Points of Interest

The IRHRM was established in the Fall of 2010.

Membership includes 52 faculty from 18 departments, 3 schools and 3 institutions.

What’s inside?

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Want to get to know other IRHRM members?

In the Spotlight features 3 members per newsletter, one from each of our 3 Centers:

~ CESC Center for Epigenetics & Stem Cell Biology
~ CRS Center for Reproductive Sciences
~ CDOHAD Center for the Developmental Origins of Health & Adult Disease

Udayan Apte, PhD (CESCB)

Dr. Udayan Apte’s research is focused on understanding the basic mechanisms of hepatocyte proliferation and applying them to develop novel therapies for acute liver failure and hepatocellular cancer.

Liver is exposed to a number of drugs and toxic chemicals due to its anatomy. *continued on page 2*

Cultivating Collaborations

One of the IRHRM’s main objectives is to facilitate collaboration and interaction across departments and disciplines. In this *Cultivating Collaborations* section of our newsletter, we will feature IRHRM members with collaborative research projects. *continued on page 4*
The specific pathways under investigation in Dr. Apte’s laboratory include hepatocyte nuclear factor 4-alpha (HNF-4α), Wnt/β-catenin signaling and the Hippo Kinase signaling pathway. They are also interested in identifying the role of epigenetic changes in liver regeneration. They continue to investigate the mechanisms associated with hepatocyte proliferation.

To learn more about Dr. Apte’s research, please visit http://www.kumc.edu/ihrm/our-researchers/udayan-apse-phd.html.

Katherine Roby, PhD (CRS)

Dr. Roby’s research is primarily focused on ovarian biology; the fertility and infertility of normal and abnormal ovarian function and the pathophysiology of ovarian cancer.

One area of research in the laboratory related to ovarian cancer is the identification of novel drug targets and treatments. A current drug discovery project focuses on heat shock protein 90 (HSP90), a chaperone that regulates protein folding. HSP90 activity is essential for the function of multiple proteins key in controlling cell cycle, drug resistance, and metastasis. A chemical library composed of over 300 analogues based on the structure of novobiocin (a weak HSP90 inhibitor) has been synthesized and screened for specific inhibition of HSP90 activity and induction of cancer cell death. An additional criteria for selection of analogues with favorable potential for continued development is either additive or synergistic activity with cisplatin or paclitaxel, the current standards of treatment for ovarian cancer. Analysis of structure activity relationships across the library of analogues lead to the design and synthesis of a refined series of second-generation analogues. Following additional in vitro analysis and favorable pharmacokinetics, a few analogues have been identified as key leads and in vivo screening has been initiated. The ability of the novel analogues to affect tumor load and inhibit cancer progression is continued on page 3.

Juan Arroyo, PhD (CDOHAD)

Dr. Arroyo’s research focuses on the molecular mechanisms involved in the functioning of trophoblast cells and apoptosis, as well as the regulation of cell invasion during complicated pregnancies such as intrauterine growth restriction (IUGR), preclampsia (PE) and preterm delivery (PT). His lab is also interested in the role of mTOR family proteins in placental and trophoblast development and functioning across gestation during these diseases.

PT, PE and IUGR are complications that affect 10% of all pregnancies. Some of the characteristics of these diseases are abnormal placentaion, abnormal growth of the fetus, increase in systemic blood pressure, increase in trophoblast apoptosis and others. Trophoblasts are specialized epithelial cells responsible for facilitating the exchange of nutrients and wastes between maternal and fetal compartments. As such, deviation from normal trophoblast function may play a significant factor in the development of these complications during pregnancy.

One aspect of Dr. Arroyo’s research focuses on understanding apoptosis mechanisms across gestation during pregnancies complicated by IUGR. In order to study apoptosis, Dr. Arroyo’s lab used an established ovine model of hyperthermia (HT) induced IUGR. These studies showed that trophoblast apoptosis is an early event leading to placental insufficiency during this disease.

More recently, Dr. Arroyo has focused his studies in a hypoxia-induced model of IUGR. This model gives an essential tool to better study trophoblast invasion, mTOR signaling and apoptosis across gestation during hemochorial placentation. Through his research, Dr. Arroyo seeks to provide insights into the physiological relevance of these pathways in the pathogenesis of IUGR, PE and PT. To learn more about Dr. Arroyo’s research, please visit http://www.kumc.edu/ihrm/our-researchers/juan-a-arroyo-phd.html.
inability. The team is exploring whether or not infertility cases with different GST genotypes have varied levels of reactive oxygen species (ROS) or DNA fragmentation, two molecular markers that may be modified by GST activity and are correlated with poorer semen parameters.

Dr. Mijal is responsible for the epidemiological design, analysis, and project coordination, while Drs. Krieg and Nangia are coordinating the recruitment of subjects utilizing their expertise with infertility. Dr. Nangia also has background expertise and knowledge of biobanking and oxidative stress on male reproductive endpoints. Dr. Roby is in charge of the clinical laboratory analyses and has expertise in reproductive biology.

This work fits clearly within the team’s long-term objective in understanding how genetic susceptibility, diet, and environment influence risk of male infertility. Mechanistic insights may be used to target therapies more effectively or to identify individuals likely to receive maximal benefit from clinical interventions.

Patient-Specific IPS Cells

Merlin Butler, MD, PhD, Professor of Psychiatry & Behavioral Sciences and Pediatrics, and Jay Vivian, PhD, Assistant Professor of Pathology and Laboratory Medicine and Scientific Director of the KUMC Transgenic Facility have established a new collaborative effort to develop patient-specific induced pluripotent stem (IPS) cells from individuals with Prader-Willi syndrome in order to model this complex neurodevelopmental disease.

Prader-Willi syndrome (PWS) is characterized by a variety of phenotypes including hypotonia, feeding problems during infancy, growth discrepancy. PWS is considered the most common genetic cause of marked obesity in humans. It was the first human disorder identified from errors in genomic imprinting and due to loss of paternally expressed genes from the 15q11-q13 chromosome region. Although there have been significant advances in understanding the genetic basis of Prader-Willi syndrome, how these genetic lesions adversely affect cellular and molecular machinery is unclear. The lack of an understanding of the molecular basis for this disease has limited the capacity to develop relevant treatments including possible drug therapy to treat or cure this syndrome.

This work represents the first study involving the generation of patient-specific IPS cell models at KUMC and a conceptual basis for specific stem cell studies on other rare genetic diseases and neurological disorders.
Mrs. Eleanore Johnson

Mrs. Eleanore Johnson, wife of Dr. Donald C. Johnson, passed away on May 26th, 2011 (her obituary is below). In addition to the philanthropic and volunteer endeavors described below, Eleanore was a generous supporter of the reproductive biology group at KUMC.

OBITUARY

It is a great sadness we report the passing, on May 26th, 2011, of an amazing individual, Eleanore Julia Johnson. Eleanore was a cultivator of everything in life. Known for her skill and passion for gardening, she equally excelled in the cultivation of those around her. We will miss her ability to convey the joys of life. Born in Detroit and raised in the Chicago area, Eleanore grew up without the benefit of a supportive family. Despite this, and with a determined spirit that, in part, defined her, Eleanore successfully completed her education, attaining a Bachelor of Science in Nursing from Loyola University. She served in the U.S. Navy as a Registered Nurse during the later stages of World War II and, then again, during the Korean Conflict. During that second stint in the Navy, Eleanore met Donald C. Johnson, her future and enduring partner and symbiont. Following D.C.’s further education at the University of Iowa, they came to the Kansas City area in the early 1960’s when D.C. accepted a position at the University of Kansas Medical Center. It was in Kansas City that they blossomed both as a family team and individually. Eleanore nurtured her husband and daughter, as well as her son-in-law, who all were integral and central in her life. Despite losing her only child, and much later, her husband, she continued to learn, to personally grow and to enjoy an active social life. She reveled in gardening, weaving, sewing, reading, volunteering, caring for her home and her many friendships. She had an unfailing ability, persistence and resilience in maintaining her own independent existence. It was only in the last months of her 89 years of life that she ever called upon others to help when she was so used to providing that help. While she always strove to reach out to those she felt were less advantaged, she shunned any recognition of her own contributions. Eleanore was preceded in death by her daughter Donna Claire Johnson-Geier and her husband Donald Craig Johnson, Ph.D. She is survived by her son-in-law, J. Michael Geier, M.D. as well as by nieces and nephews in the Chicago and Detroit areas. She also leaves behind a legion of friends and admirers in the KU Medical Center Auxiliary, in the Kansas City Weaver’s Guild, the Kansas City Lithuanian Community and the University of Kansas School of Fine Arts. Her indomitable and joyful spirit will be sorely missed.

Virtual Grand Rounds

SAVE THE DATE!
Thursday, February 9th, 2012
10am CST

The Oncofertility Consortium® is proud to present VIRTUAL GRAND ROUNDS

“Determinants of oocyte quality for fertility preservation: Beyond the big chill”

David Albertini, PhD Director of the Center for Reproductive Sciences KU Medical Center

Join the Adobe Connect session!

NOTE: test the computer you plan to use the day of the conference for compatibility by visiting: http://nwuniversity.na3.acrobat.com/common/help/en/support/meeting_test.htm


• Login as a guest (you will not be given a login)

• When you receive your name, please try to include your institution (for example: YourName@Northwestern) so we can identify you if you ask a question!

For technical assistance, please contact: Zoran Ilic at z-ilic@northwestern.edu (NOTE: Technical support is not available during the presentation)

Darlene Limback

Forty-Eight Years of Service

At the 2011 Institute for Reproductive Sciences and Regenerative Biology Holiday Party on December 16th, Dr. David Albertini presented Darlene Limback with a number of gifts in honor of 48 years of service in the reproductive sciences field at the University of Kansas Medical Center.

Darlene began her career at the University of Kansas Medical Center on November 4, 1963. Working in the pathology department, she learned theory and practice of histology from Marjorie Stone.

In 1966, she moved into the Gilbert S. Greenwald laboratory which is where she gained an appreciation for research. She said, “I was fortunate to be in the lab of not only an outstanding scientist but a true gentleman who maintained one of the longest continually funded NIH grants and, as chair of the Physiology department, assembled a strong group of reproductive researchers.”

Following Dr. Greenwald’s retirement in 1995, Darlene moved to the laboratory of Paul Terranova, who was a post-doc and friend from the Greenwald lab. During this time, Dr. Terranova oversaw the creation and funding of the Reproductive Center. In Spring of 2004, Darlene joined David Albertini’s laboratory, where in her words, she “entered an amazing new world of cell biology mentored by David, and [she] was allowed to move from status of technician to full participation as ‘a would-be scientist’ experiencing the truly fun pursuit of the next experimental result”.

During Limback’s 48 year career at KUMC, she experienced many changes within the Medical Center, reproductive sciences and technology. Some of those changes include witnessing the transition from “the adding machine to the computer age; free parking to the parking garage, binocular microscope to confocal imaging; histology to immunostaining; bioassy to radiomunoassay to molecular techniques, as well as the emergence of KU as a recognized repro group.”

Darlene valued the collaborations she shared over the years with colleagues and friends from 6 different continents and credits her experiences here at KUMC for instilling in her an appreciation of new and exciting ideas, as well as an appreciation for “the ‘thril of the chase’ for the next result”.

Darlene expressed her appreciation for “all the PIs who envisioned challenging and significant projects and shared their hard-sought funding with me... the post-docs, grad-students and staff whose goals, labs, and lives I shared... who gave kind support to my family when my son’s home was destroyed in a Christmas Eve fire” and then last, but not least, “those who made science fun!”

We are grateful to Darlene for her hard work over these past 48 years and wish her all the best in her retirement.
### High-Impact Papers

So IN, Hodges CA, Albertini DF, and Hunt PA. Oocyte-specific differences in cell-cycle control create and innate susceptibility to meiotic errors. Current Biology 2: 651.


Midpregnancy levels of angiogenic markers in relation to maternal vessel diameter in the extraembryonic yolk sac. BMC Dev Biol. 2011 Feb 25;11:12.


### Honors and Awards

**Faculty**

Soumen Paul, PhD, Assistant Professor of Pathology, NIH/NIH R21 award, “Protein Kinase C Signaling and Pluripotent Stem Cell”, (August 8, 2011 - July 31, 2013)

Sarah Kieweg, PhD, Assistant Professor of Mechanical Engineering, KU-Lawrence, NIAID R33 award (initial R21 transitioned to 3 year award at the R33 level), “Biomechanical and Computational Molecular Design of Microbicide Delivery Systems” (September 1, 2011 – August 31, 2014)

Renee Mijal, PhD, MPH, Assistant Professor of Preventive Medicine and Public Health, Sacha Krieg, MD, PhD, FACOG, Assistant Professor of Ob/Gyn, Ajay Nangia, MBBS, Associate Professor of Urology, and Katherine Roby, PhD, Research Associate Professor of Anatomy, FRONTIEIR Pilot and Collaborative Studies Funding Program, “Glutathione S-Transferase Polymorphisms and Mechanisms of Male-Infertility”, (September 15, 2011 – February 28, 2012)

Susan Carlson, PhD, A.J. Rice Professor of Dietetics and Nutrition, School of Health Professional, 2011 Honorary Mentoring Award

**Trainees**


### Faculty

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**Trainees**

- On March 31, 2011, the Student Research Forum highlighted exciting research being conducted by KUMC students through annual poster session and oral presentations. The Center for Reproductive Sciences and the Center for Epigenetics and Stem Cell Biology each identified 1 outstanding oral presentation in their respective area of research focus, and on April 1, 2011, awarded two deserving students a wooden plaque and a $500 travel award. Please join us in congratulating these students on their achievements!

**Best Presentation in Epigenetics & Stem Cell Biology: Ann Thomas, School of Medicine, Department of Pharmacology, Toxicology and Therapeutics (Grace Guo, Le Zhan), for her presentation titled “DNA Methylation of FXR in Colorectal Cancer”**

**Best Presentation in Reproductive Sciences: Susan Scholtz, School of Health Professions, Department of Dietetics and Nutrition (Susan Carlson, John Colombo, Melanie Neely, Jocelynn Thodosoff, Elizabeth Kerling), for her presentation titled “Docosahexaenoic Acid (DHA) and Arachidonic Acid (AA) Status in Pregnancy is Influenced by Single Nucleotide Polymorphisms (SNPs) in Fatty Avid Desaturases (FADS1/ FADS2)”**

**Current Biology**

**Honors and Awards**

**Faculty**

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**Honors and Awards**

- **Faculty**
- **Trainees**
- **Current Biology**

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**continued on page 10**
Trainees continued from page 9

Phuoc (Van) Bui, Undergraduate Trainee, Division of Biology - KSU (Weiss lab), Developing Scholar Award, KSU’s Bridges and Developing Scholars Program (January 1, 2011 - December 31, 2011) and Undergraduate Cancer Research Award, KSU’s Terry C. Jonson Cancer Center (January 1, 2012 - December 31, 2012)

Damayanti Chakraborty, MS, Predoctoral Fellow, Pathology (Soares lab), American Heart Association Predoctoral Fellowship award, “Role of Natural Killer Cells and Hypoxia Signaling in Uteroplacental Vascular Adaptations” (January 1, 2011 - December 31, 2011)

Jessica Copeland, PhD, Postdoctoral Fellow, Pathology (Vivian lab), Successful Dissertation Defense (PhD Awarded February 2011)

Flavia Costa, PhD, Postdoctoral Fellow, Biochemistry (Peterson lab), Postdoctoral Scholar Research Integrity Ambassador Award, KUMC (October 2011)

Stephen Renaud, PhD, Predoctoral Fellow, Pathology (Soares lab), Canadian Institutes of Health Research (CIHR) Predoctoral Fellow, Pathology (April 9-13, 2011), and Undergraduate Trainee, Pathology (April 9-13, 2011), and Student Union Corporation Travel Award, KSU’s Terry C. Jonson Cancer Research Integrity Ambassador Award, KSU’s Terry C. Jonson Cancer Research Scholarship, KUMC (October 2011)

Rebecca Henkhaus, PhD, Fellow, Psychiatry (Butler lab), NIH Rare Disease Multi-Center Consortium on Prader-Willi Syndrome and Early Onset of Morbid Obesity Natural History Clinical Protocol Fellowship Award (January 1, 2011 - December 31, 2011)

Chad Waley, Predoctoral Fellow, Pharmacology (Apte lab), Trainee Travel Award, American Society of Investigative Pathology (April 9-13, 2011), and Student Union Corporation Travel Award, KUMC, “Role of HNF4a in Hepatocyte Proliferation” (April 9-13, 2011)

Phylogenetic Analysis of the Atrial Natriuretic Peptide Gene Family and Analysis of Overexpression in Heart Failure (February 2011)

Fellowship award, “The Role of Matrix Metalloproteinase 12 in Trophoblast-横行cell invasion” (April 9-13, 2011)

Fellowship Award (January 1, 2011 - December 31, 2011)

Obesity Natural History Clinical Protocol Syndrome and Early Onset of Morbid Multi-Center Consortium on Prader-Willi Psychiatry (Butler lab), NIH Rare Disease (July 1, 2011- June 30, 2014)

Member Resources

Imaging Facilities

Consolidated imaging systems on the 3rd floor of HLSIC are available to all IRHRM members. Dr. David Albertini will oversee training and access to this equipment and will conduct a series of workshops beginning in February (check website for dates).

A brief description of the equipment and locations is provided below, and all queries should be directed to Dr. Albertini (dalbertini@kumc.edu).

We hope you will take advantage of the imaging resources made available to you through the support and participation of the IRHRM.

**HLSIC 3062**
* Leica Stereo scope with Q Imaging cooled CCD, Mac based capture and processing software
* Leica DM1 4000B inverted microscope with Prime Tech piezo drill and a DFC FX high res digital camera
* Zeiss Axiovert 200M with complete DIC and fluorescence optics (Dapi, FITC, Texas Red, Cy5/CFP,YFP, DS Red motorized filter wheel), Hamamatsu ORCA ER cooled CCD, driven by MetaMorph software for capture and analysis of fixed and live cell preparations.

**HLSIC 3008** (Soumen Paul’s Lab)
* Nikon SM2/500 Stereo Zoom microscope equipped with MetaMorph software
* Nikon Eclipse TE 2000-S inverted microscope with Hoffman Modulation Contrast Optics, heated stage, Q Imaging Color Camera, and software for time-lapse imaging or color capture of sections

**HLSIC 3021** (Live Cell Imaging Core)
* Zeiss Axiovert 200M confocal microscope (LSM Pascal 5) with multiple filter combinations and driven by AIM software; with temperature, gas, and humidity controlled chamber for live cell imaging; 1 TB internal hard drive for data archiving
* Zeiss AIM and Axiovision workstation (PC based)
* BTX Harvard Apparatus ECM 2001 Electro Cell Manipulator for cell fusion, electroproporation of cells or tissues

**For more information please visit**
[www.kumc.edu/irhrm/imagingcore](http://www.kumc.edu/irhrm/imagingcore)

Reagent Store

The IRHRM Reagent Store, conveniently located in 3027 HLSIC, provides enzymes, reagents and other research supplies. In addition to the standard benefits, such as immediate access to stocked items and the ability to place special orders through the store (for items not stocked), IRHRM members also receive a 3.5% price break (as compared to non-member pricing).

We have recently added a new online form called “Recommend a Product” that we encourage you to use if there’s a product your lab uses regularly that you would like stocked in the store. For a full list of products and for more information please visit
[www.kumc.edu/irhrm/reagent-store-overview](http://www.kumc.edu/irhrm/reagent-store-overview)

**Contact Information**
Jackie Jorland, Reagent Store Manager
913-588-7490, jjorland@kumc.edu

**Grant Application Assistance**

IRHRM administrative team members are available to assist you with your pre-award grant application needs, including routing proposal sheets for signatures, assisting in Cayuse (pulling down the opportunity and creating the application, completing application documents and uploading files), and communicating on your behalf with your assigned Sponsored Programs Administration (SPA) grants specialist regarding questions, corrections after review, etc. While the majority of our experience is in the preparation of R01 and R21 NIH applications, we do our best to provide support for all research grant applications. Please communicate your plans for submission to Lesley Shriver via email at lshriver@kumc.edu as soon as possible to ensure deadlines are met. We look forward to helping you obtain research funding!
Event Highlights

Inaugural Donald C. (DC) Johnson Lecture in Reproduction

The Annual Donald C. Johnson Lectureship in Reproduction was established in 2011 to honor Dr. Donald C. Johnson (known to his friends as DC) and his work in reproduction at KUMC. This special lecture is part of the IRHRM Research Seminar Series in Developmental and Regenerative Biology. Dr. Johnson was recruited to KUMC in 1963 the Departments of Ob/Gyn and Molecular and Integrative Physiology. He rose through the academic ranks to Professor by 1969, and was appointed Endowed Research Professor of Human Reproduction in 1978. Dr. Johnson remained an active scientist and teacher as Professor Emeritus event after “retiring” in 1996. During his academic career, DC published more than 140 peer-reviewed research papers and trained 24 PhD and postdoctoral students from around the nation and the world.

We were very fortunate to have one of Dr. Johnson’s colleagues, Dr. Sudhansu K. Dey (known to his friends as SKI), present the 2011 Inaugural Donald C. Johnson Lecture in Reproduction on May 19, 2011, titled “Molecular Complexity in Embryo Implantation: Lessons from Mouse Models”. Dr. Dey was a Postdoctoral Fellow in Ob/Gyn from January 1973 to July 1975, and then joined the faculty in Ob/Gyn at KUMC in August 1975. He spent the next 27 years at KUMC in the departments of Physiology and Ob/Gyn, earning the rank of University Distinguished Professor. Dr. Dey was recruited to Vanderbilt University Medical Center in July 2002 as the Dorothy Overall Wells Professor of Pediatrics, Cell and Developmental Biology and Pharmacology, and Director of the Division of Reproductive and Developmental Biology. In July 2008, Dr. Dey moved to his current institution, Cincinnati Children’s Hospital Medical Center, where he serves as the Lova Riekert Chair and Professor of Pediatrics, Cancer and Cell Biology, and Director of Reproductive Sciences.

SK has published over 250 original articles and oversees an active NIH-funded lab. In 2008, Dr. Dey received the Carl G. Hartman Award, the highest honor of the Society for the Study of Reproduction. In 2009, he received the International IVI Schering-Plough Award. This award is given to the scientist with “The Best Clinician Research Record in Reproductive Medicine”, based on the impact factor of publications in the past 5 years.

Dr. Dey’s life-long research mission is to understand the endocrine, paracrine, autocrine and juxtacrine signaling networks that influence uterine biology in the context of embryo-uterine interactions during pregnancy. His career has been dedicated to defining a road map for embryo-uterine interactions during implantation at the molecular and genetic level. His research has made a lasting impact in the field of female fertility. He is a world leader in uterine and implantation biology.

SAVE THE DATE! Thursday, March 29, 2012
2012 Donald C. Johnson Lecturer is JoAnne S. Richards, PhD.
For more details, check out our Upcoming Events on page 14.

Event Highlights

Gilbert S. Greenwald Symposium on Reproduction

The 8th Annual Gilbert S. Greenwald Symposium on Reproduction was held on September 22-23, 2011. This annual event is hosted in honor and as a memorial to the life of Gilbert S. Greenwald, PhD (right), a former KUMC Distinguished Professor and pioneer in reproductive biology research at the national level. Approximately 100 faculty and trainees from across the region participated in this day-and-a-half event.

Keynote Lecturer Kenneth Korach, PhD (left), Director of the Environmental Disease & Medicine Program, and Chief of the Laboratory of Reproductive and Developmental Toxicology at NIEHS, kicked off the event by presenting a lecture in the School of Nursing Auditorium titled “Biological Consequences Associated with Estrogen Receptor Insensitivity”. After the keynote lecture, the group migrated across the street to the Beller Conference Center for the banquet and poster session, where trainees and faculty presented 33 research posters (below).

Friday’s events were held at the Screenland Theatre at the Crossroads, where plenary guest lecturers included (bottom of page in order from left to right) Drs. Asgi Fazleabas, Yaacov Barak, Blanche Capel, Tony Plant and Aaron Hsieh. Assistant Professors Quinton Winger, Gerrit Bouma, Buffy Ellsworth and Jennifer Wood presented the short lectures. At the conclusion of the symposium, 4 poster competition awards were presented to trainees for outstanding poster presentations.

A special “thank you” to all the 2011 Greenwald Symposium Organizing Committee Members (Michael Wolfe, David Albertini, ... and Jay Vivian), and to our generous sponsors and volunteers for your help in making this event a continued success!

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9th Annual Greenwald Symposium - October 11-12, 2012
Upcoming Events

January 2012

10 CESCB Chalk Talk, 12-1 pm, 3070 HLSIC, Melissa Larson, PhD
Updates from the Transgenic Facility

11 CRS Chalk Talk, 12-1 pm, 3070 HLSIC, Fernando Pierucci-Alves, PhD
Kansas State University
Transforming Growth Factor Beta (TGFβ) Signaling in the Male Excurrent System – It Occurs Physiologically and Imbalances May Impair Human Fertility

19 IRHRM Retreat, 8:30 am - 5:00 pm
Brio Tuscan Grill, Plaza

February 2012

6 CRS Chalk Talk, 12-1 pm, 3070 HLSIC, Chad Slawson, PhD
Regulating Cellular Function by the O-GlcNAc Post-Translational Modification

9 Oncofertility Consortium Grand Rounds, David Albertini, PhD
10 a.m. CST (see link on page 6) Determinants of Oocyte Quality for Fertility Preservation: Beyond the Big Chill

14 CESCB Chalk Talk, 12-1 pm, 3070 HLSIC
(check website for updates)

March 2012

1 Seminar, 8:30-9:30 am, Lied Aud. Cheryl Lyn Walker, PhD, ATS, Fellow AAAS, Texas A&M

April 2012

19 Seminar, 8:30-9:30 am, Lied Aud. Barbara Vanderhyden, PhD, University of Ottawa
The Etiology of Ovarian Cancer: Lessons Learned from Mouse Models

May 2012

3 Inaugural James L. Voogt Lecture in Neuroendocrinology
8:30-9:30 am, Lied Auditorium William F. Crowley, Jr., MD, Harvard
New Approaches of Gene Discovery in Reproductive Endocrinology: Use of Human Disease Models

17 Seminar, 8:30-9:30 am, Lied Aud Jacquetta Trasler, MD, PhD, Montreal Children’s Hospital TBD

18 Social/Scientific Interaction, 3070 HLSIC

For event updates, please go to our website at www.kumc.edu/irhrm and click on the Events tab.

SAVE THE DATE!
October 11-12, 2012

The 9th Annual Gilbert S. Greenwald Symposium on Reproduction

The event will begin on Thursday, October 11th at the KUMC campus with the keynote address, followed by a reception and poster session. On Friday, October 12th, we will have plenary, short and trainee lectures at the Kansas City Public Library at 10th & Baltimore. More information will be coming soon.
Health and disease affect all our families and impact the ones we love. With your support, we can continue to discover treatments and cures that will provide long-term benefits and significant health outcomes. To support the research of the IRHRM, including research funds and training fellowships, please contact:

KU Endowment Association  
Phone 888-653-6111  
www.kuendowment.org

To target your gift to an IRHRM Event, please indicate the specific event you would like to support when communicating with the KU Endowment Association. All contributions are tax deductible and are greatly appreciated.

IRHRM Events include:
• Research Seminar Series in Developmental and Regenerative Biology
• Monthly Center Chalk Talks
• Annual Gilbert S. Greenwald Symposium on Reproduction
• Annual Donald C. Johnson Lecture in Reproduction
• Annual James L. Voogt Lecture in Neuroendocrinology

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Please direct questions and comments to:  
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