

Faculty Publications continued from page 4

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Li AJ, Ritter S. (2005) Functional expression of neuropeptide Y receptors in human neuroblastoma cells. Regul Pept. 129(1-3):119-24.

Roberts AJ, Klindt J, Jenkins TG. (2005) Effects of varying energy intake and sire breed on duration of postpartum anestrus, insulin like growth factor-1, and growth hormone in mature crossbred cows. J Anim Sci. 83(7):1705-14.

Funston RN, Lipsey RJ, Geary TW, Roberts AJ. (2005) Effect of administration of human chorionic gonadotropin after artificial insemination on concentrations of progesterone and conception rates in beef heifers. J Anim Sci. 83(6):1403-5.

Kerr T, Roalson EH, Rodgers BD. (2005) Phylogenetic analysis of the myostatin gene sub-family and the differential expression of a novel member in zebrafish. Evol Dev. 7(5):390-400.

Rodgers BD. (2005) Insulin-like growth factor-I downregulates embryonic myosin heavy chain (eMyHC) in myoblast nuclei. Growth Horm IGF Res. [Epub ahead of print].

Schwabl H, Flinks H, Gwinner E. (2005) Testosterone, reproductive stage, and territorial behavior of male and female European stonechats Saxicola torquata. Horm Behav. 47(5):503-12.

Bejjani BA, Theisen AP, Ballif BC, Shaffer LG. (2005) Array-based comparative genomic hybridization in clinical diagnosis. Expert Rev Mol Diagn. 5(3):421-9.

Wakui K, Gregato G, Ballif BC, Glotzbach CD, Bailey KA, Kuo PL, Sue WC, Sheffield LJ, Irons M, Gomez EG, Hecht JT, Potocki L, Shaffer LG. (2005) Construction of a natural panel of 11p11.2 deletions and further delineation of the critical region involved in Potocki-Shaffer syndrome. Eur J Hum Genet. 13(5):528-40.

Yobb TM, Somerville MJ, Willatt L, Firth HV, Harrison K, MacKenzie J, Gallo N, Morrow BE, Shaffer LG, Babcock M, Chernos J, Bernier F, Sprysak K, Christiansen J, Haase S, Elyas B, Lilley M, Bamforth S, McDermid HE. (2005) Microduplication and triplication of 22q11.2: a highly variable syndrome. Am J Hum Genet. 76(5):865-76.

Mao L, Bryantsev AL, Chechenova MB, Shelden EA. (2005) Cloning, characterization, and heat stress-induced redistribution of a protein homologous to human hsp27 in the zebrafish Danio rerio. Exp Cell Res. 2005 306(1):230-41.

Hirano S, Sun X, DeGuzman CA, Ransom RF, McLeish KR, Smoyer WE, Shelden EA, Welsh MJ, Benndorf R. (2005) p38 MAPK/HSP25 signaling mediates cadmium-induced contraction of mesangial cells and renal glomeruli. Am J Physiol Renal Physiol. 288(6):F1133-43.

Meachem SJ, Ruwanpura SM, Ziolkowski J, Ague JM, Skinner MK, Loveland KL. (2005) Developmentally distinct in vivo effects of FSH on proliferation and

apoptosis during testis maturation. J Endocrinol. 186(3):429-46.

Skinner MK. (2005) Regulation of primordial follicle assembly and development. Hum Reprod Update. 5(5):461-71.

Kezele P, Nilsson EE, Skinner MK. (2005) Keratinocyte Growth Factor Acts as a Mesenchymal Factor that Promotes Ovarian Primordial to Primary Follicle Transition. Biol Reprod. [Epub ahead of print].

Anway MD, Cupp AS, Uzumcu M, Skinner MK. (2005) Epigenetic transgenerational actions of endocrine disruptors and male fertility. Science. 2005 Jun 3; 308(5727):1466-9.

Ye X, Hama K, Contos JJ, Anliker B, Inoue A, Skinner MK, Suzuki H, Amano T, Kennedy G, Arai H, Aoki J, Chun J. (2005) LPA3-mediated lysophosphatidic acid signalling in embryo implantation and spacing. Nature. 435(7038):104-8.

Muir T, Sadler-Riggelman I, Skinner MK. (2005) Role of the basic helix-loop-helix transcription factor, scleraxis, in the regulation of Sertoli cell function and differentiation. Mol Endocrinol. 19(8):2164-74.

Stenkamp DL, Calderwood JL, Van Niel EE, Daniels LM, Gonzalez-Fernandez F. (2005) The interphotoreceptor retinoid-binding protein (IRBP) of the chicken (Gallus gallus domesticus). Mol Vis. 11:833-45.

Fukada H, Ozaki Y, Pierce AL, Adachi S, Yamauchi K, Hara A, Swanson P, Dickhoff WW. (2005) Identification of the salmon somatolactin receptor, a new member of the cytokine receptor family. Endocrinology. 146(5):2354-61.

Taylor LP, Grotewold E. (2005) Flavonoids as developmental regulators. Curr Opin Plant Biol. 8(3):317-23. Review.

Tibary A, Anouassi A, Khatir H. (2005) Update on reproductive biotechnologies in small ruminants and camelids. Theriogenology. 64(3):618-38.

Khatir H, Anouassi A, Tibary A. (2005) In vitro and in vivo developmental competence of dromedary (Camelus dromedarius) embryos produced in vitro using two culture systems (mKSOMaa and oviductal cells). Reprod Domest Anim. 40(3):245-9.

Waller E, Achatz B, Baltruschat H, Fodor J, Becker K, Fischer M, Heier T, Huckelhoven R, Neumann C, von Wettstein D, Franken P, Kogel KH. (2005) The endophytic fungus Piriformospora indica reprograms barley to salt-stress tolerance, disease resistance, and higher yield. Proc Natl Acad Sci U S A. 102(38):13386-91.

Nakamura I, Evans JC, Kusakabe M, Nagahama Y, Young G. (2005) Changes in steroidogenic enzyme and steroidogenic acute regulatory protein messenger RNAs in ovarian follicles during ovarian development of rainbow trout (Oncorhynchus mykiss). Gen Comp Endocrinol. [Epub ahead of print]

Veillette PA, White RJ, Specker JL, Young G. (2005) Osmoregulatory physiology of pyloric ceca: regulated and adaptive changes in chinook salmon. J Exp Zoolol A Comp Exp Biol. 303(7):608-13.

llette PA, Young G. (2005) Tissue culture of sockeye salmon intestine: functional response of Na⁺-K⁺-ATPase to cortisol. Am J Physiol Regul Integr Comp

Center For Reproductive Biology Calendar

- 12/16/05 Center for Reproductive Biology Faculty Meeting CUE 518, 2:00–4:00 pm.
- 1/11/06 “Animal Reproduction,” Dr. Amin Ahmadzadeh, UI, CUE 202, 4:10–5:00 pm.
- 1/25/06 “From Sequence to Sickness: Using Genomics and Biotechnology to Understand the Aquatic Animal Pathogen Aeromonas salmonicida,” Dr. Laura Brown, National Research Council, Institute for Marine Biosciences, CUE 202, 4:10–5:00 pm.
- 2/8/06 “Plant Reproduction,” Dr. Tobin Peever, WSU, CUE 202, 4:10–5:00 pm.
- 2/22/06 TBA, Dr. Toni Zeigler, Wisconsin Regional Primate Center, WSU, CUE 202, 4:10–5:00 pm.
- 3/8/06 “Mammary Physiology,” Dr. Shelley McGuire, WSU, CUE 202, 4:10–5:00 pm.
- 3/22/06 “Role of Inhibin and Activin in the Reproductive Axis,” Dr. Teresa Woodruf, Professor, Northwestern University, CUE 202, 4:10–5:00 pm.
- 4/5/06 “Ovarian Biology,” Dr. Jodi Flaws, Associate Professor, University of Maryland CUE 202, 4:10–5:00 pm.
- 4/21/06 2006 Annual Northwest Reproductive Sciences Symposium, Portland, Oregon
- 5/3/06 “Retinoids in Gonadal Development,” Dr. Kwan Hee Kim, WSU, CUE 202, 4:10–5:00 pm.
- 6/7/06 “Insect Reproduction,” Dr. Steven Sheppard, WSU, CUE 202, 4:10–5:00 pm.
- 6/1/06 10th Annual Center for Reproductive Biology Retreat, Dworshak Reservoir, Camp Three Meadows

Center Faculty

Amin Ahmadzadeh, UI
Gustavo Arrizabalaga, UI
John Brown, WSU
John Browne, WSU
Ken Cain, UI
Doug Call, WSU
Allan Caplan, UI
Ricardo Chebel, UI
Joe Cloud, UI
Doug Cole, UI
Laura Corley, WSU
Rebecca Craft, WSU
Joe Dalton, UI
Chris Davies, WSU
Andy Dittman, NMFS
Joanna Ellington, WSU Spokane
Victor Eroschenko, UI
Lee Fortunato, UI
Michael Griswold, WSU
Ron Hardy, UI
Terry Hassold, WSU

Chengtao Her, WSU
Donna Holmes, UI
Zonglie Hong, UI
Howard Hosick, WSU
Patricia Hunt, WSU
Rolf Ingermann, UI
Heiko Jansen, WSU
Zhihua Jiang, WSU
Jill Johnson, UI
Kwan Hee Kim, WSU
Paige Lawrence, WSU
R. Wes Leid, WSU
Suzanne Lindsey, WSU
Jessica Lynch-Alfaro, WSU
Andrew McCubbin, WSU
Mark McGuire, UI
Shelley McGuire, WSU
Derek McLean, WSU
John McNamara, WSU
Rodney Mead, UI
Kathryn Meier, WSU
Mushtaq Memon, WSU
Bruce Miller, UI
James Nagler, UI
John Nilson, WSU
Troy Ott, UI
Tobin Peever, WSU
Ruth Phillips, WSU Vancouver
Joe Poovaiah, WSU
Gary Thorgaard (School of Biological Sciences, WSU) University of Connecticut, \$10,000
Gary Thorgaard (School of Biological Sciences, WSU) University of Idaho, \$62,929
Gary Thorgaard (School of Biological Sciences, WSU) University of Connecticut, \$20,000
Gary Thorgaard (School of Biological Sciences, WSU) Non Fed Resrch, \$1,000
Michael Webster (School of Biological Sciences, WSU) NSF, \$87,542
Raymond Wright (FSHN, WSU) USDA, \$70,000

Andy Roberts, USDA-ARS
Barrie Robison, UI
Dan Rodgers, WSU
R. Garth Sasser, UI
Ed Schmidt, MSU
Chris Scheinder, UI
Paul Schroeder, WSU
Hubert Schwabl, WSU
Philip Senger, WSU
Lisa Shaffer, WSU Spokane
Eric Shelden, WSU
Steven Sheppard, WSU
Milan Shipka, University of Alaska
Lisa Shipley, WSU
Michael Skinner, WSU
Kevin Snekvik, WSU
John Stellflug, USDA
Deborah Stenkamp, UI
Mark Strom, NMFS
Penny Swanson, NMFS
Steven Sylvester, WSU Vancouver
Loverine Taylor, WSU
Mechthild Tegeger, WSU
Gary Thorgaard, WSU
Ahmed Tibary, WSU
Dirk Vanderwall, UI
Paul Verrell, WSU
Diter von Wettstein, WSU
Mike Webster, WSU
Gordon Woods, UI
Ray Reeves, WSU
Bill Young, UI
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CENTER REPORT

Fall/Winter 2005

Director's Message

The Center Report is used to inform the University community and interested individuals of the recent activities and accomplishments of the Center for Reproductive Biology. The Center for Reproductive Biology is an organized research unit between Washington State University and the University of Idaho. The Center is internationally recognized as a center of excellence in the area of reproductive biology research. The primary goals of the Center are to foster the highest quality research, promote research collaborations, enhance multi-investigator grants, and enhance the training and education programs in the area of reproductive biology.

The Center now has 87 faculty and more than 250 trainees and staff. The Center integrates 7 Colleges and 18 Departments between the two Universities and is one of the largest Centers in the area of reproductive biology in the country. Our bi-weekly Workshop and Seminar program continues to include a wide range of outside speakers involved in reproductive biology. Several of the research programs in the Center are making progress as discussed in the Report. Also included are some of the accomplishments of the faculty over the past eight months. For more information, please visit our Web site at www.reproduction.wsu.edu.

Michael K. Skinner, Director
Center for Reproductive Biology



World Class. Face to Face.



Worthy of Note:

Retreat and 10th Anniversary of the Center!

The 10th annual Center for Reproductive Biology Retreat will be held on June 1–2, 2006, at Camp Three Meadows at Dworshak Reservoir. The retreat provides Center members and trainees an opportunity to share their research and collaborate on future endeavors. Both research presentations and a poster session are planned. Please mark your calendars and plan on attending the retreat. More information and registration can be obtained by viewing the meetings section of the Center's Web site, www.reproduction.wsu.edu.

Epigenetics, the Environment, and Male Fertility

Recent advances by the laboratory of Dr. Michael Skinner have demonstrated that environmental compounds known as endocrine disruptors, after exposure of a gestating mother at the time of gonadal sex determination, can induce testis disease and male infertility in the offspring and all subsequent progeny for generations to come. This epigenetic transgenerational action of environmental compounds study was published in *Science* (Anway MD, Cupp AS, Uzumcu M, Skinner MK. (2005) *Science* 308:1466-1469). This is the first study to demonstrate a mechanism of how an environmental compound can cause adult onset disease for multiple generations. The press on this article has included a BBC documentary involving the Horizon science series and has been selected by *Discovery* magazine as one of the top 100 discovery/stories of the 2005 year.

Flavonoids as Developmental Regulators

A recent article published by Dr. Loverine Taylor and her associate, Dr. Erich Grotewold from the Department of Plant Cellular and Molecular Biology and Plant Biotechnology Center at Ohio State University, investigates the role flavonoids play in the biology of plants by affecting developmental processes. Although significant progress has been made in identifying flavonoid pathway genes and regulators, there is little known about the protein targets of flavonoids in plant or animal cells. Recent studies support the role flavonoids play in the developmental processes of plants. The multiple cellular role of flavonoids can reflect their chemical diversity, or indicate the existence of cellular targets shared between many of these seemingly disparate processes. Drs. Taylor and Grotewold are developing a better understanding of the role flavonoids play in these developmental processes.

Taylor LP, Grotewold E. (2005) Flavonoids as developmental regulators. *Curr Opin Plant Biol.* 8(3):317-23. Review.

News

Nurturing a World Class Environment for Research and Scholarship

The Center for Reproductive Biology maintains a total of thirteen Core Laboratories. These Core Laboratories are essential in that they provide advanced technology services to Center members and their associated lab personnel. These Cores also facilitate the research of each laboratory by providing training in procedures and assistance with analysis. The following Core Laboratories have been established: The Administrative Core, which provides administrative oversight to all Center matters both financial and organizational; the Histology Core that provides services to obtain histological sections, training, and related methods to the investigators in the Center; the Assay Core, which analyzes hormone levels in the animals exposed to endocrine disruptors; the Toxicology Core that provides investigators with the ability to analyze toxin levels and metabolites in animals exposed to endocrine disruptors; the Aquaculture Core that ensures proper and consistent handling and rearing of broodstock; the Transgenic Core, which provides, maintains, and identifies transgenic and knockout mice for Center investigators; the Molecular Biology Core that provides DNA sequencing, protein sequencing, oligonucleotide synthesis, peptide synthesis, and some information services to members of the Center; the Animal Reproduction Core that provides expertise and services for handling and housing laboratory and domestic animals used by Center members; the Genomics Core, which provides state of the art genomics micro-array technology equipment; the Proteomics Core that provides access to technology and expertise capable of measuring relative quantitation of proteins from complex mixtures; the Bioinformatics Core that provides investigators with a centralized location for genomics and proteomics data storage and analysis; the Molecular Cytogenetics Core, which provides expertise related to genomics and human disease; and the Flow Cytometry Core, which provides members personal support for cell sorting, operation of equipment, and data analysis.

Each of these Core Laboratories has a Web page with full Core service and contact information for your perusal. Please visit the Core Laboratory section of the Center's Web site at www.reproduction.wsu.edu.

Faculty Spotlight:

Dr. B.W. Poovaiah

Dr. B.W. (Joe) Poovaiah is a Professor for the Department of Horticulture and Landscape Architecture at Washington State University. Dr. Poovaiah received his doctorate in 1969 from Utah State University and continued his research as a Postdoctoral Research Associate at Purdue University for several years. He joined the faculty at WSU in 1975 as an Assistant Professor in the Department of Horticulture and Landscape Architecture and has become a leading researcher in the area of plant reproduction. Dr. Poovaiah's primary research focus is on calcium/calmodulin-mediated signaling and its role in plant growth and plant response to the environment. Dr. Poovaiah joined the faculty of the Center for Reproductive Biology in 1996 and has been dynamically involved since that time.

Dr. Poovaiah is a member of the Center's Plant Reproduction Program. The collaborative projects in this program are an integrated approach to a basic understanding of the mechanisms controlling plant reproduction. The group's objective is to enhance research activities and promote interactions between investigators in order to develop new strategies to positively impact the agricultural industry. Dr. Poovaiah's project is entitled Calcium/Calmodulin-mediated Signaling During Microsporogenesis.

Dr. Poovaiah's latest accomplishments include a recent discovery that will allow for size-engineered plant production. The findings of this research were recently reported in the esteemed journal *Nature* and have a patent pending. These size-engineered plants may be an effective resource in the fight against worldwide hunger. By altering a specific gene, Dr. Poovaiah and his team have been able to change plant size. These smaller plants require less maintenance and are more resilient to environmental elements than larger plants. The diminutive plants are able to dedicate more of their energy to growth and production rather than to stem and leaf growth.

In addition to this groundbreaking research, Dr. Poovaiah has also been recently recognized for his role as an investigator by being awarded the 2005 Excellence in Research Award from the College of Agricultural, Human, and Natural Resource Sciences.

Congratulations Dr. Poovaiah on your accomplishments and participation—the Center looks forward to future collaborations.

Items of Interest

New Center Faculty

Please welcome new faculty member Dr. Rebecca Craft.

Dr. Rebecca Craft is an Associate Professor with the Department of Psychology at Washington State University. Dr. Craft's research is focused on studying sex differences in pain and analgesia, particularly in determining the relationships between gonadal hormone modulation of reproductive behavior versus pain-related behavior. Dr. Craft has recently begun to develop an animal model of post-partum depression to examine whether use of hormone-simulated pregnancy can induce depression-like and anxiety-like behaviors in female rats. The ultimate goal of her research is to discover the neurobiological mechanisms of post-partum depression and to improve treatment outcomes for women who suffer from it. Welcome to the Center for Reproductive Biology Dr. Craft—we are glad to have you with us!

ARCS Luncheon

The Achievement Rewards for College Scientists (ARCS) Foundation is a nation-wide organization that provides scholarships to academically outstanding graduate students studying to complete their degrees in science, medicine, and engineering, thereby contributing to the worldwide advancement of science and technology. The ARCS Awards are \$5,000 per year top-off fellowships the students can add to their stipend and are granted for three-year intervals. Students are nominated by a faculty member in the Center for Reproductive Biology and are rated by the Center Steering Committee. The annual luncheon was held in Seattle, Washington, on November 8, 2005. This year's meeting featured several presentations from a number of third year ARCS Fellows who detailed their research, showing first hand what the generous contributions from the ARCS donors has done to impact their education and what contributions our ARCS Fellows are making in their respective fields. WSU's 2005–06 first year recipients are: Kyle Caires, Animal Sciences; Amy Hetrick, Botany; and Joshua Jon Neumiller, Pharmaceutical Sciences. **Congratulations to all of our new Fellows!**

Center Administrative Reorganization

With the success and rapid expansion of the Center, we are currently undergoing some organizational changes. We have added a new Associate Director, Assistant Director, and another Coordinator's position. Under the leadership of Dr. Michael Skinner, the new Associate Director will work closely with the Steering Committee to oversee the functions of the Center to improve productivity, collaborative projects, and oversee day-to-day operations, grants, and projects. The Assistant Director will assume responsibility for the daily administration of the Center and will work with graduate students on internships and direction throughout the course of their educational development to ensure all opportunities available to our graduate students are maximized. The new Coordinator will aid the Assistant Director and join the current Coordinator to continue developing the Center's Seminars and Course Program, organize retreats and training, and assist with a wide range of administrative duties.

Faculty Publications (last 5 months)

Pszczolkowski MA, **Brown JJ**. (2005) Single experience learning of host fruit selection by lepidopteran larvae. *Physiol Behav.* [Epub ahead of print].

Costa MA, Bedgar DL, Moinuddin SG, Kim KW, Cardenas CL, Cochrane FC, Shockey JM, Helms GL, Amakura Y, Takahashi H, Milhollan JK, Davin LB, **Browse J**, Lewis NG. (2005) Characterization in vitro and in vivo of the putative multigene 4-coumarate:CoA ligase network in Arabidopsis: syringyl lignin and sinapate/sinapyl alcohol derivative formation. *Phytochemistry.* [Epub ahead of print].

Soule M, **Cain K**, LaFrentz S, **Call DR**. (2005) Combining suppression subtractive hybridization and microarrays to map the intraspecies phylogeny of *Flavobacterium psychrophilum*. *Infect Immun.* 73(6):3799-802.

Soule M, LaFrentz S, **Cain K**, LaPatra S, **Call DR**. (2005) Polymorphisms in 16S rRNA genes of *Flavobacterium psychrophilum* correlate with elastin hydrolysis and tetracycline resistance. *Dis Aquat Organ.* 65(3):209-16.

Broschat SL, Loge FJ, Peppin JD, White D, **Call DR**, Kuhn E. (2005) Optical reflectance assay for the detection of biofilm formation. *J Biomed Opt.* 10(4):44027.

Borucki MK, Reynolds J, **Call DR**, Ward TJ, Page B, Kadushin J. (2005) Suspension microarray with dendrimer signal amplification allows direct and high-throughput subtyping of *Listeria monocytogenes* from genomic DNA. *J Clin Microbiol.* 43(7):3255-9.

Chaudhary J, Sadler-Riggelman I, Ague JM, **Skinner MK**. (2005) The helix-loop-helix inhibitor of differentiation (ID) proteins induce post-mitotic terminally differentiated Sertoli cells to re-enter the cell cycle and proliferate. *Biol Reprod.* 72(5):1205-17.

Chaudhary J, Schmidt M, Sadler-Riggelman I. (2005) Negative acting HLH proteins Id 1, Id 2, Id 3, and Id 4 are expressed in prostate epithelial cells. *Prostate.* 64(3):253-64.

Bouma GJ, **Cloud JG**, **Nagler JJ**. (2005) An in vitro system for the long-term tissue culture of juvenile rainbow trout (*Oncorhynchus mykiss*) testis. *J Exp Zoolol A Comp Exp Biol.* 303(8):698-703.

Lucker BF, Behal RH, Qin H, Siron LC, Taggart WD, Rosenbaum JL, **Cole DG**. (2005) Characterization of the intraflagellar transport complex B core: direct interaction of the IFT81 and IFT74/72 subunits. *J Biol Chem.* 280(30):27688-96.

Miller MS, Esparza JM, Lippa AM, Lux FG 3rd, **Cole DG**, Dutcher SK. (2005) Mutant Kinesin-2 motor subunits increase chromosome loss. *Mol Biol Cell.* 16(8):3810-20.

Li Y, Putnam-Lawson CA, Knapp-Hoch H, Friel PJ, Mitchell D, Hively R, **Griswold MD**. (2005) Immunolocalization and Regulation of Cystatin 12 in Mouse Testis and Epididymis. *Biol Reprod.* [Epub ahead of print].

Lee TH, Yi W, **Griswold MD**, Zhu F, **Her C**. (2005) Formation of hMSH4-hMSH5 heterocomplex is a prerequisite for subsequent GPS2 recruitment. *DNA Repair (Amst).* [Epub ahead of print].

Lynn A, Schrupp S, Cherry J, **Hassold T**, **Hunt P**. (2005) Sex, Not Genotype, Determines Recombination Levels in Mice. *Am J Hum Genet.* 77(4):670-5.

Yi W, Wu X, Lee TH, Doggett NA, **Her C**. (2005) Two variants of MutS homolog hMSH5: prevalence in humans and effects on protein interaction. *Biochem Biophys Res Commun.* 332(2):524-32.

Vo AT, Zhu F, Wu X, Yuan F, Gao Y, Gu L, Li GM, Lee TH, **Her C**. (2005) hMRE11 deficiency leads to microsatellite instability and defective DNA mismatch repair. *EMBO Rep.* 6(5):438-44.

Dong X, **Hong Z**, Sivaramakrishnan M, Mahfouz M, Verma DP. (2005) Callose synthase (CalSS) is required for exine formation during microgametogenesis and for pollen viability in Arabidopsis. *Plant J.* 42(3):315-28.

Verma DP, **Hong Z**. (2005) The ins and outs in membrane dynamics: tubulation and vesiculation. *Trends Plant Sci.* 10(4):159-65.

Rokusek D, Davitt C, Bandyopadhyay A, Bose S, **Hosick HL**. (2005) Interaction of human osteoblasts with bioinert and bioactive ceramic substrates. *J Biomed Mater Res A.* [Epub ahead of print].

Jiang Z, De S, Garcia MD, Griffin KB, Wu XL, Xiao Q, Michal JJ, Sharma BS, Jansen GB. (2005) An independent confirmation of a quantitative trait locus for milk yield and composition traits on bovine chromosome 26. *J Anim Breed Genet.* 122(4):281-4.

Wu XL, Macneil MD, De S, Xiao QJ, Michal JJ, Gaskins CT, **Reeves JJ**, Busboom JR, **Wright RW Jr**, **Jiang Z**. (2005) Evaluation of Candidate Gene Effects for Beef Backfat via Bayesian Model Selection. *Genetica.* 125(1):103-13.

Jiang Z, De S, Garcia MD, Griffin KB, Wu XL, Xiao Q, Michal JJ, Sharma BS, Jansen GB. (2005) An independent confirmation of a quantitative trait locus for milk yield and composition traits on bovine chromosome 26. *J Anim Breed Genet.* 122(4):281-4.

Flom G, Weekes J, **Johnson JL**. (2005) Novel interaction of the Hsp90 chaperone machine with Ssl2, an essential DNA helicase in *Saccharomyces cerevisiae*. *Curr Genet.* 47(6):368-80.

Bohn AA, Harrod KS, Teske S, **Lawrence BP**. (2005) Increased mortality associated with TCDD exposure in mice infected with influenza A virus is not due to severity of lung injury or alterations in Clara cell protein content. *Chem Biol Interact.* 155(3):181-90.

Schmittgen TD, Gissel KA, Zakrajsek BA, **Lawrence BP**, Liu Q, Jupe ER, Lerner MR, Do SV, Brackett DJ. (2005) Diverse gene expression pattern during 5-fluorouridine-induced apoptosis. *Int J Oncol.* 27(2):297-306.

Teske S, Bohn AA, Regal JE, Neumiller JJ, **Lawrence BP**. (2005) Activation of the aryl hydrocarbon receptor increases pulmonary neutrophilia and diminishes host resistance to influenza A virus. *Am J Physiol Lung Cell Mol Physiol.* 289(1):L111-24.

Gesquiere LR, Altmann J, Khan MZ, Couret J, Yu JC, Endres CS, **Lynch JW**, Ogola P, Fox EA, Alberts SC, Wango EO. (2005) Coming of age: steroid hormones of wild immature baboons (*Papio cynocephalus*). *Am J Primatol.* 67(1):83-100.

Lynch-Alfaro J.W. (2005) Male mating strategies and reproductive constraints in a group of wild tufted capuchin monkeys (*Cebus apella nigrilus*). *American Journal of Primatology.* 67:313-28.

Hristov AN, Kennington LR, **McGuire MA**, Hunt CW. (2005) Effect of diets containing linoleic acid- or oleic acid-rich oils on ruminal fermentation and nutrient digestibility, and performance and fatty acid composition of adipose and muscle tissues of finishing cattle. *J Anim Sci.* 83(6):1312-21.

Khaira H, **McLean D**, Ohl DA, Smith GD. (2005) Spermatogonial stem cell isolation, storage, and transplantation. *J Androl.* 26(4):442-50.

McLean DJ. (2005) Spermatogonial stem cell transplantation and testicular function. *Cell Tissue Res.* 1-11 [Epub ahead of print].

McNamara JP, Valdez F. (2005) Adipose tissue metabolism and production responses to calcium propionate and chromium propionate. *J Dairy Sci.* 88(7):2498-507.

Tsumagari S, Ishinazaka T, Kamata H, Ohba S, Tanaka S, Ishii M, **Memon MA**. (2005) Induction of canine pyometra by inoculation of *Escherichia coli* into the uterus and its relationship to reproductive features. *Anim Reprod Sci.* 87(3-4):301-8.

Toyokawa K, Carnahan K, **Ott T**. (2005) ASRI2005-86 Ovine Mx1 associates with microtubules during metaphase and with intercellular bridges between dividing cells. *Am J Reprod Immunol.* 54(2):120.

Hartt LS, Carling SJ, Joyce MM, Johnson GA, **Vanderwall DK**, **Ott TL**. (2005) Temporal and spatial associations of oestrogen receptor alpha and progesterone receptor in the endometrium of cyclic and early pregnant mares. *Reproduction.* 130(2):241-50.

Ng SH, Artieri CG, Bosdet IE, Chiu R, Danzmann RG, Davidson WS, Ferguson MM, Fjell CD, Hoyheim B, Jones SJ, de Jong PJ, Koop BF, Krzywinski MI, Lubieniecki K, Marra MA, Mitchell LA, Mathewson C, Osoegawa K, Parisotto SE, **Phillips RB**, Rise ML, von Schalburg KR, Schein JE, Shin H, Siddiqui A, Thorsen J, Wye N, Yang G, Zhu B. (2005) A physical map of the genome of Atlantic salmon, *Salmo salar*. *Genomics.* 86:396-404.

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