

Carol Chitko-McKown, PhD
CRWAD Fellow Inductee

Carol Chitko-McKown is the Acting Research Leader of the Animal Health Genomics Research Unit at the USDA-ARS, U.S. Roman L. Hruska Meat Animal Research Center (USMARC) in Clay Center, Nebraska. She received her B.S. in Animal Science from Cook College of Rutgers University in 1983, her M.S. in Animal Breeding and Genetics from Oregon State University in 1986, and her Ph.D. in Immunophysiology from Kansas State University in 1991.

Dr. Chitko-McKown was a Cancer Research Institute Postdoctoral Fellow at the Seattle Biomedical Research Institute followed by additional postdoctoral training at Texas A&M University. In 1998 she accepted a position as Research Microbiologist (Immunology) at USMARC and has remained there since that time.

The predominant focus of her research has been on respiratory macrophages and their activities. She was the first to demonstrate that pulmonary intravascular macrophages are an immunologically active population that contribute to both immune surveillance and pathology in the lung. Macrophages play a key role in Porcine Respiratory and Reproductive Syndrome, Ovine Progressive Pneumonia, and Bovine Respiratory Disease Complex – the diseases for which her research with ARS has been centered. She has developed tools for the global animal health community including immunoassays and cells lines from pigs, cattle, and sheep. Currently, her laboratory is studying how probiotics affect respiratory immunity by way of the common mucosal immune system.

Throughout her career, Dr. Chitko-McKown has made significant contributions to animal health through her participation in professional organizations including CRWAD for which she served on the Program Committee from 2018-2021, the Society for Leukocyte Biology, and the Association of Veterinary Immunologists where she has served as Chair of the Awards Committee, Secretary, and President. She is passionate about mentoring students and young scientists and helped develop the USMARC Undergraduate Internship Program. In addition to hosting interns through this program, her lab was selected to host a Boehringer-Ingelheim Veterinary Scholar in 2022. She has served on multiple M.S. and Ph.D. committees.

