

Bernard C. Easterday

In recognition of outstanding contributions to the understanding, diagnosis, and control of avian influenza through his own investigations, as an educator, and by inspiring others

Dr. Bernard ("Barney") Easterday (on the right in photo above) was born in Hillsdale, MI, on September 16, 1929, and received his high school diploma from Hillsdale High School in 1947. He received his DVM degree, with high honors, in 1952 from Michigan State University and immediately returned to Hillsdale to begin his professional career in a general veterinary practice. He was then commissioned and served as an officer in the U.S. Army Veterinary Corps from 1952 until the end of 1954. The highlight of this period was working on rinderpest and African swine fever and other exotic diseases of livestock in Kenya. Upon returning to the United States Dr. Easterday took a position in the Virus and Rickettsial Division, Fort Detrick, MD, where he worked with equine encephalitides, small pox, herpes B virus in monkeys, and Q-fever. He then returned to school, this time to the University of Wisconsin, Madison, where he completed his M.S. degree requirements and the course work requirements for a Ph.D. degree. In 1958 he returned to Fort Detrick, MD, as a research veterinarian investigating the pathogenesis of Rift Valley fever in lambs and the nature of the biological transmission of the virus in mosquitoes. During this time at Fort Detrick, he completed his Ph.D. program in absentia. In 1961, he returned to the University of Wisconsin as an Associate Professor of Veterinary Science and was promoted to Professor in 1966. He served as the Chair, Department of Veterinary Science from 1969 to 1974 and from 1978 to 1979 he was the Acting Dean for the planning, development, and establishment of the University of Wisconsin, School of Veterinary Medicine, which opened in 1979. In 1979 he was appointed Dean of the University of Wisconsin, School of Veterinary Medicine, and served in that position until he retired in 1994. Upon his retirement in 1994, he was designated Dean and Professor Emeritus.

Dr. Easterday's active and diverse research career in numerous infectious diseases is documented in more than 100 papers in refereed journals, 17 book chapters, and more than 13 major invited lectures. His primary research focuses have been Rift Valley fever, swine influenza, and avian influenza. Other research interests included, but were not limited to, transmissible gastroenteritis in pigs, latency of bovine herpesviruses, infectious bovine rhinotracheitis, Newcastle disease, rinderpest, bovine mastitis, and equine influenza.

Dr. Easterday also has excellent administrative and organizational skills that he used extensively to further veterinary medicine and biomedical research. His leadership was critical to the establishing of the University of Wisconsin, School of Veterinary Medicine, and then, as the first Dean, he lead the school over the next 15 years. While a faculty member at the University of Wisconsin he served on numerous national and international organizations, frequently taking leadership roles. A few of the more notable examples are the Conference of Research Workers in Animal Diseases (President 1974); American

Association of Veterinary Medical Colleges (President 1975); American Veterinary Medical Association Council on Research (Chair 1986–87); National Research Council/National Academy of Science Committee on Animal Health (Chair 1986–87); Working Team on Coronaviruses, FAO/WHO Program on Comparative Virology (Head 1970–77); Binational Agricultural Research and Development Program Technical Advisory Committee (1982–85); Morris Animal Foundation Advisory Board (1969–72); NIH-NIAID Research Resources Committee (1970–73); NIH-NIAID National Committee on Influenza (1971–74); NIH-NIAID Virology Task Force (1977); USDA Secretary's Advisory Committee on Foreign Animal and Poultry Diseases (1992–96); WHO Expert Panel on Zoonoses (1987–99); Board of Scientific Advisors for the Tulane University Regional Primate Center (1997–99); American College of Veterinary Microbiologists (Charter Diplomate 1967, Board of Governors 1968–74); and US-USSR Agreement on Influenza and Acute Respiratory Disease (Principal Coordinator for Ecology of Influenza 1974–85).

Dr. Easterday received many awards during his career. These have included the Wisconsin Alumni Association Loyalty Award (2001); Conference of Research Workers in Animal Diseases—Annual Meeting Dedicatee (1999); Michigan State University Distinguished Alumni Award (1999); Governor's Certificate of Commendation (1994); University of Wisconsin, Madison, School of Veterinary Medicine 10th Annual Postgraduate Conference Dedicatee (1994); Wisconsin Veterinary Medical Association— President's Award (1994); Czech Republic University of Veterinary Medicine and Pharmaceutical Sciences—Gold Medal of Recognition in the Field of Veterinary Medicine (1994); Walter F. Renk Distinguished Professor Award, University of Wisconsin, Madison, School of Veterinary Medical Association—Veterinary Medicine (1987); and Wisconsin Veterinary Medical Association—Veterinarian of the Year Award (1979).

Dr. Easterday has been an outstanding mentor for many graduate students who have worked on influenza A in lower mammals and birds since the mid-1960s. One of his more notable graduate students was Dr. C.W. Beard, his first graduate student, close friend, and colleague of many years. As Dr. Beard will quickly tell you, being a graduate student in Dr. Easterday's laboratory at the University of Wisconsin was a privilege and a unique educational experience. Dr. Easterday created an environment that stimulated and encouraged independent and creative thinking and encouraged open discussions. He gave his students enough freedom to experience limited failures and ample opportunities for identifying and solving problems along the way to completing their graduate studies. Dr. Easterday was one of the first researchers to recognize the importance of the discovery of low pathogenic AI viruses in California by Dr. Bankowski in 1964 and then shortly after in the Midwestern region of the United States. He focused his research program on the natural history of avian influenza viruses and the pathogenesis of AI infections in domestic poultry. He was the first to recognize the existence of important variations in AI infections in different avian species and an important role for avian influenza infections in wild birds. Dr. Easterday and Dr. R. Powlisch, a Wisconsin practitioner, were the first to demonstrate conclusively the natural transmission of swine influenza from pigs to a human being. His commitment to addressing the problem of AI as a world problem is reflected in his contributions to this international series of symposia on avian influenza. He served on the Organization Committee for the first International Symposium on Avian Influenza (ISAI), Chair of the second ISAI, Cochair of the third ISAI, and Counselor for the fourth and, this, the fifth ISAI.

Since retiring in 1994, his passions for Kenya, travel, veterinary medicine, and the University of Wisconsin have continued to grow. When not in his office at the university or working on a university project, he, along with his wife Char, stay very busy flying their airplane and motorcycling as well as leading travel groups to distant locations, especially to Africa. Over the years his enthusiasm for life, learning, and infectious diseases have been contagious to his friends and colleagues.

Charles W. Beard

In recognition of outstanding contributions to the understanding, diagnosis, and control of avian influenza through his own investigations and by providing government and industry leadership

Charles W. Beard (on left in photo) was born in Tifton, GA, on November 16, 1932. He studied preveterinary medicine at Abraham-Baldwin College, Tifton, GA, and University of Georgia, Athens, GA. In 1955, he received his Doctor of Veterinary Medicine from the University of Georgia. From 1955 to 1956, he practiced veterinary medicine at a private clinic in Colquett, GA. He worked as a public health veterinarian at the Department of Public Health in Washington, D.C., from 1956 to 1958. In 1958, he joined the U.S. Army as a research veterinarian and was stationed at the Aerobiology Laboratory, Fort Detrick, MD. In 1962, he enrolled in an M.Sci. program followed by a Ph.D. program at the University of Wisconsin, Madison, under the direction of Dr. B. C. Easterday. In 1965, he came to the Southeast Poultry Research Laboratory, U.S. Department of Agriculture (USDA), as a veterinary medical officer conducting research on Newcastle disease and avian influenza. In 1972, he assumed the laboratory directorship in which he served until retirement from USDA in 1993. As director, Dr. Beard led a broad poultry research program focusing on many highly infectious diseases of poultry. His leadership and vision transformed the Southeast Poultry Research Laboratory from a regional poultry disease laboratory to a nationally and internationally recognized research institution specializing in research on exotic (foreign) poultry diseases, highly pathogenic avian influenza, and velogenic Newcastle disease. He moved the laboratory into the molecular era and directed the development of the filtered-air positive pressure housing systems to maintain specificpathogen-free research poultry.

During his career, Dr. Beard has authored or coauthored 144 papers in refereed scientific journals, primarily on infectious poultry diseases. His research interests and expertise include avian influenza, Newcastle disease, and *Salmonella enteritidis*. His research and publications have covered the areas of serology, vaccines, pathogenesis, and disease containment.

He was the first to demonstrate that not all H7 avian influenza viruses were highly pathogenic. This finding ultimately resulted in a redefinition of the term "fowl plague." However, his most significant research accomplishment in avian influenza was the development of the agar gel precipitan (AGP) test for the detection of avian influenza antibodies in serum. This test was adopted nationally by USDA and internationally by the Office International des Epizooties, a 155 member nation organization that establishes international animal health standards for trade, as the definitive test and "gold" standard for certifying poultry and poultry products as originating from influenza-free flocks. This test is still the gold standard today.

Dr. Beard has provided leadership and scientific expertise in the development of biosecurity and biosafety standards for facilities, equipment, and personnel procedures at the USDA. Through his knowledge of aerobiology gained at Fort Detrick, he developed research expertise in infectious diseases and systems to accomplish such work in a safe and practical manner. Although he is not an engineer, his structural concepts were the framework in the design for the first poultry high biocontainment laboratory in the world (Biosafety level-3 Agriculture), built at SEPRL in Athens, GA, during 1975–76. This simple building design was inexpensive to construct and maintain, but provided and

continues to provide a high level of biocontainment. Design features of this facility have been used around the world, and Dr. Beard has been a widely sought design consultant for containment facilities.

Dr. Beard served as cochairman of the Second and Third International Symposia on Avian Influenza held in Athens, GA (1986), and Madison, WI (1992); planning and coordinating these meetings with Dr. B.C. Easterday. He served in an advisory capacity to USDA Animal and Plant Health Inspection Service during the 1972–73 velogenic Newcastle disease eradication effort, the 1983–84 highly pathogenic avian influenza eradication effort and during the *Salmonella enteritidis* control program. Through the years, he has been requested on numerous occasions to give advice and counsel on matters of poultry disease prevention and control.

He is a past member of the Secretary of Agriculture's USDA Advisory Committee on Foreign Animal and Poultry Diseases; past President of the American Association of Avian Pathologists (AAAP) (1984–85); Charter Diplomate of the American College of Poultry Veterinarians; and Diplomate, American College of Veterinary Microbiology (ACVM). In 1993, he was award the Special Service Award (AAAP) for outstanding lifetime contributions within the field of avian medicine. These contributions were demonstrated through scientific work, organizational involvement, and service to colleagues. He has received the Congressional Excalibur Award for Excellence in Federal Service, USDA Superior Service Award, and Workhorse of the Year Award, U.S. Poultry and Egg Association (USPEA). He was an associate editor of ninth and tenth editions of *Diseases of Poultry*.

Since 1993, Dr. Beard has been the vice president for research and technology, USPEA in Atlanta, GA. Dr. Beard is responsible for administering the largest private granting program dedicated to research in solving problems of the poultry industries with over \$3 million of grants *in force*. Dr. Beard is also a spokesman for the poultry industries on issues relating to poultry health. He is frequently sought to serve on federal and state government committees, to speak at professional societies, and to provide advice to international agencies relating to poultry health. He is highly respected by his colleagues in the poultry industry. He has been married to Valerie Schwarz-Beard for 42 years and has two children and six grandchildren.