

LSU HEALTH SCIENCES CENTER
DEPARTMENT OF GENETICS

ANNUAL REPORT
FISCAL YEAR 2013

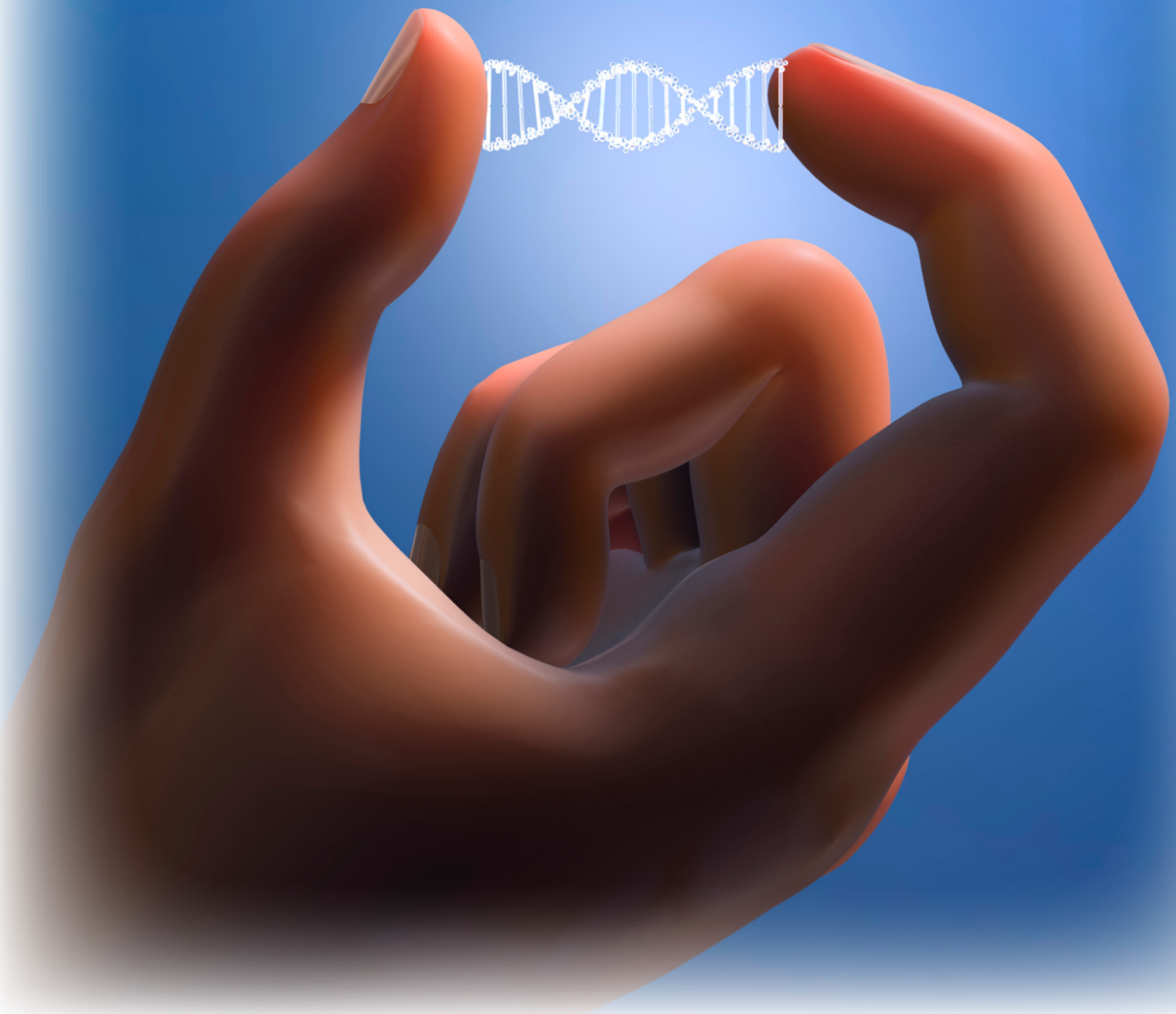


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Department of Genetics Mission

The mission of the Department of Genetics at LSUHSC is to provide state of the art education, research, and community outreach in the area of genetics. To this end, the Department has outstanding faculty, researchers, and community educators that can cut across disciplines to fulfill this mission.

Department of Genetics Graduate Program Mission

The Graduate Program in Genetics provides students with a working knowledge of human functional and molecular genetics, genomics, and animal model systems. Students are mentored by exceptional faculty who guide them through their training and enable them to become active members of the scientific community. The departmental curriculum is designed to form the foundation for their future career development through a combination of coursework, seminars, proposal writing, and laboratory-based research. The Department of Genetics provides students with all the skills they need to become successful, independent scientists.

Faculty

Kathleen McDonough, PhD
Interim Department Head

Full-time:

Judy Crabtree, PhD
Assistant Professor

Paula Gregory, PhD
Associate Professor

Wanguo Liu, PhD
Associate Professor

Udai Pandey, PhD
Assistant Professor

Edward Grabczyk, PhD
Associate Professor

Andrew Hollenbach, PhD
Associate Professor

Diptasri Mandal, PhD
Associate Professor

Fern Tsien, PhD
Assistant Professor

Conjoint:

Yan Cui, PhD
Associate Professor, Microbiology,
Immunology and Parasitology

Michael Lan, PhD
Professor, Pediatrics

Donna Neumann, PhD
Assistant Professor
Pharmacology and Experimental Therapeutics

Alistair Ramsay, PhD
Professor and Head, Microbiology,
Immunology and Parasitology
Director, Louisiana Vaccine Center

Guoshun Wang, DVM, PhD
Associate Professor, Microbiology,
Immunology and Parasitology

Yves Lacassie, MD, FACMG
Professor, Pediatrics

Donald Mercante, PhD
Professor, Biostatistics

Augusto Ochoa, MD
Professor and Director,
Stanley S. Scott Cancer Center

Judd Shellito, MD
Jim Lowenstein Clinical Professor of
Medicine

Regina Zambrano, MD
Assistant Professor, Pediatrics

Adjunct:**Prescott Deininger, PhD**

Professor and Director
Tulane Cancer Center
Tulane School of Medicine

John Doucet, PhD

Distinguished Service Professor,
Biological Sciences
McIlhenny Professor of Human and
Environmental Genetics
Nichols State University

Jay Kolls, MD

Director, Richard K. Mellon Foundation
Institute for Pediatric Research
University of Pittsburgh School of Medicine

Tarun Mandal, PhD

Professor, Pharmaceutics
Xavier University

William Richardson, PhD

Assistant Professor, Bariatric Surgery
Ochsner Health Systems

Karen Weissbecker, PhD

Assistant Research Professor
Director, Graduate Studies
Hayward Genetics Center
Tulane University School of
Medicine

Emeritus Faculty:**Bronya J.B. Keats, PhD**

Professor, Genetics

Genetics Graduate Faculty:***(Eligible Mentors)*****Judy Crabtree, PhD**

Assistant Professor, Genetics

Luis Del Valle, MD

Associate Professor, Hematology/
Oncology, Stanley S. Scott Cancer Center

Paula Gregory, PhD

Associate Professor, Genetics

Michael S. Lan, PhD

Professor, Pediatrics

Diptasri Mandal, PhD

Associate Professor, Genetics

Krzysztof Reiss, PhD

Professor, Hematology/Oncology
Stanley S. Scott Cancer Center

Guoshun Wang, DVM, PhD

Associate Professor, Microbiology,
Immunology and Parasitology

Yan Cui, PhD

Associate Professor, Microbiology,
Immunology and Parasitology

Edward Grabczyk, PhD

Associate Professor, Genetics

Andrew Hollenbach, PhD

Associate Professor, Genetics

Wanguo Liu, PhD

Associate Professor, Genetics

Udai Pandey, PhD

Assistant Professor, Genetics

Judd Shellito, PhD

Jim Lowenstein Clinical Professor
of Medicine

Regina Zambrano, MD

Assistant Professor, Pediatrics

Staff

Administrative:

Stephanie Laurent
Heather Shields

Business Manager
Department Coordinator

Research:

John Monaghan, Ph.D.

Postdoctoral Fellow

Angelle Bencaz
Jessica Chambliss
Nicholas Lanson, Jr.
Patrick Miller

Research Associate
Research Associate
Research Associate
Research Associate

Graduate Students:

Ian Casci (PhD)
Matthew Dean (PhD)
Anasheh Halabi (MD/PhD)
Jacob Loupe (PhD)
Nikki Nguyen (PhD)
Michael Ripple (MD/PhD)

Gavin Daigle (PhD)
Jack DePaolo (MD/PhD)
Aditi Iyengar (PhD)
Elaine Maggi (PhD)
David Ricks (PhD)
Jyothi Vijayaraghavan (PhD)

Research Interests

Judy Crabtree, Ph.D., Assistant Professor

- Understanding biological processes & epigenetics of endocrine tumor disorders.
- Epigenetics of adaptive pancreatic islet expansion associated with obesity, pregnancy, and T2D
- miRNA influences on pancreatic neuroendocrine tumorigenesis via MEN1 and RBP2.

Edward Grabczyk, Ph.D., Associate Professor

- Progressive genetic disorders caused by DNA repeat expansion such as Friedreich ataxia.
- Interactions between transcription, DNA structure and DNA mismatch repair that drive repeat expansion diseases.

Paula Gregory, Ph.D., Associate Professor

- Research in genetics education for teachers, students, the public, and health care professionals
- Psychological barriers to understanding genetics information and the impact of predictive genetic testing on family dynamics

Andrew Hollenbach, Ph.D., Associate Professor

- The regulation of transcription factors through phosphorylation
- Biochemical mechanisms of chromosomal translocation gene products in cancer formation
- Gene regulation in melanoma development

Wanguo Liu, Ph.D., Associate Professor

- Genetics and biological roles of Wnt signaling in GI tumor development
- Genetics and functional analysis of DNA damage-response defects in prostate cancer susceptibility

Diptasri Mandal, Ph.D., Associate Professor

- Genetic Epidemiology of hereditary lung cancer and prostate cancer in the population in Louisiana
- Genetic linkage and association analyses of complex disorders, in particular humans cancers
- Copy Number Variations (CNVs) in hereditary prostate cancer families

Udai Pandey, Ph.D., Assistant Professor

- Utilizing *Drosophila melanogaster* (fruit fly) as a model system to understand the pathogenesis of neurodegeneration
- Investigating the role of protein degradation pathways in neurodegeneration

Fern Tsien, Ph.D., Assistant Professor

- Cytogenetic and genomic imprinting disorders
- Chromatin instability and DNA methylation mechanisms of the Immunodeficiency, Centromeric instability, and Facial anomalies (ICF) syndrome
- Chromatin instability of cancer
- Clinical laboratory sciences
- Correlation between DNA methylation with constitutive heterochromatin and gene silencing
- Genetics of the Louisiana Acadian population
- Genetics education especially in the fields of cytogenetics and epigenetics
- Science education programs for Louisiana schools
- Multicultural and diversity community outreach programs in the health sciences

Department of Genetics Annual Report Fiscal Year 2013

Year in Review

Fiscal year 2013 can be defined as a year of excellence for the department. The faculty, staff and students continued to work as agents of improvement in supporting all three areas of the Health Sciences Center mission: teaching, research and service. As in years past, several Genetics faculty members were honored with prestigious teaching and/or service awards and were recipients of six new or competing renewal grants. Fiscal year 2013 certainly proved that in spite of challenging times, the department continues to exemplify distinction, dedication and achievement.

Academic Accomplishments

The Department of Genetics congratulates Dr. Paula Gregory for her successful advancement in the FY2013 promotion and tenure application process. Dr. Gregory was granted promotion from Associate Professor to Professor. Dr. Gregory joined the Department of Genetics in June 2002 where she was recruited from Ohio State University in Columbus, Ohio.

Dr. Paula Gregory was the recipient of the prestigious Allen Copping Excellence in Teaching Award. The Allen A. Copping Excellence in Teaching Awards recognizes outstanding faculty at the LSU Health Sciences Centers in New Orleans and Shreveport who inspire their students and have demonstrated a life-long pursuit of discovery. This award is much deserved by Dr. Gregory, who is a prime example of our entire outstanding faculty! Dr. Udai Pandey and Heather Shields were recipients of the LSU School of Medicine Alumni Excellence Awards. The awards for Excellence in Teaching and Service to the School are to recognize and honor individuals with the School of Medicine who excel at their work and without whom it would be a lesser place.

Dr. Fern Tsien partnered with two of New Orleans Historically Black Colleges and Universities, Xavier University of Louisiana and Dillard University, as part of Science and Career Education Partnership. Dr. Tsien held genetics workshops at LSUHSC and lectured at the universities about the different careers in the health sciences, promoting the six schools at LSUHSC.

Dr. Andrew Hollenbach worked as part of a group effort to make LSUHSC an official sponsor of the Red Umbrella HIV/AIDS Awareness Second Line and Health and Awareness Fair in Congo Square. LSUHSC was made a prominent presence at both the second line and the wellness fair, thanks to this group effort. Residents from the School of Medicine staffed an educational booth

at the associated Health and Wellness Fair. The event's goal is to draw attention to the disproportionately rising rate of HIV infection among African Americans in the New Orleans area and to educate the community about the disease and resources that are available to prevent, detect early, treat and live with the disease.

Congratulations to our faculty on their awards and accomplishments during FY2012-2013! The Department of Genetics continues to evolve with each passing year and we look forward to another exceptional year in 2014!

Research Activities and Accomplishments

Fiscal year 2013 has also been a year of great research accomplishments by our faculty and our students. The Department of Genetics was awarded six grants totaling \$2,211,999 from various funding agencies including the National Institutes of Health Office of the Director (NIH-OD), the National Institute of Neurological Disorders and Stroke (NINDS), the National Institute of Mental Health (NIMH), the American Heart Association (AHA) and the Louisiana State Board of Regents (BoR).

Our current active grants and contracts total \$6,764,997.

Dr. Judy Crabtree was awarded a Louisiana Board of Regents Research Competitiveness Program award for the project entitled "MicroRNA profiling of expanded pancreatic islets as a result of increased metabolic demand in the mouse." The total award is \$94,438.

Dr. Paula Gregory was awarded the American Heart Association award to support three medical student stipends for 10 weeks as part of the Summer Research Internship Program. The Summer Research Internship Program provides students opportunity to work on a basic or clinical sciences research program over 10 weeks in the summer in an effort to cultivate their interest in research careers. Total award amount is \$27,000.

Dr. Udai Pandey was awarded an R01 from the National Institute of Neurological Disorders and Stroke/ National Institutes of Health on the project "Cellular and Molecular Mechanisms of FUS-related Amyotrophic Lateral Sclerosis". The total award is \$1,812,417. Dr. Pandey was also awarded a COBRE pilot project as part of the LSUHSC Neuroscience Center award from the National Institute of Neurological Disorders and Stroke/ National Institutes of Health. The total award was \$50,000.00. Dr. Pandey also received a contract renewal from the Robert Packard Center for ALS research at Johns Hopkins in the amount of \$50,000 to extend his project titled "A drosophila model to investigate the role of FUS in ALS". Additionally, Dr. Pandey was the recipient of a subcontract award from National Institute of Mental Health/Henry Jackson

Foundation for the Advancement of Military Science in the amount of \$17,830 for his project “Molecular library screen for suppression of FUS proteinopathy”.

Dr. Udai Pandey also led research that found the ability of a protein made by a gene called FUS to bind to RNA is essential to the development of familial Amyotrophic Lateral Sclerosis (ALS). The discovery identifies a possible therapeutic target for the fatal neurological disease. The study titled “Drosophila model of FUS-related neurodegeneration reveals genetic interaction between FUS and TDP-43” was published in the journal of Human Molecular Genetics.

Drs. Paula Gregory and Fern Tsien in collaboration with Dr. Jawed Alam at Ochsner Clinic received funding from the NIH-OD to support an exciting outreach program for local high school science teachers. The “BEST Science!” program offerings include paid summer professional development workshops for teachers, curriculum supplements including hands-on laboratory modules directly aligned with Louisiana curriculum standards and laboratory supply kits available on loan during the academic school year. Drs. Gregory and Tsien lectured and provided educational resources, as well as hands-on experiments the teachers can use in the classroom.

Dr. Andrew Hollenbach was issued his second US Patent for “Phospho-specific anti-Pax3 antibodies”

A listing of all active grants in the department can be found in the appendix, together with a list of all grants submitted during fiscal year 2013

Publications and Presentations

The department faculty and staff continued their productivity by contributing a total of 32 invited presentations, 23 platform and poster presentations at local, national and international meetings, 1 patent and 8 published papers in fiscal year 2013.

Please refer to the Appendix for a detailed list of all publications and presentations.

Education

Teaching

In fiscal year 2013, our faculty taught in 25 courses within the Schools of Medicine, Graduate Studies, Allied Health, Nursing and Public Health. Please see Appendix for a detailed list of courses directed by Genetics Faculty and course lectures given by Genetics Faculty.

Graduate Program

Dr. Diptasri Mandal (Graduate Student Coordinator) and Dr. Andrew Hollenbach (Associate Coordinator).

During fiscal year 2013, the Department of Genetics accepted two new students into its graduate program for the 2013-2014 academic year from the School of Graduate Studies Interdisciplinary Program: Kayla Fuselier and Michael Upchurch. Kayla has joined the Genetics Department under the mentorship of Dr. Edward Graczyk. Michael is an MD/PhD student who has joined Dr. Wanguo Liu's laboratory for his PhD work.

In total, in the last fiscal year the Department of Genetics had 12 graduate students in the program, four of whom have graduated: Anasheh Halabi under the mentorship of Dr. Edward Graczyk (Dissertation Project: "Targeting DNA Mismatch Repair in Trinucleotide Repeat Expansion"), Aditi Iyengar under the mentorship of Dr. Andrew Hollenbach (Dissertation Project: "Potential Role of PAX3 Phosphorylation in Melanoma Progression"), Nikki Nguyen, under the mentorship of Dr. Jay Kolls (Dissertation Project: "Vitamin D Regulation of Immune Responses to *Aspergillus Fumigatus*") and David Ricks under the membership of Dr. Jay Kolls (Dissertation Project: "The Role of Antibodies Targeting Fungal Carbohydrates In Host Defense Against *Pneumocystis*").

Anasheh Halabi is a MD/PhD student and following graduation, she has returned to LSU Medical School to complete her requirements for the MD program. Aditi Iyengar has joined the Department of Neurology at Massachusetts General Hospital as a Postdoctoral Fellow. Nikki Nguyen has joined Department of Infectious Disease at Children's Hospital of Pittsburgh of UPMC as a Postdoctoral Fellow and David Ricks has joined the Richard King Mellon Foundation Institute for Pediatric Research at Children's Hospital of Pittsburgh of UPMC as a Postdoctoral Fellow.

Prior to graduation, Anasheh Halabi, PhD won first place for her oral presentation at Graduate Research Day in fall 2012. Dr. Halabi was also the recipient of a travel award to present her work at the Ataxia Research Conference in London, England. Additionally, Dr. Halabi received the 2013 Chancellor's Award. The selection of the awardees is based upon research performance as demonstrated by the quality of the dissertation and related research accomplishments while a student in the School of Graduate Studies.

Recent Genetics graduate, Aditi Iyengar, PhD published an article in the ASBMB Today for their essay series *“Derailed but not Deterred”*. According to the editor of ASBMB Today, her article was the most accessed article of the issue and series. Dr. Iyengar has since been invited to serve as a contributing author to the publication.

Genetics Graduate Students Anasheh Halabi, Aditi Iyengar, Jacob Loupe, Elaine Maggi, Jyothi Vijayaraghavan, Gavin Daigle, Matthew Dean, Michael Ripple, Kayla Fuselier and Garland Upchurch worked with Dr. Fern Tsien in her educational outreach programs for elementary, middle school and high school students.

The Graduate Program in the Department of Genetics performed a number of student recruitment activities in fiscal year 2013. We presented the overview of research interest of our faculty members and the program expectation to the interviewing MD/PhD Students. We hosted two departmental tours to introduce the new Interdisciplinary Program graduate students and the MD/PhD students to research activities ongoing within the Department. These presentations aid as a foundation for recruitment into the Genetics graduate program and a platform for faculty to discuss their research interests with prospective students.

The Graduate Student Oversight Committee held meetings to evaluate progress of each student and to monitor their tentative timelines towards graduation. Progress notes on all graduate students were obtained from their respective mentors prior to the meeting. With the approval of the Interim Head Dr. McDonough, official letters were sent out to each student and their respective mentors informing about their progress and reminding them about the Departmental and Institutional degree requirements and expectation. The members of this committee for fiscal year 2013 were Drs. Crabtree, Hollenbach, and Mandal (Chair).

An Admission Committee has been formed in FY 2013 with Drs. Hollenbach, Pandey, Liu, Mandal (Chair) as the members for the 2013-2014 academic year.

The graduate program submitted the NSF/NIH Fall 2012 Survey of Graduate Students and Post doctorates in Science and Engineering (GSS). The GSS is conducted to provide information on the training of the future labor force in the science, engineering, and health fields. This survey is conducted annually and the graduate program always ensures timely submission of this report which helps to make sure our institution is accurately represented in national statistical tables.

Overall, the graduate program fulfilled the mission of the Department of Genetics in educating and training students to become successful in their future endeavors. As always, a special note of thanks is extended to the departmental coordinator, Ms. Heather Shields in assisting the graduate program with maintaining records, organizing the student visits, and performing other activities to accomplish the program goals and objectives.

Seminar Series

The Department of Genetics conducts an annual seminar series, directed by Drs. Judy Crabtree and Andrew Hollenbach. The series is offered as an opportunity for graduate students, postdoctoral fellows and faculty to broaden their knowledge beyond their specific area of research and/or studies. The department's aim is to offer a dynamic, interactive seminar series that encourages an exchange of ideas among researchers and students. The Seminar Series Committee works to provide a full agenda of speakers who are known globally and represent academia, industry and government. The intention is to balance the topics across all areas of the Department while also integrating a few speakers who traverse the traditional Genetics boundaries into new and exciting areas.

The Seminar Series is an excellent opportunity for graduate students and postdoctoral researchers alike to share their scientific research and gain invaluable experience presenting. The Department hosts seminars given by each graduate student and postdoctoral researcher in addition to local and national researchers.

Invited speakers from outside LSUHSC included:

- **Steven K. Libutti, M.D.**
Professor, Department of Surgery
Professor, Department of Genetics
Vice Chair, Department of Surgery
Associate Director for Clinical Services of the Albert Einstein Cancer Center
Albert Einstein College of Medicine of Yeshiva University
Bronx, NY
“Mouse Models for Neuroendocrine Tumors: Understanding Pathogenesis for Developing New Therapies.”
September 21, 2012
- **Ming Guo, M.D., Ph.D.**
Associate Professor, Molecular & Medical Pharmacology and Neurology
David Geffen School of Medicine
University of California
Los Angeles, CA
“Molecular Pathways to Parkinson's Disease”
October 19, 2012
- **Kathryn Ivey, Ph.D.**
Staff Research Investigator
Stem Cell Core Director

Gladstone Institutes

San Francisco, CA

“Post-transcriptional Regulation of Bicistronic Muscle microRNAs”

February 15, 2013

- **Matthew Burow, Ph.D.**

Assistant Professor of Medicine

Section of Hematology and Medical Oncology

Tulane School of Medicine

New Orleans, LA

“microRNA regulation of estrogen receptor and mTOR signaling in breast cancer”

May 10, 2013

A full copy of the 2012-2013 seminar series schedule can be found in the Appendix.

Outreach Activities

Summer Research Internship Program

The Summer Research Internship Program directed by Drs. Paula Gregory and Fern Tsien and coordinated by Heather Shields, accepted 65 students (6 high school, 27 undergraduates, and 32 medical students) out of 221 applicants. The program is designed to expose students to cutting edge research and provide an introduction to medical and graduate school as a means of preparing students for careers in basic and translational research. Students learn how to design experiments, and how to analyze and interpret data. Furthermore, they gain valuable hands-on laboratory and clinical research experience during the summer.

Funding to support this program comes from both intramural and extramural funding. Overall the program is funded by: LSU School of Medicine, Tulane School of Medicine, the Louisiana Vaccine Center, the Patrick F. Taylor Foundation, National Heart, Lung and Blood Institute, the National Institute on Alcohol Abuse and Alcoholism, National Institute of Diabetes and Digestive and Kidney Diseases and American Heart Association.

The summer program is modeled after the NIH Summer Internship Program. Summer Interns work directly with faculty and graduate students on a research project of their choice at LSUHSC, Tulane School of Medicine, Pennington Biomedical Research Center, or Children's Hospital. Many of the faculty of the Genetics Department successfully mentored these students. The second component of the program is didactic presentations, seminars, journal clubs, and lab meetings. The program hosts a weekly seminar series that covers a variety of topics related to research techniques, careers in the biomedical fields, and responsible conduct of research. The third component of the program focuses on communication and presentation skills. The students summarize their research in an abstract, design a research poster and learn strategies for effective scientific oral presentations.

At the end of the summer, the high school and undergraduate students presented their results at the Summer Research Internship Poster Day which is attended by the students, the mentors, the lab members, and the scientific community. This year, Poster Day was held on Tuesday, July 30, 2013 in the lobby of the Medical Education Building (MEB) at LSU Health Sciences Center. Immediately following the poster session, an awards ceremony was held to recognize the outstanding posters and the top presenters. The list of awardees and mentors can be found in the Appendix.

LSU Medical Students will present the results of their summer research on October 18, 2013 at Medical Student Research Day. The winner will be eligible for a travel award to present at The National Student Research Forum in Galveston, Texas.

Medical Student Research Day

Dr. Paula Gregory organized the Second Annual Medical Student Research Day on Friday, October 12, 2012. This research day, dedicated solely to medical students, included L1s, L2s and L3s presenting the data from their research. Medical Student Research Day is designed to showcase the accomplishments of LSU School of Medicine medical students and provides them with the opportunity to present their projects to fellow students and faculty.

The 2012 Best Poster Presentation winner was Jeffrey Cardinale for his poster “Arterial Intima-Media Thickness in Children and Adolescents with Diabetes.” Jeffrey worked with Dr. Christian Lilje in the Department of Pediatric Cardiology. Jeffrey received a travel scholarship from Dean Nelson and presented at the National Student Research Forum in Galveston, Texas where he won the Best Presentation in his division.

LSU Medical Alumni Association provided the funding for the day.

BEST Science! Program for High School Teachers

Dr. Paula Gregory (PI) and Dr. Fern Tsien (Co-I) in collaboration with Ochsner Clinic, received funding from the NIH to support an exciting outreach program for local high school science teachers. The program offerings include paid summer professional development workshops for teachers, curriculum supplements including hands-on laboratory modules directly aligned with Louisiana curriculum standards and laboratory supply kits available on loan during the academic school year. Scientists, physicians and other faculty from Ochsner, LSUHSC and other local institutions of higher learning have committed to participate in the teacher workshops and assist teachers and students throughout the school year. BEST Science! is projected to impact more than 11,000 students and at least 130 teachers in the New Orleans Metropolitan Area through 2017. A week-long teacher workshop attended by 16 high school teachers from throughout Southeastern Louisiana was held at Ochsner Hospital, Monday, June 10th to Friday June 14th. Drs. Gregory and Tsien lectured and provided educational resources, as well as hands-on experiments the teachers can use in the classroom.

Middle and High School Workshops

Drs. Paula Gregory and Fern Tsien are both dedicated to educational outreach programs and have directed various programs throughout the state. Dr. Gregory has an intense hands-on partnership with Mandeville High School, Benjamin Franklin High School, St. Mary's Dominican High School, The New Orleans Charter School, Math and Science High School and O. Perry Walker High School. Dr. Tsien partners with more than 20 high schools and 5 middle schools per year with hands-on workshops, organizing and judging school science fairs, mentoring students with writing competitive resumes, and introducing students to different careers in the health sciences.

Ochsner STAR

Dr. Gregory worked with the Ochsner STAR program, a free, educational summer camp sponsored by the Academic Division of Ochsner Health System. The program's mission is to inspire, educate, and prepare students for the future. The knowledge and skills acquired in the program provided students with a solid foundation on which to build an advanced education and a successful career in science, medicine, or health care. Dr. Gregory conducted hands on lab experiments and lectures on the PTC taster genes.

The Louisiana State University Health Sciences Center (LSUHSC)-New Orleans Schools Science Partnership Program

Dr. Fern Tsien is the Director of the LSUHSC-New Orleans Schools Science Partnership Program for the 2012-2013 academic year. LSUHSC believes that New Orleans students need a strong educational foundation in the sciences and should be introduced to professional role models from the scientific community to enhance their academic enthusiasm and opportunity for success.

The goals of the program include:

- making science more interesting, easier to understand, and accessible in the classroom through hands-on science activities in coordination with the school administrators and teachers based on their current curriculum
- improving 4th grade science standardized Louisiana Educational Assessment Program (LEAP) and other test scores
- introducing 4th graders attending New Orleans public, charter, and recovery district schools to positive and diverse science professionals and trainees as role models

Volunteer instructors include students, post-doctoral fellows, and faculty from the Schools of Medicine, Graduate Studies, Allied Health Professions, Dentistry, Public Health, and Nursing. Currently programs are taught at three partner schools, Benjamin Banneker Elementary School, St. Peter Claver, and Langston Hughes Academy Charter School twice a month. We plan to partner with additional New Orleans Schools in the near future.

Highly successful campus-wide School Supply and Holiday Book Drives for the partnering schools were held; more than 200 school supply items, 150 books, and 900 comic books were given to the school children, most of who come from underprivileged backgrounds.

The year-long program culminates with a field trip to LSUHSC. This past spring it was held on Monday, May 20th, 2013 with an attendance of almost 150 children. LSUHSC laboratory activities included: DNA isolation from strawberries and the use of DNA in forensics by Dr. Fern Tsien, Ayesha Umrigar, and Elaine Maggi; human organ demonstrations including the effects of smoking on the human lungs by Dr. Bradley Cheek and Guen Rae; videos demonstrating how cells repair wounds by Dr. Shyamal Desai and David Martin; alcohol simulation goggles to show how alcohol consumption impairs the senses by MD/PhD and

graduate student Felix Nau and Dr. Tracy Dodd; and how caffeine affects the nervous system by Drs. Jaime Becnel and Kavaljit Chhabra.

Volunteers Jessica Thompson, Kadie Rome, Jyothi Vijayaraghavan, Dr. Aditi Iyengar, Dr. Kavaljit Chhabra, and Melissa Goldin escorted the 4th graders to the various laboratory activities. Teachers were awarded prizes, and children received books and comic books donated by the LSUHSC Campus wide Book Drive. Dr. Fern Tsien, Dr. Shyamal Desai, Dr. Jaime Becnel, Dr. Kathy McDonough, Dr. Dereck Rovaris, Allison Augustus-Wallace, Angelle Bencaz, and Gavin Daigle handed out the lunches and books.

LSUHSC/Patrick F. Taylor Foundation Science Career Workshop Program

Through her Patrick F. Taylor Foundation award, Dr. Fern Tsien has hosted high school and undergraduate class field trips at LSUHSC and hands-on workshops at middle schools with the hope to encourage students to become interested in the health sciences. During the morning-long or day-long field trips at LSUHSC, students learn about science careers, including research, forensics science, clinical medicine, and medical technology. Genetic Department graduate students, LSU medical students, and trainees from other LSUHSC Schools assist with the experiments, which include: swabbing DNA from items found in a “crime scene”, extracting the DNA from the swabs and comparing it with suspect DNA via PCR and gel electrophoresis, and chromosome preparation and analysis from cancer, Down syndrome, and normal individuals. Anatomical specimens of human organs are displayed; including normal lungs, emphysema and cancerous lungs caused by smoking, normal liver, and cirrhotic liver due to alcohol consumption, and enlarged heart due to hypertension, as well as normal brain and intestines. Students are also given lab tours, including a highly interactive visit of the Human Simulation Lab, and are given presentations on careers in genetic research, clinical medicine, and medical technology. For the middle school and high school workshops, Dr. Tsien and the graduate and medical student instructors perform age-appropriate experiments at the school. Both field trip and workshop topics are closely coordinated between Dr. Tsien and the teachers to maximize the students’ understanding of the material as it pertains to their classroom curriculum. Participating middle and high schools of the 2012-2013 academic year included: Benjamin Franklin HS (Orleans Parish), Chalmette HS (St. Bernard Parish), Destrehan High School (St. Charles Parish), East Ascension High School (Ascension Parish), Holy Name of Jesus Middle School (Orleans Parish), Lusher Middle School (Orleans Parish), Patrick F. Taylor Science and Technology Academy (Jefferson Parish), and St. Martin’s Episcopal School (Jefferson Parish). More than 300 students were reached through these workshops during the 2012-2013 academic year. Genetics graduate students, faculty, and staff helped instruct the workshops, including: Angelle Bencaz, Gavin Daigle, Matthew Dean, Kayla Fuselier, Dr. Anasheh Halabi, Dr. Aditi Iyengar, Dr. Nick Lanson, Jacob Loupe, Elaine Maggi, Dr. John Monaghan, Dr. Udai Pandey, Michael Ripple, Michael Upchurch, and Jyothi Vijayaraghavan.

Science and Career Education Partnership with New Orleans Historically Black Colleges and Universities (HBCUs)

Dr. Tsien partnered with two New Orleans HBCUs, Xavier University of Louisiana (XULA) and Dillard University. She held genetics workshops at LSUHSC and lectured at the universities about the different careers in the health sciences, promoting the six schools at LSUHSC. She also gave the students advice on how to write a competitive resume and CV for application to advanced academic programs. The goals of this partnership are to increase the number of applicants to LSUHSC who are considered underrepresented minorities (URM) in the sciences, and ultimately increase the number of URM in health science careers.

Other Departmental Activities

Student Work in Progress (SWIP)

One of Dr. McDonough's first initiatives as Interim Department Head was to form a weekly Student Work in Progress (SWIP) meeting with the Genetics Graduate Students. SWIP gives the students occasion to discuss their scientific research projects and interests with one another while also giving Dr. McDonough the opportunity to become familiar with each student's area of research. The meeting proved so successful that it will continue in Fiscal Year 2014.

Chemosnacksis

In Fiscal Year 2013, the Department of Genetics began a monthly team building activity based on a suggestion by Dr. Andrew Hollenbach, called "Chemosnacksis". The idea of the name was the brain child of graduate students Elaine Maggi, Jyothi Vijayaraghavan, and their mentor Judy Crabtree. In cell biology, chemotaxis is the process by which cells direct their movement towards certain chemicals in the environment, usually food. With a play on this term, Chemosnacksis represents the department members directing their movements toward food and drink to come together in a social environment to enjoy each other's company and get to know each other on a non-professional level. Chemosnacksis is hosted each month by a different lab, faculty or staff member(s). The hosting party comes up with a theme and provides decorations and refreshments for the department. This event serves to foster team spirit and reinforce the importance of collaboration to achieve desired goals and outcomes.

Plans for the Coming Year

Effective August 14, 2012 Dr. Wayne V. Vedeckis Interim Head of the Department of Genetics retired and Dr. Kathleen H. McDonough was named Interim Head of the Department of Genetics. Thus, the primary goal for the coming year is to recruit a permanent Department Head with a strong vision of excellence for the Department, a focus on developing multi-disciplinary program projects, center grants, funded training programs, and who will lead efforts to foster meaningful translational research. The search committee, headed by Dr. Alastair Ramsay, is optimistic that an outstanding permanent Department Head will be named in a timely fashion.

Another important goal of the department will be to maximize the research potential of the department faculty. Our faculty have submitted grants and been successful in receiving funding from several sources and more submissions will be encouraged this year. Graduate education is an important mission of the department and will continue to be a strong focus including submission of training grant applications by students and honing communication skills by having students present at meetings and publish their research.

The department is active in fulfilling the missions of the Medical School. Future initiatives will focus on assisting faculty and students, via individual mentoring and through official mentoring committees, to grow their research programs and their service to both the School of Medicine and the Department of Genetics.

The department will continue to provide the excellent and highly recognized outreach and community service projects in which many of the faculty will participate. This will include active involvement in Summer Research Programs and Internships, elementary and high school workshops, and other activities that foster education and health care awareness in the Greater New Orleans area and beyond. In FY2012, led by Dr. Fern Tsien, outreach activities expanded to include activities involving the LSUHSC-New Orleans Public Schools Partnership Program. We look forward to the opportunities to further the service mission of the Health Sciences Center, to interact with the children of New Orleans, and to expand the presence of genetics in education.

Appendix

Appendix

Teaching Activities

Courses Directed by Genetics Faculty

Course	School	Director(s)	Genetics Lecturer(s)	Semester
Intro to Research and Resources (Inter101)	Graduate Studies	Dr. Hollenbach		Summer 2012
Responsible Conduct in Research (Inter260)	Graduate Studies	Dr. Gregory		Summer 2012
Human Molecular Genetics (Genet231)	Graduate Studies	Drs. Gregory, Crabtree	Drs. Tsien, Hollenbach, Mandal, Pandey	Fall 2012
Intro to Molecular Biology (Inter122)	Graduate Studies	Dr. Hollenbach	Drs. Crabtree, Grabczyk, Pandey, Tsien	Fall 2012
Genetic Epidemiology and Population Genetics (Genet236)	Graduate Studies	Dr. Mandal	Dr. Liu	Fall 2012
Genetics Journal Club (Genet290)	Graduate Studies	Drs. Liu, Pandey		Fall 2012
Human Cytogenetics (Genet292)	Graduate Studies	Dr. Tsien		Fall 2012
Seminar in Human Genetics (Genet299)	Graduate Studies	Drs. Crabtree, Hollenbach		Fall 2012 Spring 2013
Control of Gene Expressions (Inter123)	Graduate Studies	Dr. Hollenbach	Drs. Crabtree, Mandal, Pandey, Tsien	Spring 2013
Proposal Writing (Genet247)	Graduate Studies	Dr. Gregory		Spring 2013

Practical Bioinformatics (Genet256)	Graduate Studies	Dr. Grabczyk		Spring 2013
Medical Genetics Clinic (Genet271)	Graduate Studies	Dr. Mandal		Spring 2013
Molecular Pathology (rotation)	Graduate Studies	Drs. Gregory, Tsien		Spring 2013

Course Lectures Given by Genetics Faculty

Course	School	Lecturer	Semester
Cell Biology (Inter121)	Graduate Studies	Drs. Crabtree, Gregory, Liu	Fall 2012
Cleft Palate and Craniofacial Disorders (Spthaud6220)	Allied Health Professions	Dr. Tsien	Fall 2012
Genetics (Spthaud7225)	Allied Health Professions	Tsien	Fall 2012
Cell Biology and Microanatomy (Anat192)	Graduate Studies	Dr. Gregory	Fall 2012
Genetic Health Across the Life Span (Nurs3451)	Nursing	Drs. Gregory, Tsien	Fall 2012 Spring 2013
Pathophysiology (Endo) (Inter132/Phth7123)	Medicine	Dr. Gregory	Spring 2013
Science Teaching (Inter180)	Graduate Studies	Dr. Tsien	Spring 2013
Medical Pharmacology (Pharm200)	Medicine	Dr. Gregory	Spring 2013
Molecular Diagnostics and Genetics (Mtec5119)	Allied Health Professions	Dr. Tsien	Spring 2013
Cancer Epidemiology (Epid6222)	Public Health	Dr. Mandal	Spring 2013
Medical Biochemistry (Bioch100)	Medicine	Drs. Gregory, Tsien	Spring 2013
Science and Practice of Medicine- Medical Ethics (SPM100)	Medicine	Drs. Crabtree, Grabczyk, Gregory, Hollenbach	Fall 2012 Spring 2013

Department of Genetics

Fall 2013/Spring 2014 Seminar Series Schedule

September 21, 2012

Steven K. Libutti, MD

Professor, Department of Surgery
Professor, Department of Genetics
Vice Chair, Department of Surgery
Associate Director for Clinical Services of the
Albert Einstein Cancer Center
Albert Einstein College of Medicine of Yeshiva University
Bronx, NY

October 19, 2012

Ming Guo, MD, PhD

Associate Professor, Department of Neurology and
Pharmacology
David Geffen School of Medicine
University of California, Los Angeles
Los Angeles, CA

October 26, 2012

Postdoctoral Seminar: **John Monaghan, PhD**

November 2, 2012

Graduate Student Dissertation Seminar: **Nikki Nguyen**

November 16, 2012

Graduate Student Seminar: **Aditi Iyengar**

December 3, 2012

Graduate Student Dissertation Seminar: **David Ricks**

December 14, 2012

Postdoctoral Seminar: **Zun Liu, PhD**

January 25, 2013

Graduate Student Seminar: **Michael Ripple**

February 15, 2013

Kathryn N. Ivey, PhD

Staff Research Investigator
Stem Cell Core Director
Gladstone Institutes
San Francisco, CA

February 22, 2013

Graduate Student Seminar: **Jacob Loupe**

March 8, 2013

Imran Mungrue, PhD

Assistant Professor, Department of Pharmacology and
Experimental Therapeutics
LSU Health Sciences Center
New Orleans, LA

March 22, 2013

Graduate Student Seminar: **Jack DePaolo**

March 27, 2013

Graduate Student Dissertation Seminar: **Anasheh Halabi**

April 1, 2013

Graduate Student Dissertation Seminar: **Aditi Iyengar**

April 26, 2013

Graduate Student Seminar: **Jyothi Vijayaraghavan**

May 10, 2013

Matthew Burow, PhD

Assistant Professor of Medicine
Section of Hematology and Medical Oncology
Tulane School of Medicine
New Orleans, LA

May 24, 2013

Graduate Student Seminar: **Elaine Maggi**

Summer Research Internship Poster Day Winners

High School

1st Place: **Reuben Hogan**, Jesuit High School

Mentor: Annie Whitaker, PhD, Department of Physiology, LSUHSC

2nd Place: **Cullen Walsh**, Jesuit High School

Mentor: Robert Siggins, PhD, Department of Physiology, LSUHSC

3rd Place: **Jacqueline Spangenberg**, Academy of the Sacred Heart

Mentor: Megan Armstrong, PhD, Department of Physiology, LSUHSC

Undergraduate

1st Place: **Alexander Cammack**, Tulane University

Mentor: Edward Grabczyk, PhD, Department of Genetics, LSUHSC

2nd Place: **Meaghan Doherty**, University of Wisconsin

Mentor: Jason Gardner, PhD, Department of Physiology, LSUHSC

3rd Place: **Charity Sylvester**, Xavier University

Mentor: Imran Mungrue, PhD, Department of Pharmacology, LSUHSC

Mentoring

Dr. Crabtree

Graduate Student Advisor	Elaine Maggi Jyothi Vijayaraghavan
Dissertation Committee Member	Jacob Loupe Nikki Nguyen Michael Ripple

Dr. Grabczyk

Graduate Student Advisor	Anasheh Halabi Kayla Fuselier
Summer Research Mentor	Alexander Cammack
Dissertation Committee Member	David Ricks Jennifer Simkin
Lab Rotation Advisor	Kayla Fuselier Jacques Mayeux

Dr. Gregory

Junior Faculty Advisor	Carlos S. Busso, PhD Erich Richter, MD Diana McDermott, MD Lisa Moreno-Walton, MD
Dissertation Committee Member	Lori Hutcherson Bo Zhang
SOM Mentoring Committee	Janet Rossi, MD Li Shen, MD, PhD Melissa Gorman, MD
LACaTS Research Education, Career Development and Mentoring Core	Jennifer Cameron, PhD Holiday Durham, PhD Matthew Lammi, MD Zach McIver, DO

Dr. Hollenbach

Graduate Student Advisor	Aditi Iyengar Jacob Loupe
Junior Faculty Advisor	Kelly Johanson, PhD Nicole LeCapitaine, PhD Jennifer Lentz, PhD Donna Neumann, PhD Gloria Thomas, PhD
Dissertation Committee Member	Rebecca Buckley Jack DePaolo Elaine Maggi Nikki Nguyen Patrick Raber Michael Ripple Jyothi Vijayaraghavan

Lab Rotation Advisor	Mazvita Maziveyi Shannan Washington
Mentoring assistance on NIH Ruth L. Kirschstein NRSA training grants	Jack DePaolo Patrick Raber Miguel Molina Michael Ripple Annie Whitaker Amy R. Johnson, PhD Sophie Teng, PhD

Dr. Liu

Graduate Student Advisor	Jack DePaolo
Junior Faculty Advisor	Eric Buckle, PhD
Dissertation Committee Member	Julian Burke Anasheh Halabi Aditi Iyengar Jacob Loupe Elaine Maggi Michael Ripple
Postdoctoral Advisor	Zun Liu, PhD Zemin Wang, PhD

Dr. Mandal

Summer Research Mentor	Matthew Haskins Brianne Jones
Dissertation Committee Member	Aditi Iyengar
Postdoctoral Advisor	Elisa Ledet, PhD

Dr. Pandey

Graduate Student Advisor	Ian Casci Gavin Daigle
Summer Research Mentor	Michael Johnson Senthil Natarajan Jessica Summers Chris Toups
Visiting Graduate Student	Samuel Seguin
Dissertation Committee Member	Aram Asatryan Jack DePaolo Aditi Iyengar Long Li Allison C. Augustus-Wallace
Thesis Committee Member	John Cefalu
Postdoctoral Advisor	John Monaghan, PhD
Lab Rotation Advisor	Jennifer Ramsay

Dr. Tsien

Summer Research Mentor	Brianne Jones
K-12 Student Instructor Trainee Mentor	Brittini Baynes Victoria Givens Aditi Iyengar Jacob Loupe Tyrous David Ward Jyothi Vijayaraghavan
Undergraduate Student Advisor	Ayesha Umrigar
Pre-doctor of Audiology Advisor	Danielle Mercer
Post-Graduate Mentor	Michael Hall, MD Kelly Sherling, PhD Bradley Cheek, PhD

Invited Presentations (seminars, mini-courses, etc.)

Dr. Crabtree

- LSUHSC Department of Pharmacology “MEN1 and miRNAs in the pancreatic islet”
New Orleans, LA, January 2013

Dr. Grabczyk

- Teaching Cancer Bioinformatics with the UCSC Genome Browser, 2013 BEST Science!
Summer Teacher Workshop, New Orleans, LA, June 2013

Dr. Gregory

- “Pharmacogenomics”, Department of Pharmacology, Tulane Medical School, New Orleans, LA
- “Women in Science”, Louise S. McGehee School, New Orleans, LA
- “Grant Writing 101”, William Carey University, Hattiesburg, MS
- “Mock Study Section”, Children’s Hospital, New Orleans, LA
- “DNA-based identification” St. Mary’s Dominican High School, New Orleans, LA
- “DNA-based identification”, Mandeville High School, Mandeville, LA
- “DNA-based identification”, Benjamin Franklin High School, New Orleans, LA
- “Post Katrina DNA-based identification” Haynes Academy for Advanced Studies, Metairie, LA

Dr. Hollenbach

- Understanding the Ruth L. Kirschstein F-series training grants: Insights from a repeat reviewer”, Louisiana State University Health Sciences Center, Department of Genetics, August, 2012
- “Altered States of Pax3 and Pax3-FOXO1 phosphorylation in muscle development and Alveolar Rhabdomyosarcoma”, The Gladstone Institute, Division of Cardiac Disease, San Francisco, CA, September 2012.
- “Altered states of Pax3 and Pax3-FOXO1 phosphorylation in muscle development and Alveolar Rhabdomyosarcoma”, Louisiana State University Health Sciences Center, Department of Physiology, November 2012.
- “Understanding the Ruth L. Kirschstein F-series of Training Grants: Insights from a Repeat Reviewer”, Department of Physiology, Louisiana State University Health Sciences Center, February 2013.
- “Altered States of Pax3 and Pax3-FOXO1 phosphorylation in muscle development, Alveolar Rhabdomyosarcoma, and Melanoma”, Division of Cancer Therapeutics, The Institute of Cancer Research, Sutton, Surrey, United Kingdom, May 2013.
- “Altered States of Pax3 and Pax3-FOXO1 phosphorylation in muscle development, Alveolar Rhabdomyosarcoma, and Melanoma”, Randall Division of Cell and Molecular Biophysics, Kings College, London, United Kingdom, May 2013

Dr. Mandal

- Genetic Epidemiology and Public Health: Tulane Hayward Genetics Center. April 2013.

Dr. Pandey

- Panel Discussant, Team Gleason meeting on ALS, New Orleans, LA, June 2013
- “Perturbing RNA-binding protein FUS leads to ALS: Lessons from FUS models” Department of Neuroscience, Temple University, School of Medicine, Philadelphia, PA, June 2013
- “Molecular pathways to FUS-related neurodegeneration” Department of Neuroscience, Mayo Clinic, Jacksonville, FL, June 2013
- “Perturbing RNA-binding protein FUS leads to ALS: Lessons from FUS models” Molecular Medicine Seminar Series, Department of Child Neurology, Children’s Hospital of Pittsburgh, University of Pittsburgh Medical Center, Pittsburgh, PA, May 2013
- “Molecular mechanisms of FUS-related ALS” The Robert Packard Center for ALS, Johns Hopkins Medical Center, Baltimore, MD, February 2013
- “The FUS about Lou Gehrig’s disease: Models and Mechanisms. Department of Pharmacology, LSUHSC, New Orleans, LA, January 2013

Dr. Tsien

- “Forensics and Genetics”, Xavier University, LSUHSC, New Orleans, LA, October 2012
- Keynote speaker, “Citogenética molecular” and “La epigenética” Universidad Juárez Autónoma de Tabasco, Villahermosa, México, November 2012
- “Genetics and careers in the sciences”, Dillard University, LSUHSC, New Orleans, LA, November 2012
- “Stem cells: fact versus fiction” at Dillard University, New Orleans, LA, February 2013
- “Genetics of Auditory Disorders”, Clinical Genetics Course, Hayward Genetics Center, Tulane School of Medicine, New Orleans, LA, December 2012
- “Methods in Epigenetic research”, Research Methods, Hayward Genetics Center, Tulane University School of Medicine, New Orleans, LA, February 2013
- “Basic Genetics of Auditory Disorders”, American Speech-Language-Hearing Association (ASHA), video workshop, October 2012
- “Chromosomal abnormalities” Leadership Education in Neurodevelopmental Disabilities (LEND), LSUHSC School of Allied Health Professions, New Orleans, LA, October 2012
- “Epigenetics and disease” Leadership Education in Neurodevelopmental Disabilities (LEND), LSUHSC School of Allied Health Professions, New Orleans, LA, March 2013

Platform and Poster Presentations at Scientific Meetings

Dr. Crabtree

- Elaine C. Maggi, Jyothi Vijayaraghavan, and Judy S. Crabtree. “Dysregulation of RBP2 in Pancreatic Neuroendocrine Tumors” Graduate Student Research Day Poster Session, LSUHSC, New Orleans, LA.
- Jyothi Vijayaraghavan, Elaine Maggi, and Judy S. Crabtree. “miR24-1 enhances beta cell expansion by targeting menin.” Graduate Student Research Day Poster Session, LSUHSC, New Orleans, LA.
- Vilija Vaitaitis, Elaine C. Maggi, Jyothi Vijayaraghavan and Judy S. Crabtree. “The impact of microRNA-24 on menin in mouse insulinoma 6 (MIN6) cells” Medical Student Research Day Poster Session, LSUHSC, New Orleans, LA.

Dr. Grabczyk

- Ed Grabczyk, Anasheh Halabi and Claire Fitzgerald "Downstream MMR processing contributes to GAA•TTC repeat expansion" FASEB J April 9, 2013 27:lb76 American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting, Boston MA, April 2013.

Dr. Gregory

- Alam J, **Gregory P**, Tsien F, Beckers G, Thomas A, Sharai A, Aguiluz N, BEST Science: Bioscience Enrichment for Students and Teachers, SEPA 2013: NIH SciEd Annual Conference For NIH Science Education Projects, Omaha, NE May 2013

Dr. Hollenbach

- “Altered states of Pax3 and Pax3-FOXO1 phosphorylation in muscle development and Alveolar Rhabdomyosarcoma”, The EMBO Symposium on Adolescent and Childhood Sarcomas, Pultusk, Poland, September 30 – October 3, 2012.
- “Chronic alcohol and muscle wasting: FOXO1-centric inflammatory mechanisms”, The Research Society on Alcoholism Annual Meeting, Orlando FL, June 25, 2013.
- “Pax3 Phosphorylation: In the Driver’s Seat of Myogenesis”, Louisiana State University Health Sciences Center Graduate Research Day, November 2012.
- “Chronic alcohol and muscle wasting: FOXO1-centric inflammatory mechanisms”, The Research Society on Alcoholism Annual Meeting, Orlando FL, June 25, 2013.

Dr. Liu

- Zun Liu,¹ Ryan E. Rebowe,¹ Zemin Wang, Zehua Wang, John S. DePaolo, Jianhui Guo, Yingchun Li, Chiping Qian, and Wanguo Liu. KIF3A promotes prostate cancer cell proliferation, migration, and invasion via activation of Dvl2 and the Wnt signaling pathway, American Association for Cancer Research 2013 annual meeting, Washington DC April 6-10, 2013. Abstract #134.
- Zun Liu,¹ Ryan E. Rebowe,¹ Zemin Wang, Zehua Wang, John S. DePaolo, Jianhui Guo, Yingchun Li, Chiping Qian, and Wanguo Liu. Up-regulation of KIF3A activates DVL2 and the Wnt signaling pathway in aggressive prostate cancer, Louisiana Cancer Research Consortium Annual Scientific Retreat, New Orleans, March 8, 2013, Abstract #31.

Dr. Mandal

- D. M. Mandal, M. Haskins, A. Bencaz, J. Hutchinson, J. Chambliss, H. Rothschild, J.E. Bailey-Wilson. Histologic Types and Risk Factors in Familial Lung Cancer Cases from Southern Louisiana. 21st Annual International Genetic Epidemiology Society Meeting. Stevenson, Washington, October 18-20, 2012. Genetic Epidemiology 36: 720–777. Abstract #81.
- C. L. Simpson, T. Green, B. Doan, C. I. Amos, S. M. Pinney, E. Kupert, M. de Andrade, P. Yang, A. G. Schwartz, P. R. Fain, A. Gazdar, J. Minna, J. S. Wiest, H. Rothschild, D. M. Mandal, M. You, T. A. Coons, C. Gaba, M. W. Anderson, J. E. Bailey-Wilson. Fine-Mapping in a Covariate-based Genomewide Linkage Scan of Lung Cancer Susceptibility. 21st Annual International Genetic Epidemiology Society Meeting. Stevenson, Washington, October 18-20, 2012. Genetic Epidemiology 36: 720–777. Abstract #191.
- K.A. Cooney, W.B. Isaacs, J. Xu, E.M. Lange, L. Lu, S. Zheng, Z. Wibg, L. Cannon-Albright, J. Stanford, E.A. Ostrander, C. Maier, J. Schleutker, D. Schaid, S. Thibodeau, G. Cancel-Tassin, F. Wilklund, R. Eeles, D. Easton, A. Whittemore, G. Giles, W. Catalona, D. M. Mandal, W. Foulkes, J. Carpten, D. Seminara on behalf of The International Consortium for Prostate Cancer Genetics. 62nd Annual Meeting of The American Society of Human Genetics. San Francisco, CA. November 6-10, 2012. Abstract #28.
- E. Ledet, X. Hu, O. Sartor, W. Rayford, M. Li, D. M. Mandal. Germline copy number variation in high-risk African American families with prostate cancer. 62nd Annual Meeting of The American Society of Human Genetics. San Francisco, CA. November 6-10, 2012. Abstract #1040.
- D. M. Mandal, M. Haskins, A. Bencaz, J. Hutchinson, J. Chambliss, H. Rothschild, J.E. Bailey-Wilson. Histologic Types and Risk Factors in Familial Lung Cancer Cases from Southern Louisiana. 62nd Annual Meeting of The American Society of Human Genetics. San Francisco, CA. November 6-10, 2012. Abstract #1081.
- S.N. Thibodeau, M. DeRycke, S. McDonnell, S. Gunawardena, Y.W. Asmann, S. Middha, L.A. Cannon-Albright, J.L. Stanford, E.A. Ostrander, W.B. Isaacs, J. Xu, J. Schleutker, K.A. Cooney, E.M. Lange, J.D. Carpten, J.E. Bailey-Wilson, O. Cussenot, G.G. Giles, G. Severi, C. Maier, A.S. Whittemore, C.L. Hsieh, F. Wiklund, W.J. Catalona, W.D. Foulkes, D. M. Mandal, R. Eeles, D. Easton, D. Seminara, D. Schaid on behalf of The International Consortium for Prostate Cancer Genetics. Identification of

Genetic Susceptibility Loci for Familial Prostate Cancer through Whole Exome Sequencing: The ICPCG Study Design. 62nd Annual Meeting of The American Society of Human Genetics. San Francisco, CA. November 6-10, 2012. Abstract #1214.

- C. L. Simpson, T. Green, B. Doan, C. I. Amos, S. M. Pinney, E. Kupert, M. de Andrade, P. Yang, A. G. Schwartz, P. R. Fain, A. Gazdar, J. Minna, J. S. Wiest, H. Rothschild, D. M. Mandal, M. You, T. A. Coons, C. Gaba, M. W. Anderson, J. E. Bailey-Wilson. Fine-Mapping in a Covariate-based Genomewide Linkage Scan of Lung Cancer Susceptibility. 62nd Annual Meeting of The American Society of Human Genetics. San Francisco, CA. November 6-10, 2012. Abstract #1454.

Dr. Pandey

- “RNA binding ability of FUS regulates neurodegeneration, cytoplasmic mislocalization and incorporation into stress granules associated with FUS carrying ALS-linked mutations”. Cold Spring Harbor Laboratory, New York, November 2012

Dr. Tsien

- Alam J, Gregory P, Tsien F, Beckers G, Thomas A, Sharai A, Aguiluz N, BEST Science: Bioscience Enrichment for Students and Teachers, SEPA 2013: NIH SciEd Annual Conference For NIH Science Education Projects, Omaha, NE May 2013
- Rainey S, Tsien F, Bakeer M, Predisposition of ICF (immunodeficiency, centromeric region instability, facial anomalies) Syndrome to Foodborne Pathogens”, Summer Research Internship Poster session, LSUHSC, New Orleans, LA, July 30, 2012
- Rainey S, Tsien F, Bakeer M, Predisposition of ICF (immunodeficiency, centromeric region instability, facial anomalies) Syndrome to Foodborne Pathogens”, School of Allied Health Professions Research Day, LSUHSC, New Orleans, LA, 2013
- Bonvillain, R, Scarritt, ME, Umrigar, A, Tsien, F, Bentacourt, AM, Bunnell, B, Lung-resident Mesenchymal Stem Cells in Rhesus Macaques: Identification, Characterization, and Potential For Use in Lung Bioengineering Applications, Tulane School of Medicine Research Symposium, New Orleans, LA, 2013

Other Academic Achievements and Activities

Dr. Crabtree

- Member, School of Medicine, Women's Affairs Committee
- Member, School of Medicine, Communications Committee
- Member, Faculty Assembly
- Member, Faculty Assembly Awards subcommittee
- Member, Department of Genetics, Graduate Oversight Committee
- Member, American Association of Cancer Research
- Member, The Endocrine Society
- Member, American Society of Human Genetics
- Manuscript Reviewer for Nutrition and Diabetes, Journal of Clinical Endocrinology and Metabolism, Human Reproduction, Endocrinology, Medicine and PLOS One.
- Academic Editor: PLOS One
- Oklahoma Center for Advancement of Science and Technology (OCAST) Health Review Study Section
- LaCATS Grant Reviewer

Dr. Gregory

- Vice-Chair, School of Medicine Women's Affairs Committee
- Organized and serve as faculty sponsor for Medical Student Research Association
- Coordinated LSU medical student (1 student) participation in National Student Research Forum competition
- Conducted New Faculty Receptions (fall and spring)
- Created and taught in the inaugural MS in Clinical Methods course at Tulane
- Organized two New Faculty Orientation sessions (fall and spring)
- Presented Molecular Pathology training session for Dept of Pathology residents
- Planned and implemented Medical Student Research Day for all LSUHSC medical students
- Member, IDP Admissions Committee
- Member, IDP Mentoring Committee
- Co-Director, Summer Research Internship Program

Dr. Hollenbach

- Served on the Association of American Medical Colleges (AAMC) National Advisory Board for the incorporation of LGBT issues into Medical School education.
- Associate Graduate Coordinator for the Department of Genetics
- Director, The Department of Genetics Second Year Qualifying Exam
- Co-director, Department of Genetics Seminar Series
- Member, The Department of Genetics Curriculum Committee
- Member, The Department of Genetics Graduate Student Oversight Committee
- Member, The Department of Genetics Admissions Committee

- Chair, School of Medicine Committee for Improving Communications
- Chair, Search Committee for the Associate Dean of Community Health and Minority Education
- Co-Chair, Dean's Strategic Initiative Committee on Improving Communications
- Head editor, School of Medicine Newsletter, "The Pulse"
- Member, The School of Medicine Multicultural and Diversity Committee
- Member, The School of Medicine Faculty Assembly
- Member, The School of Medicine Faculty Assembly Executive Board (an elected position)
- Faculty Advisor, The School of Medicine Postdoctoral Association
- Mentor, School of Medicine House Mentoring Program
- Chair, The Graduate School Recruitment Committee
- Member, The Graduate Faculty of the LSUHSC School of Graduate Studies
- Member, The Interdisciplinary Program Graduate School Curriculum Committee
- Member, The Graduate School Multicultural and Diversity Committee
- Member, The Graduate Advisory Committee
- Member, The Graduate School Admissions Committee
- Member, The Faculty Senate Website Advisory subcommittee
- Primary Faculty Advisor, LGBT+Ally Organization for Cultural Understanding in the Health Sciences (LOCUS), a student organization to promote LGBT awareness at LSUHSC.
- Founding member, LOCUS: assisted medical student Daniel Punecky (L3) in gaining the recognition of LOCUS as an official LSUHSC student organization.
- Assisted Dereck Rovaris, Ph.D., Vice Chancellor for Multicultural Affairs and Diversity in the editing of the LSUHSC Diversity Climate Survey
- Organizer, inclusion of LSUHSC as an official sponsor of and presence at the Red Umbrella Second Line, an event aimed at raising awareness and education of HIV/AIDS in the New Orleans African American Community
- Ad Hoc Reviewer, National Institutes of Health, Interdisciplinary Review Panel – Genes, Genomes, and Genetics study section. (July 11, 2012)
- Assistant Co-Chair, National Institutes of Health, Interdisciplinary Review Panel – Genes, Genomes, and Genetics study section. (October 19, 2012)
- Co-Chair, National Institutes of Health, Interdisciplinary Review Panel – Genes, Genomes, and Genetics study section. (February 28, 2013)
- Ad Hoc Reviewer, National Institutes of Health, Special Emphasis Panel – Developmental Pharmacology (March 5 – 6, 2013)
- Ad Hoc Reviewer, The Bankhead Coley Foundation
- Ad Hoc Reviewer, Kansas City Area Life Sciences Institute, Patton Trust Research Development Grant
- Ad Hoc Reviewer, James and Esther King Biomedical Research Program
- Journal Reviewer, Nucleic Acids Research, PLoS One, Biochimica et Biophysica Acta, Clinical Cancer Research, Journal of Molecular Cell Biology
- Editor, ISRN Molecular Biology
- Editor, ISRN Advances in Medicine

- Volunteer, Representative from The School of Graduate Studies for the LSUHSC Recruitment Caravan to Dillard University
- Volunteer, Representative from The School of Graduate Studies for the LSUHSC Recruitment Caravan to Xavier University
- Volunteer, Poster Judge: Medical Student Research Day, Louisiana State University School of Medicine, October 12, 2012
- Participant, LSUHSC presence at the Red Umbrella Second Line, an event focused on promoting awareness and education of the prevalence of HIV/AIDS in the New Orleans African American Community.
- Volunteer, Assist in the development of the St. Martin's Episcopal School (Metairie, LA) General Biology laboratory on the concept of antibiotic resistance in bacteria.
- Obtained a license agreement with Abcam for the marketing and sale of our monoclonal anti-Pax3 (p201) and polyclonal anti-Pax3 (p205) antibodies.

Dr. Liu

- Member, Graduate Admission Committee, Department of Genetics
- Member, Promotion & Tenure Committee, Department of Genetics
- Member of quality exam review committee, Department of Genetics
- Member, Research Enhancement Fund review committee SOM
- Junior faculty mentoring committee member, LSU Cancer Center
- LACaTS grant application review committee
- LCRC Tissue Utilization Review Committee (TURC)
- Netherland National Science Department, Grant Review Committee
- Board member of International Journal of Clinical and Experimental Medicine
- Board member of JSM Genetics & Genomics
- Journal Reviewer, PLoS ONE
- Journal Reviewer, Cancer Res
- Journal Reviewer, Carcinogenesis

Dr. Mandal

- Graduate Student Coordinator, Department of Genetics, LSUHSC-NO
- Chair, Graduate Admission Committee, Department of Genetics
- Chair, Promotion & Tenure Committee, Department of Genetics
- Chair, Graduate Student Oversight Committee, Department of Genetics
- Chair, Curriculum Committee, Department of Genetics
- Member, Emergency Policy Guide Committee
- Member, Graduate Advisory Council, LSUHSC-NO
- Member, Council on Professional Conduct, LSUHSC-NO
- Chair, Curriculum Committee, Graduate School, LSUHSC-NO
- Member, Curriculum Oversight Committee, School of Medicine, LSUHSC-NO
- Summer Mentor, Summer Cancer Research Internship Program, Louisiana Cancer Research Consortium of New Orleans
- Interviewer, IDP student applicants, School of Graduate Studies
- Junior faculty mentoring committee member, LSUHSC-NO

- Reviewer: Medical Research Council, United Kingdom
- Ad hoc member NIH/EPIC Study Section
- Reviewer: Louisiana Clinical and Translational Science Center (LaCats)
- Reviewer: PLoS ONE, ISRN Epidemiology, Nature Scientific Reports
- Member, Ethical, Legal and Social Issues (ELSI) Committee, International Genetic Epidemiology Society
- Judge, DNA day essay contest by American Society of Human Genetics
- Member, ICPCG – International Consortium of Prostate Cancer Genetics
- Associate, Johns Hopkins Bloomberg School of Public Health

Dr. Pandey

- Graduate Student Qualifying Exam Grader: Anasheh Halabi and Aditi Iyengar
- Dissertation Committee Member (Allison C. Augustus-Wallace, Arthur Haas lab, Biochemistry)
- External expert in Rami Ajjuri's thesis committee (Currently a Graduate student in the laboratory of Janis O'Donnell, PhD, Professor), Department of Biological Sciences, University of Alabama, Tuscaloosa, AL
- External expert in Azy Kia's thesis committee (Currently a Graduate student in the laboratory of Dr. Piera Pasinelli, Associate Professor), Center for Neuroscience, Thomas Jefferson Medical Center, Philadelphia
- Grant Reviewer: National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs)
- Grant Reviewer: Cellular and Molecular Neurodegeneration study section (CMND), NIH Feb 2012
- Grant Reviewer: The Mayo Alzheimer's Disease Research Center pilot grants
- Grant Reviewer: The Italian charity Telethon Foundation, Italy
- Grant Reviewer: European Research Council, UK
- Grant Reviewer: Motor Neuron Disease Association, UK
- Grant Reviewer: Research Enhancement Funds Committee (REF), LSUHSC
- Journal reviewer: Nature Genetics, EMBO J, Human Molecular Genetics, Autophagy, Brain Research, Biophysical Journal, BBA-Molecular Basis of Disease, Current Genomics, Experimental Biology and Medicine, FASEB Letters, Molecular Neurobiology, Neuroscience Letters, Neurobiology of Aging, Neurobiology of Diseases, Progress in Neurobiology, WIREs RNA
- Member, Editorial Board, JSM Genetics and Genomics
- Academic Editor, PLoS One

Dr. Tsien

- Graduate Student Qualifying Exam Grader: Jyothi Vijayaraghavan and Gavin Daigle
- Member, Stanley S. Scott Cancer Center, LSUHSC
- Member of the LSUHSC- New Orleans Graduate School Multicultural/Diversity Committee
- Member, Mentoring in Medicine Committee, LSUHSC
- Member, Committee on Women's Affairs, LSUHSC

- Member, Scholarships and Student Awards Committee, LSUHSC
- Co-director, Summer Research Internship Program
- Director, LSUHSC-Taylor Hands-on Science and Careers workshop program
- Director of the LSUHSC-New Orleans School Science Partnership Program
- Organize and judge the Greater New Orleans Regional Science and Engineering Fairs
- Judge, State level science and engineering fairs
- Judge, Benjamin Franklin High School science fair
- Recruitment fair: attended Xavier University of Louisiana and Dillard University with LSUHSC faculty and students as part of the Multicultural/Diversity Committee to describe the various educational programs offered at LSUHSC
- LSUHSC-New Orleans School Science Partnership Program Field Day at LSUHSC: Directed and organized activities for 4th graders to rotate among various laboratories for hands-on activities.
- Member, Greater New Orleans Science and Engineering Fair
- Member, Association of Women in Science
- Member, Mentoring in Medicine Organizing Committee
- Editor, Center for Acadiana Genetics and Hereditary Health Care
- Genetics Reviewer, The International Journal of Audiology
- Recipient, 2012 LSU School of Medicine Alumni Excellence award for Teaching and Service

Professional Affiliations

Judy Crabtree, Ph.D.

- The Endocrine Society
- American Society of Human Genetics
- Association of Women in Science
- The American Association for Cancer Research

Edward Grabczyk, Ph.D.

- American Association for the Advancement of Science
- American Society for Biochemistry & Molecular Biology

Paula Gregory, Ph.D.

- Association of Professors of Human and Medical Genetics
- American Society for Human Genetics
- American Association for Cancer Education

Andrew Hollenbach, Ph.D.

- The American Society for Biochemistry and Molecular Biology
- The American Society for Cell Biology
- Research Society on Alcoholism
- The Gay and Lesbian Medical Association

Wanguo Liu, Ph.D.

- American Society of Human Genetics
- The American Association of Cancer Research

Diptasri Mandal, Ph.D.

- The American Society of Human Genetics
- The International Genetic Epidemiology Society

Udai Pandey, Ph.D.

- Society for Neuroscience

Fern Tsien, Ph.D.

- DNA Methylation/Epigenetics Society
- LSUHSC Stanley S. Scott Cancer Center
- American Society of Human Genetics
- Center for Acadiana Genetics and Hereditary Health Care
- Greater New Orleans Science and Engineering
- Association of Women in Science
- LSUHSC Multicultural and Diversity Committee
- Louisiana Vaccine Center

Patents and Publications

Patents

Dr. Hollenbach:

Patent #8,304,521 - Hollenbach, A. D., Miller, P. J., and Dietz, K. N. "Phospho-specific anti-Pax3 antibodies.

Publications

Dr. Grabczyk:

1. Halabi, A., Ditch, S., Wang, J., and Grabczyk, E. (2012). DNA mismatch repair complex MutSbeta promotes GAA•TTC repeat expansion in human cells. *J. Biol. Chem.*, 287, 29958-29967.

Dr. Hollenbach:

1. Iyengar, A. S., Loupe, J. M., Miller, P. J., and Hollenbach, A. D. (2012) Identification of CK2 as the Kinase that Phosphorylates Pax3 at Ser209 in Early Myogenic Differentiation. *Bioch. Biophys. Res. Commun.* 428(1): 24-30.

Dr. Liu:

1. Tophkhane C, Yang SH, Jiang Y, Ma Z, Subramaniam D, Anant S, Yogosawa S, Sakai T, Liu W, Edgerton S, Thor A, Yang X. p53 inactivation upregulates p73 expression through E2F-1 mediated transcription. *PLoS One*. 2012;7(8):e43564.

2. Stauder MC, Romero Y, Kabat B, Atherton PJ, Geno D, Deschamps C, Jatoi A, Sloan JA, Botros M, Jung KW, Arora AS, Miller RC; EABE Registry Consortium.; Achem SR, Ahlquist DA, Alberts SR, Alexander JA, Allen MS, Arora AS, Ashman JB, Atherton PJ, Boardman LA, Bouras EP, Bryhn VA, Burch PA, Burdick GE, Buttar NS, Camoriano JK, Cangemi JR, Cassivi SD, Cayer FK, Clayton AC, Crowell MD, Cunningham JM, de Andrade M, de Groen P, De Petris G, Deschamps C, DeVault KR, Diasio RB, DiBaise JK, Edell ES, Elcombe S, Erlichman C, Faigel DO, Fitch TR, Fleischer DE, Fox JC, Foxx-Orenstein AE, Francis D, Fredericksen MB, Galanis E, Grothey A, Geno DM, Haddock MG, Halling KC, Harnois DM, Hilton TW, Hobday T, Houghton LA, Iyer PA, Jaroszewski DE, Jatoi A, Jenkins RB, Johnson EA, Katipamula R, Katzka DA, Kaufman SF, Keaveny AP, Keller DA, Kim GP, Kipp BR, Lam-Himlin DM, Lange SM, Lanza L, Legrand SN, Limburg PJ, Lingle WL, Liu W, Locke GR 3rd, Loeb DS, Lutzke LS, Martenson JA Jr, McWilliams RR, Miller RC, Murray JA, Nguyen CC, Nichols FC 3rd, Odell JA, Pannala R, Paripati HR, Parker AS, Pasha SF, Petersen BT, Petersen GM, Picco MF, Pitot HC, Quevedo J, Raimondo M, Rajan E, Ramirez FP, Romero Y, Root RM, Ross HJ, Rubin J, Sanderson SO, Sargent DJ, Schaid DJ, Shen K, Shi Q, Sinicrope FA, Sloan JA, Smith DC, Smith DI, Smyrk TC, Stark ME, Talley N, Thibodeau SN, Van Norstrand MD, Wallace MB, Wang KK, Weinshilboum RM, Wigle D, Wolfson HC, Song LM, Woodward TA, Wu TT, Yoon HH, Zinsmeister AR. Overall survival and self-reported fatigue in patients with esophageal cancer. *Support Care Cancer*. 2013 Feb;21(2):511-9.

Dr. Mandal:

1. Characterization of germline copy number variation in high-risk African American families with prostate cancer. E.M. Ledet, X. Hu, O. Sartor, W. Rayford, M. Li, D. M. Mandal. Prostate. May, 2013. 73:614-23.

2. HOXB13 is a susceptibility gene for prostate cancer: Results from the International Consortium for Prostate Cancer Genetics (ICPCG). J. Xu, E.M. Lange, L. Lu, S.L. Zheng, Z. Wang, S.N. Thibodeau, L.A. Cannon-Albright, C.C. Teerlink, N. J. Camp, A.M. Ray, K.A. Zuhlke, J. L. Stanford, E.A. Ostrander, K.E. Wiley, S.D. Isaacs, P.C. Walsh, C. Maier, M. Luedeke, W. Vogel, J. Schleutker, T. Wahlfors, T. Tammela, D. Schaid, S.K. McDonnell, M.S. DeRycke, G. Cancel-Tassin, O. Cussenot, F. Wiklund, H. Grönberg, R. Eeles, D. Easton, Z. Kote-Jarai, A.S. Whittemore, C-L. Hsieh, G.G. Giles, J.L. Hopper, G. Severi, W.J. Catalona, D.M. Mandal, E. Ledet, W.D. Foulkes, N. Hamel, L. Mahle, P. Moller , I. Powell, J. E. Bailey-Wilson, J.D. Carpten, D. Seminara, K.A. Cooney, W.B. Isaacs. Human Genetics. January, 2013. 132:5-14.

Dr. Pandey:

1. Scaramuzzino C, Monaghan J, Milioto C, Lanson NA, Maltare A, Aggarwal A, Casci I, Fackelmeyer F, Pennuto M, Pandey UB. Protein arginine methyltransferase 1 and 8 interacts with FUS and regulate sub-cellular distribution of FUS *in vitro* and *in vivo*. PLoS One. 2013 Apr 19; 8(4)

2. Daigle JG, Lanson NA, Smith RB, Casci I, Maltare A, Monaghan J, Nichols CD, Kryndushkin D, Shewmaker F, Pandey UB. RNA binding ability of FUS regulates neurodegeneration, cytoplasmic mislocalization and incorporation into stress granules associated with FUS carrying ALS-linked mutations. Human Molecular Genetics 2013 Mar 15; 22(6):1193-205

Department of Genetics

Active Extramural Funding Fiscal Year 2013

PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	AGENCY	FUNDING MECHANISM	BEGINNING DATE	ENDING DATE	TOTAL PROJECT COSTS
Choi, Sun Mi	Alcohol and Pulmonary Immunity to MRSA	NIAAA	F31	09/12/2011	05/31/2015	\$ 206,260
Gregory, Paula	LSUHSC Summer Internship Program	NHLBI	T35	03/01/2011	02/29/2016	\$ 107,150
Gregory, Paula	Short Term Training for Medical Students	NIH/NIDDK	T35	04/01/2012	03/31/2017	\$ 283,305
Gregory, Paula/ Patricia Molina	Medical Student Alcohol Research Internship	NIAAA	T35	04/01/2012	03/31/2017	\$ 118,045
Gregory, Paula	BEST Science!	NIH/OD	R25	07/17/2012	06/30/2016	\$ 210,314
Gregory, Paula/ Patricia Molina	Louisiana SURE Program	NIAAA	R25	04/05/2012	03/31/2017	\$ 447,920
Halabi, Anasheh	Targeting DNA mismatch repair in age related repeat expansion	NIA	F30	04/01/2012	03/31/2015	\$ 128,237
Hollenbach, Andrew	Mechanism of regulation for the oncogenic Pax3-FOXO1 in Alveolar Rhabdomyosarcoma	NIAAA	R01	06/01/2009	03/31/2014	\$ 1,473,250
Mandal, Diptasri	Determination of Genetic Susceptibility to Lung Cancer	NHLBI	Contract	10/03/2011	10/02/2016	\$ 1,145,543
Pandey, Udai	Molecular library screen for suppression of FUS proteinopathy	NIMH/Henry Jackson Foundation for the Advancement of Military Science	R01 (Subcontractor)	07/15/2012	06/30/2014	\$ 17,830
Pandey, Udai	Cellular and Molecular Mechanisms of FUS-related Amyotrophic Lateral Sclerosis	NINDS	R01	04/15/2013	02/28/2018	\$ 1,812,417
Pandey, Udai	Molecular mechanisms of FUS-related neurodegeneration	NINDS	COBRE pilot	11/12/2012	05/31/2013	\$ 50,000
Total Federal Grants/Contracts Funding						\$ 6,000,271
Gregory, Paula	LSU Health Sciences Fellowship Program	American Heart Association	Fellowship Program	02/01/2013	01/31/2015	\$ 27,000
Pandey, Udai	Molecular basis of FUS/TLS-related amyotrophic lateral sclerosis	Amyotrophic Lateral Sclerosis Association	N/A	08/01/2011	07/31/2014	\$ 240,000
Pandey, Udai	A drosophila model to investigate the role of FUS in ALS	Robert Packard Center for ALS Research at Johns Hopkins	N/A	07/01/2010	10/31/2014	\$ 320,000
Tsien, Fern	Improving Louisiana College Retention through Early Career Choices	Patrick F. Taylor Foundation	N/A	08/01/2012	07/31/2016	\$ 83,288
Total Private Foundation Grants/Contracts Funding						\$ 670,288
Crabtree	MicroRNA profiling of expanded pancreatic islets as a result of increased metabolic demand in the mouse	BoR	RCS	6/1/2013	5/31/2015	\$ 94,438
Total State Grants/Contracts Funding						\$ 94,438
TOTAL GRANTS/CONTRACTS FUNDING (ALL SOURCES)						\$ 6,764,997

Notes:

(1) Active awards for Dr. Wanguo Liu are not listed. His grants/contracts are administered through the Stanley S. Scott Cancer Center at LSUNO. See next page.

(2) Grants/Contracts highlighted in yellow reflect new awards in FY 2013.

**EXTERNAL DEPARTMENTAL FACULTY FUNDING
ACTIVE EXTRAMUAL FUNDING
FISCAL YEAR 2012-2013**

PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	AGENCY	FUNDING MECHANISM	BEGINNING DATE	ENDING DATE	TOTAL PROJECT COSTS
Grants Administered by the Cancer Center:						
Liu, Wanguo	LSUHSC Center for Minority Health and Health Disparities Director of Project 1: Incidence and Biology of Genetic Alterations in Caucasian and African American Men with Prostate Cancer.	NIMD/Dillard University	P20 (Project 1)	12/1/2012	2/28/2015	\$445,935
Total Federal Grants/Contracts Funding						\$445,935
NONE						
Total Private Foundation Grants/Contracts Funding						\$ -
NONE						
Total State Grants/Contracts Funding						\$ -
TOTAL GRANTS/CONTRACTS FUNDING (ALL SOURCES)						\$445,935

DEPARTMENT OF GENETICS SUBMITTED GRANT/CONTRACT APPLICATIONS FISCAL YEAR 2013

PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	AGENCY	FUNDING MECHANISM
Crabtree, Judy	Prostaglandin pathway modulation by gene delivery in androgenetic alopecia	NIH	R01
Crabtree, Judy	MicroRNA profiling of expanded pancreatic islets as a result of increased metabolic demand in the mouse	BoR	RCS
DePaolo, John	The role of androgen receptor acetylation in prostate tumorigenesis	NCI	F30
Grabczyk, Edward	Transcription-coupled repeat expansion via mismatch repair in human cells	NIH	R01
Grabczyk, Edward	The role of somatic repeat expansion in FRDA disease progression	FARA	N/A
Gregory, Paula	LSU Health Sciences Fellowship Program (resubmission)	American Heart Association	Fellowship Program
Hollenbach, Andrew	Chronic alcohol and SAIDS muscle wasting: FOXO1-centric inflammatory mechanisms	NIAAA	CARC Pilot
Hollenbach, Andrew	Pax-3-FOXO1-dependent transcriptome analysis and microRNA profiling in Alveolar Rhabdomyosarcoma	Liddy Shriver Sarcoma Initiative	N/A
Hollenbach, Andrew	Pax-3-FOXO1-dependent miRNA and transcriptome changes as contributors to Alveolar Rhabdomyosarcoma development	Sarcoma Research Fdn	N/A
Hollenbach, Andrew	Genomic analysis of Pax3-FOXO1 regulatory networks in alveolar rhabdomyosarcoma	NIH	R03
Hollenbach, Andrew	Mechanism of regulation for the oncogenic Pax3FOXO1 in alveolar rhabdomyosarcoma (RENEWAL)	NCI	R01
Mandal, Diptasri	The role of androgen receptor acetylation in prostate tumorigenesis	NCI	F30
Mandal, Diptasri	Genetic Study of Prostate Cancer in High-Risk African American Families	DOD	PCRP
Ripple, Michael	Common risk variants for familial lung cancer (resubmission)	NHLBI	R01
Pandey, Udai	Effects of JC Virus on cell signaling and DNA repair pathways in colon cancer	NCI	F30
Pandey, Udai	An in vivo screen for small molecules that protect against neurodegeneration (resubmission)	NINDS	R21
Pandey, Udai	Cellular and Molecular Mechanisms of FUS-related Amyotrophic Lateral Sclerosis (Resubmission)	NINDS	R01
Pandey, Udai	Molecular mechanisms of FUS-related neurodegeneration	NINDS	COBRE pilot
Pandey, Udai	Identifying molecular pathways of FUS-related neurodegeneration (resubmission – changed title)	Muscular Dystrophy Association	N/A

<i>PRINCIPAL INVESTIGATOR</i>	<i>TITLE OF PROJECT</i>	<i>AGENCY</i>	<i>FUNDING MECHANISM</i>
Pandey, Udai	Molecular pathways to FUS related neurodegeneration	NIH	R01
Tsien, Fern	Investigating the molecular mechanisms of FUS-related ALS (renewal)	Robert Packard Center for ALS Research at Johns Hopkins	N/A
Tsien, Fern	REU Site: Summer Research Experiences for Undergraduates in Basic Genetics Research at LSUHSC	NSF	REU
Tsien, Fern	LSUHSC/NO School Science Partnership Program	GNOF/Selley Fdtn	N/A
<i>Total Number of Applications Submitted = 23</i>	Louisiana Genetics Education Network (LGEN) for High School Students and Science Teachers	American Society of Human Genetics	GERP