

November 12-13, 2018 • Merck Research Laboratories
33 Avenue Louis Pasteur Boston, MA

PAWS FOR A CURE RESEARCH SYMPOSIUM

Translational Potential Of Comparative Approaches To Accelerate
Drug Development In Shared Childhood & Canine Cancers

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Program Guide



— Co-hosted by —





“Petco Foundation’s support gave us the **peace of mind to focus on Baba’s treatment** and not the anxiety around financing his care.”

Baba Ganoush,
cancer survivor

Crystal
pet parent to Baba Ganoush
*treatment provided at CSU
Flint Animal Cancer Center*



The Petco Foundation has invested more than \$13 million in pet cancer research and treatment since 2009.

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PLOUCH, DVM**

Convergence Bioscience, LLC

RYAN ROBERTS, MD, PHD
Nationwide Children's Hospital

ANGELA PARSONS
Cambridge Healthtech Institute

Monday, November 12

7:00 am Registration and Continental Breakfast



PART 1: OPENING SESSION

8:00 Welcome Remarks

Michael Rosenzweig, DVM, PhD, Executive Director, Oncology, Merck Research Labs

8:05 Title Sponsor Welcome Remarks

Susanne Kogut, Executive Director, Petco Foundation
Danielle M. Donegan, Director, Strategic Partnerships & Event Marketing, Blue Buffalo Co.

8:10 Chairpersons Opening Remarks

Carolyn Henry, DVM, MS, Dean, College of Veterinary Medicine, University of Missouri

8:15 Courageous Warrior Opening

Greg Aune, MD, PhD, Pediatric Oncologist, Greehey Children's Cancer Research Hospital

8:25 KEYNOTE PRESENTATION: Man's Best Friend – In Health and Disease

Michael Kastan, MD, PhD, Pediatric Oncologist, Executive Director of the Duke Cancer Institute, William and Jane Shingleton Professor of Pharmacology and Cancer Biology

PART 2: CAN HUMAN/PEDIATRIC ONCOLOGY DRUG DEVELOPMENT BE ACCELERATED BY INTEGRATING THE CANINE PATIENT?

8:45 Comparative Oncology Overview

Cheryl London, DVM, PhD, DACVIM (Oncology), Anne Engen and Dusty Professor in Comparative Oncology, Cummings School of Veterinary Medicine; Research Professor, Tufts University School of Medicine; Associated Faculty Professor, College of Veterinary Medicine, Ohio State

9:30 Networking Coffee Break



PART 3: THE COMPARATIVE ONCOLOGY TOOLBOX: PROGRESS, CHALLENGES AND NEXT STEPS

9:45 Introduction

Joshua Schiffman, MD, Professor of Pediatric Hematology/Oncology and Adjunct Professor of Oncological Sciences, Huntsman Cancer Center, University of Utah

PART 3A: TOOLBOX: GENOMIC ADVANCES AND PRECISION MEDICINE

9:50 Canine Comparative Cytogenomics – Reagents and Resources to Ask Key Questions

Matthew Breen, PhD, Professor of Genomics and the Oscar J. Fletcher Distinguished Professor of Comparative Oncology Genetics, North Carolina State University

10:05 Comparative Genome Landscapes and the Future of Precision Medicine

Jeffrey M. Trent, PhD, FACMG, President and Research Director, Translational Genomics Research Institute (TGen)

10:20 Comparative Genomics, Glioma

Roel Verhaak, PhD, Professor and Associate Director of Computational Biology, The Jackson Laboratory

10:35 Tallwood Canine Cancer Initiative

Susan Mockus, PhD, Associate Director, Clinical Genomic Market Development, The Jackson Laboratory

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10:50 Canines, Cancer and Genetics

Elaine Ostrander, PhD, NIH Distinguished Investigator, Cancer Genetics and Comparative Genomics Branch

11:05 The Role of HER2 Mutations in Canine Lung Cancer: Translating a Genomic Discovery into a Clinical Trial

William Hendricks, PhD, Assistant Professor, Integrated Cancer Genomics Division, Translational Genomics Research Institute (TGen)

11:20 PANEL DISCUSSION

Moderator: Jeffrey M. Trent, PhD, FACMG, President and Research Director, Translational Genomics Research Institute (TGen)
Panelists: Roel Verhaak, PhD, Professor and Associate Director of Computational Biology, The Jackson Laboratory
Susan Mockus, PhD, Associate Director, Clinical Genomic Market Development, The Jackson Laboratory

Elaine Ostrander, PhD, NIH Distinguished Investigator, Cancer Genetics and Comparative Genomics Branch
William Hendricks, PhD, Assistant Professor, Integrated Cancer Genomics Division, Translational Genomics Research Institute (TGen)

11:40 Networking Lunch Break

PART 3B: TOOLBOX: IMMUNOLOGIC ADVANCES

1:00 pm Overview: Immune Profiling and Neo-Antigen Discovery State of Play; Emerging Datasets

Steven W. Dow, DVM, MS, PhD, Diplomate ACVIM, Director, Center for Immune and Regenerative Medicine; Professor, Department of Clinical Sciences, College of Veterinary Medicine & Biomedical Sciences, Colorado State University

1:20 B-Cell Lymphoma: Immunogenic Mutational Load for Adoptive T-Cell Immunotherapy

Sebastiano Battaglia, PhD, Assistant Professor, Oncology, Center for Immunotherapy, Roswell Park Comprehensive Cancer Center

1:40 Audience Q&A: Immunologic Advances

Co-Moderators: Steven W. Dow, DVM, MS, PhD, Diplomate ACVIM, Director, Center for Immune and Regenerative Medicine; Professor, Department of Clinical Sciences, College of Veterinary Medicine & Biomedical Sciences, Colorado State University

Sebastiano Battaglia, PhD, Assistant Professor, Oncology, Center for Immunotherapy, Roswell Park Comprehensive Cancer Center

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PART 4: COLLABORATIONS AT BOTH ENDS OF THE LEASH: OSTEOSARCOMA

2:00 Mary's Story: From Patient to Childhood Cancer Ambassador
Mary Tankersley, Childhood Cancer Survivor

2:05 KEYNOTE PRESENTATION: Improving Outcomes in Osteosarcoma: Dog as Man's Best Friend

Lee J. Helman, MD, Professor, Departments of Pediatrics and Medicine, Keck School of Medicine, University of Southern California; Head, Basic and Translational Research, Children's Center for Cancer and Blood Diseases, Children's Hospital Los Angeles

2:25 Genomic Landscape of Canine Osteosarcoma

Heather Gardner, DVM, PhD Student, Sackler School of Graduate Biomedical Sciences, Tufts University

2:40 Enhancing Natural Killer Immunotherapy with IL-15 and Super-Agonist IL-15 in Naturally Occurring Canine Cancers

Robert B. Rebhun, DVM, PhD, DACVIM (Oncology), Maxine Adler Endowed Chair in Oncology, School of Veterinary Medicine, University of California, Davis

2:55 GD3/GD2-Based Immunotherapy in Osteosarcoma (and Melanoma) in Combination with Standard of Care

Rowan Milner, DVM, PhD, Hill's Professor of Oncology and Interim Director for Clinical and Translational Research Department of Small Animal Clinical Sciences, University of Florida

3:10 Autologous Activated T Cell Therapy for Osteosarcoma of Companion Dogs

Jeffrey Bryan, DVM, MS, PhD, DACVIM-Oncology, Professor of Medical Oncology, Board-Certified Specialist in Veterinary Oncology, Veterinary Health Center, University of Missouri

3:25 The Use of a Recombinant HER2 Targeted Listeria Vaccine to Prevent and Treat Metastatic Osteosarcoma

Nicola Mason, PhD, BVetMed, Associate Professor of Medicine & Pathobiology, University of Pennsylvania School of Veterinary Medicine

3:35 PANEL DISCUSSION

Moderator: Ryan Roberts, MD, PhD, Physician & Principal Investigator, Center for Childhood Cancer and Blood Diseases, The Research Institute at Nationwide Children's Hospital; Member, Translational Therapeutics Research Program, The James Comprehensive Cancer Center; The Ohio State University
Panelists: Heather Gardner, DVM, PhD Student, Sackler School of Graduate Biomedical Sciences, Tufts University

Robert B. Rebhun, DVM, PhD, DACVIM (Oncology), Maxine Adler Endowed Chair in Oncology, School of Veterinary Medicine, University of California, Davis
Rowan Milner, DVM, PhD, Hill's Professor of Oncology and Interim Director for Clinical and Translational Research Department of Small Animal Clinical Sciences, University of Florida

Jeffrey Bryan, DVM, MS, PhD, DACVIM-Oncology, Professor of Medical Oncology,

University of Missouri

Nicola Mason, PhD, BVetMed, Associate Professor of Medicine & Pathobiology, University of Pennsylvania School of Veterinary Medicine

4:00 Networking Refreshment Break

PART 5: REGULATORY ENVIRONMENT AND BIOETHICS

4:15 Opening Remarks: Bioethics & Regulatory Considerations when Conducting Comparative Oncology Studies

Carol K. Robertson-Plouch, DVM, cert ACDRS, Founder and Chief Executive, Convergence Bioscience, LLC

4:20 FDA CVM/CDER & USDA: Regulatory Considerations for Use of Investigational Drugs in Companion Animals

John Leighton, PhD, Division Director, US Department of Health and Human Services

Christopher Loss, DVM, Senior Veterinary Medical Officer, Office of New Animal Drug Evaluation (ONADE), Center of Veterinary Medicine (CVM)

Bruce V. Thomsen, DVM, PhD, Diplomate ACVP, Senior Staff Veterinarian, Center for Veterinary Biologics, United States Department of Agriculture

4:40 Best Practices and Emerging Issues

Rodney Page, DVM, MS, Professor and Director, Flint Animal Cancer Center, Colorado State University; Stephen Withrow Presidential Chair in Oncology
Philippe Baneux, Attending Veterinarian and Director, Center for Animal Resources and Education (CARE), Cornell University College of Veterinary Medicine

4:55 PANEL DISCUSSION

Moderator: Carol K. Robertson-Plouch, DVM, cert ACDRS, Founder and Chief Executive, Convergence Bioscience, LLC

Panelists: John Leighton, PhD, Division Director, US Department of Health and Human Services

Christopher Loss, DVM, Senior Veterinary Medical Officer, Office of New Animal Drug Evaluation (ONADE), Center of Veterinary Medicine (CVM)

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Philippe Baneux, Attending Veterinarian and Director, Center for Animal Resources and Education (CARE), Cornell University College of Veterinary Medicine

DAY 1 WRAP UP

5:10 Closing Remarks

Ryan Roberts, MD, PhD, Physician & Principal Investigator, Center for Childhood Cancer and Blood Diseases, The Research Institute at Nationwide Children's Hospital; Member, Translational Therapeutics Research Program, The James Comprehensive Cancer Center; The Ohio State University

5:15 Transition to Networking Reception

5:30 Networking Reception

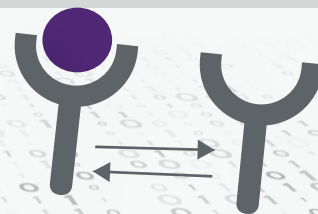
6:30 Close of Day

6:30 Dine Around Event*

*RSVP required. Limited space available. See registration desk for further



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Tuesday, November 13

7:00 am Registration and Continental Breakfast

PART 6: COURAGEOUS WARRIORS: CANCER PATIENTS' PERSPECTIVES

7:55 Title Sponsor Welcome Remarks

Susan Braun, CEO, the V Foundation for Cancer Research

8:00 PANEL DISCUSSION

Moderator: Len Lichtenfeld, MD,

Interim CMO and CSO, the American Cancer Society

Panelists: Mary Tankersley, Childhood Cancer Survivor

Greg Aune, MD, PhD, Pediatric Oncologist, Greehey Children's Cancer Research Hospital

Hon. Lee Satterfield, JD, Former Chief Judge, DC Superior Court

Joshua Schiffman, MD, Professor of Pediatric Hematology/Oncology and Adjunct

Professor of Oncological Sciences, Huntsman Cancer Center, University of Utah

PART 7: COMPARATIVE IMAGING

8:45 Opening Remarks

Amy LeBlanc, DVM, Director, Comparative Oncology Program, National Cancer Institute

8:50 Imaging Biomarkers in Comparative Oncology

Robert Jeraj, PhD, Professor, Medical Physics, University of Wisconsin School of Medicine and Public Health

9:05 Advanced Quantitative/Functional Imaging Applied in the Comparative Setting

David M. Vail, DVM, Diplomate ACVIM (Oncology), Professor and Barbara A. Suran Chair in Comparative Oncology, School of Veterinary Medicine and the Carbone Comprehensive Cancer Center, University of Wisconsin-Madison

9:20 MR Imaging Technologies to Assess Hypoxia and Tumor Stroma, Two Critically Important Features of the Tumor Microenvironment

Mark Dewhirst, DVM, PhD, Gustavo S. Montana Professor of Radiation Oncology, School of Medicine, Duke University

9:35 Networking Coffee Break

PART 8: COLLABORATIONS AT BOTH ENDS OF THE LEASH

9:45 Comparative Pathology of Canine Meningioma and Glioma

Andrew D. Miller, DVM, Diplomate ACVP, The Robert Hovey Udall Assistant Professor and The Anne Groot Sesquicentennial Fellow, Department of Biomedical Sciences, Section of Anatomic Pathology, Cornell University College of Veterinary Medicine

10:05 CANINE: CANine ImmunoNEurotherapeutics: A Comparative Genomics, Oncology and Immunotherapy Consortium

Melissa Rene Chambers, DVM, MD, Associate Professor in the Division of Neurosurgery, School of Medicine, University of Alabama

10:20 The Inclusion of Pet Dogs with Cancer in the Translational Development of PAC-1, a Procaspase-3 Activating Compound

Timothy M. Fan, DVM, PhD, Professor, Department of Veterinary Clinical Medicine, University of Illinois, Urbana-Champaign

10:35 Addition of a Checkpoint Blockade Inhibitor to Enhance the Efficacy of Immunotherapy for High-Grade Glioma

Liz Pluhar, DVM, PhD, Diplomate ACVS, Professor, Department of Veterinary Clinical Sciences, College of Veterinary Medicine, University of Minnesota

10:50 Accelerating a Cure in Canines-N-Kids Using Big Data Analyses

Jay Storm, MD, Chief of the Division of Neurosurgery, Children's Hospital of Philadelphia

11:05 CAR T: Linking Dogs to Kids

Carl H. June, MD, Richard W. Vague Professor in Immunotherapy, Director, Center for Cellular Immunotherapies, Director, Parker Institute for Cancer Immunotherapy, University of Pennsylvania Perelman School of Medicine

11:20 Therapeutic Applications of CAR T Cell Platform in the Comparative Setting

Nicola Mason, PhD, BVetMed, Associate Professor of Medicine & Pathobiology, University of Pennsylvania School of Veterinary Medicine

11:35 Leveraging Canine Lymphoma to Optimize Immunotherapy Combination Regimens

Cheryl London, DVM, PhD, DACVIM (oncology), Anne Engen and Dusty Professor in Comparative Oncology, Cummings School of Veterinary Medicine; Research Professor, Tufts University School of Medicine; Associated Faculty Professor, College of Veterinary Medicine, Ohio State

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Kristy L. Richards, PhD, MD, Associate Professor, Joan and Sanford I. Weill Department of Medicine, Weill Cornell Medicine, Biomedical Sciences, College of Veterinary Medicine

12:00 pm Networking Lunch Break

PART 9: INFRASTRUCTURE FOR COMPARATIVE CANCER RESEARCH AND COMPLEMENTING FOR COLLABORATION

1:00 PANEL DISCUSSION

Moderator: Michael Kastan, MD, PhD, Pediatric Oncologist, Executive Director of the Duke Cancer Institute, William and Jane Shingleton Professor of Pharmacology and Cancer Biology

Panelists: Amy LeBlanc, DVM, Director, Comparative Oncology Program, National Cancer Institute

Brenda Weigel, MD, PhD, Professor, Department of Pediatrics, Division Director, Division of Pediatric Hematology and Oncology, Pediatric Hematologist/Oncologist, Masonic Cancer Center, University of Minnesota

Ryan Roberts, MD, PhD, Physician & Principal Investigator, Center for Childhood Cancer and Blood Diseases, The Research Institute at Nationwide Children's Hospital; Member, Translational Therapeutics Research Program, The James

Comprehensive Cancer Center; The Ohio State University

Rodney Page, DVM, PhD, Professor and Director, Flint Animal Cancer Center, Stephen Withrow Presidential Chair in Oncology

Craig Clifford, DVM, Director of Clinical Studies, Medical Oncologist, Hope Veterinary Specialists

Carolyn Henry, DVM, MS, Dean, College of Veterinary Medicine, University of Missouri

Connie Sommers, PhD, Program Director, National Cancer Institute (NCI)

1:45 Networking Refreshment Break

PART 10: BIOPHARMA CHALLENGES: WEAVING COMPARATIVE ONCOLOGY RESEARCH INTO DEVELOPMENT PLANS

2:00 Opening Remarks

Carol K. Robertson-Plouch, DVM, cert ACDRS, Founder and Chief Executive, Convergence Bioscience, LLC

2:05 PANEL DISCUSSION

Moderator: Carol K. Robertson-Plouch, DVM, cert ACDRS, Founder and Chief Executive, Convergence Bioscience, LLC

Panelists: Tammie Wahuas, CEO, ELIAS Animal Health, LLC

Robert Ilaria, Jr., MD, Executive Medical Director, Clinical Research and Development, Celgene

G. Sylvester Price, DVM, PhD, Director of Therapeutic Evaluation, Boehringer Ingelheim Animal Health

Linda Rhodes, VMD, PhD, Consultant

Chris Robillard, MBA, Director, Business Development, Karyopharm Therapeutics Inc.

Jessica Bertout, VMD, PhD, Associate Director, Clinical Research, Presage Biosciences, Inc.

Lore M. Gruenbaum, PhD, Executive Director of Biology & Pharmacology at Applied Biomath

Brian Long, PhD, Director, Oncology Discovery Pharmacology, Merck Research Laboratories

Christine Adreani, PhD, VMD, Director, Translational In Vivo Models Global Research Platform, Sanofi Genzyme

PART 11: HARMONIZING WHILE HOWLING AT THE MOONSHOT: PRIORITIES FOR ACCELERATING CANCER DRUG DEVELOPMENT

2:45 Audience Q&A: Needs, Gaps & Opportunities

Co-Moderators: Jeffrey M. Trent, PhD, FACMG, President and Research Director, Translational Genomics Research Institute (TGen)

Ryan Roberts, MD, PhD, Physician & Principal Investigator, Center for Childhood Cancer and Blood Diseases, The Research Institute at Nationwide Children's Hospital; Member, Translational Therapeutics Research Program, The James

Comprehensive Cancer Center; The Ohio State University

Carolyn Henry, DVM, MS, Dean, College of Veterinary Medicine, University of Missouri

3:55 Closing Remarks

Ulrike Szalay, MPP, Founder, Executive Director, Canines-N-Kids Foundation

Robbie L McLeod, PhD, Principal Scientist, Pharmacology, Merck (Boston) Research Laboratories

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Speaker Biographies



CHRISTINE ADREANI, PhD, VMD, Director, Translational In Vivo Models Global Research Platform, Sanofi Genzyme

Dr. Christine Adreani is a veterinarian with board certification from the American College of Veterinary Surgeons. She received her PhD in physiology from the University of California, Davis, and began her pharmaceutical industry career as a Senior Principle Scientist in the Respiratory & Immunology therapeutic area at Merck & Co. Since 2013, Christine has served as a Distinguished Scientific Fellow in the Translational *In Vivo* Models Research Platform at Sanofi R&D in Cambridge. She currently supports *in vivo* pharmacology studies for Research and Early Development projects in the Oncology and Immunology & Inflammation therapeutic areas.



GREG AUNE, MD, PhD, Pediatric Oncologist, Greehey Children's Cancer Research Hospital

Dr. Gregory Aune is a pediatric hematologist-oncologist in San Antonio, Texas and is affiliated with University Hospital. At age 16, he was diagnosed with Hodgkin's Lymphoma and was successfully cured of his disease after undergoing one year of chemotherapy and radiation treatments. His cancer experience led Dr. Aune down a path to becoming a pediatric oncologist and physician scientist. He received his medical degree from University of Texas Medical School and today is one of 8 doctors at University Hospital who specialize in Pediatric Hematology-Oncology. Dr. Aune is board certified in both general pediatrics and hematology-oncology and maintains membership and actively participates in numerous national organizations devoted to childhood cancer research and cancer survivorship.



PHILIPPE BANEUX, Attending Veterinarian and Director, Center for Animal Resources and Education (CARE), Cornell University College of Veterinary Medicine

Philippe Baneux is a veterinarian; he graduated from the State University of Ghent in Belgium and holds a California veterinary license. He worked in laboratory animal care and use programs in academic institutes in Southern California for 16 years. He then joined Pfizer Global Research and Development based in France, where he held a number of positions of increasing responsibility, including Deputy Director of the Department of Toxicology, Comparative Medicine and Safety Pharmacology. He returned to the USA in 2005 to assume the position of Executive Director at the Center for Comparative Medicine, Northwestern University in Chicago, Illinois. He was also the Chief Scientific Officer at PreLabs, a contract research support organization in the Chicago area. Since 2012 he is the Attending Veterinarian and Director of the Center for Animal Resources and Education at Cornell University in Ithaca, NY. He contributed to the creation and is presently a member of the Veterinary Clinical Studies Committee at Cornell. He is an Emeritus Member of AAALAC International's Council on Accreditation.



BOB BARICH, Managing Director, CNR Search

Bob Barich has over 25 years of experience in the search industry and has successfully completed hundreds of senior-level executive search and management consulting assignments on behalf of client companies spanning a broad range of industries and representing everything from pre-IPO startups to Fortune 500 corporations worldwide. Bob brings to CNR Search strong interpersonal skills and a talent for exercising intuitive judgment on the career fit between candidates and clients. His negotiating skills guide his clients and candidates through the sensitive stages of the hiring process such as compensation and relocation issues. He cares about his clients' and candidates' wellbeing and remains in regular contact well after a placement. In this way, he has developed a large network of industry insiders who provide support through a greater web of expertise.



JESSICA BERTOUD, VMD, PhD, Director of Clinical Research, Presage Biosciences, Inc.

Dr. Bertout joined Presage Biosciences in 2013 to lead the company's comparative oncology program after completing a post-doctoral fellowship in translational research at the Fred Hutch. Her focus was on evaluating Presage's CIVO medical device platform in canine cancer patients recruited through a consortium of regional veterinary hospitals. After successful completion of the canine program, she transitioned to the clinical research team and currently directs Presage's clinical programs. Dr. Bertout holds a BS from Yale University, and a VMD and a PhD from the University of Pennsylvania.



SEBASTIANO BATTAGLIA, PhD, Assistant Professor, Oncology, Center for Immunotherapy, Roswell Park Comprehensive Cancer Center

Dr. Battaglia received his PhD in Cancer Biology at the University of Birmingham, UK, prior moving to Roswell Park Comprehensive Cancer Center in Buffalo, NY, for his postdoctoral fellowship. During that time, he also completed a MS in Bioinformatics from Johns Hopkins University. Now Dr. Battaglia holds the position of Assistant Professor of Oncology at the Center for Immunotherapy at Roswell Park. His lab focuses on immunogenomics and immunotherapy, integrating multidimensional dataset to understand and overcome therapeutic resistance. This includes 1) exploiting the mutational landscape in tumor cells to design neoantigen-specific T cell therapies, 2) identifying transcriptional circuitry defining therapeutic response, and 3) utilizing NGS or CyTOF to profile the immune landscape.



SUSAN BRAUN, CEO, the V Foundation for Cancer Research

Susan Braun is a businesswoman, a strategist, a health educator, and a passionate advocate for people with cancer. She has spent more than 20 years working side-by-side with amazing people to diminish suffering caused by cancer and other conditions – at the individual and the global level. Ms. Braun is currently the CEO of The V Foundation for Cancer Research. In the past she has served as the Executive Director of Commonweal; the Executive Director of The ASCO (American Society of Clinical Oncology) Cancer Foundation; CEO of the CURE Media Group, publisher of CURE Magazine; the President and CEO of the Susan G. Komen Breast Cancer Foundation; in various positions within the Oncology/Immunology Division at Bristol-Myers Squibb; and as an executive with the health care consulting firm Pracon Incorporated and the Center for Economic Studies in Medicine. Among her appointments and responsibilities, Ms. Braun has served on boards and/or committees for several organizations, including: National Cancer Institute, American Society for Clinical Oncology (ASCO), American Society for Breast Diseases, World Society of Breast Health, California Breast Cancer Research Program, Commonweal, SARC (Collaborating to Cure Sarcoma), the Barbara Smith Fund, Americorps NCCC, National Dialog on Cancer, Intercultural Cancer Council, the ASCEND Foundation and Smith Center for Healing and the Arts. Ms. Braun received a bachelor's degree in English and sociology from George Mason University and a master's degree in health science education from the University of Maryland. She also completed an academic graduate program (master's equivalent) in international business and marketing at the University of Muenster in Muenster, Germany.



JEFFREY BRYAN, DVM, MS, PhD, DACVIM-Oncology, Professor of Medical Oncology, Board-Certified Specialist in Veterinary Oncology, Veterinary Health Center, University of Missouri

Dr. Jeffrey Bryan earned a Bachelor of Science degree in veterinary science from the University of California, Davis in 1991. He received his DVM from the University of California, Davis in 1993. He worked as an Associate Veterinarian from 1993-1995 and served as Medical Director from 1995-2002 of the Irving Street Veterinary Hospital in San Francisco, CA. Bryan then completed a medical oncology residency,

a Masters of Biomedical Sciences, and a PhD in Pathobiology at the University of Missouri. He received certification by the American College of Veterinary Internal Medicine in Oncology 2005. He is the Director of the Tom and Betty Scott Endowed Program in Veterinary Oncology, the Comparative Oncology Radiobiology and Epigenetics Laboratory, and the PET Imaging Center of the University of Missouri. Dr. Bryan's research focuses on comparative examination of cancers in companion animals to better understand cancers in all species. His particular areas of interest are targeted imaging and therapy and epigenetics of cancer.



MELISSA RENE CHAMBERS, DVM, MD, School of Medicine, University of Alabama

As a veterinarian and board-certified neurosurgeon, Dr. Chambers is a strong proponent of the One Health Initiative, an effort to improve animal and public health worldwide and strengthen medicine by working together. She received her DVM from Auburn University and her MD from The University of Alabama. She completed the Halsted Surgical Fellowship at Johns Hopkins Hospital and neurosurgical residency at Vanderbilt University Medical Center. She is founder of the Alabama Comparative Oncology Network, principal investigator of the regional Southeastern Comparative Oncology Network, and a founding member of the Comparative Brain Tumor Consortium at the Center for Cancer Research - NIH, each a collaboration of veterinary and medical scientists and clinicians working together to identify genetic targets for treatment of disease through comparative genomics. She is a professor in the Department of Neurosurgery at UAB and principal investigator of CANINE, a Comparative Genomics, Oncology and Immunotherapy Consortium and canine brain tumor clinical trial funded by the NIH as part of the Cancer Moonshot Initiative.



CRAIG CLIFFORD, DVM, Director of Clinical Studies, Medical Oncologist, Hope Veterinary Specialists

Dr. Craig Clifford is a graduate of Mississippi State University College of Veterinary Medicine and received an MS degree in Animal Science/Virology from the University of Delaware. After completing an internship and a medical oncology residency at the University of Pennsylvania, he became a diplomate of the American College of Veterinary Internal Medicine (Oncology) in 2003. He is a medical oncologist and Director of Clinical Studies at Hope Veterinary Specialists in Malvern, PA. He is active in clinical research within a referral setting and serves as an advisory board member with both industry and non-profit foundations. Dr. Clifford is a renowned oncologist who has authored/co-authored over 60 papers and book chapters. He is a frequent lecturer at major veterinary meetings in the USA and abroad. Dr. Clifford has served on the VCS executive board, ACVIM Exam Rating Committee, Residency Training and Credentials Committee, Oncology Pathology Working Group, Co-chair of the Standards of Excellence in Residency Education Task Force and an Examiner for the Australian Scientist's Oncology Specialty Exam.



MARK W. DEWHIRST, DVM, PhD, FASTRO, FAAAS, Gustavo S. Montana Professor of Radiation Oncology, Associate Dean of Faculty Mentoring, Duke Medical Center

Dr. Mark Dewhirst, DVM, PhD graduated from the University of Arizona in 1971 with a degree in Chemistry and Colorado State University in 1975 and 1979 with DVM and PhD degrees, respectively. Mark W. Dewhirst, DVM, PhD is the Gustavo S. Montana Professor of Radiation Oncology and Vice Director for Basic Science in the Duke Cancer Institute. He has research interests in tumor hypoxia, angiogenesis, hyperthermia and drug transport. He has spent nearly 40 years studying causes of tumor hypoxia. Dr. Dewhirst has well over 600 peer-reviewed publications, book chapters and reviews, with >30,000 citations and an H-index of 88. He was awarded the Failla Medal and Lecture from the Radiation Research Society in 2008, the Eugene Robinson award for excellence hyperthermia

research in 1992 and a similar award from the European Society for Hyperthermic Oncology in 2009. He was named a fellow of ASTRO in 2009 and was awarded the prestigious Gold Medal from the same society in 2012. He was also awarded the William C. Dewey Award in May of 2014. Dr. Dewhirst is a Senior Editor of Cancer Research and Editor-in-Chief of the International Journal of Hyperthermia. He has mentored 24 graduate students, and many postdoctoral fellows, residents, junior faculty and medical students. His skill in mentoring has been recognized by the Duke Comprehensive Cancer Center, the Medical Physics Graduate Training programs and the School of Medicine, where he has received "Mentor of the Year" awards. In 2011, he was appointed the first Associate Dean of Faculty Mentoring in the Duke School of Medicine. In this position, he has implemented a comprehensive program that has doubled success rates vs. NIH average, for Junior Faculty in obtaining NIH funding.



TIMOTHY M. FAN, DVM, PhD, Professor, Department of Veterinary Clinical Medicine, University of Illinois, Urbana-Champaign

Dr. Fan received his Doctor of Veterinary Medicine Degree at Virginia-Maryland Regional College of Veterinary Medicine in 1995. He completed a Small Animal Rotating Internship at the University of Illinois from 1995 to 1996. Following the completion of his internship, Dr. Fan fulfilled a Small Animal Internal Medicine Residency at Cornell University in 1998. Following his stay at Cornell, Dr. Fan returned to the University of Illinois to receive advanced clinical training in the subspecialty of Medical Oncology. Dr. Fan completed his Board Certification in Internal Medicine in 2000 and in Medical Oncology in 2001. Following the completion of Dr. Fan's clinical training, he pursued and completed a PhD in Tumor Immunology, whereby he investigated the anticancer effects of cytokine manipulation strategies for the treatment of locally-invasive and metastatic tumors in mouse models of disease. Upon completion of his PhD in 2007, Dr. Fan now serves as the principal investigator of the Comparative Oncology Research Laboratory housed in the Small Animal Clinic, Department of Veterinary Clinical Medicine. Dr. Fan's laboratory works closely with other basic scientists for evaluating novel drugs or drug delivery strategies for the treatment of cancer. Dr. Fan's training as a scientist and veterinarian, has allowed him the opportunity to rapidly investigate and translate novel treatment strategies in dogs with spontaneously-arising cancers, and conduct meaningful comparative oncology research which is hoped to eventually aid in treating cancer in not only companion animals, but also human beings.



HEATHER GARDNER, DVM, PhD Student, Sackler School of Graduate Biomedical Sciences, Tufts University

Heather Gardner, DVM, is a PhD candidate in Genetics at the Sackler School of Biomedical Sciences in Tufts University. Prior to coming to Massachusetts, she completed her residency in Medical Oncology at the Ohio State University in 2017. She received her veterinary degree from Washington State University in 2011, prior to completing a rotating internship at VCA Alameda East in Colorado and specialty internships in oncology at the University of Florida and clinical trials at The Ohio State University.



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LORE M. GRUENBAUM, PhD, Executive Director of Biology & Pharmacology at Applied Biomath

Lore Gruenbaum is a scientific leader with experience in academic research, drug discovery and clinical development in multiple disease areas. Lore trained at Free University of Berlin and Yale University in Biochemistry and Neuroscience before joining Boehringer Ingelheim as a drug discovery leader. Lore continued her career at Roche Pharmaceuticals as the Pathway and Biomarker Area Head, Virology. In 2015, Lore joined Applied Biomath as a key member of the scientific and business leadership. Lore is also the principal investigator on an NIH grant developing a systems pharmacology model for amyloid beta pathology in Alzheimer's Disease.



LEE HELMAN, MD, Section Head, Basic and Translational Research, Children's Center for Cancer and Blood Diseases Professor of Pediatrics, Keck School of Medicine of University of Southern California

Lee J. Helman received his MD from the University of Maryland School of Medicine magna cum laude and was elected to Alpha Omega Alpha. He completed his internship and residency in internal medicine at Barnes Hospital, Washington University. Dr. Helman completed training in medical oncology at the National Cancer Institute (NCI). He did his post-doctoral training in the Molecular Genetics Section, Pediatric Branch, NCI, and then became Head of the Molecular Oncology Section, Pediatric Oncology Branch, NCI. He served as Chief of the Pediatric Oncology Branch from 1997-2007 and as Scientific Director for Clinical Research in the Center for Cancer Research, NCI, from 2007 to 2016. He joined Children's Hospital Los Angeles (CHLA) and the University of Southern California (USC) in 2017 as professor of Pediatrics and Medicine at the Keck School of Medicine and director of Basic and Translational Research within the Children's Center for Cancer and Blood Diseases at CHLA and is a member of the USC Norris Comprehensive Cancer Center. He was elected to the American Society for Clinical Investigation and the American Association of Physicians and is a founding member and past president of the Connective Tissue Oncology Society. He received the 2011 ASCO Pediatric Oncology Award and is a Fellow of ASCO. He serves as a vice chair of the Scientific Advisory Committee of Stand Up to Cancer, a scientific partner to the AACR. Dr. Helman's laboratory work focuses on the biology and treatment of rhabdomyosarcoma, Ewing's sarcoma, osteosarcoma, and pediatric GIST tumors.



WILL HENDRICKS, PhD, Assistant Professor, Integrated Cancer Genomics Division, Translational Genomics Research Institute (TGen)

Dr. William Hendricks is an Assistant Professor of Integrated Cancer Genomics and Director of Institutional Research Initiatives at the Translational Genomics Research Institute (TGen) in Phoenix, Arizona. Dr. Hendricks received joint baccalaureates in Literature and Molecular Biotechnology from Grand Canyon University and Arizona State University. He completed his doctoral and postdoctoral training at Johns Hopkins School of Medicine in the laboratories of Drs. Kenneth Kinzler, Bert Vogelstein, and Nickolas Papadopoulos before joining TGen in 2013 to develop programs in canine and human cancer precision medicine. His laboratory focuses on mapping the genomic landscapes of rare histological and molecular subtypes of human cancers alongside those of naturally occurring canine cancers in order to drive development of new treatments and diagnostics across species.



CAROLYN HENRY, DVM, MS, Dean, College of Veterinary Medicine, University of Missouri

Dr. Henry was named Dean of the University of Missouri (MU) College of Veterinary Medicine (CVM) in February 2018 after serving as Interim Dean for six months. She is a tenured Full Professor with dual appointments at the CVM and the School of Medicine. She earned her DVM at Auburn University (1990) and practiced small animal and emergency medicine before completing an oncology residency/MS (DACVIM '94). Henry served on the faculty at Washington State University from 1993 to 1997 before accepting a

position at MU in 1997 to develop the oncology service. She has served on the American College of Veterinary Internal Medicine (ACVIM) Board of Regents and is past president of both the Veterinary Cancer Society and the ACVIM Specialty of Oncology. Henry has served as the Mizzou Advantage One Health Facilitator (2010), Associate Director of Research for Ellis Fischel Cancer Center (2011) and Associate Dean for Research and Graduate Studies at the CVM (2013). Her research interests include canine bladder, bone, and mammary cancer and comparative oncology/cancer epidemiology.



ROBERT ILARIA, JR., MD, Executive Medical Director, Clinical Research and Development, Celgene

Robert Ilaria, Jr., MD is Executive Director in Clinical Research and Development at Celgene, focusing on drug development in immune-oncology. Prior to joining Celgene, he was at Eli Lilly and Company, where he had leadership roles in early and late clinical development. Before joining Industry, Dr. Ilaria had academic careers at the University of Texas Southwestern Medical Center and Brigham and Women's Hospital/Dana Farber Cancer Center, with clinical specialization in hematological malignancies, stem cell transplant, and soft tissue sarcoma. In parallel with his clinical activities in hematology/oncology, his basic science research efforts included animal models of leukemia and pediatric sarcomas.



ROBERT JERAJ, PhD, Professor, Medical Physics, University of Wisconsin School of Medicine and Public Health

Dr. Robert Jeraj is a Professor of Medical Physics, Human Oncology, Radiology and Biomedical Engineering at the University of Wisconsin, Madison, where he leads the Imaging and Radiation Sciences Program at the University of Wisconsin Carbone Cancer Center. He is the Director of the Translational Imaging Research Program that oversees concept development, protocol design, and implementation of imaging in trials incorporating novel anti-cancer drugs, and the Director of the Wisconsin Oncology Network of Imaging eXcellence (WONIX), a regional clinical trial network that focuses on extensive imaging and molecular biomarker endpoints. Dr. Jeraj is also a Professor at the University of Ljubljana, Slovenia, where he leads a research group of medical physics. Among other duties, Dr. Jeraj is the Chair of the Working Group on the Future of Medical Physics Research and Academic Training at AAPM, and serves on several national committees, such as the Medical Imaging Drug Advisory Committee at FDA, Biomarker Committee and Experimental Imaging Science Committee at ECOG-ACRIN, Bioinformatics and Medical Physics Committee at NRG Oncology. Dr. Jeraj is an author of over 120 published papers, text books and book chapters, and is a frequent invited lecturer and presenter on the use of molecular imaging in therapeutic interventions and general applications of medical physics in radiation and medical oncology.



MICHAEL KASTAN, MD, PhD, Pediatric Oncologist, Executive Director of the Duke Cancer Institute, William and Jane Shingleton Professor of Pharmacology and Cancer Biology

Michael B. Kastan, MD, PhD, is the William and Jane Shingleton Professor of Pharmacology and Cancer Biology and Professor of Pediatrics at Duke University and serves as the Executive Director of the Duke Cancer Institute. He earned MD and PhD degrees from the Washington University School of Medicine and did his clinical training in Pediatrics and Pediatric Hematology-Oncology at Johns Hopkins. He was a Professor of Oncology, Pediatrics, and Molecular Biology at Johns Hopkins prior to becoming Chair of the Hematology-Oncology Department and later Cancer Center Director at St. Jude Children's Research Hospital, before moving to Duke in 2011. He is a Pediatric Oncologist and a cancer biologist; his laboratory research concentrates on DNA damage and repair, tumor suppressor genes, and causes of cancer related to genetic predisposition and environmental exposures. His discoveries have made a major impact on our understanding of both how cancers develop and how they respond to chemotherapy and radiation therapy and his publications reporting the roles of p53 and ATM in DNA damage signaling are among the most highly cited publications in the biomedical literature of the past two decades. He has received numerous honors for his highly cited work, including

election to the National Academy of Sciences, National Academy of Medicine, the American Academy of Arts and Sciences, and receiving the AACR-G.H.A. Clowes Memorial Award for outstanding contributions to basic cancer research. He has served as Chairman of the Board of Scientific Counselors of the National Cancer Institute (NCI), on the Boards of Directors of the American Association for Cancer Research (AACR) and the American Association of Cancer Institutes (AACI), as Editor-in-Chief of the journal *Molecular Cancer Research*, and as Editor of the textbook *Clinical Oncology*. He also serves on the scientific advisory boards of both Stand Up To Cancer (SU2C) and the V Foundation.



AMY K. LEBLANC, DVM Diplomate ACVIM (Oncology), Director, Comparative Oncology Program, Center for Cancer Research, National Cancer Institute, National Institutes of Health

Amy LeBlanc is board-certified veterinary oncologist and the Director of the intramural National Cancer Institute's Comparative Oncology Program. In this position, she conducts preclinical mouse and translational canine studies that are designed to inform the drug and imaging agent development path for human cancer patients. She also advises leading pharmaceutical companies as well as NCI's Division of Cancer Treatment and Diagnosis on the inclusion of pet dogs with cancer into the development path of novel approaches for a variety of malignancies, including immunotherapeutics, targeted small molecules, oncolytic viruses, and cancer imaging agents. She directly oversees the NCI Comparative Oncology Trials Consortium (COTC), which provides infrastructure necessary to connect participating veterinary academic institutions with stakeholders in drug development to execute fit-for-purpose comparative clinical trials in novel therapeutics and imaging agents. Dr. LeBlanc obtained her veterinary degree from Michigan State University, and completed post-graduate training in small animal medicine, surgery and oncology at Texas A&M University and Louisiana State University. Prior to her appointment at NIH, Dr. LeBlanc was an Associate Professor with tenure and Director of Translational Research at the University of Tennessee College of Veterinary Medicine (CVM) and UT Graduate School of Medicine (GSM). Dr. LeBlanc's group at the University of Tennessee published the first comprehensive studies describing molecular imaging of dogs and cats using PET/CT, focusing on the forward and back-translation of 18F-labelled radiopharmaceuticals.



JOHN K. LEIGHTON, PhD, Division Director, US Department of Health and Human Services

Dr. Leighton received his PhD from the Department of Physiology and Biophysics at the University of Illinois, Urbana-Champaign. Dr. Leighton first came to FDA as a pharmacology and toxicology reviewer in the Center for Veterinary Medicine and moved to the Division of Oncology Drug Products (DODP) in CDER as a reviewing pharmacologist, later serving as a supervisory pharmacologist. Dr. Leighton is currently the Director for the Division of Hematology Oncology Toxicology in the Office of Hematology and Oncology Products, where his primary responsibility is providing policy direction and review oversight of nonclinical studies submitted to support IND, NDA and BLA applications for oncology and hematology indications. Dr. Leighton serves as co-chair of the PTCC Computational Toxicology Subcommittee. He served as Rapporteur for the ICH S9 Q&A guidance for anticancer pharmaceuticals which was approved by the ICH Assembly in April, 2018, and is Deputy Topic Lead for FDA for ICH Q3D, Elemental Impurities.



LEN LICHTENFELD, MD, Interim CMO and CSO, the American Cancer Society

Our moderator, Dr. Len Lichtenfeld just days ago assumed the role of Interim Chief Medical Officer and Chief Science Officer for the American Cancer Society in the Office of the Chief Medical Officer located at the Society's Global Headquarters in Atlanta. A board certified medical oncologist and internist who was a practicing physician for over 19 years, Dr. Lichtenfeld joined the Society in 2001 as a medical editor. In 2014, Dr. Lichtenfeld assumed the role of Deputy Chief Medical Officer in the Office of the Chief Medical Officer, and as of last week assumed the role of Interim Chief Medical

Officer and Chief Science Officer. As a result of his over four decades of experience in cancer care, Dr. Lichtenfeld is frequently quoted in the print and electronic media regarding the Society's positions on a number of important issues related to cancer. He has testified frequently in legislative and regulatory hearings, and participated on numerous panels regarding cancer care, research, advocacy and related topics. He has served on a number of advisory committees and boards for organizations that collaborate with the Society to reduce the burden of cancer nationally and worldwide. He is well known for his blog (Dr. Len's Cancer Blog) which first appeared in 2005 and which continues to address various topics related to cancer research and treatment.



CHERYL LONDON, DVM, PhD, DACVIM (Oncology), Anne Engen and Dusty Professor in Comparative Oncology, Cummings School of Veterinary Medicine; Research Professor, Tufts University School of Medicine; Associated Faculty Professor, College of Veterinary Medicine, Ohio State

Cheryl London, DVM, PhD, Diplomate ACVIM (Oncology) is a Research Professor at The Cummings School of Veterinary Medicine and School of Medicine at Tufts University, as well as an Associated Faculty Professor at the Ohio State University College of Veterinary Medicine (OSU CVM). She is Director of the Veterinary Clinical Trials Offices at the Cummings School and OSU CVM and Director of the Research Collaboration Team at the Tufts Clinical Translational Science Institute. Prior to her time at OSU, she was an Assistant Professor in the Department of Surgical and Radiological Sciences at the University of California Davis. Dr. London earned her DVM at Tufts University, completed her Residency in Medical Oncology at the University of Wisconsin-Madison, and her PhD in Immunology at Harvard University, where she was also postdoctoral fellow in the Department of Pathology. Her research interests center primary on targeted therapeutics and translational/comparative oncology.



BRIAN LONG, PhD, Director, Oncology Discovery Pharmacology, Merck Research Laboratories

Brian Long, PhD, is the Director of Oncology Discovery Pharmacology at MRL – Boston where his responsibilities include providing *in vivo* pharmacology support to advance both Merck's Oncology Discovery pipeline and clinical pipeline. Prior to moving to Massachusetts he was a member of the Oncology department at Schering-Plough Research Institute in New Jersey. During his time in industry Brian has contributed to advancing more than 20 novel entities into clinical development including supporting the clinical development of pembrolizumab. Before joining Schering-Plough Brian was a post-doctoral fellow at the University of Maryland Medical Center in Baltimore MD where he specialized in studying the role of hormone ablation for the treatment of breast and prostate cancers. Brian holds a PhD from the Queen's University of Belfast, Northern Ireland.



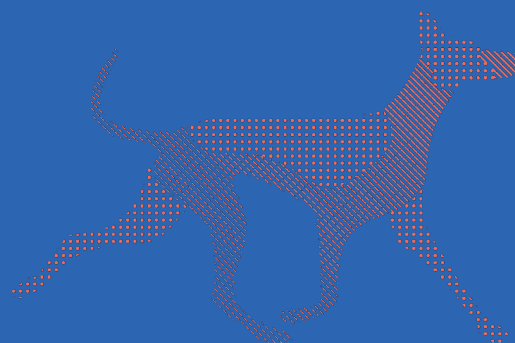
CHRISTOPHER LOSS, DVM, Senior Veterinary Medical Officer, Office of New Animal Drug Evaluation (ONADE), Center of Veterinary Medicine (CVM)

Christopher Loss, DVM is a Senior Veterinary Medical Officer in the Office of New Animal Drug Evaluation (ONADE) in the Center of Veterinary Medicine (CVM). He received his Doctor of Veterinary Medicine from Oklahoma State University in 2000. Prior to joining the FDA, Dr. Loss practiced small animal medicine in Arlington, VA. He began his FDA career in 2008 at CVM in the Division of Therapeutic Drugs for Non-Food Animals as a reviewer of new animal drugs. In 2015, Dr. Loss became a senior regulatory review scientist. Since joining CVM, he has become recognized as an expert in the review of small animal oncology drugs. He led the initiative to create CVM Guidance for Industry #237 - Oncology Drugs for Companion Animals. In 2018, he participated in a detail at the Center for Drug Evaluation and Research (CDER) in the Office of Hematology and Oncology Products where he reviewed the nonclinical information supporting human oncology drug development and learned about oncology drug development for humans.

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NICOLA MASON, PhD, BVetMed, Associate Professor of Medicine & Pathobiology, University of Pennsylvania School of Veterinary Medicine

Nicola Mason is an Associate Professor in the Department of Clinical Sciences and Advanced Medicine at the University of Pennsylvania's School of Veterinary Medicine. She received her veterinary degree from the Royal Veterinary College, University of London and her PhD in Immunology from the University of Pennsylvania. She performed her post-doctoral research at the University of Pennsylvania's School of Medicine. Taking a comparative approach to overcome some of the limitations of rodent model systems, Dr. Mason's translational research group focuses on evaluating the safety and therapeutic effect of immunotherapies in pet dogs with spontaneous cancer and autoimmunity. Her work with Dr. Yvonne Paterson, Professor of Microbiology at the UPENN School of Medicine, pioneering the translation of a live, recombinant HER2 targeting *Listeria* in dogs with spontaneous osteosarcoma earned her the University of Pennsylvania's One Health Award for Excellence in promoting One Health Initiatives and Interprofessional Education in 2013. Together with Dr. LeBlanc and the COTC, Dr. Mason leads a national clinical trial to evaluate the effect of recombinant *Listeria* in prevention and treatment of metastatic OSA in dogs. Dr. Mason co-leads the U24 supported, Pre-medical Cancer Immunotherapy Network for Canine Trials (PRECINCT) and is part of the ALSF Crazy 8 Initiative that aims to detail roadmaps for cures for childhood cancers. Her research interests also include adoptive immunotherapy using CAR T cells in canine patients with B cell malignancies, glioblastoma and metastatic OSA. Translational work with immunotherapies in canine patients aims to identify correlative biomarkers of response and inform human clinical trial design.



ROBBIE L. MCLEOD, PhD, Principal Scientist, Pharmacology, Merck (Boston) Research Laboratories

Dr. McLeod currently serves as a Principal *in vivo* Scientist in the Department of Pharmacology at Merck Research Laboratories (MRL) in Boston. Robbie is a classically trained pharmacologist receiving his PhD degree in autonomic pharmacology from the University of Medicine and Dentistry of New Jersey. He has demonstrated 25+ years of success at MRL (and former Schering Plough) within fields of integrative translational pharmacology and physiology contributing to several marketed therapeutic agents. He has throughout his career worked across multiple therapy disciplines such as cardiovascular, CNS, allergy, respiratory, immunology, and more recently oncology while providing preclinical pharmacology leadership supporting the development of novel drug entities from target validation, lead identification and optimization thus enabling phase-1 and Proof of concept human clinical studies.



ANDREW D. MILLER, DVM, Diplomate ACVP, The Robert Hovey Udall Assistant Professor and The Anne Groot Sesquicentennial Fellow, Department of Biomedical Sciences, Section of Anatomic Pathology, Cornell University College of Veterinary Medicine

Andrew D. Miller is a graduate of Cornell University (BS '01, DVM '05) and a board certified anatomic veterinary pathologist (Dipl. ACVP '08). Dr. Miller is currently the Robert Hovey Udall Assistant Professor and the Anne Groot Sesquicentennial Fellow in the Department of Biomedical Sciences, Section of Anatomic Pathology at Cornell University College of Veterinary Medicine. Dr. Miller was previously a faculty member of the New England Primate Research Center, affiliated with Harvard Medical School. Dr. Miller's expertise is in comparative tumor pathology, especially focusing on tumors of the central and peripheral nervous system, and neuropathology. He has a particular interest in the molecular underpinnings of canine meningioma and glioma and how they relate to pathogenesis and patient prognosis. Ongoing work in the Miller laboratory includes molecular studies of canine soft tissue sarcoma, meningioma, and glioma in addition to numerous collaborative research projects. Dr. Miller is the director of the veterinary anatomic pathology residency program at Cornell University College of Veterinary Medicine. Dr. Miller has authored and co-authored over 90 peer reviewed articles, 5 book chapters, and is a previous editorial board member of *Veterinary Pathology*. He is active in the American College of Veterinary Pathologists (ACVP), overseeing the annual neuropathology slide session at the annual ACVP meeting.



SUSAN MOCKUS, PhD, Associate Director, Clinical Genomic Market Development, The Jackson Laboratory

Dr. Mockus is the Associate Director of Clinical Genomic Market Development at The Jackson Laboratory for Genomic Medicine, where she pioneered the development of the clinical knowledgebase (JAX-CKBTM, jax.org/ckb) and was instrumental in obtaining the lab's first CLIA/CAP certified laboratory developed test (LTD). JAX-CKBTM is a cancer informatics platform used by translational researchers across the globe. Her primary focus is in the capture, analysis, and utilization of big-data to support interpretation of cancer next-generation sequencing data. She is a member of several multi-disciplinary teams striving to enhance knowledge and foster collaborations to bring innovative molecular diagnostics to the clinic. Her most recent project includes the Tallwood Canine Cancer Initiative (TTCRI). TTCRI is a comparative oncology program, with a mission to accelerate utilization of canine cancer genomics to identify new treatment modalities. She applies over ten years of experience in analyzing and harmonizing genomic sequencing data to enable clinical reporting and has published numerous abstracts and scientific papers on the topic. She received her PhD from Wake Forest University, postdoctoral training at the University of Washington in Seattle, WA, and her MBA from Yale University, School of Management.



ELAINE OSTRANDER, PhD, NIH Distinguished Investigator, Cancer Genetics and Comparative Genomics Branch

Dr. Elaine Ostrander is Chief of the Cancer Genetics and Comparative Genomics Branch at the National Human Genome Research Institute of NIH and head of the Section on Comparative Genetics. She received her Ph.D. from Oregon Health Sciences University in 1987, and did postdoctoral training at Harvard and UC Berkeley. She initiated the canine genome project in 1993, building maps to navigate the dog genome. Her work focuses on finding genes controlling morphologic variation and disease susceptibility in dogs. Dr. Ostrander has published over 340 papers, edited multiple books, and won several awards including the American Cancer Society Junior Faculty Award, Burroughs Wellcome Award for Functional Genomics, Asa Mays Award, the International Canine Health Lifetime Achievement Award, and the 2013 Genetics Society of America Medal.



ROD PAGE, DVM, Director, Colorado State University, Flint Animal Cancer Center, Stephen J. Withrow Presidential Chair in Oncology

Dr. Page received his DVM from Colorado State University and completed specialty training in the field of medical oncology in NYC. Dr. Page is board-certified in Internal Medicine and Oncology. He was a faculty member at North Carolina State University prior to his appointment at Cornell University as the founding director of The Sprecher Institute for Comparative Cancer Research. In 2005, Dr. Page was appointed Chair of the Department of Clinical Sciences. Dr. Page returned to Colorado as the Director of the Flint Animal Cancer Center in 2010 (www.csuanimalcancercenter.org). Dr. Page has authored or co-authored about 120 peer-reviewed manuscripts, 30 book chapters and co-edited the 5th Edition of Withrow & MacEwen's Small Animal Clinical Oncology in 2012. Dr. Page's research interests have recently been focused on a 'One Medicine' approach to cancer. He has been involved with the Golden Retriever Lifetime Study since 2008, and has initiated a national effort to bring translational and comparative oncology to a greater audience. A workshop on the role of clinical research in companion animals at the National Academies of Science in 2015 has increased awareness and funding for the study of new diagnostics, drugs and devices across governmental agencies, industry and academia for the benefit of all those that are affected by cancer.



LIZ PLUHAR, DVM, PhD, Diplomate ACVS, Professor, Department of Veterinary Clinical Sciences, College of Veterinary Medicine, University of Minnesota

G. Elizabeth Pluhar is a Professor in the Department of Veterinary Clinical Sciences at the University of Minnesota. Following her undergraduate education, she earned an MS degree from Northern Illinois University, a DVM degree from Oregon State University, a second MS degree from Washington State University and PhD degree in comparative orthopaedics from the University of Wisconsin, Madison. Dr. Pluhar has also completed advanced clinical training; an internship at the Animal Medical Center in N.Y. and surgery residency at Washington State University and is a Diplomate of the American College of Veterinary Surgeons. She has received several honors and awards including the William Harris Award from the Orthopaedic Research Society and the Mark of Excellence Award from the University of Minnesota. She is involved with several professional organizations, including the Society for Neuro-Oncology, the Orthopaedic Research Society, the American College of Veterinary Surgeons, the Veterinary Orthopedic Society, and serves on an Advisory Committee for the FDA. Her research interests include immunotherapies for brain tumors, development of bone graft substitutes, and animal models of disease, which are supported by funding from a variety of sources including the National Institutes of Health, American Cancer Society, Department of Defense, American Brain Tumor Association, and several foundations. She has published over 60 peer-reviewed papers and provided over 200 scientific presentations and invited lectures.



ROBERT REBHUN, DVM, PhD, DACVIM, Associate Professor and Associate Researcher, Surgical & Radiological Sciences, Center for Companion Animal Health, University of California, Davis

Dr. Rebhun is an Associate Professor and Maxine Adler Endowed Chair in Medical Oncology at the University of California, Davis School of Veterinary Medicine. He also serves as the Associate Director for the Cancer Program within the UCD-Center for Companion Animal Health. Dr. Rebhun received both his Bachelor of Science and Doctorate of Veterinary Medicine degrees from Cornell University. He earned a PhD degree in Cancer Biology from the University of Texas Health Science Center at Houston/M.D. Anderson Cancer Center Graduate School of Biomedical Sciences under the mentorship of Dr. Isaiah Fidler. Dr. Rebhun went on to complete a medical oncology residency at the Animal Cancer Center, at the Colorado State University College of Veterinary Medicine and Biomedical Sciences. He joined UC Davis in 2008 and was awarded a K01 SERCA award from the NIH in 2011. Dr. Rebhun's research is focused on comparative and translational oncology, with specific interests in metastasis and novel therapeutics. He currently serves as a Co-PI with Dr. Robert Canter on an NCI U01 grant.



LINDA RHODES, VMD, PhD, Consultant

Dr. Rhodes has practiced both companion and farm animal medicine, worked in R&D for Merck and Merial Ltd. She founded AlcheraBio, an animal health contract research company and subsequently was the founding CEO of Aratana Therapeutics. She led the FDA approval of three innovative drugs during her five-year tenure. She is retired and a member of the Board of Directors of Zoetis. Dr. Rhodes received her VMD from U. Penn and PhD from Cornell.



KRISTY L. RICHARDS, PhD, MD, Associate Professor, Joan and Sanford I. Weill Department of Medicine, Weill Cornell Medicine, Biomedical Sciences, College of Veterinary Medicine, Cornell University

Kristy Richards is an associate professor in the department of Biomedical Sciences in the College of Veterinary Medicine and of the Department of Medicine, Division of Hematology/Medical Oncology, Weill Cornell Medical College. She is a medical oncologist who specializes in treating lymphoma patients and her laboratory focuses on finding new and better ways to treat lymphoma. Dr. Richards earned her undergraduate degree from Cornell University, followed by a PhD in genetics and an MD, both from Stanford University. She did her residency in internal medicine at Brigham and Women's Hospital, and completed a hematology/oncology fellowship at the MD Anderson Cancer Center. Dr. Richards co-directs the Cross-Campus Experimental Therapeutics Program at Cornell. Her research interests include genetic and genomic approaches to understanding lymphoma biology. Her lab is using genomic strategies to characterize a canine model of lymphoma in pet dogs that could be used to provide a more representative animal model for therapeutic trials. She is the principal investigator on three recently awarded grants from the National Cancer Institute and the Leukemia and Lymphoma Society, which all will study new immunotherapy agents in canine clinical trials to be performed at Cornell University Veterinary Hospital and its partner facilities (like the Animal Medical Center in NYC and Cornell University Veterinary Specialists in Stamford, CT). She is also involved in human clinical trials that focus on improved therapeutic strategies for lymphoma patients.



CAROL K. ROBERTSON-POUCH, DVM, cert ACDRS, Founder and Chief Executive, Convergence Bioscience, LLC
Dr. Carol Robertson-Plouch leads Convergence Bioscience, an emerging consulting/development firm. She leverages

broad experience leading clinical R&D in both humans (adults and pediatrics) and animals at Lilly/Elanco and Merck/Merial. Dr. Robertson-Plouch initiated "Translational and Comparative Medical Research (TCMR)" at Lilly to de-risk and accelerate development. She received corporate awards in Bioethics, President's Recognition, and research excellence/quality. Her DVM is from the University of Missouri, and she holds certificates in Drug Development/Regulatory Science and Leadership from UCSF and Kellogg, respectively.



CHRIS ROBILLARD, MBA, Director, Business Development, Karyopharm Therapeutics Inc.

Chris has spent the last 2.5 years in business development at Karyopharm helping to advance clinical stage products to commercialization in both the human and animal oncology settings. Karyopharm has tested multiple products in canine oncology, both to inform clinical design in humans and to seek partners to advance products in canine oncology. Chris has spent the over 10 years in pharma/biotech in various business development and financial roles.



MICHAEL ROSENZWEIG, DVM, PhD, Executive Director, Oncology, Merck Research Labs

Michael Rosenzweig is the Executive Director of Oncology, Immuno-Oncology and Immunology at Merck Research Laboratories in Boston, Merck and Co. (known as MSD outside of US and Canada). Michael leads the team developing new therapeutics targeting cancer and autoimmunity. A major focus of the team is to build a modality agnostic pipeline to follow on the success of Keytruda®. Michael joined Merck in 2014 with more than 15 years of experience in biologics drug development, particularly in the fields of oncology, immunology and infectious diseases. He previously served as the VP of Research at Immunext and has held various positions in Biotechnology companies including Tolerx and Cordlife. Michael received his DVM from the University of Pretoria in South Africa and a PhD in Immunology from the University of Pennsylvania. He then joined Harvard University where he was on the faculty at New England Primate Research Center.



HON. LEE SATTERFIELD, JD, Former Chief Judge, DC Superior Court

He is the former Chief Judge of the Superior Court of the District of Columbia. In 1992, he was appointed and sworn in as an Associate Judge of Superior Court. During his 16 years as an Associate Judge, he served as the Presiding Judge of the Court's Domestic Violence Division, and its Family Court. He then served 8 years as the Chief Judge before being appointed in March 2017 to his current position as a Senior Judge. He is a childhood cancer survivor, stroke survivor, and a heart transplant recipient. He is the author of the book, *Courageous Warriors, Overcoming Obstacles to Inspire and Lead*. He was born and raised in the District of Columbia where he currently resides.



JOSHUA SCHIFFMAN, MD, Professor of Pediatric Hematology/Oncology and Adjunct Professor of Oncological Sciences, Huntsman Cancer Center, University of Utah

Dr. Joshua Schiffman is a Professor of Pediatrics and Oncological Sciences at the University of Utah. He is an Investigator at Huntsman Cancer Institute, Medical Director for the Family Cancer Assessment Clinic, and Education Director for the Program in Personalized Health at the University of Utah. He graduated from the Brown University School of Medicine, followed by clinical training in Pediatrics and Pediatric Hematology-Oncology at Stanford University. Dr. Schiffman's clinical expertise is in hereditary cancer predisposition. His scientific laboratory explores genomics of cancer, including genetic mechanisms that naturally increased cancer risk in animals (like dogs) and also natural protect from cancer in animals (like elephants). Based on his research, Dr. Schiffman has co-founded several startup companies to impact cancer diagnosis, treatment, and prevention.



JAY STORM, MD, Chief of the Division of Neurosurgery, Children's Hospital of Philadelphia

Phillip B. "Jay" Storm, MD is the Leslie N. Sutton Endowed Chair of the Division of Neurosurgery at the Children's Hospital of Philadelphia (CHOP) and the Director of the Center for Data Driven Discovery in Biomedicine (D3b). Dr. Storm is a Summa Cum Laude graduate of Wake Forest University and a member of Phi Beta Kappa. He then earned his medical degree from the Johns Hopkins University School of Medicine and is a member of Alpha Omega Alpha (AOA). Dr. Storm completed his residency in neurological surgery and his fellowship in neuro-oncology research at the Johns Hopkins Hospital. He did a fellowship in pediatric neurosurgery at CHOP in 2003 and joined the faculty at CHOP and the University of Pennsylvania in 2004. Dr. Storm is internationally recognized for his research and surgical treatment of brain and spine tumors and is a leader in endoscopic skull base surgery and complex reconstructive spine surgery. He co-directs the Resnick/Storm Translational Research Laboratory, now part of their new center, D3b. He leads an international tumor biobanking effort called the Children's Brain Tumor Tissue Consortium (CBTTC) where the 17-member institutions from around the world send brain tumors to CHOP. In 2016 Drs. Storm and Resnick launched CAVATICA, as part of the White House precision medicine initiative. CAVATICA is a cloud-based biomedical data analysis platform that allows researchers to collaboratively access, analyze and share data about diseases impacting children. Dr. Storm has an interest in the comparative biology between pediatric and canine tumors and is working to bring canine genomic data into CAVATICA and the CHOP led NIH sponsored Kid's First Data Resource Center (DRC). The Kid's First DRC contains pediatric cancer and congenital birth defects data with the hope of empowering scientists to rapidly make discovery and identify novel therapeutic targets.



MARY TANKERSLEY, Childhood Cancer Survivor

This summer, Mary Tankersley reached the awesome milestone of 5 years cancer free! At age 11 she was diagnosed with Osteosarcoma, enduring 9 months of chemo and a radical amputation called rotationplasty. During the past 5 years, Mary has had many opportunities to share her story with crowds all over the country as well as sing in well-known venues like Madison Square Garden and Mercedes Benz Stadium, raising awareness that childhood cancer research needs more funding. Mary is a high school senior and is looking forward to studying social justice and journalism in college next year. She lives in Atlanta, GA with her mom, dad, younger brother and her dog.



BRUCE V. THOMSEN, DVM, PhD, Diplomate ACVP, Senior Staff Veterinarian, Center for Veterinary Biologics, United States Department of Agriculture

Dr. Thomsen is a Senior Staff Veterinarian within the Policy, Evaluation and Licensing Unit of the CVB and his role is to review new and existing veterinary biologics. He has a special focus on cancer immunotherapeutics. Prior to moving to CVB in 2016, he was a pathologist at the National Veterinary Services Laboratories. He received his PhD from Iowa State University in 2001 following 7 years of clinical practice and obtained his DVM from the University of Missouri in 1990.



JEFFREY M. TRENT, PhD, FACMG, President and Research Director, TGen

Dr. Jeffrey M. Trent is President and Research Director of the Translational Genomics Research Institute (TGen) in Phoenix, Arizona, an affiliate of the City of Hope Medical System and Comprehensive Cancer Center. Prior to forming TGen in 2002, Dr. Trent served for 10 years as the Scientific Director of the National Human Genome Research Institute (NHGRI) at the National Institutes of Health in Bethesda, Maryland. Under his guidance, NHGRI's Division of Intramural Research became an internationally recognized research center in human genetics. His previous faculty positions included: The University of Arizona, where he was Deputy Director and Director for Basic Science of the Arizona Comprehensive Cancer Center; the University of Michigan, where he held the E. Maisel Endowed Professorship in Cancer Genetics, Professor of Human Genetics

and Radiation Oncology, Head of the Cancer Biology Division of the Department of Radiation Oncology, and Deputy Director and Director of Basic Research for the Michigan Comprehensive Cancer Center. He also is a Diplomate of the American College of Medical Genetics. Dr. Trent's research has provided important insights into the genetic basis of cancer. He is the author of more than 300 manuscripts in the scientific literature. His research specializes in developing and integrating novel "omic" technologies, supporting studies of molecular changes related to cancer risk and progression. He has worked the majority of his career on melanoma, most recently serving as the Co-Principal Investigator of the Stand Up to Cancer Melanoma Dream Team. The focus on that project was using molecularly-guided therapy for patients with BRAF wild-type (BRAFWT) metastatic melanoma. In addition to continuing work on germline genetic alterations associated with melanoma risk, his laboratory has been among the most active in identifying and understanding the somatic changes associated with canine melanoma, and he leads TGen's canine hereditary cancer program. The canine is a critically important model of human disease, and in the case of melanoma the clear clinical association to the human is for the largely understudied mucosal melanomas. Finally, recent funded work in his laboratory is focused upon relating the recent advances in both molecular biology and cancer genetics of ovarian cancer. Specifically, he was one of the leaders of an international consortium which recently identified that Small Cell Carcinoma of the Ovary, hypercalcemic type, (SCCOHT) displays frequent inactivating germline and somatic mutations in SMARCA4 {<http://www.nature.com/ng/journal/v46/n5/full/ng.2928.html>}. SCCOHT is an extremely rare, aggressive cancer affecting children and young women (average age of diagnosis 23yo).



DAVID M. VAIL, DVM, Diplomate ACVIM (Oncology), Professor and Barbara A. Suran Chair in Comparative Oncology, School of Veterinary Medicine and the Carbone Comprehensive Cancer Center, University of Wisconsin-Madison

Dr. Vail received his DVM from the University of Saskatchewan in 1984 and subsequently completed an internship in small animal medicine and surgery at Colorado State University prior to practicing in his native western Canada for two years. He followed up with a residency in Medical Oncology at the Animal Cancer Center at Colorado State University, completed in 1990. He is currently Professor and Barbara A. Suran Chair in Comparative Oncology at the University of Wisconsin-Madison and a member of the UW Carbone Comprehensive Cancer Center. Dr. Vail has published over 150 peer-reviewed scientific manuscripts and 50 book chapters in the field of veterinary and comparative oncology. David is co-editor of the textbook Small Animal Clinical Oncology and currently serves as Past-president of the Veterinary Cancer Society. He is the past Chairman of the Scientific Advisory Boards for both the Morris Animal Foundation and the American College of Veterinary Internal Medicine Foundation, past President of the Canine Comparative Oncology and Genomics Consortium (CCOGC), a founding member of the Comparative Oncology Trials Consortium (COTC) and past North American journal editor for Veterinary and Comparative Oncology. He has been honored as the recipient of both the Mark L. Morris Sr. Distinguished Research Award and the Pfizer Award for Veterinary Research Excellence.

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