



Association of University Technology Managers®
Advancing Discoveries for a Better World®

AUTM 2015 Partnering Forum

AUTM Partnering Forum on Animal Health and Nutrition Technologies

Hosted by Kansas State University and Auburn University

September 1 – 2, 2015

Kansas City Marriott Downtown • Kansas City, MO



www.autm.net/AnimalHealthForum

Welcome to Kansas City!

**AUTM thanks the hosts of this partnering meeting,
Auburn University and Kansas State University**



The AUTM Partnering Forum is a unique opportunity for technology transfer and licensing specialists from universities and research institutions to connect with their counterparts in business development and intellectual property from the animal health, nutrition and diagnostics industries.

AUTM Connect™

The AUTM Partnering Forum features AUTM Connect™, the online partnering and networking tool with its mobile application for iPhone and Android. The program enables attendees to create detailed organizational and personal profiles, search for other attendees, send and receive messages, easily search for licensing and collaboration opportunities and effortlessly schedule one-on-one meetings. Networking has never been easier!



AUTM 2015 Partnering Forum Committee

Committee Members:

Terry L. Bray, Ph.D., *Consultant*
Lauren MacLanahan, J.D., *Georgia Tech Research Corp*
Denichiro Otsuga, Ph.D., RTTP, *En Connect*
Stephen Snider, *University of Toledo*
Gayatri Varma, Ph.D., *University of Maryland*
Kevin L. Wozniak, M.B.A., RTTP, *Georgia Tech Research Corp*

Animal Health and Nutrition Partnering Forum Planning Committee

Wendy Elliott, M.B.A., *Zoetis*
Bret Ford, M.B.A., *Kansas State University*
Steve Foster, M.B.A., *Colorado State University*
Kenneth Mohn, VMD, Ph.D., *Boehringer-Ingelheim Vetmedica*
Michael Solomon, MPH, *Abaxis*
Greg Sumner, DVM, CLP, *Merck Animal Health*
Jamie Thomas, *Mars Pet Care*
Dario Valenzuela, Ph.D., M.B.A., CLP, *Iowa State University*
Brian Wright, Ph.D., RTTP, CLP, *Auburn University*

Registered Technology Transfer Professional (RTTP)

Demonstrate your expertise in the academic technology transfer profession by becoming a Registered Technology Transfer Professional (RTTP). All AUTM professional development courses and designated educational offerings and meetings are eligible for continuing education (CE) credits, which support your registration application. For more information about the registration process and requirements, visit the Alliance of Technology Transfer Professionals website at www.attp.info.

Certified Licensing Professionals (CLP) Continuing Education

Certified Licensing Professionals are required to demonstrate continued competence in their field to maintain their certification status. Individuals who hold the CLP designation can renew their credential by earning at least 40 continuing education (CE) credits. All AUTM professional development courses and designated educational offerings on the topics of licensing, technology transfer and technology commercialization at AUTM conferences or meetings are eligible for CLP continuing education (CE) credits for certification renewal. Visit www.licensingcertification.org for more information on the certification requirements.

About AUTM

The Association of University Technology Managers is a nonprofit organization dedicated to bringing research to life by supporting and enhancing the global academic technology transfer profession through education, professional development, partnering and advocacy. AUTM's more than 3,200 members represent managers of intellectual property from more than 300 universities, research institutions and teaching hospitals around the world as well as numerous businesses and government organizations.

AUTM Thanks Partnering Forum Sponsors



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CSU VENTURES
Innovation at Work



**KANSAS STATE
UNIVERSITY**

Meeting Agenda

Tuesday, Sept. 1

5:30 – 7:30 p.m. **Registration Open**
Location: **Muehlebach Tower**
Colonial Ballroom Foyer – Lobby Level

6 – 7:30 p.m. **Welcome Networking Reception**
Location: **Barney Allis Lobby – Lower Level**

Kick off the meeting with the welcome reception for an evening of networking.

Wednesday, Sept. 2

7 a.m. – 4 p.m. **Registration**
Location: **Muehlebach Tower**
Colonial Ballroom Foyer – Lobby Level

7 – 8 a.m. **Breakfast and Exhibit Setup**
Location: **Truman B**

8 – 8:30 a.m. **Welcome Address**
Location: **Truman B**
Speaker: **Kim Young**
 President
 KC Animal Health Corridor

8:30 – 9:15 a.m. **Panel Session: Industry Overview**
Location: **Truman B**
Speakers: **Hsiaoli Chen, Ph.D., CLP**
Senior Manager, Licensing and Innovation Partnerships
Thermo Fisher Scientific
Douglas R. Cook
Strategic Marketing and Technology Leader
Cargill
Chris Schildknecht, M.B.A.
Product Research Scientist
Mars Pet Care
Greg Sumner, DVM, CLP
Director, Worldwide Business Development
Merck Animal Health

This presentation provides an overview of the animal health, nutrition and diagnostics industries' market dynamics, including a review of the key companies, the breakout of the markets by product category, species and geography and a list of the top selling products in each industry.

9:15 – 10:00 a.m. **Partnering Break**
Location: **Colonial Ballroom**

Meet for informal discussions, stop by the exhibit hall for the Technology Showcase Viewing, or take advantage of AUTM Connect to set up your meetings and make the most of your time in Kansas City.

10 – 10:45 a.m. **Panel Session A: Unmet Innovation Needs**
Location: **Truman A**
Speakers: **Douglas R. Cook**
Strategic Marketing and Technology Leader
Cargill
Wendy Elliott, M.B.A.
Director, Strategic Alliances – Livestock
Zoetis
Chris Schildknecht, M.B.A.
Product Research Scientist
Mars Pet Care
Michael Solomon, MPH
Director of Business Development
Abaxis

Company representatives will outline unmet needs and challenges for animal health, nutrition and diagnostics market sectors. The discussion will include key opportunities including potential research collaborations or partnerships.

10:45 - 11:30 a.m. **Panel Session B: Working with Diagnostic and Nutrition Companies**
Location: **Truman A**
Speakers: **Douglas R. Cook**
Strategic Marketing and Technology Leader
Cargill
Chris Schildknecht, M.B.A.
Product Research Scientist
Mars Pet Care
Michael Solomon, MPH
Director of Business Development
Abaxis

Representatives from animal diagnostic and animal nutrition companies will discuss opportunities for collaborating on new innovations, research projects, service projects and alliances.

11:30 a.m. – 1 p.m. **Partnering Lunch and Round Table Discussion**
Location: **Truman B**

Join us for a relaxed lunch which includes round table discussions related to challenges in commercialization and product development in the animal health, nutrition and diagnostics industries. Both pre-selected and impromptu questions posed at each table will guide discussions.

1 – 2 p.m. **Partnering Break**
Location: **Colonial Ballroom**

Meet for informal discussions, stop by the exhibit hall for the Technology Showcase Viewing, or take advantage of AUTM Connect to set up your meetings and make the most of your time in Kansas City.

Meeting Agenda

Wednesday, Sept. 2 (continued)

2 – 3 p.m. **Panel Session C: University / Industry Interactions in Animal Health**

Location: **Truman A**

Moderator: **Greg Sumner, DVM, CLP**
*Director, Worldwide Business Development
Merck Animal Health*

Speakers: **Tom Campi, DVM, MPVM**
*Director of External Innovation
Elanco Animal Health*

Bret Ford, M.B.A.
*Director of Business Development,
Animal Sector
Kansas State University Institute for
Commercialization*

Steve Foster, M.B.A.
*Director, Licensing & Business Development
CSU Ventures*

Ken Mohn, VMD, Ph.D.
*Senior Associate Director,
Technology Assessment
Boehringer Ingelheim Vetmedica*

Brian Wright, Ph.D., RTTP, CLP
*Associate Director for Commercialization
Auburn University*

This interactive session composed of both industry and academic representatives will detail the challenges, pitfalls, roadblocks, solutions and best practices of working together in the animal health space. Areas to be discussed include technology marketing, licensing, sponsored research and interacting with startup companies. Learn from those with first-hand experience on what challenges may be encountered and how they've been overcome in the past. Questions from the audience will be welcomed.

3 – 4 p.m. **Partnering Break**

Location: **Colonial Ballroom**

Meet for informal discussions, stop by the exhibit hall for the Technology Showcase Viewing, or take advantage of AUTM Connect to set up your meetings and make the most of your time in Kansas City.

4 p.m. **Formal Meeting Adjourns**

5:30 p.m. departure **Detroit Tigers @ Kansas City Royals
(first pitch @ 7:10pm)**

Location: **Kaufmann Stadium
Transportation provided from Kansas City
Marriott Downtown – Lobby**

A limited number of tickets are available for \$10 to conference participants. If interested, please inquire at the registration desk as to whether tickets still remain. Transportation is included.

Sponsored by: CSU Ventures, Iowa State University, Kansas State University and Auburn University

6 p.m. **Dine around**

Location: **Gordon Biersch Brewery Restaurant
100 East 14th (Power & Light District)**

Join other attendees for dinner in the Power & Light District. Interested individuals should sign up at the registration desk upon arrival.

Animal Health, Nutrition and Diagnostic Technologies Available for Licensing

University:

Auburn University

Category	Species	Technology Title
Therapeutics	Aquaculture	Natural Feed Additive for Columnaris Prevention
Therapeutics	Production/Food	Salmonella Bacteriophage Cocktail
Therapeutics	Companion	Slow Release Formulation for Post-Operative Pain
Vaccines/Biologics	All	Low-Dose Vaccine Platform for T-Cell Based Immunity
Vaccines/Biologics	Aquaculture	Improved Columnaris Vaccine that Is Stable at Room Temperature
Vaccines/Biologics	All	Immunocontraceptive Vaccine for Wild Pigs
Vaccines/Biologics	Poultry	Cross-Protective IBV vaccine
Diagnostics	All	Point-of-Care Detection of Proteins and Biomarkers
Diagnostics	All	Point-of-Care Pathogen Detection
Nutrition	All	Probiotic for Heat Stress
Nutrition	Canine	Reduced Bulk Dog Food Bar
Other	Swine	Diabetes Animal Model - Mangalitsa Wooly Pig
Other	Other	Metabolic Phenotyping Laboratory (Collaboration and Services)

University:

CSU Ventures

Category	Species	Technology Title
Therapeutics	Feline	Alternative Delivery of Mirtazapine in Cats
Therapeutics	Poultry	E.Coli Mediated siRNA Silencing of Avian Influenza in Chicken Epithelium
Therapeutics	Canine	Canine Adipose Derived MSC on Bone Graft Substitute for Bone Healing
Diagnostics	Canine	An Immunosignature Based Test for the Diagnosis and Characterization of Canine Lymphoma
Diagnostics	Feline	QPCR Detection of Feline Gamma Herpesviruses, FcaGHV, LruGHV1, PcoGHV1
Other	Other	Two Lift Spring Loaded Ergonomic Cart

University:

Iowa State University

Category	Species	Technology Title
Therapeutics	All	pH-Sensitive Methacrylic Copolymer Gels
Therapeutics	All	Non-Steroidal Anti-Inflammatory Plant Compounds for Nutraceutical or Pharmaceutical Uses
Therapeutics	All	A Drug Delivery Platform for Targeting Intracellular Pathogens
Therapeutics	All	Mesoporous Silica-Based Controlled Release Delivery
Vaccines/Biologics	Swine	Hybridoma Cell Lines for Mycoplasma bovis
Vaccines/Biologics	Ruminants/Bovine	Contemporary Bovine Viral Diarrhea (BVD) Viruses for Improved Vaccines
Vaccines/Biologics	Swine	Porcine Rotavirus Isolates for Improved Vaccines: Group A
Vaccines/Biologics	Swine	Porcine Rotavirus Isolates for Improved Vaccines: Group C
Vaccines/Biologics	Swine	Mycoplasma Hyorhinis Field Isolates for Vaccine Development
Vaccines/Biologics	Swine	Hybridoma Cell Lines for the Production of Monoclonal Antibodies Against Mycoplasma Hyopneumonia
Vaccines/Biologics	All	Single Dose Controlled Release Vaccine Formulations Using Polyamide Microspheres

Animal Health, Nutrition and Diagnostic Technologies Available for Licensing

University: Iowa State University (continued)

Category	Species	Technology Title
Vaccines/Biologics	Aquaculture	<i>Nanovaccines for Mitigating Infections in Cultured Shellfish</i>
Diagnostics	Swine	<i>Differential ELISA for PRRSV to Distinguish Vaccinated from Infected Animals</i>
Diagnostics	Swine	<i>Universal and Differential Serologic Assay for Influenza A Virus</i>
Diagnostics	All	<i>PKC Delta Cleavage Site Peptide Inhibitor for Use in Research and Diagnosis</i>
Diagnostics	Production/Food	<i>Candida spp Diagnosis</i>
Diagnostics	Swine	<i>Mouse Monoclonal Anti Clostridium Perfringens Type D epsilon Toxin Antibody (Clone# 4D6)</i>
Nutrition	Ruminants/Bovine	<i>"Healthy Beef": Fatty Acid Synthase Genetic Markers Associated with a Healthier Fatty Acid Composition</i>
Other	Swine	<i>Immunodeficient Pigs for Biomedical Research</i>
Other	All	<i>Efficient Intracellular Delivery of Molecules to Plant and Mammalian Tissues using Improved Biolistics</i>
Other	Other	<i>Multiplexed Detection and Live Cell Imaging Tool</i>
Other	Other	<i>Honey Bee Feeding Inhibitor</i>
Other	All	<i>Polyanhydride Nanoparticles for Enhanced Delivery of Antiparasites</i>

University: Kansas State University Research Foundation

Category	Species	Technology Title
Therapeutics	Ruminants/Bovine	<i>Early Lactation Administration of Non-Steroidal Anti-Inflammatory Drugs to Increase Whole-Lactation Milk Yield and Decrease Culling in Dairy Cattle</i>
Therapeutics	Ruminants/Bovine	<i>Oral Administration of Meloxicam in Cattle to Increase Growth After Dehorning and to Reduce the Incidence of Bovine Respiratory Disease After Castration</i>
Therapeutics	Production/Food	<i>Novel Methods to Establish Therapeutic Concentrations and Provide Analgesia in Neonates</i>
Vaccines/Biologics	Swine	<i>Novel Approach to Developing a Safer Modified Live Vaccine for Swine Influenza Virus Infection using Chimeric Bat Influenza Virus</i>
Vaccines/Biologics	Swine	<i>Vaccine Development Platform (such as PRRSV and PEDV vaccines) Using E. coli/Heat-Stable Toxoid as the Adjuvant Delivery-System</i>
Vaccines/Biologics	Swine	<i>Porcine Epidemic Diarrhea Virus (PEDV) Isolates and Related Reagents</i>
Vaccines/Biologics	All	<i>Vaccine Oil-In-Water Adjuvant</i>
Diagnostics	Ruminants/Bovine	<i>Co-Detection and Association of Multiple Virulence Genes from the E. Coli Genome Using Digital PCR Technology</i>
Diagnostics	Companion	<i>Lateral Flow Device to Determine Rabies Titers in Canines and Felines with Possible Application to Humans</i>
Diagnostics	Production/Food	<i>Detection of Psychrotrophic Bacteria to Improve Shelf-Life of Dairy Products</i>
Diagnostics	Production/Food	<i>Detection of Early (Subclinical) Mastitis in Dairy Cows</i>
Nutrition	Production/Food	<i>New Animal Feed Technology Mitigating Bacterial (such as Salmonella) and Viral (such as PEDV) Contamination</i>
Nutrition	Companion	<i>Low Calorie, Gummy Treats for Pets</i>
Other	Ruminants/Bovine	<i>Coatings for Animals to Manage Solar Radiation</i>

Animal Health, Nutrition and Diagnostic Technologies Available for Licensing

University:

Louisiana State University

Category	Species	Technology Title
Vaccines/Biologics	Ruminants/Bovine	Triple Mutant Bovine Herpes Virus-1 Vaccine
Vaccines/Biologics	Equine	Vaccine and Treatments for Recurrent Airway Obstruction (RAO) in Horses
Vaccines/Biologics	Aquaculture	Live Attenuated Vaccine Against Fish Pathogen <i>Francisella</i> Species
Diagnostics	Ruminants/Bovine	ELISA Test to Differentiate BHV-1 Vaccinated Calves from Wild-Type Infected Calves

University:

The Ohio State University

Category	Species	Technology Title
Therapeutics	All	Cellular Treatment of Metabolic Disorders
Therapeutics	All	Modified Bacteria to Prevent or Treat Salmonella Infections
Therapeutics	All	Portfolio of Novel Broad-Spectrum Antimicrobial Agents
Therapeutics	All	Novel Class of Glucose Transporter Inhibitors
Therapeutics	All	Novel DNA Methylation Inhibitors
Therapeutics	All	Novel Adenosine Monophosphate-Activated Protein Kinase (AMPK) Activators
Therapeutics	All	Novel Indole-3-Carbinol-Derived Antitumor Agents
Therapeutics	All	Thiazolidinediones as a Novel Energy Restriction-Mimetic Agents
Therapeutics	All	Novel Small-Molecule Anti-Adhesion Agents
Therapeutics	All	Novel Small-Molecule Protein Phosphatase 2A-Activating Agents
Therapeutics	All	Small Molecule AR-ablative Agents
Therapeutics	All	Small-Molecule Cyclin D1 Ablative Agents
Therapeutics	All	Small-Molecule Bcl-xL/Bcl-2 Binding Inhibitors
Vaccines/Biologics	Swine	Nanoparticle Entrapped Influenza Virus Vaccine Delivery System
Vaccines/Biologics	All	Methods to Improve Induction of IgA Antibodies during Vaccination
Diagnostics	Canine	Novel Detection of Tick-Borne Pathogens
Diagnostics	Canine	Canine Addison's Disease Probability Calculator
Diagnostics	All	Fructose-Asparagine Based Diagnostic Platform to Isolate and Identify Salmonella
Other	Production/Food	Booklet for Communicating Medication Approach and Usage
Other	Production/Food	EpiSim-Epidemic Simulation for Teaching Outbreak Investigation
Other	All	Total Animal-Mobile Learning Lab Kits for Animal Education

Animal Health, Nutrition and Diagnostic Technologies Available for Licensing

University: Oklahoma State University

Category	Species	Technology Title
Therapeutics	All	<i>Rattusin and Methods of Its Use (OSU Ref# 2007-05)</i>
Vaccines/biologics	Ruminants/Bovine	<i>Bdellovibrio: A Novel Non-antimicrobial Yreatment for Pinkeye in Cattle (OSU Ref # 2011-018)</i>
Vaccines/biologics	Ruminants/Bovine	<i>Bovine Viral Diarrhea Virus (BVDV) Sybtupe 2b Grown in Bovine Monolayer Cell Cultures as a Cytopathic Strain for Vaccine Production (OSU Ref# 2005-012)</i>
Vaccines/biologics	Ruminants/Bovine	<i>Bovine Viral Diarrhea Virus (BVDV) Subtypes 1a, 1b and 2a Grown in Bovine Monolayer Cell Cultures as Cytopathic Strains for Vaccine Production (OSU Ref# 2005-013)</i>
Vaccines/biologics	Ruminants/Bovine	<i>Bovine Coronavirus Vaccine Strains: Diversity of Field Strains for Vaccine and Diagnostic Test Development (OSU Ref#2011-031)</i>
Nutrition	Production/Food	<i>Suicide Vectors for Stable Tagging Of Foodborne Human Pathogens with Fluorescent Proteins (OSU Ref# 2012-030)</i>
Nutrition	Production/Food	<i>Shelf Stable Probiotics for Animal Nutrition Enhancement (OSU Ref# 2014-031)</i>
Nutrition	Production/Food	<i>Immune Boosting Dietary Compounds for Disease Control and Prevention (OSU Ref#2015-029)</i>

University: University of Minnesota

Category	Species	Technology Title
Therapeutics	Canine	<i>Enhancing Survival for Incurable Hemangiosarcoma</i>
Vaccines/Biologics	Canine	<i>Enhancing Survival for Incurable Hemangiosarcoma</i>
Diagnostics	Canine	<i>Less Invasive Lymphoma Diagnostic</i>
Diagnostics	All	<i>PredictiveTtest for Osteosarcoma Development and Metastatic Potential</i>

University: University of Missouri

Category	Species	Technology Title
Diagnostics	Canine	<i>Human and Canine Osteoarthritis Biomarker Panels</i>
Diagnostics	Equine	<i>Lameness Detection System and Method Based On Wireless Force Measuring Shoes, Boots, Pads or Insoles for Animals</i>
Diagnostics	All	<i>Air Pulse Device for Laryngeal Reflex Examination</i>
Diagnostics	Canine	<i>K9 Observation Kennel</i>
Nutrition	Production/Food	<i>Multiplex Assay for Detection of 8 Shiga Toxin-Producing Escherichia Coli</i>
Other	Swine	<i>Artificial Activation of Nuclear Transfer Embryos</i>
Other	Swine	<i>Sperm Stimulating Additive for Artificial Insemination</i>
Other	Canine	<i>Device and Method for Tibial Plateau Allografting with or Without Attached Meniscus</i>
Other	Canine	<i>Device and Method for the Creation and Implantation of Non-Circular Cross Section Osteochondral Allografts</i>

Animal Health, Nutrition and Diagnostic Technologies Available for Licensing

University:
University of Saskatchewan

Category	Species	Technology Title
Therapeutics	Ruminants/Bovine	<i>New Method of Estrous Synchronization</i>
Therapeutics	Ruminants/Bovine	<i>G31P - An Effective Treatment for Bovine Bacterial Pneumonia</i>
Therapeutics	Equine	<i>New Vaccine Against laminitis</i>
Therapeutics	Swine	<i>Novel Brachyspira spp. Associated with Hemorrhagic Colitis in Pigs</i>
Therapeutics	Poultry	<i>Immunostimulants for Poultry</i>
Therapeutics	Poultry	<i>Vaccine Against Inclusion Body Hepatitis</i>
Diagnostics	Equine	<i>DNA Test for the LP Spotting Pattern/Congenital Stationary Night Blindness in the Horse</i>





Association of University Technology Managers®
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AUTM 2015

Business Development Course

Medical Devices

Save the Date

November 17 – 18, 2015

Hyatt Regency Dallas
Dallas, TX USA

Join researchers who are accelerating innovation and commercialization of medical device technology.

Learn to navigate healthcare's regulatory environment, economic value and reimbursement, and clinical hurdles on the way to finding a winning medical device technology.



Annual Meetings

2016

February 14 – 17
Manchester Grand Hyatt San Diego
San Diego, CA USA

2017

March 12 – 15
The Westin Diplomat Resort & Spa
Hollywood, FL USA

2018

February 18 – 21
JW Marriott Desert Ridge Resort & Spa
Phoenix, AZ USA

2019

February 10 – 13
JW Marriott Austin
Austin, TX USA

2020

March 8 – 11
Manchester Grand Hyatt San Diego
San Diego, CA USA

2015 Professional Development

**AUTM 2015 Technology Operations and Organization
Licensing Skills (TOOLS) Course & Essentials of Academic
Technology Transfer**

October 5 – 7
The Westin Seattle
Seattle, WA USA

2015 Region Meetings

Western Region Meeting

September 10 – 11
Hyatt Regency Calgary
Calgary, Alberta CANADA



Save the Date



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