

Assessment of the Care and Use of Dogs in Biomedical Research Funded by or Conducted at the U.S. Department of Veterans Affairs

Committee

Rhonda L. Cornum

Chair

Brigadier General Rhonda Cornum, PhD, MD, retired from the Army and joined TechWerks as the Director of Health Strategy in 2012. Although Techwerks is a software development and psychological fitness training company, she started her career as a biochemist for the Army, doing preclinical work on wound healing agents and blood preservation and amplification. After later earning an MD, and while engaged in a Urology Residency, she continued research interests and tested liquid and lyophilized fibrin products as both hemostatic and local drug delivery vehicles in rabbits, pigs and dogs. As a staff member and later commander of several military medical centers, she has served as Director of Clinical Investigation and on multiple IACUC s. More recently, Dr Cornum served from 2009-2012 as the first Director of the U.S. Army's novel Comprehensive Soldier Fitness initiative. This strategy represents the model for universal implementation of physical and psychological health promotion within the Department of Defense. She previously served as the Assistant Surgeon General for Force Projection, responsible for the policies and procedures to prepare Soldiers and units for deployment, and commanded the Landstuhl Regional Medical Center, the evacuation hub for Iraq, Afghanistan, Africa and Europe. During this assignment, she commissioned development of the Joint Patient Tracking Application and pioneered use of the Nova Lung during critical care air transport. Doctor Cornum has written or co-authored one book, seven book chapters, and numerous scientific articles. She is a Professor of Military and Emergency Medicine at the Uniformed Services University of the Health Sciences. She is Board certified in Urology, a Fellow in both the American College of Surgeons and the Aerospace Medical Association, and is a member of the American Society of Nutrition. Her decorations include the Distinguished Service Medal, Legion of Merit (with two oak leaf clusters), Distinguished Flying Cross, Bronze Star, Meritorious Service Medal, Purple Heart, Air Medal, and Prisoner of War Medal. She holds a PhD in biochemistry and nutrition from Cornell University and an MD from the Uniformed Services University in Bethesda, Maryland.

W. Ron DeHaven

Vice Chair

W. Ron DeHaven has a rich background in the veterinary profession, including nine years as the American Veterinary Medicine Association's (AVMA) CEO. At AVMA, he served over 88,000 members and worked to meet the challenges of improving human and animal health. DeHaven also worked with the U.S. Department of Agriculture's Animal and Plant Health Inspection Services (APHIS) for nearly 3 decades, finishing his career there as the administrator, the agency's top position. At APHIS, he focused on protecting U.S. agriculture and natural resources from exotic pests and diseases, handling wildlife management activities, and overseeing the Animal Welfare Act. DeHaven's work with APHIS, where he also served as the Chief Veterinary Officer for animal health for the United States, gained him national prominence in 2003 and 2004 when bovine spongiform encephalopathy (mad cow disease) and H5N1 avian influenza were making national headlines. His public service earned him many awards, including two Presidential Rank Awards for his leadership in government, two USDA Secretary's Honor Awards, and the AVMA's Meritorious Service Award. He received his DVM degree in 1975 from Purdue University and was awarded an Honorary Doctor of Science degree from Purdue University in 2005. After leaving AVMA, DeHaven joined the Center for Public and Corporate Veterinary Medicine (CPCVM), part of the Virginia-Maryland College of Veterinary Medicine, on a part-time basis to work on developing standardized public and corporate clerkships.

Donna K. Arnett

Member

Donna K. Arnett is Dean of the University of Kentucky (UK) College of Public Health and a professor in the Department of Epidemiology. Prior to her appointment at UK in 2016, Dr. Arnett was Associate Dean and Chair of the Department of Epidemiology at the University of Alabama, Birmingham. With 24 years of continuous NIH funding, Dr. Arnett studies genes related to hypertensive disorders and organ damage that results from hypertension -- an interest she developed early in her career while working as a clinical research nurse. A past president of the American Heart Association (AHA), she has led the AHA's Research Committee and Scientific Publishing Committee. Dr. Arnett is also an elected fellow of the AHA, the American College of Epidemiology, and the American Epidemiological Society. She has more than 20 years of experience leading the recruitment and oversight of large, multi-site cohort studies, including the Minnesota Heart Survey and the NIH-sponsored clinical study "The Genetics of Lipid Lowering and Diet Network" (GOLDN). Dr. Arnett has published more than 600 peer-reviewed papers and two books. In 2017 she received the Population Research Prize from the American Heart Association. She holds a BS degree in nursing and an MPH degree in biostatistics and epidemiology from the University of South Florida and a PhD in epidemiology from the University of North Carolina at Chapel Hill.

Warren Casey

Member

Warren Casey is the director of the U.S. National Toxicology Program's Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM), National Institutes of Environmental Health Sciences (NIEHS). He also serves as the director of The Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM). The mission of ICCVAM, which is composed of representatives from 16 U.S. federal regulatory and research agencies, is to promote the regulatory acceptance of test methods that protect human and animal health and the environment while reducing, refining, or replacing the use of animal tests. Dr. Casey also serves as an Adjunct Associate Professor in the Department of Microbiology at NCSU and is Diplomate of the American Board of Toxicology. Prior to joining NICEATM, Dr. Casey was the Manager of Pharmaceutical Microbiology at Glaxo Inc. from 1994 to 1999; Head, Biomarker Development, at GlaxoWellcome, Inc., from 1999 to 2002; and a Senior Scientist, Discovery and Investigative Toxicology, at GlaxoSmithKline, Inc., from 2002 to 2009. He is the author or co-author of over 28 publications in peer-reviewed journals, holds three patents, and has made presentations at scientific meetings. Dr. Casey received his undergraduate degree in biochemistry and his PhD in microbiology from North Carolina State University.

Nancy Figler Marks

Member

Nancy Figler Marks is a Diplomate of the American College of Laboratory Animal Medicine (ACLAM). She serves as the veterinarian and Director of the Institutional Animal Care and Use Committee (IACUC) Office at the University of Iowa in Iowa City, Iowa where she oversees the IACUC office staff and IACUC functions. She serves as a veterinary reviewer for animal protocol submissions and is a voting member of the IACUC. Dr. Marks led development of an electronic animal protocol form to improve the review and oversight of animal research proposals. Prior to joining the University in 2012 she held various positions of increasing responsibility with Parke Davis Pharmaceutical and Pfizer from 1998 to 2012. She received her DVM from Virginia Maryland Regional College of Veterinary Medicine where she specialized in government and corporate medicine. Dr. Marks did her postdoctoral training at Parke Davis Pharmaceutical in conjunction with the University of Michigan in Ann Arbor, Michigan. Her areas of expertise include veterinary care of a wide variety of laboratory animal species, extensive knowledge of animal welfare regulations, inspection of animal facilities and experience evaluating common research procedures. Additionally, Dr. Marks has a MS in Biology from Texas A&M University. Her primary professional interest is to support compliant research involving animal models while assuring the best possible care and welfare of the animals. She has developed content and lectured in AALAS, ACLAM and PRIM&R symposia, conferences, courses, and workshops relevant to the role of the IACUC, animal protocol development and review, decreasing regulatory burden while maintaining animal welfare, methods for promoting animal welfare, implementing the 3 R's, as well as aspects of human safety in the vivarium. Dr. Marks has also authored and coauthored papers related to sea turtle physiology and behavior, protein biochemistry, as well as various lab animal topics.

Margaret Foster Riley

Member

Margaret (Mimi) Foster Riley is a professor at the University of Virginia School of Law, with a secondary appointment at the School of Medicine and a program affiliation with the Batten School of Leadership and Public Policy. She teaches food and drug law, health law, animal law, bioethics, regulation of clinical research and public health law. Riley has written and presented extensively about health care law, biomedical research, genetics, reproductive technologies, stem cell research, animal biotechnology, health disparities and chronic disease. She is the Director of UVA's Program in Animal Law. She serves as chair of UVA's Embryonic Stem Cell Research Oversight Committee and as legal advisor to the Health Sciences Institutional Review Board. She served on the National Research Council Committee on Revisions to the Common Rule for the Protection of Human Subjects, the Committee on Controlled Human Exposure Studies at EPA and was a consultant on the Committee on Pain Management and Regulatory Strategies to Address Prescription Opioid Abuse. She has advised numerous committees of the National Academy of Medicine and the Virginia Bar. Before coming to Virginia, Riley was an associate with Pepper Hamilton & Scheetz in Philadelphia, where she worked primarily in complex securities, commercial and mass tort litigation. Prior to that position, she was a litigation associate with Rogers & Wells in New York. Riley received her law degree from Columbia University and her bachelor of arts from Duke University.

Chris Green

Member

Chris Green is the Executive Director of Harvard Law School's Animal Law & Policy Program. He is a graduate of Harvard Law School and the University of Illinois, where he created the school's first Environmental Science degree. Chris a former Chair of the American Bar Association's TIPS Animal Law Committee, and previously was the Director of Legislative Affairs for the Animal Legal Defense Fund. Chris currently serves on the Executive Board of the National Sheriffs' Association's Coalition on Violence Against Animals, previously served on the Board of the National Center for Animal Law, was an advisor to the National Canine Research Council, and is a member of both the American Veterinary Medical Law Association and the Illinois Farm Bureau. Chris was a member of the California Veterinary Medical Association's Non-Economic Recovery Task Force, helping explore legislative options to balance the profession's increasing liability exposure with a more equitable assessment of companion animal value. He later acted as an advisor to members of the American Veterinary Medical Association's Task Force on the Legal Status of Animals, addressing those same legislative issues at a national level. This year, Chris served on the National Academies committee that organized the Workshop on Future Directions for Laboratory Animal Law in the United States (2017-2018) and co-hosted the event at Harvard Law School. Chris has consulted on animal legal issues for CNN, CBS News, NBC News, Headline News, POLITICO, The Atlantic, Bloomberg News, Harper's, Huffington Post, Science Magazine, Smart Money Magazine, The New York Times, Chicago Tribune, San Francisco Chronicle, Wall Street Journal, and Washington Post. He also has spent the past 20 years managing an Illinois farm that has remained in his family for 180 consecutive years.

Joan C. Hendricks

Member

Joan C. Hendricks served on the faculty of the University of Pennsylvania School of Veterinary Medicine for more than 20 years. Her research focused on sleep biology. She conducted NIH-supported biomedical studies in animals from cats to English bulldogs to fruitflies, from 1980 until becoming Dean. In 2001 she was named the Henry and Corinne R. Bower Professor of Small Animal Medicine, the first woman to be named to an endowed professorship at the school. Dr. Hendricks also served as chief of critical care in the Department of Clinical Studies at Philadelphia, she was the founding director of the Veterinary Clinical Investigation Center (VCIC) at the school, and she held a secondary appointment as professor in the Department of Medicine at Penn Medicine. She is a recognized expert in the field of sleep and sleep disorders and has, for decades, studied the physiology and anatomy of sleep and an animal model of sleep apnea (the English bulldog). She later on switched to using *Drosophila* as a model to study sleep and sleep disorders. From 2006 to 2018, Dr. Hendricks was the Gilbert S. Kahn Dean of Veterinary Medicine at the School of Veterinary Medicine. In this capacity, she oversaw all research conducted in the School and in collaborations across Penn. Penn Vet has the largest portfolio of individual NIH-supported grants of any veterinary school in the United States. Dr. Hendricks has a BS in biology and psychology from Yale University and a VMD and PhD from the University of Pennsylvania. Dr. Hendricks currently is on terminal sabbatical and will retire effective August 1, 2019. As the daughter of a career Army officer, Dr. Hendricks has a personal interest in the health and wellbeing of Veterans.

Jonathan Kimmelman

Member

Jonathan Kimmelman is the James McGill Professor in the Biomedical Ethics Unit/Social Studies of Medicine of McGill University. He has cross appointments in Experimental Medicine, Epidemiology, Biostatistics and Occupational Health, and Human Genetics. Kimmelman holds a PhD in molecular biophysics and biochemistry from Yale University, and joined McGill in 2005. His research revolves around the ethical, social and policy dimensions of translational research. He received the Institute of Genetics Maud Menten New Investigator Prize, a Canadian Institutes of Health Research (CIHR) New Investigator Award (2008) and a Friedrich Bessel-Humboldt Award (2014). Kimmelman chaired the ethics committee of the American Society of Gene and Cell Therapy, 2008-2010, and International Society of Stem Cell Research (2014-2016). He also served on the CIHR Stem Cell Oversight Committee, serves on several DSMBs of the U.S. NIH, and has been a member of three National Academies committee reports. His book, *Gene Transfer and the Ethics of First-in-Human Trials: Lost in Translation*, was published by Cambridge University Press. In 2018, he was named as a Hastings Center Fellow. Kimmelman's research centers on the ethical, social, and policy challenges in testing novel medical technologies in human beings ("translational clinical research"). Current projects are investigating risk, prediction, validity, and knowledge value across the trajectory of drug development. Another set of projects is pursuing alternative frameworks and understandings concerning the role and content of clinical research ethics. Kimmelman directs the Studies of Translation, Ethics, and Medicine (STREAM) research group.

Lewis B. Kinter

Member

Lewis Kinter, Ph.D., D.A.B.T., Fellow A.T.S., is currently President and Principal Scientist at GLP Scientific Consulting, Unionville, PA, USA. He has been engaged in pharmaceutical, biological, and medical device research and development for over 35 years and is an internationally recognized expert in cardiovascular/renal physiology, pharmacology, toxicology, and nonclinical R&D. Dr. Kinter received his BS in Biology at Union College (1973) and his doctorate in Medical Physiology from Harvard University (1978). From 1981 to 2014, he held positions of increasing responsibility in biomedical R&D with Smith Kline & French, SmithKline Beecham, Sterling Winthrop, Nycomed Amersham, Astra Merck, and AstraZeneca. Dr. Kinter is a Diplomate of the American Board of Toxicology, Fellow of the Academy of Toxicological Sciences, Professor of Pharmacology & Toxicology (Adjunct) Michigan State University, and former Professor of Physiology (adjunct) University of Pennsylvania School of Medicine. He has authored over 100 research manuscripts and book chapters, and organized/participated in numerous courses, workshops, symposia, and professional meetings in basic and applied physiology, pharmacology, toxicology, and nonclinical pharmaceutical R&D. Dr. Kinter currently holds memberships in the American Physiological Society (38 yrs.), American Society for Pharmacology and Experimental Therapeutics (31 yrs.), Society of Toxicology (21 yrs.), and Safety Pharmacology Society (18 yrs). He is a founder and former president of the International Consortium for Innovation and Quality in Pharmaceutical Development (IQ Consortium), a former chairman of the Pharmaceutical Research and Manufacturers' Association (PhRMA) Preclinical Sciences Leadership Group (DRUSAFE), and founder and former president of the Safety Pharmacology Society. Throughout his career, Dr Kinter has served as research scientist, co-investigator, principle investigator, study director, and/or department manager/director for authorized in vivo physiological, pharmacological, and toxicological investigations in vertebrates including fish, mice, rats, rabbits, ferrets, swine, dogs, and non-human primates (NHPs). He is accomplished in small animal survival surgery and championed early use of chronically implanted vascular catheters, sensors, and telemetry devices in mice, rats, rabbits, dogs and NHPs to improve scientific data quality and laboratory efficiency, and to reduce animal use (3Rs Refinement and Reduction objectives). His efforts have been recognized to reduce annual animal use in susceptible applications by 75% or more. Dr. Kinter has been an active participant, member, and chair of Animal Care and Use Committees (IACUCs) in several organizations in which he was employed or volunteered. Dr. Kinter continues to serve in leadership capacities on several Boards of professional scientific and charitable organizations.

Sarah L. Lathrop

Member

Sarah L. Lathrop, DVM, PhD, is a Professor of Pathology at the University of New Mexico (UNM) School of Medicine, currently conducting research on infectious diseases and injury. After receiving her BS in animal science from Colorado State University, she earned her DVM from the University of Minnesota College of Veterinary Medicine. She practiced both small and large animal clinical veterinary medicine in Cortez, Colorado, and then completed a PhD in veterinary preventive medicine at Ohio State University, focusing on infectious disease research in cattle while also providing veterinary care for gnotobiotic research animals at the Ohio Agricultural Research and Development Center. Dr. Lathrop served a two-year post-doctoral fellowship at the Centers for Disease Control and Prevention (CDC) as an Epidemic Intelligence Service Officer, studying vector-borne infectious diseases such as plague, tularemia, and dengue and the impact of zoonotic diseases. She then conducted vaccine research in cattle, swine, dogs and cats at Merial's Athens Clinical Unit in Georgia, focusing on vaccine development and licensure. Dr. Lathrop joined UNM in 2003 to conduct research on infectious diseases and injury, with continuous extramural funding from the CDC and more recently, the Department of Defense. She also serves as the Principal Investigator for the Foodborne Diseases Active Surveillance Network portion of New Mexico's Emerging Infections Program (EIP), managing a staff of 10 researchers. She has served on numerous Institutional Animal Care and Use Committees (IACUCs), biosafety committees, and scientific review committees for tissue repositories, as well as a reviewer for numerous peer-reviewed journals.

Christian E. Newcomer

Member

Christian E. Newcomer, V.M.D., M.S., DACLAM is a 1977 graduate of the School of Veterinary Medicine at the University of Pennsylvania. Following a year as a research associate/large animal intern at The Pennsylvania State University (1977-78), he entered post-doctoral training in laboratory animal medicine at the University of Michigan (1978-81) and became board certified as a Diplomate in the American College of Laboratory Animal Medicine (ACLAM) in 1982. During his career he held clinical, academic and leadership positions in laboratory animal medicine at the Massachusetts Institute of Technology (1981-87), Tufts-New England Medical Center and Tufts University School of Veterinary Medicine (1987-1994), University of North Carolina at Chapel Hill (1994-2001), the Veterinary Resources Program at National Institutes of Health (2001-2003) and Johns Hopkins University (2003-2008). In 2008 he joined AAALAC International as Executive Director capping more than 25 years of involvement with that organization as an ad hoc site visitor and member of the Council on Accreditation and retaining the title Executive Director Emeritus upon retirement in 2016. He is a past-president of the American College of Laboratory Animal Medicine (1996) and of the American Association for Laboratory Animal Science (2008) and vice president of the AAALAC International Council on Accreditation (1996-98). He served as a member of the ILAR/NRC Committee on Occupational Health and Safety in Research Animal Facilities (1993-96) and chairman of the Committee on Cost of and Payment for Animal Research Institute for Laboratory Animal Research (1997-2000). He also has authored 26 peer-reviewed articles and 22 book chapters and has spoken extensively on many topics to promote the quality of care for research animal subjects and the discussion of the ethical considerations of their use. Currently, he remains active in laboratory animal medicine/science as an independent consultant and as a member of the Interagency Collaborative Animal Research Education (ICARE) Project faculty.

William Z. Potter

Member

William Z. Potter earned his B.A., M.S., M.D., and Ph.D. at Indiana University, after which he functioned in positions of increasing responsibility and seniority over the next 25 years at the National Institutes of Health (NIH) with a research focus on translational neuroscience. While at the NIH, Bill was widely published and appointed to many societies, committees and boards; these roles enabled him to develop a wide reputation as an expert in psychopharmacological sciences and championing the development of novel treatments for central nervous system (CNS) disorders. Bill left the NIH in 1996 to accept a position as Executive Director for early clinical neuroscience at Lilly Research Labs, and in 2004 he joined Merck Research Labs (MRL) as Vice President of Clinical Neuroscience, then moved to the newly created position of Translational Neuroscience in 2006, a position from which he retired in January of 2011. His experience at Lilly and MRL in identifying, expanding and developing methods of evaluating CNS effects of compounds in human brain cover state-of-the-art approaches across multiple modalities. These include brain imaging and cerebrospinal fluid proteomics as well as development of more sensitive clinical measures. Bill continues as an Emeritus co-chair of the Neuroscience Steering Committee of the Foundation for the National Institutes of Health (FNIH) and serves as a Senior Advisor to the Director of the National Institutes of Mental Health (NIMH), where he champions the position that more disciplined hypothesis testing of targets in humans through public/private partnerships is the best near-term approach to moving CNS drug development forward for important neurologic and psychiatric illnesses.

David M. Powell

Member

David M. Powell joined the Saint Louis Zoo as Director of Research in August 2016. He is responsible for oversight of behavioral, reproductive, and endocrine research, as well as some visitor studies research. Prior to coming to Saint Louis, David was Associate Curator of Mammals at the Wildlife Conservation Society's Bronx Zoo in New York for 12 years, where he developed a strong background in captive mammal management and husbandry. David received his Ph.D. from the University of Maryland for his studies of behavior and reproductive biology in the feral horses on Assateague Island. David did his post doctoral studies at the Smithsonian Institution's National Zoological Park in the Department of Conservation Biology studying giant panda behavior in U.S. and Chinese zoos for four years. David also worked at Zoo Atlanta from 1988-1993 in various roles, including animal keeper, animal diet technician, and research intern. He is actively involved in the Association of Zoos and Aquariums (AZA) professional activities including serving on Taxon Advisory Group steering committees, managing breeding programs and serving on the AZA Animal Welfare and Wildlife Conservation & Management Committee. He currently serves on the Research Review Committee of the Saint Louis Zoo. Previously, he served on the IACUC of Lehman College (2008-2014) and the National Zoo, Rock Creek Campus (2004). David's research has focused on a number of species and topics over the years in zoos and in the field. Topics of study have included dominance in animal societies, reproductive competition, maternal behavior, impacts of environmental enrichment and other husbandry practices on behavior, animal welfare, characterization of animal personality and personality measurement methods, affective impact of zoo exhibits on visitors, and studies of animal care staff attitudes about population management practices.

Rodney A. White

Member

Rodney A. White M.D., is Director, Vascular Surgery Services at Long Beach MemorialCare Heart & Vascular Institute, Long Beach, California and prior Chief of Vascular Surgery at Harbor-UCLA Medical Center, Torrance, California. His academic appointment is Emeritus Professor of Surgery, UCLA School of Medicine. He is certified by the American Board of Surgery with Special Qualifications In General Vascular Surgery and by the American Board of Laser Surgery. He also has a permit as a Fluoroscopy Supervisor and Operator from the State of California, and is a Registered Vascular Technologist (RVT) certified by the American Registry of Diagnostic Medical Sonographers (ARDMS). Dr. White's research interests include the development and evaluation of artificial implant materials, and laboratory and clinical investigation of fundamental problems and new procedures in vascular surgery. He is co-inventor of a process for fabricating microporous biomaterials including an artificial bone substitute that was recently awarded the First Annual US Congressional Golden Goose Award for federally funded research that has led to significant patient care and economic benefit. Current research programs involve the development and evaluation of endovascular surgical devices including atherectomy devices, stents, abdominal and thoracic endoluminal prostheses, and angiography and intraluminal ultrasound imaging technologies. Dr. White is the recipient of research grants from the National Institutes of Health, the American Heart Association and numerous national clinical studies. Dr. White is the author of more than 300 papers and 200 book chapters, and is co-author or editor of twelve books addressing a broad spectrum of topics in vascular and endovascular surgery. He is Co-Editor of the Journal of Endovascular Therapy (JEVT). He is a member of several industrial and governmental panels evaluating new medical technologies. He is past Vice-Chairman of the Board of Directors of the Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center. Dr. White is an active member of 15 regional, national and international societies and is past-President of the International Society for Endovascular Specialists, and past Secretary of the Society for Vascular Surgery.