

# CVMBBS Research Day 2012

<u>Schedule Of Events</u>		<u>Room</u>
11:30-12:00	Poster set up	Salon III, IV
12:00	Opening remarks – Dr. Dawn Duval	Salon I
12:05	Pfizer Research Award Winner – Dr. Shane Hentges “Transmitter Release in Neural Circuits Controlling Energy Balance and Reward”	Salon I
12:45	Break	
1:00-5:00	Oral Presentation I: Clinical Sciences	Salon I
1:00-5:00	Oral Presentation II: Basic Sciences	Salon V
1:00-5:00	Oral Presentation III : Basic Sciences	Salon II
1:00-3:00	Poster Session I Judging: Basic Sciences	Salon III, IV
3:15-5:00	Poster Session II Judging: Clinical Sciences	Salon III, IV
5:00-6:00	Social Hour, Remove Posters	Salon III, IV
5:30	Awards	Salon III, IV

**Oral Presentation:** - Please limit to a 12 minute talk with 1-3 minutes for questions and changeover. Oral presentations will be in Salons I, II, and V.

**Poster Presentation:** - Please hang your posters on Jan. 28 from 11:30-12:00 in Salons III and IV. Individuals presenting the poster must be in attendance to discuss their materials with judges as listed above.

# PFIZER RESEARCH AWARD WINNER

CVMBS Research Day  
Saturday, January 28, 2012

## **Dr. Shane Hentges, Ph.D.**

“Transmitter Release in Neural Circuits Controlling Energy Balance and Reward”

Dr. Shane Hentges received her bachelor's degree in genetics and cell biology from Washington State University as well as her Ph.D. in neuroscience. She then completed postdoctoral training at the Vollum Institute at Oregon Health and Sciences University in Portland. Dr. Hentges is currently an Assistant Professor of Biomedical Sciences at Colorado State University. Her research is focused on understanding the central control of food intake and reward with the long-term goal of identifying targets for the prevention and treatment of eating disorders and other disorders of reward circuits such as drug abuse. Current studies are particularly focused on the release and signaling of neurotransmitters in relevant brain circuits. Experimental techniques used to address these issues include electrophysiology, circuit mapping, *in situ* hybridization, optogenetics, and transgenic animal models. Using these approaches, it is possible to determine how cells in complex circuits interact with one another and how these interactions become disordered. Understanding the connections in the complex brain circuits that control energy balance and encode the reinforcing nature of food and drugs is a key step towards identifying therapeutic interventions for eating disorders and other disorders involving the brain's reward circuits.

Salon I  
The Hilton Hotel  
Fort Collins, CO

## Oral Presentations

### SESSION 1: CLINICAL SCIENCE 1:00-4:45PM Salon I

1:00	Allaband	Combined Vaccination and Antimicrobial Therapy for Treatment of Chronic Staphylococcal Infection	MIP
1:15	Brandes	Anti-inflammatory drugs will decrease the rate of endothelial cell infection with Equine Herpesvirus-1 in vitro	CS
1:30	Brundage	CT iodine contrast does not have a diagnostic effect on tumor glucose uptake for FDG PET-CT	EHRS
1:45	Carlsten	Pharmacokinetics of Vinblastine in Dogs with Mast Cell Tumors	CS
2:00	Chamberlin	Ultrasound-guided vascular access in dogs	CS
2:15	Griffin	Stereotactic Radiation Therapy for Intracalvarial Tumors in Dogs	EHRS
2:30	Holbrook	Acute Behavior of a Biologically Active Bone Graft Substitute for Spinal Fusion	EHRS
2:45	BREAK		
3:15	Kane	Expression of Cyclooxygenase-2 and Matrix Metalloproteinase-2 and -9 in Canine Atherosclerosis	CS
3:30	Moorman	Use of Inertial Measurement Units for Evaluation of Equine Motion	CS
3:45	Neary	The cross-sectional area of the longissimus dorsi muscle in pre-weaned beef calves is positively associated with the oxygen diffusion capacity of the lungs.	CS
4:00	Nolan	Intensity-modulated and image-guided radiation therapy for treatment of canine genitourinary carcinomas	EHRS
4:15	Sharpley	Color and Power Doppler Ultrasonography For Characterization Of Splenic Masses In Dogs	EHRS
4:30	Wilson	Arthroscopic Biceps Ulnar Release Procedure (BURP): Assessment of Regional Damage and Completeness of Release	CS

## Oral Presentations

### SESSION 2: BASIC SCIENCE

1:00-4:45PM

#### Salon V

1:00	Birkenheuer	The retroviral cyclin of walleye dermal sarcoma virus	MIP
1:15	Cadmus	Density, distribution and zoonotic disease risk factors associated with backyard poultry ownership in metropolitan Denver, Colorado	MIP
1:30	Cavarra	Socialization and training improves temperament and adoptability of laboratory Beagles	LAR
1:45	de Mooy	Mechanism and subpopulation specificity of mitochondrial Reactive Oxygen Species release in the post-ischemic hyperthyroid myocardium	BMS
2:00	DeFord	Early detection of chronic wasting disease in TG12 mice by neurological and behavioral assessment	NWRC
2:15	Dickson	CELF1-mediated mRNA decay regulates protein secretion and myogenesis and may be impaired in myotonic dystrophy	MIP
2:30	Enriquez	Molecular network involving LIN28 in ovarian cancer and secreted vesicles	BMS
2:45	BREAK		
3:15	Fox	Experimental Transmission of Bighorn Sheep Paranasal Sinus Tumors	MIP
3:30	Gates	Proline Rich 15 Regulates Trophoblast Proliferation and Differentiation	BMS
3:45	Haley	Sensitivity of protein misfolding cyclic amplification vs. immunohistochemistry in antemortem detection of chronic wasting disease.	MIP
4:00	Kumar	Nonspecific Induction of Gut Mucosal Immunity and Colonization Resistance against Salmonella by Rice Bran in Mice	CS
4:15	Le	Cardiac Mitochondrial Phenotype of the Tafazzin shRNA Mouse Model of Human Barth Syndrome	CMB

## Oral Presentations

### SESSION 3: BASIC SCIENCE

1:00-4:45PM

#### Salon II

1:00	Meyerett Reid	Host Factors Influence Prion Strain Adaptation	MIP
1:15	Neff	Global analysis reveals pathways of unique regulation of mRNA decay in human induced pluripotent stem cells	MIP
1:30	Penman	Equine Mesenchymal Stem Cells in vitro Differentiation Capacity: Differences Between Sternum and Ilium	CS
1:45	Podell	Alterations in the immunopathogenesis of tuberculosis associated with dietary-induced formation of advanced glycation end products	MIP
2:00	Reagan	Characterization of Semliki Forest fluorescent reporter viruses.	CS
2:15	Romero	Differential gene expression in corpora lutea from non pregnant and pregnant sheep	BMS
2:30	Sutherland	Post-Exposure Immunization Against Francisella tularensis Membrane Proteins Augments Protective Efficacy of Gentamicin in a Mouse Model of Pneumonic Tularemia	MIP
2:45	BREAK		
3:15	Troy	Liposomes Combined with TLR9 Agonist Produce Effective Mucosal Vaccine against Mycobacterium tuberculosis.	MIP
3:30	Venable	Hyaluronan cisplatin conjugate in five dogs with soft tissue sarcomas	CS
3:45	Wyckoff	Estimating Prion Binding Capacity of Soil	MIP
4:00	Lee	The PARN deadenylase regulates decay of a discrete set of transcripts in mouse myoblasts	MIP

#### Departmental Abbreviations

BMS: Biomedical Sciences  
 CMB: Cell and Molecular Biology Program  
 CS: Clinical Sciences  
 ERHS: Environmental and Radiological Health Sciences  
 MIP: Microbiology, Immunology, and Pathology

# Poster Presentations

**Session 1-Odd Numbered Posters 1:00-2:45PM**

**Session 2-Even Numbered Posters 3:15-4:45PM**

#1	Antoniuzzi	Endocrine Delivery of Interferon-tau into the Uterine or Jugular Veins at Different Concentrations Protects the Corpus Luteum from Prostaglandin F2 Alpha Induced Luteolysis
#2	Barnard	Role of Autophagy in Tumor Development and Metastasis.
#3	Beemer	Evaluation of Point of Care Glucose Meters in Alpacas
#4	Bender	Behavioral and Cognitive Differences of Mice Inoculated with Mouse Adapted Prion Strains
#5	Borresen	Increasing Consumption of Rice Bran and Navy Beans for Colon Cancer Control and Prevention: A Randomized-Control Pilot Investigation
#6	Bosco-Lauth	Mycobacterium bovis model of infection in goats
#7	Bradley	Intranasal Administration of a Modified Live Feline Herpesvirus 1 and Feline Calicivirus Vaccine Induces Cross Protection Against Bordetella bronchiseptica
#8	Brundage	Optimizing immunostaining of fibrillin-1 in canine tissue: Implications for quantifying changes in canine mitral valve disease
#9	Brundage	Normal canine brain glucose uptake and distribution using FDG-PET-CT
#10	Burgess	Rapid Salmonella detection in experimentally-inoculated equine feces and environmental samples using two commercially available lateral flow antigen detection systems
#11	Cerra	Evaluating Hypertension in the General Canine Population
#12	Chen	Pilot study evaluating the risk factors associated with zoonotic disease transmission in a goat contact area
#13	Christakos	Effects of platelet-rich plasma on chondrogenesis of bone marrow derived mesenchymal stem cells in dilute fibrin gels
#14	Clarke	Prevalence of select vector borne agents in owned dogs of Ghana
#15	Collins	Understanding Trends in Dog Ownership, Health, and Veterinary Care to Save Dog Lives
#16	Conway	Evaluation of the soft tissue attachments of the equine stifle using radiographic analysis
#17	da Silveira	MiRNA regulation of aromatase (CYP19) in equine granulosa cells
#18	Deogracias	Cancer stem cells in canine malignant melanoma and osteosarcoma have stable phenotypes and enhanced survival in the tumor microenvironment
#19	Dicken	Regulation of GABA and Glutamate Release from Proopiomelanocortin Neuron Terminals in Intact Hypothalamic Networks
#20	Dirsmith	Retrospective review of Northern fur seal (Callorhinus ursinus) placentas for Coxiella burnetii on St. Paul Island
#21	Doepker	The effects of intensive forest management on the prevalence of Hantavirus and gastrointestinal parasites in wild deer mice

#22	Dudek	Site-directed metabolic biotinylation of AMPA receptors may perturb protein-protein interactions with TARPs
#23	Emanuelli	Novel vaccination strategy for feline immunodeficiency virus
#24	Fenimore	Evaluation of novel treatments for shelter cats with suspected viral causes of upper respiratory disease
#25	Forster	Metabolomics as a novel tool to assess dietary modulation of the canine metabolome in response to navy bean consumption
#26	Fowles	Developing cross-species predictions of drug sensitivity for canine cancer
#27	Frank	Serological responses against antigenically distinct contemporary equine influenza virus strains (H3N8) induced by commercially available vaccines
#28	Gillette	Genetic polymorphisms in fabl in Burkholderia species and resistance to fabl inhibitors
#29	Goldrick	Ocular toxicity following stereotactic radiotherapy for canine nasal tumors
#30	Habenicht	Urinary Cytokine Concentrations in Normal Cats and Cats with Chronic Kidney Disease
#31	Halleran	Sheep placenta and developmental programming
#32	Halsey	The use of novel lymphatic endothelial cell-specific immunohistochemical markers to differentiate angiosarcomas in dogs
#33	Harms	Design and profiling of a series of AMPA receptor modulators
#34	Haugen	Disruption of advanced glycation end products by the antimicrobial drug, isoniazid
#35	Hodge	Detection of Salmonella spp. in the environment at agricultural fairs in association with poultry and waterfowl exhibitions
#36	Jalal	DNA strand break induced bystander effect (DBIBE) linked to gene mutations and telomere double strand break fusions in naïve cells.
#37	Jarvie	Proopiomelanocortin neurons in the arcuate nucleus have inhibitory and excitatory subpopulations
#38	Kalet	Transcriptome Analysis of Murine Osteosarcoma
#39	Khamsi	Studying the role of ADHFe1v3 and CCDC3 in canine osteosarcoma cell resistance to chemotherapy drugs
#40	Kihara	Effects of Synthetic Feline Facial Pheromone Use on Reducing Incidence of Upper Respiratory Tract Disease
#41	Kinner	Association of PECAM-1 and idiopathic pulmonary fibrosis
#42	Kitchen	Immunohistochemical detection of CWD prions in the CNS of Muntjac Deer
#43	Lagana	Characterization of FIV sequences in Bobcats (Lynx rufus)
#44	Lenberg	The effects of maropitant (Cerenia) on the clinical recovery of dogs with parvoviral gastroenteritis
#45	Lishnevsky	Comparative Analysis of Bleomycin In Pulmonary Disease Susceptible PECAM Deficient Mice
#46	Manzanares	Alternative Methods for Cryopreservation of Stallion Spermatozoa
#47	Marquez	The Analgesic Effect of Maropitant as a Pre-anesthetic Agent During and After Canine Ovariohysterectomy

#48	Martin	Vaccine-associated Leptospira antibody responses in client-owned dogs
#49	McMillan	A Rationale for Evaluating Livestock Contaminated with Radioactive Materials
#50	Meyers	The characterization of glutamate-gated chloride channels from Anopheles gambiae as insecticidal drug and vaccine targets
#51	Miller	Viral characterization of feline immunodeficiency virus in saliva and salivary tissues
#52	Monahan	The taste receptor T1R3 is expressed in at least 2 different cell populations in the mammalian hypothalamus
#53	Moon	A non-coding RNA produced by all arthropod-borne flaviviruses inhibits the cellular exonuclease XRN1 and modulates messenger RNA stability
#54	Morley	Identification of Methicillin-Resistant S. aureus (MRSA) of Animal Origin Using Bacteriophage Amplification and a Lateral-Flow Immunoassay
#55	Moser	Venous Lactate Measurement in Post Operative Colic Horses
#56	Moser	Evaluation of maxillary blockade via the infraorbital foramen approach ? A magnetic resonance imaging (MRI) study in equine cadavers
#57	Mosovsky	Effects of Interactions Between Antimicrobial Peptides and Antibiotics on Bacterial Killing
#58	Myers	Apoptosis in Normal and Coxiella burnetii Infected Placentas from Alaskan Northern Fur Seals (Callorhinus ursinus)
#59	Myrick	Chemically Induced Retinal Degeneration Model in Goldfish
#60	Nelson	Incidence of upper respiratory disease in cats at an emergency shelter.
#61	Niyom	Effect of Maropitant, an Antiemetic Neurokinin-1 Receptor Antagonist for Dogs and Cats, on the Sevoflurane Minimum Alveolar Concentration During Ovarian Stimulation in Cats.
#62	Pabilonia	Detection and isolation of pH1N1 influenza A virus from a privately owned small swine herd in Colorado
#63	Pennock	Presynaptic Gi/o-coupled receptors resist acute desensitization
#64	Phillips	Encephalitic alphavirus infection of outbred mice visualized using in vivo and ex vivo imaging.
#65	Porsche	Body condition score does not predict myocardial triglyceride content in canids
#66	Rauhauser	Computed tomography mapping of distal limb synovial structures studied in twelve horses
#67	Rezende	Plasma concentrations, behavioral and physiological effects following IV administration of dexmedetomidine in horses
#68	Rout	Transferrin receptor expression in serum exosomes as a marker of regenerative anemia in the horse
#69	Ruple-Czerniak	Isolation of Salmonella enterica from the environment in a large animal hospital
#70	Schuler	Potential effects of volcanic emissions (VOG) on respiratory health of free-ranging Mouflon Sheep

#71	Scofield	Equine endometrial concentrations of fluconazole following oral administration
#72	Sessions	Effect of equine metabolic syndrome on the intrafollicular environment and fertility
#73	Shapiro	A Novel Detection Method for Aerosol Reactivity
#74	Silva	Vaccination with attenuated Burkholderia for protection from acute and chronic melioidosis
#75	Soisson	LIN28A regulates human trophoblast syncytialization and preeclampsia diagnostic markers
#76	Spencer	Genes relevant to cardiomyopathy are differentially expressed in response to Western diet feeding alone and with DHA supplementation
#77	Sprenger	Developing an Animal Decontamination Protocol
#78	Stanton	Study of Spontaneous and Environmentally Induced Copy Number Variation and Possible Mechanisms
#79	Sullivan	The effects of omeprazole therapy on bacterial colonization of the pharynx in healthy dogs
#80	Swancutt	Endothelial cell apoptosis, in vitro and in situ, as a component of the tumor control mechanism induced by stereotactic radiation therapy
#81	Tarvis	Improving Rooster Sperm Cryopreservation: Effects of Alternative Cryoprotectants, Diluent and Straw Size on Cryosurvival
#82	Tighe	Anti-microbial activity of Fuzhuan tea, a fermented preparation of Camellia sinensis (L)
#83	Timmons	Osmotic Fragility and Flow Cytometric Determination of Lipid Peroxidation in Feline Erythrocytes
#84	Van de Motter	The evaluation of biochemical markers and an in vitro prion amplification assay for the diagnosis of CWD using cerebrospinal fluid.
#85	Walton	Combined Immuno-antimicrobial Therapy for the Treatment of Chronic Staphylococcal Infection
#86	Wiggans	Development of an indirect enzyme-linked immunosorbent assay for the detection of feline antibodies against Mycoplasma felis
#87	Wolf-Ringwall	Identification and characterization of metastasis-related microRNAs in osteosarcoma
#88	Wood	Development of microsphere immunoassays for the detection of domestic cat antibodies