

**The Food Animal Health and Management Group, a unit of the Department of
Population Health, UGA-CVM – Overview for 2011**

		Teaching	Service	Research	Admin	Clinical duties in Field?	Location
Roy	Berghaus	50%	10%	40%		No	Athens
Roger	Ellis	45%	45%	10%		Yes	Athens
David	Hurley	10%	10%	80%		No	Athens
Lee	Jones	35%	55%	10%		Yes	Tifton
Michael	Overton	40%	40%	10%	10%	Yes	Athens
David	Reeves	45%	45%	10%		Yes	Athens
Amelia	Woolums	50%	25%	25%		VMTH	Athens (adjunct faculty)

2011 calendar year field trips

Clinician		Trips	# Students	Avg # students/ trip	# Animals	Avg # of animals per visit
Roger Ellis	Beef	74	191	2.6	25023	338
Mike Overton	Dairy	72	263	3.7	142150	1974
David Reeves	Swine	95	25	0.3	512680	5397
David Reeves	Alligators	16	2	0.1	23600	1475
Lee Jones - Tifton	Beef	30	68	2.3	10880	363
Lee Jones - Tifton	Dairy	21	49	2.3	9200	438
Total FAHM		308	598	2	723533	2349

FAHM Farm Visit Summary

	Trips	# Students	Avg # students/ trip	# Animals	Avg # of animals per visit
Total Beef	104	259	2.5	35903	345
Total Dairy	93	312	3.4	151350	1627
Swine	95	25	0.3	512680	5397
Alligators	16	2	0.1	23600	1475

Specific Faculty Research and Activities:

Roy Berghaus

Dr. Roy Berghaus has recently completed two longitudinal studies of Salmonella in broiler and broiler breeder flocks as well as a study to evaluate the effectiveness of Salmonella vaccination in poultry. Dr. Berghaus has also recently collaborated with other researchers in the Department of Population Health on a variety of different epidemiologic studies related to respiratory disease in nursing beef calves and avian influenza in waterfowl.

Grants received since January 2011 (Berghaus)

Title	Name of Agency	Amount Rewarded
Woolums AR, Berghaus RD , Ellis RW, Jones AL. A survey of risk factors for nursing beef calf bovine respiratory disease	USDA Formula Funds	\$19,150
Sanchez S, Maurer J, Rajeev S, Berghaus R . Salmonella in pets in GA.	FDA Vet-LRN	\$60,000

Pending proposals as of January 2012

Title	Name of Agency	Amount Requested
Maurer J, Jackwood M, Hofacre C, Sanchez S, Knauff D, Williams S, Jaso-Friedmann L, Berghaus R , Handel A. The interplay between animal health and Salmonella transmission in poultry.	USDA-NIFA-AFRI	\$2,487,084
Moore JN, Giguere S, Hart K, Berghaus R , Kwon S. Bacterial flagellin and anti-flagellin IgG in foals with sepsis and horses with gastrointestinal diseases.	American Quarter Horse Foundation	\$49,066
Woolums AR, Smith DR, Berghaus RD , Daly R. A case-control study to determine herd-level risk factors for nursing calf respiratory disease on cow-calf operations.	American Association of Bovine Practitioners Foundation Competitive Research Proposal Application	\$21,150

David Hurley

Grants received (January 1, 2011 – December 31, 2011):

Title	Name of Agency	Amount Awarded
Prevalence of Bacteremia in Acute Puerperal Metritis (Hurley PI)	USDA Animal Health Formula Funds	~\$60K
Can newborn foals produce interferon-gamma in response to vaccination with a live attenuated vaccine? (Giguere PI)	Morris Animal Foundation	\$81,874
Prevalence of Bacteremia in Dairy Cattle with Acute Puerperal Metritis (Woolums PI)	Boehringer Ingelheim Vetmedica, Inc.	\$10,000

Projects continuing during 2011 and 2012

- 1) Tennent-Brown, BS, **Hurley, DJ**, Moore, JN. Assessment of the Systemic Inflammatory Response in Colitis of Horses. Morris Animal Foundation, \$107,218, 11/01/09 – 10/31/12;
- 2) Nickerson, SC, **Hurley, DJ**. Clinical Trial to Assess the Immunostimulating Effect of OMNIGEN on Vaccinating Dairy Heifers with Staphylococcus aureus bacterin. Prince Agri Products. \$65,000, 09/01/09 – 10/31/12;
- 3) Moore, JN, **Hurley, DJ**, Vandenplas, JL. Differential Responses of Equine Monocytes and Neutrophils to Microbial Ligands. Morris Animal Foundation, \$73,549, 9/01/09 – 12/31/11;
- 4) **Hurley, DJ** (PI), Woolums, AR. Impact of maternal cells, antibody/cytokine or their combination in preventing disease after BVDV type 1b challenge in 4-day old dairy calves. Pfizer Animal Health, \$100,112, 9/1/09-06/30/12;
- 5) **Hurley, DJ**, Overton, MW, Scherzer, J. Establishing the roles of local and systemic inflammation in reproductive failure in dairy cows, USDA Animal Health Formula Project (GOEV 0525), \$45,000, 7/1/09 – 9/30/11;
- 6) Oliver SJ, Cohen A, Moore JN, Brown S, Ward C, Tackett R, Robertson, T, **Hurley DJ**, Li W-I, Griner R, Templin S. Development of 3-D interactive teaching tools to enhance comprehension and retention of biological concepts in basic high school biology. NIH, \$1,250,000, 10/08 – 9/12

David Hurley Pending Projects

Projects Pending at Present

Safety and Efficacy of Rapamycin in Normal Dogs (Schmiedt PI)	ACVS research grants program	\$13108
Efficacy of tilmicosin (Micotil® 300:Elanco) for Treatment and Control of Mastitis in Nulliparous, Parturient Dairy Cattle (Nickerson PI)	ELANCO Animal Health	\$185,000 (in negotiations)
Optimization of feline renal injury model (Schmiedt PI)	ACVS research grants program	\$9987

Prenatal AhR activation and postnatal lupus: role of damaged B cell progeny (Gogal PI)	American Lupus Foundation	\$330,000
Prenatal TCDD-mediated T Cell Pathways Involved in Postnatal Lupus (Gogal PI)	NIH-NIEHS (R21)	\$408,375
INTRAOPERATIVE BACTERIAL CONTAMINATION IN VETERINARY MEDICINE (Andrade PI)	ACVS research grants program	\$13,108

AHFF progress 2011

Lee Jones

- The Prevalence of *Tritrichomonas foetus* in Beef and Dairy Bulls at a Southeastern Abattoir. **Lee Jones**, DVM MS, Bradley D. Heins, DVM, Michael W. Overton, DVM MPVM, Sreekumari Rajeev, DVM PhD (submitted for funding; approx. \$45,000 budget) Justification: We will test bulls sent to slaughter at the FPL Plant in Augusta in order to estimate the prevalence of *T. foetus* infected bulls in GA and surrounding states. At least 2 bulls have tested positive in GA but the overall incidence is unknown.
- Service Activities: Veterinarians: business partners in the cattle business; Series of Beef Production Management workshops for veterinarians to enhance their effectiveness with beef clients. The series will focus on improving reproductive efficiency cow/calf herds through herd health best management practices and improving transition calf (stockers and background calves) health through beef production medicine.

Michael Overton

- **Overton, MW** and BD Heins, “Comparison of the predictive ability of a single β hydroxybutyrate test vs. a single albumin test during the first week postpartum on early lactation performance of lactating dairy cows”, UGA Summer Faculty Research call, January 2012 – requested funding of \$4900 but proposal did not get funded
- Bolton, S., W. Graves, BD Heins, **MW Overton**, “The Effect of a Reduced Dose (250 Mg) of Bovine Somatotropin on First Service Conception Risk in Virgin Dairy Heifers During Summer Heat Stress Conditions”, Submitted to SMI Dairy Check-off Funding, January 2012 – requested \$22,658 – request is pending
- Unrestricted gift of \$40,000 from Bayer Animal Health for **Dr. Overton**’s clinical research program at UGA, received January 2012. This money will be used to support the Master’s thesis for Dr. Bradley Heins, “A study comparing the use of enrofloxacin or tulathromycin for treatment of respiratory disease in preweaned Holstein heifers”, work has now begun and is expected to continue through August 2012
- Anticipated funding of \$9,000 to support a research program examining the use of an injectable trace mineral containing 60 mg/ml of zinc, 10mg/ml of manganese, 5 mg/ml of selenium, and 15 mg/ml of copper at Day 0 and Day 14 of life in pre-weaned Holstein heifers and the subsequent risk of respiratory disease in the preweaning period. This research program will be performed by Justin Brown an Animal Science student and FAVIP recipient and Dr. Bradley Heins and will be overseen by **Dr. Michael Overton**.
- Credille, B, Woolums, A, Hurley, D, Overton, M: funded research to determine whether dairy cows with acute puerperal metritis develop bacteremia; characterize pathogens present in acute puerperal metritis in dairy cattle
- Hurley, DJ, **Overton, MW**, Scherzer, J, Establishing the roles of local and systemic inflammation in reproductive failure in dairy cows, USDA Animal Health Formula Project (GOEV 0525), \$45,000, 7/1/09 – 9/30/11;

David Reeves:

Accomplishments over the past year:

- USDA provisional license for a ½ ml killed Alligator West Nile Vaccine in cooperation with Hennessy Research, KCMO
- Refinement of body surface imaging device for use in livestock

Pending proposals:

- Second iteration (1/4 ml) of a killed Alligator West Nile Vaccine in cooperation with Hennessy Research, KCMO.
- Refinement of body surface imaging device for use in livestock

Amelia Woolums:

- With Dr. Berghaus and collaborators at 5 other universities, I am conducting a survey of cow-calf producers and veterinarians in the Southeast and Great Plains to determine risk factors for respiratory disease in nursing beef calves. We received a USDA Formula Funds grant and also support from Pfizer Animal Health for this project.
- Dr. Hurley, Dr. Berghaus, and Dr. Ellis and I have conducted a study to determine the effects of parasitism on the response of beef calves to vaccines to prevent respiratory disease. We received support from Boehringer Ingelheim Vetmedica and Merck Animal Health for this study.
- Dr. Hurley, Dr. Overton and I are supervising Dr. Brent Credille in his research to determine whether dairy cows with acute puerperal metritis develop bacteremia. Dr. Credille received support from the AABP Foundation, USDA Formula Funds, Boehringer Ingelheim Vetmedica, and Pfizer Animal Health to support this project.
- Dr. Hurley, Dr. Ellis and I completed a study of the effect of maternal cells in colostrum on resistance of calves to BVDV challenge in the first week of life. This project was supported by Pfizer Animal Health.
- With Dr. Tom Krunkosky in the Dept. of Anatomy and Radiology I'm working on research to determine the response of bovine respiratory epithelial cells to infection with BRSV and Mycoplasma bovis. This work was supported by VMES and Formula Funds.

Projects pending (Woolums):

- I am a co-investigator on a USDA Integrated Research proposal (lead institution, Iowa State University) to evaluate the influence of genetics on responsiveness of cattle to vaccines to prevent bovine respiratory disease.
- With Dr. Berghaus and researchers at the University of Nebraska and South Dakota State University, I'm a co-investigator on a proposal to the AABP Foundation to determine the risk factors for nursing calf respiratory disease in cow-calf herds. (This would expand on the project listed above, which was a mail survey, by allowing us to directly contact producers to ask them questions--which should provide additional useful information that couldn't be obtained through the mail survey.)