

2013 KCALSI Animal Health Research Symposium



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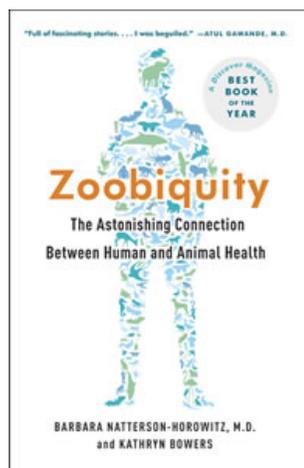
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On Monday, August 26, 2013, the Kansas City Area Life Sciences Institute (KCALSI), the KC Animal Health Corridor, and the veterinary schools of Kansas State University and the University of Missouri presented the 7th annual Animal Health Research Symposium.



Presented in conjunction with the Central Veterinary Conference, this year's theme, "Zoobiquitous Research," explored collaborative research between veterinary and human medical professionals. KCALSI's president and CEO, **Wayne O. Carter, DVM, PhD, DACVIM**, said, "The presentations are about advantages of advancing research, on both the animal side and human side, by recognizing the connection between human and animal health, and how companies and entrepreneurs have leveraged research in one to help the other."

This year's theme was sparked by the publication of *Zoobiquity: The Astonishing Connection Between Human and Animal Health*, an international bestseller coauthored by UCLA cardiologist **Barbara Natterson-Horowitz, MD** and science journalist, **Kathryn Bowers**. The authors coined the term "zoobiquity," which merges "zoo" and "ubiquity." Bowers, the keynote speaker, stated, "This symposium is the perfect place to have a major conversation about animal health,

human health, and the many key areas where these two fields could and should be intersecting."

Bowers' presentation was entitled "Zoobiquity: What Jaguar Breast Cancer, Dolphin Diabetes, & Flamingo Heart Attacks Mean for Human Health." She pointed out instances where evolutionary biology, which describes the development of humans and other animals (zoo), provided evidence of the omnipresence (ubiquity) of oneness and how veterinary information should be investigated and could be used to improve human medicine and vice versa. Bowers emphasized that the zoobiquitous approach encourages research in natural animal models with spontaneous occurring diseases and includes many other fields such as evolutionary and wildlife biology, comparative zoology, animal behavior, psychiatry, and anthropology to look beyond zoonoses and public health to achieve maximum benefit for one health.



Scott Weir, PharmD, PhD (Director, Institute For Advancing Medical Innovation; Associated Director for Translational Research, KU Cancer Center; and Professor, Department of Pharmacology, Toxicology, and Therapeutics; University of Kansas Medical Center) followed with a description of the KU Cancer Center/Colorado State University collaborative effort to evaluate comparative oncology approaches for proof of principle efforts, select better agents to treat cancer, and respond to the National Cancer Institute's challenge to develop animal models that can accurately predict how human cancer will respond to treatment with an investigative drug.

Tonatiuh Melgarejo, DVM, PhD (Associate Professor, Department of Human Nutrition, Kansas State University) shared his presentation

titled "Evolutionary Approach to the Discovery of Novel Immunotherapeutics." He described the zoobiquitous research approach he uses comparing humans and other animal species to develop new, biologically inspired technologies and therapeutics. As an example, Melgarejo's inquisitive nature led him to research hyenas and find extraordinary peptides, essential to their robust immune system, which protect hyenas from anthrax, rabies, and other infectious diseases.



Lisa Stehno-Bittel, PhD (Chair, Department of Physical



Therapy and Rehabilitation Science, KU Medical Center; Founder and President, Likarda, LLC) presented, "Canine and Feline Diabetes: A Cure for All." Her presentation reviewed the history of preclinical research for human islet transplants as a method of reversing insulin-dependent diabetes, much of which was completed in dogs. She discussed ongoing research into using this technique as an option for curing canine and feline diabetes.

Other speakers followed. **Kristi Moore Dorsey, PhD** (Vice President of Research and Development, Biomune Campus,

Ceva) presented a zoobiquitous approach for vaccine development entitled "Production Vaccines that go Beyond Animal Health." **Robert Zolynas, DVM, MBA** (Vice President of Research and Development, Animal Health Division of Bayer HealthCare, LLC) presented "Developing Human Pharmaceutical Products for use in Animal Health Applications – Lessons Learned from Bisoprolol." **Ernst Heinen, DVM, PhD** (Head of Drug Evaluation and Development, Aratana) presented "Human Research to Pet Therapeutics." Heinen pointed out there are still many unmet needs in veterinary medicine and described the drug development process at Aratana, which leverages human treatments to develop animal therapeutics.

Rebecca A. Johnson, PhD, RN, FAAN, FNAP (President, International Association of Human Animal Interaction Organizations; Professor and Director, Research Center for Human-Animal Interaction, University of Missouri College of Veterinary Medicine; Millsap Professor of Gerontological Nursing, Sinclair School of Nursing, University of Missouri) ended the day by exploring the human-animal relationship, and ways in which people and companion animals can facilitate health in each other through their interactions.



Kristi Moore Dorsey, PhD

This year's Animal Health Symposium drew a varied audience of 150 health professionals from across the country and around the world that gathered to explore how zoonotic research can be used to find ways to improve the health of all animals, including humans.

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