American Association of Avian Pathologists
Biographies of Professionals in Poultry Health

Benjamin Lucio-Martinez
1942-2013

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The Life of Ben Lucio

Benjamin Lucio-Martinez was born in Mexico City, D.F. on February 1, 1942. He grew up on a family farm where a small flock of layer hens were kept for family use. As a young man he had already decided on a career in veterinary medicine, and so in 1960, at the age of 18, he enrolled in the College of Veterinary Medicine and Animal Husbandry at the National University in Mexico City, finishing in 1964. Upon completion of his undergraduate thesis in July 1966, he was awarded the DVM degree. During his period of education in veterinary college, he served as the administrator and health supervisor for a family flock of 18,000 broilers. Following graduation in 1964 he had a dairy cattle practice for 2 years.

In 1967, Benjamin and his wife Eglantina, also a veterinarian, moved from Mexico City to Ithaca, NY where they resided for two years while they both completed MS degrees in Cornell University's College of Veterinary Medicine, she in the Department of Physiology and Ben in the Department of Avian Medicine. His mentor was Dr. Stephen B. Hitchner and his 1969 thesis was entitled *Differentiation and detection of infectious bronchitis virus subtypes by immunofluorescence*.

Following their graduate studies, he and Eglantina returned to the National University in Mexico City where both were appointed to faculty positions. Ben was an Assistant Professor from 1969-72. In 1972 he was promoted to the level of Full Professor and he was named Chairman of the Department of Avian Diseases for the period of 1973-75. He coordinated graduate studies on avian pathology from 1971-75 and became the Head of the Graduate Studies Division in the Veterinary College in 1976. It is fair to say that he was a strong moving force behind graduate studies at his institution.

In 1977, Benjamin and Eglantina, with their two young daughters, Eglantina and Araceli, moved back to Ithaca so that Ben could pursue a PhD degree, again under the mentorship of Dr. Hitchner. His thesis was entitled *Effects of maternal antibodies on infectious bursal disease and active immunization.* After completion of his graduate studies, he stayed at Cornell for an additional 6 months as a postdoctoral associate.

Upon his return to the National University in Mexico City, Dr. Lucio was named Chairman for the Department of Animal Production, Poultry, for the period of 1981-86. Throughout his years on the faculty at the National University, Ben served as advisor for a large number of graduate students from Mexico, Central and South America. He taught several courses on the subjects of avian diseases, husbandry, and clinical pathology, and coauthored three books on diseases of poultry.

In 1970, along with several colleagues, Dr. Lucio helped found the Asociacion Nacional de Especialistas en Ciencias Avicolas (ANECA) at a meeting in Mexico City. The author of this biography was privileged to be present at that meeting, and it was clear that Ben was very highly respected. He was truly honored to be its founding president, a role he held for the period of 1970-72. ANECA has participated in the Western Poultry Disease Conference (WPDC) for the many subsequent years and has hosted WPDC meetings in Mexico. A “sideline” in Ben Lucio’s career was to serve as a simultaneous translator at these conferences.

The year 1986 brought a major change in Ben’s career. At that time, Bruce Calnek was Chairman of the Department of Avian and Aquatic Animal Medicine at Cornell. Dr. Malcolm Peckham, who was responsible for diagnostic work, teaching, research and extension in the department, retired, making an opening on the faculty. Dr. Lucio was an obvious choice as a possible replacement for Dr. Peckham and so Calnek called him to see if he was interested in the position. After serious consideration, Ben concluded that he should stay in Mexico where his contributions were sorely needed, and the position was filled. However, Dr. Lucio did subsequently return to Cornell, in 1986, as a Visiting Professor. Within a year he was appointed to the position of Senior Research Associate. In 1989 he became an Associate Professor with a commitment to carry out research on significant poultry diseases.

In his new position at Cornell, Dr. Lucio was responsible for the course on poultry diseases offered to poultry science students from Cornell’s College of Agriculture. Also, he served as the committee chairman for a graduate student, Dr. Liangbiao Hu.

Several of his early contributions at Cornell were studies on infectious bursal disease. These were mostly done with Dr. Hitchner, who had remained on the faculty after relinquishing the chairmanship of the Department. Also, the subject of infectious bronchitis was revisited in a serious fashion. Drs. Lucio and Hitchner characterized the tissue tropism of cloacal isolates of IBV by studying the distribution of virus in the digestive tract.

Various features of infectious bursal disease (IBD), particularly those related to immunity, immunization, and host responses, were the subject of a number of studies by Drs. Hitchner and Lucio. Hitchner carried out experiments on the immunization of adult hens, with the aim of providing maternal antibodies to protect chicks for the first few weeks. He also studied the persistence of maternal antibodies and their effect on the susceptibility of young chickens. This was shown by Drs. Lucio and Hitchner to be an important factor related to the incidence of disease in exposed chicks and also to the ability to immunize chicks at a young age. An interesting finding by Drs. Lucio and Ronald Schultz (Department of Microbiology) was that feeding chicks colostrum from cows that had been immunized against IBD virus protected them against the disease, although this was never put to practical use. A particularly important study by Drs. Lucio and Hitchner dealt with the use of emulsified IBD vaccines. They showed that such vaccines markedly improved neutralizing-antibody levels in hens, which, in turn, improved the protection of the progeny. This approach was found to be very beneficial and was adopted by the poultry breeding industry not only with IBD killed vaccines but others as well.

In addition to his work with IBD and IBV at Cornell, Dr. Lucio worked on a large variety of projects during his career, many with his students and colleagues in Mexico. These included avian encephalomyelitis, Newcastle disease, chicken infectious anemia, Marek's disease, *Salmonella enteritidis*, canary pox, parrot pox and tragopan herpesvirus. He authored or co-authored 40 papers in refereed journals, 3 books and a book chapter, and made more than 60 presentations at national and international meetings.

In 1993, Dr. Lucio switched from a primarily research-oriented appointment to one that centered on extension and diagnostic work. His title changed to Senior Extension Associate II, and Director of the Avian Diagnostic Laboratory. In this new role, he was responsible for close interaction with New York's poultry industry. At first, industry personnel were very skeptical of the assignment of Dr. Lucio to the leadership role in that area, expressing concern that he was only research-oriented. However, they were soon delighted to learn that he was exactly what they needed. He gained a very strong reputation and was extremely well respected in the poultry industry for his many contributions. He helped to monitor New York State flocks for *Salmonella enteritidis* infections, avian influenza, Newcastle disease, *etc.* Also, he had an important role in interacting with the New York State Department of Agriculture and Markets and many other groups involved in poultry disease control on a regional or national level.

As the College's level of activity in the field of poultry diseases diminished following the merger of the Department of Avian and Aquatic Animal Medicine and the Department of

Microbiology, Immunology and Parasitology, it became appropriate for Dr. Lucio's position to be moved to the Animal Health Diagnostic Center at the College. This was done in 2002 and he continued there until his retirement in 2011.

AAAP Bottorff Award

In 2003, Dr. Lucio received the AAAP Bottorff award (now the Lasher-Bottorff award) which is given to recognize an avian diagnostician/technical veterinarian who has contributed significantly to the poultry health program in North America in the past 10 years. One of the supporting letters submitted as part of his nomination for this prestigious award stated: "His success as a diagnostician and a field veterinarian is because of his dedication, sound educational training and vast experience working both in his native country, Mexico, and in the USA."

AAAP contributions

Membership on the AAAP Board of Directors (1981-83) and the AAAP Advisory Committee on Poultry Health Programs (1978-84) attest to Ben's interest in, and support for, the organization. He regularly attended the annual meetings.

WVPA Hall of Honour

In 2013, Dr. Lucio was elected as one of the 53 founding members of the Hall of Honour, newly established by the World Veterinary Poultry Association. This was a very significant honor considering that nominations included both past and present contributors from the entire world. Ben's untimely death precluded his attendance at the inauguration banquet held in France, but this recognition meant a great deal to him and reflected the great esteem his colleagues had for his contributions to the field of avian medicine.

Retirement

Ben retired in Ithaca, NY where he could spend time with his wife and loving partner, Eglantina, their two children, Eglantina and Araceli and their families. He continued some interactions with the poultry industry but mostly he enjoyed several relaxing hobbies and being with his three grandchildren.

Summary

The field of avian medicine was very fortunate that Dr. Lucio chose to contribute to its advancement and success through leadership, teaching, research, extension and collaboration in so many important areas. His efforts, related to better interactions between Latin-American poultry pathologists and their North American neighbors, stand as a testimonial to his very significant contributions to our field.

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.