.

3. *The Bartonian Legacy*; Scott, A. I. , Potier, P., Eds.; Imperial College Press: London, 2000.

4. Lederer, E. (1986) Fifty years of scientific research: A fool's luck. In: Comprehensive Biochemistry: selected Topics in the History of Biochemistry. Vol. 36: personal recollections II. Edited by Georgio Semenza; Series Editors: Albert Neuberger and Laurens L. M. Ven Deenen. Elsevier, Amsterdam and New York.

5. Rohmer, Michel. Guy Ourisson (1926-2006). Obituary. *Angewandte Chemie International Edition* **45** (48) 2006, 8088.