

► Honoring Syntex's "Big Three"

The trio of scientists involved in the development of oral contraceptives receive awards.

BY BRYAN D. TWEEDY

A very warm and humid day greeted attendees at the third anniversary Heritage Day, which was devoted to recognizing achievement in the chemical industries and biological sciences. The sweltering weather did nothing to dampen the spirit at the Chemical Heritage Foundation (CHF) in Philadelphia, site of Heritage Day. The awards presented on June 17 included the Othmer Gold Medal, Award for Executive Excellence (presented by the Commercial Development and Marketing Association), the American Institute of Chemists' (AIC) Gold Medal, and the Winthrop-Sears Award from The Chemists' Club. The last two awards honored Carl Djerassi, George Rosenkranz, and Alejandro Zaffaroni—the famed trio of scientists behind Syntex, well known as developers and producers of many steroids, including the first oral contraceptive pill.

The AIC's Gold Medal, first given in 1926, is the highest award presented by the AIC. It recognizes service to the science of chemistry and to the profession of chemists and chemical engineers in the United States. Carl Djerassi added this medal to his long and distinguished list of awards, which include the National Medal of Science and the National Medal of Technology. Although well known for his involvement in steroid research, Djerassi did not discuss this period of his career in his talk. He instead centered his address on his recent work in "science-in-fiction" and "science-in-theater," which examines the culture and behavior of scientists and tackles sociocultural elements of human fertility control, especially in the area of male reproductive biology. Djerassi then proceeded to provide audio and visual excerpts of some of his novels and plays,

including *Oxygen*, *An Immaculate Misconception*, and *NO*. For *NO*, a hip-hop recording artist was commissioned to provide an audio version seemingly aimed at attracting teenagers to science.

The Winthrop-Sears Medal, established in 1970 and presented by The Chemists' Club in association with CHF, was presented to George Rosenkranz and Alejandro Zaffaroni. The award recognizes individuals who, by their entrepreneurial action, have contributed to the vitality of the chem-



Carl Djerassi



George Rosenkranz



Alejandro Zaffaroni

ical industry and the betterment of humankind. The award is named after John Winthrop, Jr., and John Sears, chemical entrepreneurs in colonial America. Both Rosenkranz and Zaffaroni were honored for their roles with Syntex, which they took from a small chemical company involved in steroid research to the major pharmaceutical firm that pioneered the development of "the pill," as mentioned above.

It was on this work that Rosenkranz centered his address, recalling how he was recruited from Cuba to join Syntex in Mexico City, and how he subsequently recruited Djerassi and Zaffaroni to work on his research team for the production of steroids, specifically progesterone, which later led to the development of the pill. Rosenkranz followed with musings on Syntex's various (and lucrative) contractual deals with pharmaceutical firms and the decision to make Syntex a pharmaceutical company itself, which resulted in relocating to California.

Zaffaroni also reflected a bit on his early days at Syntex. He began his story, however, with his arrival in New York City from Uruguay to pursue graduate studies, which happened to be VJ Day. He ended up at the University of Rochester before joining Syntex in 1951. He was instrumental in the decision to transform Syntex into a pharmaceutical firm. Although interested in steroid research, Zaffaroni discussed his interest in drug delivery and his depar-

ture from Syntex to explore this area of research. This resulted in the development of controlled drug delivery technology, more commonly known as "the patch," and the subsequent founding of ALZA Corp. to market this technology. He finished his talk with a slide that displayed the many companies he has played a role in founding, including DNAX, Affymetrix, Maxygen, and SurroMed. ■