

American Association of Avian Pathologists
Biographies of Professionals in Poultry Health

Caswell Spurgeon Eidson

1938 - 1983

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The Life of Caswell Eidson

Dr. Caswell S. Eidson, better known as Cas, was born January 10, 1938, at his grandparents' home in the tiny farming community of Roosterville in Heard County, Georgia, to Travis Henry and Fannie Maude Caswell Eidson of Newnan, Georgia. Both of his parents found work in textile manufacturing during the Depression years of the late thirties; later in life, his father became a well-loved Baptist minister. Cas grew up in Newnan and graduated from Newnan High School, where he lettered in three sports: football, baseball, and basketball. He attended West Georgia College, taking pre-med courses and enjoying his career as a fastball pitcher on the baseball team. In 1958 he transferred to the University of Georgia, where he majored in chemistry and met his future wife, Elizabeth Jackson. They were married on September 17, 1960.

Caswell and Elizabeth have two sons, Jeffrey Caswell (1961) and Patrick Samuel (1967). Jeffrey attended West Georgia College. He has lived in several areas of the United States, from the Florida Keys to Vermont to Colorado, as he has pursued a career in the restaurant business. He has one daughter, Lena Elizabeth (1987), who is currently a senior in college. He is married to Nikki Pruitt. Patrick earned a BS in agricultural economics from the University of Georgia and a JD from Samford University in Birmingham. He is an attorney, practicing in Leesburg and Americus, Georgia. Patrick

is married to Dee McGowan; they have two sons, Caswell Dalton (2004) and Ridley Banks (2007).

Caswell Eidson passed away May 21, 1983 after a long illness related to liver disease, culminating in two liver transplants which ultimately failed.

Cas earned his BS from the University of Georgia in 1960, an MS in 1964, and the Ph.D. in 1967. His MS thesis, under Dr. D. J. Richey was "The Titration of Infectious Bronchitis Viruses and their Antibodies by use of the Indirect Hemagglutination Procedure", and his Ph.D. dissertation, under Dr. S. C. Schmittie was "Induction of Acute Marek's Disease Leukosis with the Beetle *Alphitobius diaperinus*". Cas's interest in poultry virology grew out of the job he obtained at the PDRC as a graduate student, before completing his master's degree. He worked in the laboratories of Dr. Dale Richey and Dr. Frank Boyd. Dr. Sam Schmittie became his mentor, directing his doctoral program and guiding his development as a researcher.

He spent his entire career at the Poultry Disease Research Center (now Poultry Diagnostic and Research Center, PDRC), beginning as a Research Associate in 1965, and culminating with his promotion to Professor in 1977. During his career he received several honors, including being named an Alumni Foundation Distinguished Professor, the first recipient of the Upjohn Achievement Award from the American Association of Avian Pathologists, and the Creative Research Medal from the University of Georgia.

The late 1960s and early 1970s were an exciting time in Marek's disease research. Marek's disease had been decimating the poultry industry world-wide, and there was an intense effort to determine the etiology and to work out methods of prevention. His first scientific presentation was at the Technical Workshop Conference on the Avian Leukosis Complex held in Athens, GA in 1965. This important workshop was attended by scientists around the world and represented a major turning point for research on this disease. Cas entered the mainstream of Marek's disease research at this point, a position he never relinquished.

Following early work of others, Cas (and Sam Schmittie) obtained in 1964 tumor material from a field case of Marek's disease in Georgia. The tumor homogenate, designated as the GA strain, was serially passed in chickens which developed a high incidence of disease. The GA strain became widely used in many laboratories and is still considered a prototype strain. It was the first Marek's disease strain to have its DNA completely sequenced (in 2000) and has been used in countless studies over the years.

Some of the early work at Georgia was supported by a USDA contract administered through the USDA Regional Poultry Laboratory in East Lansing, Michigan. Dick Witter recalls working with Cas (in both of their laboratories) on attempts to propagate the GA strain in cell culture, a technique established following the work of others that established that the etiologic agent of Marek's disease was a herpesvirus. Always focused on practical issues, Cas subsequently attenuated the GA isolated by serial passage in cell culture as a potential vaccine. When Dave Anderson arrived at PDRC in 1969, they

began working with a turkey herpesvirus (WHG), which had been isolated by Hitoshi Kawamura at the University of Wisconsin, as a potential vaccine. In late 1969 pen challenge studies to evaluate these viruses as a vaccine were underway, and both WHG and attenuated GA looked very promising. In field trials in 1970 and 1971, WHG and FC126 (the strain being evaluated as a vaccine by the USDA lab at East Lansing) both appeared to be highly effective and safe, but unfortunately, the GA vaccine strain lacked efficacy in the field.

Cas was not only involved in the development of a Marek's disease vaccine, he was instrumental in developing methods to improve its use in the field. He worked diligently on production methods, preservation, and vaccine dilution, and diluents. There were times when he would bring tissue culture plates into the field in order to titrate HVT vaccines at the point of use. He was instrumental in determining the minimum effective dose of HVT for broilers. The vaccine at that time was very expensive. Knowledge of the minimum protective dose would enable producers to dilute the vaccine to the optimal dosage in order to reduce costs. For many years thereafter Cas offered the service of titration of serials of HVT vaccine so that the most economical but effective dilution could be determined.

Perhaps his most significant contribution to the field of Marek's disease, after the isolation and characterization of the GA strain, was the recognition in the late 1970s that the HVT vaccine no longer provided high levels of protection against Marek's disease in the field. His 1981 paper on this subject was instrumental in redirecting the work of other laboratories to studies on the evolution of Marek's disease virus strains towards increased virulence, a phenomenon now recognized as of high importance.

His research was always applied in nature, aimed at solving disease problems in the field. He did significant studies on vaccination against Newcastle disease, reovirus tenosynovitis, and infectious bursal disease, and developed several candidate vaccine strains, some of which are in use today, including an attenuated Newcastle Disease strain and inactivated avian reovirus vaccine containing the CO-8 strain developed in conjunction with Dr. Daniel Gaudry.

His approach to experimental design often involved the use of large numbers of chickens. After his presentation at the 1971 Oncogenesis and Herpesviruses Workshop in Cambridge, UK, the audience, composed largely of medical virologists and cancer biologists, was in awe, partly because of Cas's casual and folksy demeanor at the podium and partly because of the sheer magnitude of the animal work used in his vaccination trials. This distinguished group of eminent scientists who were used to experiments with a handful of mice apparently had never seen anything like it.

Cas mentored several graduate students. One of these, Donald Ewert, went on to a distinguished career in immunology and tumor virology at the Wistar Institute in Philadelphia where he contributed to the basic biology and immunology of avian leukosis. Jack Gelb went on to make major contributions in avian virology, especially infectious bronchitis virus, at the University of Delaware. Joe Giambrone has had a

distinguished career at Auburn University, especially in the area of infectious bursal disease virus. Steve Thayer remained at the University of Georgia, where he has served the industry as director of diagnostic services and for his bacteriological research, especially with Salmonellosis. The late Masduki Partadiredja had a distinguished career in avian medicine in Indonesia.

Cas was energetic and enthusiastic about his work, his family, and the community. He was always ready to be of service to poultry producers. To say that Cas's involvement in Little League baseball was extensive is an understatement. He served as president of Athens International Little League for a number of years, but his work involved more than chairing board meetings; it was very much hands-on. Besides coaching, he would drag the infield, put fresh lime on the foul lines and base lines, work the scoreboard, and man the P A system, as well as grilling chickens for fund-raisers. Colleagues from other countries who happened to visit Cas during baseball season often experienced a Little League game for the first time in their lives. Cas never forgot playing sandlot baseball himself as a boy, when his group of friends owned only one baseball, used until the cover wore off. He tried to make the fun of playing baseball a bit easier for the next generation. There is a memorial plaque in Satterfield Park in Athens, honoring his Little League contributions.

He was also an avid boater. He purchased a nice boat that he often took to Lake Hartwell, Lanier, or other lakes in the area. This gave rise to several boat stories about Cas, including the time he forgot to put the plug in before launching the boat. Another time he did launch the boat successfully, but he discovered that he had left the keys at home. He was the winner of the "great race" at PDRC, in which Cas, overweight and middle-aged, defeated a young female graduate student who was an avid runner in a foot race. He was an enthusiastic supporter of the Atlanta Braves and University of Georgia football. Dr. Lasher recalls several cookouts at his house prior to Georgia Bulldog football games.

Many co-workers can attest to the fact that Cas was not a morning person. He often arrived at the lab at noon or even later, but he commonly worked until well past midnight. His technician, Stiles Lovern, would wait for him all morning, and then end up working with Cas most of the night. His biological clock ran about an hour late. Before his health began to fail, he loved a margarita and a good cigar. Even after his health was failing he worked as hard as he was able. He sometimes would need assistance to get up the steps to the lab, and on at least one occasion he fell in his efforts to get into his lab or office.

Caswell Eidson made significant contributions to the poultry industry, the University of Georgia, and his community, and was deeply loved by his friends and family. Those of us who knew him continue to miss him deeply.

Biography solicited by the Committee on the History of Avian Medicine, American Association of Avian Pathologists.

Additional biographical materials may be available from the AAAP Historical Archives located at Iowa State University. Contact information is as follows:

Special Collections Dept. & University Archives

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