American Association of Avian Pathologists Biographies of Professionals in Poultry Health

## David E. Swayne

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## The Life of David E. Swayne

David E. Swayne (Figure 1) was born in Yellville, Arkansas and spent his early childhood in rural Marion County, Arkansas on a dairy goat farm (Figure 2). During his adolescent years, he lived on a small farm in Cabot, Arkansas where he developed a passion for animal agriculture and was active in Future Farmers of America (FFA) where he earned the State FFA Degree for his dairy calf rearing project and established a career ambition to be a veterinarian. During his undergraduate years at the University of Arkansas - Favetteville (1976-1980), he became interested in research, completing an honors project on amino acid metabolism in fetal piglets. In 1980, he received a Bachelor of Science degree in Agriculture (pre-veterinary medicine) with High Honors. In 1984, he received a Doctor of Veterinary Medicine and Master of Science in Veterinary Pathology from the University of Missouri in Columbia, Missouri, where he was dually enrolled in both the College of Veterinary Medicine and the Graduate School. His Master of Science thesis was in avian hematology, titled "Cytochemistry of the Chicken Thrombocyte, Lymphocyte and Intermediate Cell", and was accomplished under the direction of Gary S. Johnson (advisor), Steven L. Stockham and Gerald M. Buening. While at the University of Missouri, Dr Swayne studied avian pathology under the direction of Dr. Arthur Bickford and the late Dr. Darrell Trampel. In 1987, he received a Doctor of Philosophy in Veterinary Pathology from the University of Georgia with the dissertation titled, "Pathogenesis of Marek's Diseases Herpesvirus-Induced Transient Paralysis: Brain Edema" which was conducted under the direction of Oscar Fletcher (co-advisor), Louis W. Schierman (co-advisor), J. Robert Duncan, Kenneth S. Latimer and George N. (Buck) Roland. Dr. Swayne holds veterinary medical specialty certifications by the American College of Veterinary Pathologists (1988) and the American College of Poultry Veterinarians (1992).

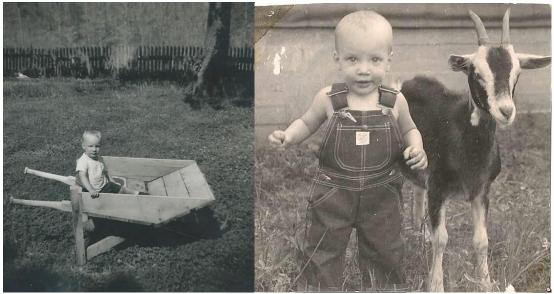


Figure 2. David Swayne at 18 and 12 months of age.

From 1987-1994, Dr. Swayne was an Assistant and Associate Professor with tenure in the Department of Veterinary Pathobiology, College of Veterinary Medicine and Department of Poultry Science, College of Agriculture at The Ohio State University (OSU) in Columbus, Ohio where he was a Veterinary Pathologist and was mentored by Dr. Y.M. Saif. He served as the Avian Pathologist at OSU and provided the Animal Disease Diagnostic Laboratory, Ohio Department of Agriculture in Reynoldsburg with histopathological services of avian cases. At OSU, he taught professional and graduate student classes in avian pathology, veterinary pathology and poultry medicine; provided veterinary and avian pathology diagnostic services; and conducted poultry health research, including areas of enteric viral diseases, Marek's disease and intestinal spirochetosis. In 1987, Dr Swayne began collaborative avian influenza studies with Dr. Richard (Dick) Slemons, which marked a new direction for his research. Dr. Swayne would dedicate the remainder of his career studying avian influenza achieving major national and global impact (Figure 3). In 1994, he returned to Athens, Georgia to become the third Director of the Southeast Poultry Research Laboratory (SEPRL) of the Agricultural Research Service in the U.S. Department of Agriculture (USDA). The previous Laboratory Directors had been Drs. William Patterson and Charles W. Beard. Through his leadership SEPRL was designated as Reference Centre for Avian Influenza and Newcastle Disease by Food and Agriculture Organization (FAO) of the United Nations and Collaborating Center for Research on Emerging Avian Diseases by the World Organization for Animal Health (OIE). The SEPRL is USDA's high biocontainment poultry research laboratory where high pathogenicity avian influenza (HPAI) and Newcastle disease are studied.



Figure 3. In a level-three containment facility in Athens, Georgia, veterinary pathologist David Swayne and microbiologist Joan Beck determine the success of a new vaccine technology by taking throat swabs from chickens. David Swayne and David Suarez examining lesions of HPAI.

For the past 33 years, Dr. Swayne's personal research has primarily focused on avian influenza in wild birds and poultry. His accomplishments include 1) development of efficacious poultry vaccines and vaccination protocols, 2) understanding the pathobiology of HPAI in wild birds and poultry, 3) developing the pasteurization standards for egg products and cooking standards for poultry meat to allow safe trade in poultry products, 4) demonstration that slaughter of infected poultry in live poultry markets are responsible for airborne virus and human infections and that simple changes in slaughter methods can mitigate the risk, and 5) collected samples from Rock Hopper Penguins in Falkland Islands and lead the research project that discovered and characterized avian paramyxovirus type-10, the first new avian paramyxovirus in over 30 years.

Dr. Swayne has served on World Organization for Animal Health (OIE) international committees to update the Avian Influenza chapters in the Terrestrial Animal Health Code and the Terrestrial Animal Health Manual (2003-2020). He served a 16-month research sabbatical at the OIE (Paris, France) studying highly pathogenic avian influenza control programs (2010-2011). He served for six years as Chair of the Executive Committee for OFFLU, the joint OIE and FAO Animal Influenza Network. He currently serves on the OFFLU Steering Committee. He has participated in missions or conferences on avian influenza control and biosafety/biosecurity in 51 countries.

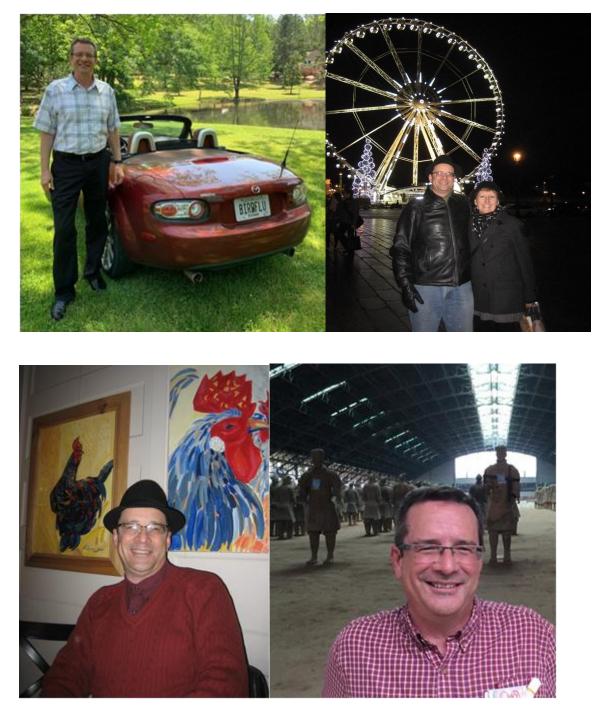


Figure 4. David Swayne has a passion for tinkering with sport cars. David and Anita at Place de Concorde in Paris. David in Les Fous de L'Ile on Ile de la Cite, Paris. David with Terracotta Warriors in Xian, China.

He has assisted FAO in the development of avian influenza control programs in many developing countries. He has been a prolific writer having published over 345 peer-reviewed papers, 115 book and proceedings chapters, and has been Editor or Associate Editor of 16 text books or proceedings including *Avian Influenza* (Editor, Wiley [2008]); Diseases of Poultry (Associate Editor, 11<sup>th</sup> edition [2003] and 12<sup>th</sup> edition [2008]; Editor-in-Chief, 13<sup>th</sup> edition [2013] and 14<sup>th</sup> edition [2020] - Wiley); *Animal Influenza* (Editor, Wiley [2017]). He is on the editorial board of

Avian Diseases and Emerging Infectious Diseases, and an associate Editor for Influenza and Other Respiratory Viruses. Previously, he served as an associate editor for Avian Pathology and Veterinary Pathology. He has given 321 invited presentations on poultry health issues. He has co-chaired the Organizing and Scientific Program Committees for 4<sup>th</sup>-10<sup>th</sup> International Symposia on Avian Influenza (1997-2018).

Dr. Swayne is the recipient of numerous scientific and achievement awards, including three Charles C. Shepard Science Awards, James H. Nakano Award, Bayer-Snoeyenbos New Investigator Award (American Association of Avian Pathologists [AAAP]), P.P. Levine Award (AAAP), Pharmacia Upjohn Animal Health Achievement Award (AAAP), Lamplighter Award (U.S. Poultry and Egg Association), USDA - Silver Plow Award, Laboratory Director of The Year (Federal Laboratory Consortium), Bart Rispens Research Award (World Veterinary Poultry Association [WVPA]), Phibro Animal Health Award (AAAP), Halls of Honor (AAAP and WVPA), The WVPA-Boehringer Ingelheim Innovation in Vaccination Award (WVPA) and ARS Science Hall of Fame. He has served as President of the ACPV (1999-2000) and on the Board of Directors for AAAP (1998-2000).

Dr. Swayne has been married to Anita for 39 years and they have three children; Rachel, Tyler and Kyle, one daughter-in-law, Ashley, and one granddaughter, Audrey. In his spare time, Dr. Swayne enjoys travelling the globe, tinkering on sports cars (Figure 4) and working on his small farm.

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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 403 Parks Library Iowa State University Ames, IA 50011-2140