

## OBITUARY

## Henry Levison, a Giant of Pediatric Respiratory Medicine

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Henry Levison (“Henry” for his pupils), one of the universally recognized Fathers of Pediatric Respiratory Medicine, died on June 6, 2025, in Toronto, Canada, at the age of 94.

He graduated at the Royal College of Surgeons, Dublin. After working as a physician in a kibbutz in the north of Israel for a few years, he came to appreciate his lack of knowledge in pediatrics and moved first to complete a residency in general pediatrics at the Michael Reese Hospital, Chicago, and then to Boston Children’s Hospital where he was introduced to respiratory physiology by Dr. Clement Smith. In the early 1960’s, he was a Fellow at Sick Children Hospital, Toronto. His intellectual talent soon became apparent, resulting in pioneering work in mechanical ventilation of premature newborns with respiratory distress syndrome along with Maria Delivoria-Papadopoulos, under the supervision of neonatologist Dr. Paul Swyer. Together with Blair Fearon, Otolaryngologist, they were among the first to intubate and ventilate premature infants. Henry’s interest in respiratory physiology prompted him to spend a training period in one of the greatest centers of this specialty, Winnipeg, Manitoba, under Dr. Rubin Cherniak.

When he returned to SickKids, in 1966, he joined Dr. Charlie Bryan, an authority in the field of physiology, to create a leading center for studying respiratory physiology in childhood. The role of precision in measurements of respiratory function and gas exchange was of paramount importance to improve understanding of how the lung works in normal children and in those with respiratory diseases. Soon after, he was inspired to establish one of the first Pulmonary Function Laboratories for children. Recognizing the importance of precise reference values, he performed pulmonary function tests on thousands of children, producing the widely used “Weng and Levison” normal standards. During the 1970s and 80s, under his direction, the laboratory at SickKids became an internationally recognized research and training center for many young pediatric pulmonologists; among Italians, Alberto Andreoli, Attilio Boner, Fernando Maria de Benedictis, Giovanna De Castro, and Luigi Mappa. New pulmonary techniques and fundamental studies on airway reactivity were developed, resulting in numerous publications. Henry also emphasized robust study design, aiming for at least 100 subjects per trial – a standard humorously dubbed the “Levison Unit” before power calculations became common practice.

In 1978, he became Director of the Cystic Fibrosis Clinic at SickKids, a role he held until 1995. He pioneered a multidisciplinary approach, assembling pulmonologists, physiotherapists, gastroenterologists, nutritionists, psychologists, nurses, and family counselors, and along with Dr. Douglas Crozier revolutionized CF care, including high-fat, high-calorie diets, achieving the world’s best CF survival rates

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in Toronto. He also initiated the Toronto CF database with biostatistician Mary Corey, a landmark resource that enabled longitudinal studies, genotype-phenotype correlations, and contributed to the cloning of the CF gene. Recognizing the need for adult care, he laid the foundation for adult CF clinic transition programs in North America.

From 1984 to 1994, he led the Division of Chest Diseases at SickKids, which became a global reference center for pediatric respiratory research. Clinical studies on asthma, cystic fibrosis, bronchiolitis, croup, pneumonia, and primary ciliary dyskinesia established the role of pharmacologic therapies. His landmark work on asthma pathology first identified inflammation as a central feature, paving the way for anti-inflammatory treatments that transformed asthma care. During this period, he published extensively in top international journals and had an unparalleled influence on pediatric respiratory medicine worldwide. Collaborating with other Canadian leaders, he also secured recognition of Pediatric Respiratory Medicine as a Royal College subspecialty. In 1989-1990 he spent his sabbatical year at University of Perugia, Italy. During this period, he was able to create a new scientific consciousness between pediatric respirologists by transferring enthusiasm, passion and desire for scientific evidence, and was invited to give lectures at the main national universities.

Throughout his career, Henry brought a paradigm shift that guided his research and defined the field of pediatric pulmonology. His studies advanced our understanding of childhood respiratory diseases, often challenging dogma with his legendary principle "*Make things simple!*". His leadership, team building, foresight, and contagious enthusiasm inspired a generation of young researchers. Henry was tireless, often arriving early in the morning and studying the latest scientific literature before his academic activities. Renowned for his incredible memory, clarity of thought, and insistence on evidence – earning

him the nickname "guru of skepticism" – he demanded data before accepting new ideas. This rigor instilled confidence in his collaborators while teaching them to recognize when evidence was lacking. Despite his strictness, he was deeply respectful, warm, and humble, valuing contributions from everyone, from chief executives to the greenest medical students. Behind his occasional outspokenness, he radiated kindness and integrity.

At meetings, he was a respected speaker. He had an extraordinary ability when presenting data, even the most complex ones, and was unique in openly answering questions to which he did not know the answer ("*I don't know!*"). Such intellectual honesty was an expression of knowledge, not of ignorance, and this is patrimony of great minds only.

Henry was a man of eclectic tastes. He loved classical music, arts and reading. Those who visited his apartment were able to appreciate thousands of books, vinyl albums and CD, and an extensive collection of drawings including works by Matisse and Picasso. In sports, he supported the Toronto Blue Jays baseball team.

Henry's legacy lies in the number of trainees who graduated under his leadership and mentorship over the years. They are now spread across the globe, many in academical positions or successful careers themselves continuing the work he helped to inspire. Between them, Gerard Canny, Fernando Maria de Benedictis, Khoulood Fakhoury, Dennis Gurwitz, Meyer Kattan, Alan Isles, Thomas Keens, Eitan Kerem, Thomas Kovesi, Ian McLusky, Christopher Newth, Hugh O'Brodovich, Linda Pedder, Constantine Petrou, Joe Reisman, Joseph Rivlin, Colin Robertson, Renato Stein, and Elvan Tabachnik. Apart from respiratory diseases, many of those who had the privilege of working with him learned so much outside of medicine from his personality. An episode may characterize the essence of his human value. Once, when asked about his greatest professional satisfaction, he said: "All my pupils did well". That was Henry.