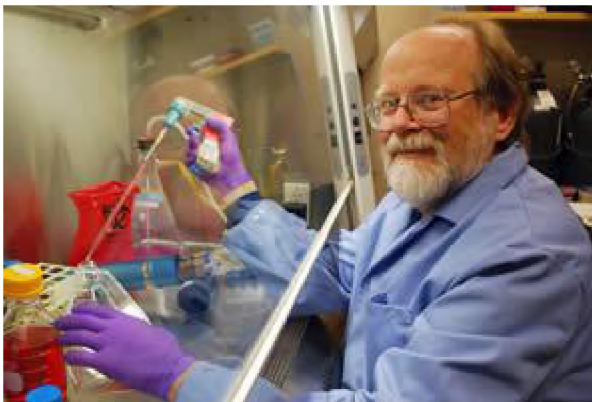




## College News

poppensiek lecture > Crohn's > travelfellowship > kirk > Schat award

### Lifetime achievement award for contributions to poultry health



Twin passions for veterinary research and international development work propelled Dr. Karel “Ton” Schat through a far-reaching career in avian virology and immunology. This past October, friends and colleagues surprised Schat with a unique award at the 5th International Workshop on the Molecular Pathogenesis of Marek’s Disease Virus in Athens, Georgia.

The plaque reads: “in recognition of outstanding research and contributions to poultry health,” commemorating contributions that have spanned flocks and nations around the world and summarizing the adventures and discoveries that have shaped Schat’s career.

“This award is a fitting capstone to Ton’s scientific career,” said Dr. Avery August, chair of the Department of Microbiology and Immunology to which Schat belongs after 32 years of teaching and research at the College of Veterinary Medicine. “I believe that it illustrates the esteem with which his colleagues view him and his work in avian health research, particular his work on Marek’s disease. The department is very proud to have someone of this caliber amongst our faculty.”

A dual degree professor, Schat earned his DVM from the State University in Utrecht, Holland, in 1972, and spent several years exercising his enthusiasm for health research and international development work before earning his PHD from Cornell in 1978. “I knew I wanted to do projects in international development before going on to graduate school,” Schat said, “so during my final year in veterinary school I got a fellowship to spend five months in northern Nigeria researching bacteriological causes of infertility in Fulani cattle. I really enjoyed the work and interacting with the people.”

The experience fueled his international interests, which brought him to Mexico where he met the man who would launch the rest of his career. “The Dutch government hired me to help set up a laboratory in Mexico, researching Marek’s disease,” recalled Schat. “I took six weeks of Spanish and spent a few months learning how to culture cells and grow viruses. Then off I went.”

Schat helped get a new laboratory off the ground, trained Mexican counterparts in basic research skills, and conducted his



own research on Marek's disease in chickens. While working in Mexico, Schat met his future mentor, Dr. Bruce Calnek, an eminent poultry professor at Cornell studying Marek's disease. "He invited me to join his lab at Cornell as a graduate student. When my job in Mexico ended, I came here and I've been based here every since," said Schat.

Early in his graduate career, Schat met Dr. Randy Cole, who had a flock of 28-week-old chickens in full production and free of Marek's disease on Game Farm Road near campus. Schat took blood samples from the birds and discovered within them a new type of Marek's disease virus. He used this to develop the SB-1 vaccine for Marek's disease, dubbed by Schat himself. The widespread vaccine continues to prevent disease in countless chickens, ensuring the health of

poultry and its consumers.

After making his mark on Marek's disease, Schat has continued avian virology research to this day as faculty in the College of Veterinary Medicine Department of Microbiology and Immunology and unit director for avian facilities and research. He has maintained a focus in avian virology, and more recently in chicken infectious anemia virus. In 2006 Schat began making annual pilgrimages to Australia to study the pathogenesis of avian influenza virus in a specialized high-containment disease center. There he works with a mutated strain of the virus taken from an infected human, in research that could have a direct impact on human health.

Schat has attended every one of the eight Marek's disease symposia that have occurred since they began in 1978 and played important roles in orchestrating several of them. He has attended each of the five workshops for the molecular pathogenesis of Marek's disease since they began in 2005, and the last such workshop gave him a surprise. "They asked me to present a paper for this meeting, so I arranged to fly down for the fifth time, expecting to give a talk. The award presentation came as a complete surprise. I have worked with and befriended many of the people who come to these meetings and work on these issues, and it was an honor to be recognized by them."

The lifetime achievement award joins four other awards given to Schat for his work in poultry health. He and fellow College faculty Dr. Doug Antczak won the first-ever Beecham Award for Research Excellence in 1986, a prestigious award for young investigators in their first six years after post-doc work. That year proved particularly fruitful for Schat, who also won the Upjohn Achievement Award for distinguished contributions in avian medicine.

The year after, Schat received another, particularly meaningful award, the Bart Rispens Research Award in recognition of an outstanding research contribution in the field of avian pathology, from the World Veterinary Poultry Association. It was named after Dr. Bart Rispens, who first taught Schat about Marek's disease and how to culture viruses. Schat became chair of the award committee the following year.



He later received the Pfizer Award for Excellence in Poultry Research at the 136th Annual Convention of the AVMA in New Orleans, July 1999, and the Merck Award for Achievement in Poultry Science at the 98th Annual meeting of the Poultry Science Association in Auburn, August 2005. The fifth and latest in this series of awards "in recognition of outstanding research and contributions to poultry health" honors Schat's legacy of accomplishments in his field.