

Introducing Nicolas G. Bazan, the 2007 Recipient of the Proctor Medal

It is my honor to introduce this year's recipient of the Proctor Medal, Nicolas G. Bazan. By any measure, Nic is a big man. A welcome from him usually includes a big bear hug. He also has a huge appetite for life, for curiosity, for innovation, for the growth of young scientists, and for food and music. As a consequence, his work has been extraordinarily honored with prizes similar to today's Proctor Medal. These honors have come from nearly every scientific organization involved in neuroscience and lipid biochemistry.

Nic's early work brought him international attention because of his important observation that brain areas affected by stroke release arachidonic and docosahexaenoic acids.¹ By age 28, having completed his studies in medical school and post-doctoral studies at Harvard and in New York and Toronto, he returned to Argentina to set up a biochemistry institute in Bahía Blanca. He built the institute during a dark period in Argentinean history in the 1970s, when a military junta made intolerable assaults on human rights. Many who openly opposed the regime simply disappeared, including his wife Haydee's brother-in-law. He chaired or spoke at many national and international meetings in Argentina, Europe, and the United States. In the course of his travels he acquired very close friends who would soon turn out to be extremely valuable. His international renown also brought him to the attention of the ruling military junta. They were uncertain whether they could control this brilliant man who had so many friends outside of Argentina. I met him for the first time during a symposium

marking the dedication of the new Cullen Eye Institute at Baylor College of Medicine in Houston in February 1978.

Three years later, Nic returned to Argentina from a meeting in Virginia only to learn that he had been fired from his directorship of the biochemistry institute and from his professorship at the University of the South. This elicited international furor with letters in *Science* and three articles in *Nature* as well as wide coverage in the Argentinean press as it began to regain its independence (Fig. 1). Nic fought back throughout the spring of 1981, claiming he had no association with the opponents of the government, although he had protested against prior arbitrary firings of other faculty.

About that time, several of us received letters from Herb Kaufman announcing a search for a professor to serve as director of research in his new Department of Ophthalmology at Louisiana State University Medical School. Herb was going to a meeting in Brazil. The late Dr. Richard Lolley, then at UCLA, encouraged Herb to contact Nic, and Nic flew incognito to Brazil. The meeting was productive. Then, in June 1981, Nic learned that not only wasn't he going to get his job back, but his life and the lives of his family were threatened. He was being followed and was receiving ominous phone calls. He called his friend, Gene Anderson in Houston, collect, at night, from a pay phone in Buenos Aires. Gene called me about Nic's urgent call and said he was waiting for a call back at that phone booth. Gene confirmed Herb's support. I had a friend in Washington, DC, whom I had met when we were at Cal Tech in 1969. She referred me to a friend in the State Department who then directed me to the head of the Argentine desk. He knew of Nic's plight and that his two oldest daughters were U.S. citizens, since they were born here while Nic was in training in the 1960s. He assured me that Nic would be contacted immediately at the phone booth.



What followed sounds like a thriller movie. Nic and his family fled Bahia Blanca by plane to Buenos Aires, leaving all their belongings behind. They hid overnight in his sister's home. Staff of the U.S. Embassy came in a van, picked up Nic and his entire family, escorted them through the airport under their protection, and put him on a plane to Miami. From there they flew to New Orleans, where he and Haydee joined the Department of Ophthalmology. Haydee developed her own highly successful research program on the cornea there.

Nic's scientific leadership, his political skills, and his love of his adopted home town—especially its restaurants—quickly made him a major figure on the social scene in New Orleans. He reached the ultimate standing in New Orleans society—being invited to become a member of a carnival organization and to ride on a float during Mardi Gras. He tried to invent a “throw catcher,” a device that would toss beads automatically into the crowd.

Six years after arriving in New Orleans, he began to organize a large neuroscience center at LSU that has obtained more than \$100 million in extramural funding. His fame continued to grow, and a special issue of *Neurochemical Research* was dedicated to him in 1999. Early on, he demonstrated the role of arachidonic and docosahexaenoic acids in cerebral ischemia and experimental epilepsy and more recently has invented a new form of acetaminophen that isn't hepatotoxic. Recent studies on the promotion of neuronal survival by the omega-3 class of fatty acids, especially docosahexaenoic acids; on the impact of prostaglandin E2 and platelet-activating factor on hippocampal synaptic function and in Alzheimer's disease; and on cyclooxygenases in signaling and in inflammation show his high productivity in the past few years. It is impossible to summarize his scientific work in the short time available today. Now, he has discovered a novel class of lipids, the neuroprotectins, that affect the survival of the retinal pigment epithelium favorably. I'll leave it to Nic to describe that work.

Let's take a short look at the young Nicolas Bazan. He enjoyed sports as a teenager and then entered medical school after accelerating throughout grade and middle school. His motivation was unusual. When he was in the next to the last year in primary school, he was already tall, but his mother would not allow him to wear long pants. She told him that she would let him wear long pants when he entered high school. So, Nicolas took his exams early and entered high school ahead of schedule, just to have his long pants! (Haydee Bazan, personal communication). His interest in the neurosciences can be dated to an episode of epilepsy experienced by his beloved aunt that occurred when she accompanied him to a piano lesson. (No causal relation is implied, but he never mastered the instrument.)

Then, he found his partner in science and life, Haydee, who discovered early in their marriage that, although he seems formidable, he has areas of weakness. For example, Nic bought a pink Chevrolet (the *Pantera Rosa*) from his father-in-law in 1970 and then complained bitterly that the car had stopped working! Patiently, Haydee's father drove out to determine the problem and

pointed out that cars need gas to move. Can we date Nic's affection for long-chain hydrocarbons to that episode?

Nic and Haydee's joint and individual successes in New Orleans formed a strong bond to that city and to LSU. They raised five very successful children there and have been blessed with six grandchildren, with a seventh due in May. When Hurricane Katrina hit, they lost the lower floors of their institute and some valuable experiments and animal lines. They have devoted themselves to rebuilding and restoring their institute, campus, and city to their former glory.

Nic and Haydee have been generous to their city, their university, and their native land. They have sponsored and participated in many events to bring relief to the city. Recently they endowed a professorship at LSU. Nic also has sponsored fellowships for young Argentinean scientists to travel to neurochemistry and neuroscience annual meetings.

Nic's judgment didn't improve, however. He organized his own Mariachi band in Mexico and made a CD that features his singing and trombone playing. But Nic, I didn't know you were a plagiarist until Steve Fliesler pointed out its resemblance to the Abbey Road cover of the Beatles. After gleefully giving copies to his friends and family, he even gave a copy to Placido Domingo after a benefit concert by the opera star in New Orleans. They actually sell! Nic donates his royalties to a health-care group in Mexico.

Nic is a deeply religious man and firmly believes that the good fortune that has filled his life is not simply chance, but is rather a gift from the Unseen Hand that guides him—not because of his own merit—but to serve a purpose that he's not meant to understand fully. This belief drives him to accomplish as much as he can, because he feels so blessed. Considering all the unusual intersections of so many lives that led to the successful flight of Nic and his family from oppression, one can understand how that belief has been strengthened.

Nic has published more than 500 papers. I'm reminded of Max Delbruck's letter to Semour Benzer's wife asking him to stop writing so many papers or, if he can't stop, to underline the important parts.² As a result, Benzer quit the phage field, began work in neuroscience using *Drosophila*, and changed his and our futures. Nic, please underline the important parts.

I close by congratulating my good friend and this year's Proctor Medalist.

References

1. Bazan NG. Effects of ischemia and electroconvulsive shock on the free fatty acid pool in the brain. *Biochim Biophys Acta*. 1970;218:1-10. (Citation Classic, “Neural Stimulation or Onset of Cerebral Ischemia Activates Phospholipase A2,” *Current Content/Life Sciences* 1991;30:10).
2. Cairns J, Stent GS, Watson JD. *Phage and the Origins of Molecular Biology*. Expanded Edition. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press; 1992:165.

David S. Papermaster