## In Memorium: Robert Cedergren (1939–1998)



"This is the only solution: We must all work together."

Bob Cedergren passed away on October 14th, his wife Henrietta by his side. For more than seven years, he had fought his cancer tenaciously and optimistically, willingly accepting the rigors of each successive treatment, savoring any respite it offered, however brief, and defying all medical prognostics. He was lucid to the end, his sense of humor intact, directing his laboratory, receiving a stream of visitors, and sharing life as fully as he could with Henrietta, his children Eric and Nellie, and his many friends. In the last years of his life, he transmitted precious lessons to all those around him. He had reached near-perfect serenity and wisdom, and in the most difficult moments it was Bob that supported us with his own inner strength.

We had the privilege of knowing Bob both as a scientist and as a personal friend. We would like to share our thoughts about both sides of this remarkable individual.

As a scientist, Bob was truly first-rate, an all-round discoverer and pioneer. After training at Cornell with Blomquist and Holley, he took an appointment, in 1967, in the Department of Biochemistry at the Université de Montréal. He spent the rest of his career there, becoming Full Professor in 1980. In moving from the United States to Montreal, he brought with him a passable knowledge of French, which was greatly enriched over the years, becoming a natural expression of his frank and enthusiastic personality. More important, he also brought an irrepressible drive for breaking new ground in science. This led to new understandings of the 2D and 3D structure of tRNA, developing early techniques for alignment and testing homology, studying the evolution and differential use of the genetic code across the phylogenetic spectrum, computer modeling of RNA structure, identifying new unsuspected catalytic functions for RNA and DNA, and many other projects. Lately, he had been combining all of this knowledge in designing new tools for the treatment and eradication of some bacterial diseases. Despite his wide interests and great influence in many areas, at heart Bob remained a consummate laboratory biochemist. His research, such as that on hybrid RNA/DNA polymers, on ribozymes, or on iteratively evolved and selected RNAs, is characterized by intricate and ingenious concepts and original experimentation.

Bob's vision and influence in new directions for molecular biology were expressed on other levels too. He was a key planner and founder of the Evolutionary Biology Program of the Canadian Institute for Advanced Research. Bob was also instrumental in planning and broadening the scope of the Canadian Genome project, as a member of the Inter-Council Advisory Committee. He helped conceive, coordinate, and establish the Organelle Genome Megasequencing Project, which has become a world center for the investigation of early eukaryotic evolution.

Over the years, he was awarded numerous prizes, medals, and prestigious invitations to speak at meetings. He was elected Fellow of the Royal Society of Canada and last year was named to an emeritus professorship at the Université de Montréal.

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In the lab, Bob was a deeply original thinker and a vibrant, enthusiastic, and energetic presence. He attracted the best students and post-docs. He had a particular knack for driving everyone to distraction: Everyone in the lab was expected to be as eclectic as he was, performing experiments, writing the manuscript, and working on a grant proposal, all at the same time. Nevertheless, all who worked or collaborated with Bob, especially the young students and researchers, could tell you about him as a mentor: How he fired their passion for science, how he stimulated their imagination, and how he taught them scientific honesty, how to be free thinkers, to stand up for what they thought was right, to defend and fight for their ideas with convincing arguments.

One of Bob's personal qualities was his ability to bring together researchers with thoroughly divergent interests and antithetical viewpoints, and meld them together into a productive collaboration. Over the years, he entertained hundreds of scientific friendships, not only in North America, but all over Europe, Latin America, and the Far East. He was universally well-liked; his former students, colleagues, and friends all kept in touch with him, dropping by frequently to renew ties with Bob and his co-workers, and to share his generous hospitality. He was an attentive listener, he enjoyed a good discussion, and specialized in solving problems in a most convivial and friendly atmosphere.

One of us (NB) had the opportunity to share an old house in Montreal with Bob and his family for over 20 years. This intimacy provided an opportunity to know a man certainly more complex than the one we knew at the university. Bob was always a family man, devoted as well to his personal friends. During his 33 years with Henrietta, they were both willing to sacrifice time and effort to support each other's careers. Bob was an attentive father, and he developed solid friendships with his children, who have each inherited aspects of his rich personality.

With the help of students and friends, Bob and Henrietta rebuilt and ran a small farm that they named "La Vitacée," near the village of Sainte-Barbe in Quebec, planting trees, experimenting with various crops, and enjoying particular success with an innovative vineyard and cottage winery. Colleagues from around the world would join Bob and his family there and spend wonderful working weekends, in the evening sharing meals, listening to Cuban music, and sampling the favorite vintages.

Bob was one of those rare individuals who saw no contradiction between an uncompromising pursuit of excellence and an equally profound commitment to social equality. This he achieved through his insistence on fairness and justice, a deeply held belief in the great potential of the individual, no matter what their social background, nationality, race, or color, and a great personal investment in urging and helping those around him to fight for and fulfill this potential.

Consistent with this, Bob was dedicated to many progressive causes. He became president of IPIQ (a consumer protection agency) and enlisted many of us to participate in its projects. He made a particular effort to promote molecular biology research in Cuba. He had little patience for unnecessary bureaucracy, formality, and hierarchy as impediments to equality. His legacy: to be true to ourselves, to respect others, to remain simple.

The world has lost a great scientist, and we have lost a true friend. We are saddened, but reassured and comforted by the inner strength he possessed to the end. In his last week, Bob was preoccupied with cooperation among all nationalities and races; he asked that this message be disseminated: "This is the only solution: We must all work together."

Nicole Beauchemin, McGill University David Sankoff, Université de Montréal Henri Grosjean, CNRS, Gif-sur-Yvette, France

N.B.: A studentship fund will be created in Bob's memory. Donations may be sent to:

The Robert J. Cedergren Studentship c/o Department of Biochemistry University of Montreal Postal Box 6128 Succ. Centre-Ville Montreal, Que. CANADA H3C 3J7

Note from the Executive Officer of the RNA Society: On behalf of its members, the RNA Society has made a contribution to the Robert J. Cedergren Studentship fund in recognition of the insights, inspiration, and creativity that Robert Cedergren brought to our field.