
SPECIAL ARTICLE

American Pediatric Society John Howland Award 2000

Presentation

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Good Afternoon. It is a great personal honor to introduce Sam Katz as the year 2000 recipient of the John Howland Medal from the American Pediatric Society. Sam has had an enormous impact on the health of children throughout the world – by way of the role he played in the development of measles vaccine, by way of his influence on national immunization policy during the past 35 years, by his tireless and effective advocacy for children's health issues, and by way of the bonds he has maintained with the many physicians fortunate enough to have trained with him. I will keep my introduction brief, as Sam's personal and professional accomplishments speak eloquently for themselves. Furthermore, I suspect there are very few in this great hall that do not already personally know Sam.

Samuel Lawrence Katz was born in Manchester, New Hampshire in 1927. His father worked for Boston and Maine Railroad and his mother raised his sister Maxine and him. Sam attended the local Manchester schools and then enrolled at Dartmouth College in 1944. But at age 17, college proved to be less compelling than joining his classmates in the war effort, so Sam dropped out and enlisted in the Navy where he had his first and important contact with the medical world as a pharmacist's mate. When the war was over Sam returned to Dartmouth where he graduated magna cum laude in 1948. Fifty years later, his alma mater honored Sam with an honorary degree which was bestowed during a graduation ceremony which, speaking for myself, was memorable both for the address that Doris Kearns Goodwin delivered on baseball and presidential history, and for the torrential rains that poured down on the graduates and their families assembled on the Dartmouth Green that morning.

Sam went on to Harvard Medical School where he graduated AOA in 1952, and then embarked on a career in internal medicine as an intern at the Beth Israel Hospital. It was at the BI where a one-month rotation with Sydney Gellis convinced

him that he would rather be a pediatrician. The next year he migrated across the street to the Children's Hospital as a junior resident on Charles Janeway's service. After a senior year on the Mass General Children's service, Sam returned to Children's Hospital as Chief Resident, spending half of that year at St. Mary's Hospital in London as an exchange registrar.

Sam's career as a virologist began when he joined John Enders' laboratory at Children's in 1956 as a Research Fellow. Enders had been awarded the Nobel Prize in Medicine just 2 years before for the isolation of poliovirus in cell culture, and, with Thomas Peebles, he had just reported the isolation of measles virus in primate kidney cells from specimens taken from a 13-year-old boy named Edmonston. Sam joined the effort in Enders Lab to attenuate the measles virus, and quickly succeeded in doing so by adapting the Edmonston strain to cultured chick embryo cells, after it had already been passed in primate kidney cells, human amnion cells, and embryonated eggs. He then immersed himself into every phase of measles vaccine development, and within 7 years, the measles virus had been attenuated, and later further attenuated, tested in monkeys, tested in clinical trials, licensed, and released for use in both the United States and abroad. Sam was the first author on a paper published in the *New England Journal of Medicine* in 1963 along side seven other papers on measles vaccine – and I would like to note the remarkable company that Sam kept in those days – the other names on this paper included Henry Kempe, Francis Black, Martha Lepow, Saul Krugman, Robert Haggerty, and Dr. Enders.

Before the availability of the live vaccine, an estimated 6–8 million children died of measles annually throughout the world. That number has since been reduced to well under 1 million. In the United States the incidence of measles has been reduced to less than 100 cases annually [less than 1 per million total population], and virtually all these cases can be traced to importation of measles virus from abroad. Today there are many other countries in the Western Hemisphere where indigenous transmission of measles no longer occurs. Thus it was fitting that Sam would chair a meeting this past March at the CDC which focused on strategies for global control and ultimate eradication of measles worldwide. I know that he takes

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great pride in observing the remarkable progress that has been made in the control of measles during his career.

In 1968, at the age of 41, Sam left the intimacy of the Enders Lab and departed Harvard as an Assistant Professor to become Professor and Chairman of Pediatrics at Duke. A few years later he was named the Wilburt C. Davison Professor of Pediatrics, in honor of Duke's first Dean and Chair of Pediatrics. In the 1960s, Duke Medical School was then little more than 30 years old and was at an early stage in its transition to national prominence, and Sam became the third of only four chairs in the history of the Department at Duke, and held the post for the next 22 years. During his tenure as Chair at Duke, Sam oversaw the rapid development of all clinical services, a 4-fold increase in the size of the clinical faculty, and a move to a new Children's Medical and Surgical Center in the new Duke Hospital.

Throughout Sam's career he has had a major interest in immunization policy, and no one would argue when I say that he has continuously been the nation's most influential voice in this area. Sam has chaired every major national committee devoted to vaccine issues, spoken endless times before national audiences, and testified before congressional committees about vaccine financing and vaccine safety. Sam played a significant role in designing the legislation that created the very successful Vaccine Injury Compensation Program which brought stability to the marketplace during an era when excessive litigation was driving up the price of vaccines. More recently he teamed with former Secretary of HHS Louis Sullivan to create what is now known as the National Network for Immunization Information to ensure that the public receives accurate information about vaccines, and that public confidence in immunization remains at the highest possible level.

The process of translating scientific achievement into coherent, practical, public policy is often difficult and contentious. It is in this arena that Sam's enormous knowledge, insight, and unparalleled ability to communicate has no peer. I can't tell you how many times I have seen Sam step up to the microphone with just the right answer whenever a committee reaches an impasse, or watched in awe as he disarmed an impassioned anti-vaccine advocate with a composed and empathetic response.

Sam has also devoted time and energy to many other scientific advisory committees and to innumerable academic and professional associations. Over the years he has served as President of the Association of Medical School Pediatric Department Chairmen, President of the APS, and on the Boards of the Pediatric AIDS Foundation, Albert Sabin Foundation, the Burroughs Wellcome Fund, and the Josiah Macy Foundation, to name only a select few. The Howland Award today is only the latest of many honors bestowed on Sam, which include several teaching awards, the Grulee Award of the AAP, the Abraham Jacobi Award of the AAP and AMA, the St. Geme Award from the combined pediatric societies, the Bristol Award of the Infectious Disease Society, honorary degrees from Georgetown and Dartmouth, and membership in the Institute of Medicine.

In 1990 Sam finally turned over the Chair's responsibilities at Duke to Mike Frank, and 3 years ago added the term Emeritus to his title. These changes have allowed Sam and Cathy to spend more time with their eight children who are now scattered across the country pursuing their own professional careers, to follow Duke basketball, and to spend just a bit more time at home. However "retirement" is a word that fits neither of them. Cathy is guiding the scientific agenda of the Pediatric AIDS Foundation which is now focusing its energies and resources on prevention of vertical HIV transmission in the world's most affected countries, and she has also assumed the presidency of the Infectious Disease Society of America. Sam remains actively engaged in immunization issues with the National Network for Immunization Information, and as a representative to the CDC Advisory Committee on Immunization Practices. They are also traveling the world, and as typical of Sam and Cathy, they do not travel as tourists, but rather as ambassadors for child health, consulting for health ministries, speaking at medical schools, and visiting local physicians and village health workers. The list of places they have traveled just within the past several years is remarkable: Vietnam, Kenya, Botswana, Switzerland, Belgium, France, England, Italy, Taiwan, Hong Kong, Egypt, Lebanon, Turkey, and Syria. Furthermore, there are planned trips to China, India, South Africa, Uganda, Rwanda, and Malawi.

Finally, despite all that Sam has contributed as a scientist, administrator, diplomat, and internationally respected educator, I truly believe that his legacy will be that of mentor, colleague, and friend. As most of you know, Sam is a man of immense warmth and compassion, who is extremely generous with his own time and resources, and who takes genuine personal interest in the lives and careers of others. One cannot work for Sam and not be changed. He has influenced the careers and lives of many, many physicians who have passed through Harvard and Duke programs, and who have gone on to make their own contributions in diverse fields related to pediatrics, infectious diseases, public health, and international health. Many of his trainees have gone on to hold influential positions of their own at approximately 30 medical schools in United States and abroad. And to this list should be added many who staff important positions at CDC, National Institutes of Health, and the FDA, and practicing pediatricians in at least 21 states.

The feelings of all of us who are part of Sam's professional family were cleverly summarized by George Miller during a symposium held in Durham in Sam's honor when he stepped down from the Chairmanship about a decade ago. And I can't say it any better. In his tribute, George invoked one of Sam's fellow Dartmouth alumnae Theodor Geisel, who may be better known to this audience as Dr. Seuss. With a simple rephrasing of Dr. Seuss's story line from "Green Eggs and Ham," George reminded all of us, in a simple but elegant manner, that, in many ways, we are who we are – because of Sam Katz.

So, thank you Sam.