

GSBS NEWS

The University of Texas
GRADUATE SCHOOL of BIOMEDICAL SCIENCES *at Houston*

DEGREES OF DISCOVERY

Commencement 2008

GSBS on top of the World!



The University of Texas Health Science Center at Houston

The University of Texas M. D. Anderson Cancer Center



THE UNIVERSITY OF TEXAS
MD ANDERSON
CANCER CENTER
Making Cancer History™

Benefactor News

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BACK COVER

Message to the Alumni:

Ben Thomas, Ph. D.
President 2007-2008
GSBS Alumni Association

FIRST LEGACY ENDOWMENT AWARD ESTABLISHED



While thinking about a 'milestone' birthday this year, Harry Gee, Jr., a noted immigration attorney here in Houston, who was born in China, wanted to do something to 'give back.' To that end, he and his wife Antje have created a unique endowment which will provide an opportunity for exceptional international students from China, Germany, Mexico and the Philippines as they to come to Houston and seek a Ph.D. degree at The University of Texas Graduate School of Biomedical Sciences.

Mr. Gee built his practice locally following a B.A. from Rice University and a J.D. from The University of Texas Law School in Austin. He is a past president of the National Asian Pacific American Bar Association, past chairman of the Texas Chapter of the American Immigration Lawyers Association, past member of the Board of Governors of the American Immigration Lawyers Association and the State Bar of Texas, recipient of the prestigious Leon Jaworski Award from the Houston Bar Association Auxiliary, recipient of the Spirit Award from the American Bar Association and a member of the Greater Houston Partnership and has been active in all facets of the Asian community. Not only has he given support and guidance to educational institutions throughout the city and Texas, including UT Health Science Center, Rice University, the University of Houston Central Campus, Downtown and Clear Lake, the University of St. Thomas and The University of Texas at Austin, but he and Antje have hosted international students in their home for Thanksgiving

The Gees wished to honor and strengthen educational ties with the countries of their families' heritage while starting a legacy for generations of research scientists ahead—the very ones who will help find answers to health issues that face us all.

To quote Mr. Gee, "This scholarship endowment is established to celebrate the power of education and the difference it has made in our lives. Our family has always believed in assisting these young people who might dream of getting an education that was not easily accessible."

FRONT COVER

This picture was taken at the Khumbu Ice Fall, 17,600 feet above sea level, which lies on the border of Tibet and Nepal at the Khumbu Glacier. GSBS Faculty member **Phillip Carpenter, Ph.D.**, left, is seen here with his crew after a nine day hike through Sagarmatha National Park.



New Colleagues Can Stimulate Improvements in Education and Research

Scientists are accustomed to change in biomedical research and recognize that it plays an important role in shaping our thinking. New discoveries by others prompt us to reconsider our ideas; new data challenges us to reconsider long-held hypotheses; advances in instrumentation and methodology enable new insights. Discussions with new colleagues can be very thought-provoking – especially their comments and questions when we describe our research, and this is an argument for the recruitment of new faculty and leaders. In an analogous way, discussions with new colleagues and institutional leaders can stimulate new ideas about our educational programs.

Both of our parent institutions have recently undergone major changes in leadership and have recruited, or are making plans to recruit, new leaders and faculty members at a greater rate than at any time since I joined the Faculty in 1972. The University of Texas Health Science Center at Houston has recently named a new president, Dr. Larry Kaiser, and a new dean of the UT-School of Public Health, Dr. Roberta Ness. Last year the Health Science Center named a new dean of the Medical School, Dr. Giuseppe Colasurdo, and The University of Texas M. D. Anderson Cancer Center created a new position of provost and chief academic officer filled by Dr. Ray DuBois.

I have spent a considerable amount of time speaking with these leaders about the Graduate School of Biomedical Sciences and had lengthy discussions with Drs. Willerson and Mendelsohn about important new issues such as the length of time institutional stipend

support is provided for each student. It became quite clear that all these individuals are strong supporters of graduate education, and our discussions prompted me to review the way we do certain things at GSBS. Other individuals and groups such as the Graduate Education Committee at M. D. Anderson and the Graduate Student Education Committee at the Medical School also seem to be having similar thoughts, and the Graduate School Faculty and standing committees have likewise initiated discussions about many key issues, e.g., admissions prerequisites, the timing and nature of the candidacy exam, translational research training opportunities, qualifications and expectations for appointment to the GSBS Faculty, recognition of excellence in graduate teaching, career development activities for students, to name a few.

These issues are increasingly important because of critical changes in our external environment, but regardless of the catalyst, the issues are important and timely, and deserve serious dialogue about them. As these are primarily academic issues they will be decided by the Faculty, however here are three precepts that would be useful to keep in mind during the process. First, carefully consider data from: GSBS students and alumni on the metrics they believe are important, from our aspirational peer institutions, and from research findings about graduate education principles and best practices—in short, rely on data more than anecdote. Second, even if a practice or policy is working well, consider ways to improve it—this is the essence of continuous quality enhancement, a valuable standard. Third, if the purpose of change is

to improve, change itself is not the inherent goal, so before altering a process that has been effective, be able to clearly state the anticipated enhancement in quality that would result from the change, and the metrics to monitor the impact.

As a scientist and faculty member as well as dean I recognize that good biomedical research involves a clear, testable hypothesis with appropriate specific aims to assess it. To employ a similar approach to educational programs and administration would improve the quality of our academic mission.

Best regards,

George



2007-2008 GRADUATES

- Atkins, Kristal** (Nachum Dafny, Ph.D.)
Behavioral and neurophysiological mechanisms underlying psychostimulants
- Bell, Corinne** (Jagannadha Sastry, Ph.D.)
Characterization of a mutant cholera toxin as a mucosal adjuvant
- Bradley, William** (Osama Mawlawi, Ph.D.)
Partial volume correction of lung nodules using PET/CT
- Castillo, Richard** (Thomas Guerrero, M.D., Ph.D.)
CT-based pulmonary compliance imaging in rodents
- Chavez, Violeta** (Danielle Garsin, Ph.D.)
*Oxidative stress enzymes are required for DAF-16 mediated immunity due to generation of reactive oxygen species by *C. elegans**
- Chen, Xin** (Dean Tang, Ph.D.)
Targeting the SV40 T/t to the CK5 cellular compartment in transgenic mice
- Curtis, Leigh** (Roger Janz, Ph.D.)
The role of syntaxin 3B in retinal ribbon synapses
- Defant, Jennifer** (Alex Vidaeff, M.D.)
Preeclampsia and the trisomy 21 conceptus
- Deng, Binbin** (Z. Hong Zhou, Ph.D.)
Cryo-electron tomography study of Kaposi's sarcoma-associated herpesvirus
- Dickinson, Renee** (Richard Wendt, Ph.D.)
Technical improvement of lymphoscintigraphy
- Goins, Aron** (M. Neal Waxham, Ph.D.)
Crowding and size effects on probe microviscosity for polymer cytosolic mimicry
- Hernandez, Joseph** (Janet Price, D. Phil.)
The chemokine receptor CXCR4 and its role in host-tumor interactions in breast cancer metastasis
- Huynh, Ly** (Thomas Goka, Ph.D.)
Cysteine-switch control of the Ras/Raf/MEK/ERK pathway in COS-7 and breast cancer cells
- Jackson, Lori** (Kim-Anh Do, Ph.D.)
Advancing knowledge about prostate cancer progression: analyzing studies using biomarkers and regulatory factors
- Jensen, Kathleen** (Raymond Meyn, Ph.D.)
Characterization of the role of Bcl-2 in modulation of intracellular glutathione
- Langmeyer, Stacy** (Judith Smith, D. Pharm.)
Utilization of an ex vivo placental perfusion model to predict potential fetal exposure to carboplatin utilized in the treatment of cancer during pregnancy
- Lazar, Susannah** (David Followill, Ph.D.)
Risk of secondary fatal malignancies from Hi-Art Tomotherapy
- Liu, Xiuping** (Randy Legerski, Ph.D.)
Involvement of mismatch repair factors in DNA interstrand cross-link repair
- Lu, Jun** (Randy Johnson, Ph.D.)
The role of mammalian salvador in mouse mammary gland development
- Merritt, William** (Menashe Bar-Eli, Ph.D.)
Effects of targeting IL-8 on ovarian cancer
- McNair, Lauren** (Michael Gambello, M.D., Ph.D.)
Epidemiologic characteristics of renal agenesis
- Mull, Benjamin** (Khandan Keyomarsi, Ph.D.)
Role and consequences of cyclin posttranslational modification
- Nitsch, Paige** (Geoffrey Ibbott, Ph.D.)
Assessment of CyberKnife's heterogeneity dose calculation algorithm and respiratory tracking system using an anthropomorphic thorax phantom
- Plimack, Elizabeth** (Jean Pierre Issa, M.D.)
Epigenetic modulation of immunotherapeutic pathways in renal cell carcinoma and melanoma
- Rivera Del Valle, Nilsa** (Joya Chandra, Ph.D.)
Genetic susceptibility to organophosphate toxicity in a group of migrant seasonal farmworker (MSF) women of Mexican origin residing in Texas
- Rother, Joshua** (Daniel Jones, M.D., Ph.D.)
RASSF1A methylation silencing as a correlate of therapy response and MAPK activation in melanoma.
- Roybal, Jonathon** (Jonathan Kurie, M.D.)
Mechanism of stromal cell chemoattraction in cellular models of mouse lung adenocarcinoma
- Salo, Erin** (Miguel Rodriguez-Bigas, M.D.)
Survey of the cancers and genotype-phenotype correlations in the HNPCC patient population at U.T. M.D. Anderson Cancer Center
- Seth, Sarah** (Sarah Noblin, M.S.)
Exploring the role of religion and spirituality in amniocentesis decision-making among Latinas
- Spikes, Sara** (Gregory May, Ph.D.)
The role of gliotoxin in aspergillus fumigatus pathogenesis and specific gene expression
- Spurck, Lauren** (Alex Vidaeff, M.D.)
First trimester combined screening: impact on uptake of invasive procedures in AMA women
- Stanford, Amy** (Sarah Noblin, M.S.)
Expanded newborn screening in Texas: a survey and educational module addressing the knowledge of pediatric residents
- Stevens, Blair** (Claire Singletary, M.S.)
Effect of miscarriage risk in amniocentesis decision-making
- Sullivan, Cathy** (Terri King, Ph.D.)
The impact of genes in glucose metabolism on rostral lesion location in patients with spina bifida meningocele
- Tavana, Bahareh** (Zahid Siddik, Ph.D.)
Downregulation of p21 induces cisplatin resistance in ovarian tumor cells harboring wild-type p53
- Teakell, Scott** (Varsha Gandhi, Ph.D.)
The role of p53 and p22 on 8-Chloro-Adenosine-induced cellular response
- Tips, Catherine** (Jacqueline Hecht, Ph.D.)
Trisomy 21, 18, and 13 in Texas: prevalence and mortality study
- Tschirgi, Matthew** (Karen Lu, M.D.)
Knowledge, attitudes, and opinions of physicians regarding preimplantation genetic diagnosis for hereditary cancer predisposition syndromes
- Tseng, Jui-chuan** (William Plunkett, Ph.D.)
Cellular and molecular pharmacology of the S-phase checkpoint pathway: a mechanism for cell survival
- Uffort, Deon** (Julie Ellerhorst, M.D., Ph.D.)
The regulation of the inducible nitric oxide synthase via the mitogen-activated protein kinase pathway through NF-kappaB activity
- Warren, Whitney** (Geoffrey Ibbott, Ph.D.)
Evaluation of BANG polymer gel dosimeters in proton beams
- Zhai, Xiaodong** (Qingyi Wei, M.D., Ph.D.)
Genetic variants of the NEIL1 and NEIL2 genes and risk/progression of oral cavity and oropharyngeal cancer in a non-hispanic white population - a case control analysis

Barbu, Elena (Magnus Hook, Ph.D.)
Characterization of staphylococcus aureus adhesins important for respiratory tract infection

Billard, Matthew (Bradley McIntyre, Ph.D.)
Diversity in T cell costimulation by alpha4beta1 integrin

Boik, John (Robert Newman, Ph.D.)
Rational preclinical design and screening of multi-drug cancer

Carmon, Kendra (David Loose, Ph.D.)
SFRP4 regulation of WNT7A signaling and cellular proliferation in the endometrium

Carter, Jennifer (Subrata Sen, Ph.D.)
High-resolution microarray analyses of chromosome 20q amplicon in human colon cancer metastasis model systems

Chang, Yao-Fu (Miles Wilkinson, Ph.D.)
T-cell receptor nonsense-associated altered splicing

Chari, Nikhil (Timothy McDonnell, M.D., Ph.D.)
Homeostatic transcriptional regulation of bcl-2 in the epidermis

Cheung, Hannah (Gilbert Cote, Ph.D.)
Glioma-specific alternative RNA splicing: a role for polypyrimidine tract binding protein

Cheng, Hanyin (Robert Kirken, Ph.D.)
Identification and functional characterization of novel phosphotyrosine and phosphoserine residues in the Interleukin-2 receptor complex

Chi, Pai-Chun (Tinsu Pan, Ph.D.)
Thoracic cancer imaging with PET/CT in radiation oncology

Chung, Charles Choonho (James Hixson, Ph.D.)
Characterization of glucocorticoid receptor (NR3C1) gene polymorphisms and a family-based association study with hypertension

Cosme-Blanco, Wilfredo (Sandy Chang, M.D., Ph.D.)
Role of telomere dysfunction, DNA damage response and P53 mutations in tumorigenesis and aging

Dane, Christopher (Dihua Yu, M.D., Ph.D.)
14-3-3 zeta overexpression in early stage breast disease and tumor progression

Dembinski, Jennifer (Michael Andreeff, M.D., Ph.D.)
Examination of the engraftment of exogenous mesenchymal stem cells in ovarian tumors and their potential use as delivery vehicles for therapeutic

Dunlap, Sarah (Wei Zhang, Ph.D.)
Elucidation of the role of IGFBP2 in glioma progression using a glial-specific transgenic mouse model

Duramad, Omar (F. Xiao-Feng Qin, Ph.D.)
Characterization of tumor-associated Foxp3+ regulatory cells and denovo induction by the tumor microenvironment

Ewald, Brett (William Plunkett, Ph.D.)
The molecular mechanisms of sensing nucleoside analogue-induced DNA damage

Fu, Lingchen (Richard Ford, M.D., Ph.D.)
BLyS/BAFF-R signaling pathway in aggressive non Hodgkin's lymphoma B cell and normal peripheral blood B lymphocyte

Fu, Xeyao (William Klein, Ph.D.)
Mouse retinal development: role of cell adhesion and mechanism of gene regulation

GRADUATION CELEBRATION!

Pre-Commencement celebration
hosted by the GSBS Alumni Association.
Steering Committee members welcomed the soon-to-be graduates and alumni.



Graduation Celebration

Thursday, May 1, 2008

UT-GSBS Alumni Forever

2007-2008 GRADUATES

- Guo, Lei** (William Plunkett, Ph.D.)
The mechanism of action of a novel benzo[c]phenanthridine alkaloid, NK314 and the cellular responses
- Hadjifrangiskou, Maria** (Theresa Koehler, Ph.D.)
Cis-acting elements and developmental regulators govern toxin gene expression in Bacillus Anthracis
- Heallen, Todd** (Jill Schumacher, Ph.D.)
Identification and analysis of novel mitotic inhibitors of the caenorhabditis elegans aurora B kinase
- Hong, Sung Ki** (David Johnson, Ph.D.)
The connection between E2F and ATM in P53-dependent apoptosis
- Hu, Zhiying** (Miles Wilkinson, Ph.D.)
Downstream targets of the RHOX5 homeobox gene
- Huang, Feng-Ju** (Suyun Huang, M.D., Ph.D.)
The role and mechanism of suppressor of cytokine signaling 1 in brain metastasis
- Huang, Helen** (Joseph Alcorn, Ph.D.)
Post-transcriptional regulation of human pulmonary surfactant protein B (SP-B) mRNA
- Imam, Jaaffer** (Miles Wilkinson, Ph.D.)
Regulation of RNA splicing by nonsense mutations
- Johnson, Amber** (Michelle Barton, Ph.D.)
Hypoxia-induced transcriptional regulation through chromatin modifications and NC2 function
- Kadara, Humam** (Reuben Lotan, Ph.D.)
Reactive oxygen species-dependent mechanisms of N-(4-hydroxyphenyl) retinamide (4HPR)-induced apoptosis in human carcinoma cells
- Kilpatrick, Shannan** (Jeffrey Frost, Ph.D.)
Analysis of expression and localization of the RHOA GEF NET1 in invasive ductal carcinoma of the breast
- Knisley, Alyssa** (Jennifer Hoskovec, M.S.)
Maternal serum screening: does the frequency of abnormal results vary with ethnicity
- Kry, Stephen** (Mohammad Salehpour, Ph.D.)
The development and validation of a Monte Carlo model for calculating the out-of-field dose from radiotherapy treatments
- Leduc, Magalie** (James Hixson, Ph.D.)
Identification of genetic variation influencing apoE levels: follow-up of genome scans in GENOA
- Lee, Dung-Fang** (Mien-Chie Hung, Ph.D.)
Role of IkappaB kinase beta in inflammation-mediated breast cancer development
- Liu, Pu** (Randy Johnson, Ph.D.)
Dissecting the role of LIM homeobox gene LMX1B in the development of ocular anterior segment
- Lu, Jing** (Dihua Yu, M.D., Ph.D.)
4-3-3 zeta mediated epithelial-mesenchymal transition contributes to ErbB2-overexpressing ductal carcinoma in situ further progression into invasive breast cancer
- Lu, Weiqin** (Peng Huang, M.D., Ph.D.)
Mitochondrial dysfunction leads to NOX activation: a novel mechanism to maintain high glycolysis in cancer cells
- Luo, Rong** (Sankar Maity, Ph.D.)
CCAAT-Binding Factor (CBF) function in endoplasmic reticulum stress response
- Mak, Solida** (James Hixson, Ph.D.)
Expression study of atherosclerotic mouse aorta revealed significant disturbance of calcium signaling pathway
- Marks, Hilary** (Sara Peleg, Ph.D.)
New insights into the role of the duodenal vitamin D receptor in calcium homeostasis
- Marsh, Rebecca** (John Hazle, Ph.D.)
Measuring treatment response in irradiated murine tumors with diffusion-weighted magnetic resonance imaging
- McAuliffe, John** (Jonathan Trent, M.D., Ph.D.)
Molecular mechanisms of response in gastrointestinal stromal tumors treated with Imatinib Mesylate
- McDermott, Alanna** (Dianna Cody, Ph.D.)
Validating pediatric CT surface and organ doses predicted by Monte Carlo simulations using point dosimeter measurements
- McGill, Melanie** (Steven Norris, Ph.D.)
Characterization of humoral immune responses against treponema pallidum antigens
- McKeller, Morgan** (Hector Martinez-Valdez, M.D., Ph.D.)
Vital function for PRELI and essential requirement for its LEA motif
- Meaux, Stacie** (Ambro van Hoof, Ph.D.)
The role of the cap and poly (A) tail in mRNA metabolism
- Melancon, Marites** (Chun Li, Ph.D.)
Near infrared activatable nanocarriers for selective cancer diagnosis and treatment
- Meng, Qingchang** (Rakesh Kumar, Ph.D.)
Regulation of Poly-C-RNA binding protein 1 functions by PAK1 signaling
- Merritt, Thomas** (Jacqueline Hecht, Ph.D.)
Studies of pseudoachondroplasia chondrocytes and knockdown of the cartilage oligomeric matrix protein
- Mitchell, Eugena** (Anne Sereno, Ph.D.)
Effects of early and late lesion of orbital frontal cortex on visual processing of faces in rhesus macaques (Macaca Mulatta)
- Murray, Mollianne** (Khandan Keyomarsi, Ph.D.)
The differential staurosporine mediated G1 arrest in normal versus tumor cells is dependent on the retinoblastoma and Chk1 proteins
- Nelson, Christopher** (George Starkschall, Ph.D.)
Reduction of tumor motion and setup uncertainties in the radiation therapy of lung tumors
- Orvis, Grant** (Richard Behringer, Ph.D.)
Life and death of the embryonic female reproductive tract
- Panopoulos, Athanasia** (Stephanie Watowich, Ph.D.)
The role of STAT3 in the emergency neutrophil response
- Patrawala, Lubna** (Dean Tang, M.D., Ph.D.)
Stem-like cancer cells in human cell lines and xenografts: identification and characterization
- Phillips, Brian** (John Spudich, Ph.D.)
Molecular interactions and signal transfer between sensory rhodopsin-1 and its cognate transducer
- Piggott, Leslie** (Carmen Dessauer, Ph.D.)
Scaffolding of adenylyl cyclase by a kinase anchoring proteins

Qin, Taichun (Jean Pierre Issa, M.D.)
Maximizing efficacy of the hypomethylating drug 5-AZA-2'-deoxycytidine in human leukemia

Rall, Jason (Dale Hereld, M.D., Ph.D.)
Identification and characterization of distinct classes of cAMP-PULSE-INDUCED genes in dictyostelium discoideum development

Reddy, Krishna (Eugenie Kleinerman, M.D.)
Bone marrow-derived stem/progenitor cells play an important role in the growth of Ewing's sarcoma tumors

Rosales, Corina (Yong-Jian Geng, M.D., Ph.D.)
The role of CD1d in adipogenesis

Ross, Jeremy (Robert Kirken, Ph.D.)
Proteomic identification and functional characterization of prohibitin 1 and 2 in T cell activation, expansion, survival and disease

Salicru, Adriano (Gailen Marshall, M.D., Ph.D.)
The roles of costimulatory molecules in the cooperative effect of combination epinephrine and dexamethasone on type-1/type-2 cytokine production in tetanus-toxoid specific stimulated human peripheral blood mononuclear cells

Shackelford, Terry (Francois Claret, Ph.D.)
The regulation of JAB1 and its role in hereptin resistance

Song, Chunying (Rakesh Kumar, Ph.D.)
TSer88 phosphorylation regulates dynein light chain 1 (DLC1) function in the mouse mammary gland

Tao, Ye (Robert Schulz, Ph.D.)
Identification and characterization of new genes involved in drosophila heart development

Trachootham, Dunyaporn (Peng Huang, M.D., Ph.D.)
Selective elimination of cancer cells by PEITC: biological basis and therapeutic implications

Valentin, Yasmine (Guillermina Lozano, Ph.D.)
The p53 pathway in the homeostasis of the intestinal epithelium

Wang, Ruoning (Jian Kuang, Ph.D.)
ERK-MAPK-Mediated activation of CDC25 during G2/M transition

Weinberg, Rebecca (John Antolak, Ph.D.)
Electron intensity modulation for mixed-beam radiation therapy with an X-ray multi-leaf collimator

Weragoda, Ramal (Edgar Walters, Ph.D.)
Long-term hyperexcitability of sensory and motor axons in aplysia: induction by axotomy, serotonin, and transient depolarization

Wilkinson, Shankavaram (Michelle Barton, Ph.D.)
Tumor suppressor cross-talk: The p53 and TGF beta pathways converge to repress gene transcription

Wilson, Christopher (Heinrich Taegtmeier, M.D., D.Phil.)
Adaptation and Maladaptation of heart and skeletal muscle to different diets in a rodent model of human obesity

Wilson, Marendra (Ambro van Hoof, Ph.D.)
Understanding the molecular mechanisms of nonstop mRNA metabolism in Saccharomyces cerevisiae

Wingate, Hannah (Khandan Keyomarsi, Ph.D.)
The low molecular weight (LMW) isoforms of cyclin E provide a novel mechanism of cell cycle deregulation

Xia, Xiaojun (Yinling Hu, Ph.D.)
Roles of IKKalpha in centrosome duplication and skin carcinogenesis

Xie, Ran (Russell Broaddus, M.D., Ph.D.)
S100A4 is a molecular mediator of endometrial carcinoma invasion

Xu, Chang (Lei Li, Ph.D.)
Functional analysis of BLAP75, a BLM-associated protein

Xu, Jijun (Howard Gutstein, M.D.)
Studies on behavioral characteristics of morphine tolerance in rats

Yang, Hailing (Fernando Cabral, Ph.D.)
Functional differences of beta-tubulin isotopes - a study of microtubule assembly and antimetabolic drug resistance

Yin, Shanghua (Fernando Cabral, Ph.D.)
The relationship of mutations in alpha- and beta-tubulin to microtubule assembly and anti-mitotic drug resistance

Zhang, Jing (Gary Gallick, Ph.D.)
The expression and functional roles of the actin filament-associated protein AFAP-110 in human prostate carcinoma

Zhao, Ruiying (Mong-Hong Lee, Ph.D.)
Impact of COP9 signalosome subunit 6 on MDM2-p63 axis in DNA damage-mediated apoptosis and tumorigenesis

Zhu, Keyi (David McConkey, Ph.D.)
The effects of proteasome inhibition on angiogenesis and autophagy in human prostate cancer cells

GSA OFFICERS

Welcome

2008-2009 OFFICERS:

Brett Chiquet, President
UTHSC, Pediatrics

Christopher Singh,
Vice President
UTHSC, Pathology &
Laboratory Medicine

Katelyn Weymouth, Secretary
UTHSC, Pediatrics



Thank you

2007-2008 OFFICERS:

Yen-Michael Hsu,
Vice-President
MDACC, Molecular &
Cellular Oncology

Melanie Dujka, President
MDACC, Immunology

Violetta Chavez, Secretary
UTHSC, Microbiology &
Molecular Genetics



I am delighted to greet members of the University of Texas of the Health Science Center at Houston and The University of Texas M.D. Anderson Cancer Center—students, new graduates, alumni, faculty members and administrators. I am very pleased to also help welcome the many guests—especially the families and friends of today’s graduates.

It is indeed an honor to be part of this event for a truly outstanding institution—one of the world’s largest and best medical centers and strongest graduate programs in the health sciences. It is apparent that the leadership, especially Dean Stancel, has a clear vision of excellence in graduate education. Previous graduates are leaders in the global scientific community.



And the faculty is not only bringing great energy to the classroom and clinics but also addressing many vital areas of biomedical research. Having said that, please know I have given many lectures and speeches in my career but the one I must deliver today is the most difficult. I want to share my optimism for what has to be the best time in history for continued scientific discovery but I must balance this with the news that this is one of the most challenging times because of increasing responsibilities and expectations for scientists.

As we have begun the twenty-first century never before has the impact of science and technology been so great both with positive and negative consequences.

In less than a decade, we have witnessed:

- The near eradication of polio
- Significant reduction in malignancies by vaccination against viral infection—Hepatitis B and Human papillomavirus
- The completion of the sequencing of the human genome
- The economic catastrophe and loss of lives resulting from Severe Acute Respiratory Syndrome (SARS) and the constant threat of an avian flu pandemic.

On other fronts....

- Technological progress continues at an unprecedented pace.
- The competitive dynamics of many industries are in flux.
- Consumers have emerged as a powerful force, especially in all areas health care.
- Nongovernmental entities have become very influential.
- Since the collapse of communism, a surge of economic liberation has been manifested in the growth of free trade and the privatization of state-owned assets. In these countries there is increased investment in basic research, and changes in policy to promote transfer of technology from the public to the private sector.
- Capital markets have a vast—and growing influence.
- Many parts of the global economy are increasingly interdependent.
- Developed countries have rapidly growing populations of older people who have retired—and rapidly shrinking numbers of younger people who are still working.
- Developing nations have just the opposite demographic profile. They are searching for economic models that promote strong, sustainable growth for younger, rapidly growing populations.
- Governments are struggling to provide services that their citizens want and, at the same time, live within their means.
- Information and knowledge spread instantly across all borders. Indeed this has “flattened” the world in which we now live.
- And—as we saw in dramatic terms on September 11—the spiral of cultural, political, and economic tensions between the “haves” and the “have-nots” begs for solutions.

This list is far from complete. Moreover, we have good reason to believe that several major forces during this era of open borders and liberalized trade—such as communications, transportation, education—are causing these trends to progress more rapidly—and are intensifying their impact. Peter Drucker has referred to it as “The Next Society.” Rest assured,

graduates of 2008, it is this next society that you will help create. Let's consider what it might look like for you as scientists in this new "flat" world.

- The potential misuse of research results for malevolent purposes poses a threat to public health and national security. Consequently, there will be increased pressure on the scientific community to help assess the risk, to have increased oversight of their work, to participate in development of countermeasures that might be needed in the event of a biological, chemical, or radiological attack.
- Science and health will become increasingly important in establishing U.S. foreign policy.
- Increased investment by other countries in basic research will continue to threaten the United States' lead in science and technology and the biomedical sciences. International research experiences and collaboration will become all the more important. There will be increased competition for industry jobs because of access to strong scientific talent in other countries.
- There will continue to be an explosion in the accumulation of knowledge concerning the mechanisms and functions of biological systems. The revolution in biotechnology will continue on into the revolution in pharmacology with the emphasis on drug discovery and drug delivery, in which biochemical bioregulators and systems biology will be gaining more and more significance. Scientists must develop broad knowledge in related areas to formulate research questions and to identify appropriate technologies in areas not encountered during your thesis research. Breadth of training will become increasingly critical for long-term success as biochemical research becomes ever more interdisciplinary and multidisciplinary.
- The "new society" will be an era of translational science. Policy makers, legislators, and educators will be looking for "evidence-based" practice. It is imperative to remember that educators, policy makers, and the public are the end users of scientific research. Scientists should listen to the questions generated by these groups. The end goal should be that policy is informed by the best science and evidence based practice and a citizenry well educated in science. Carl Sagan said

"It is suicidal to create a society based on science and technology in a society that knows nothing about science and technology."

- In order to maintain our biomedical research enterprise in the U.S. that is the envy of the world, we must maintain the public's trust. In order to do that they must understand what we do and we must be accountable for what we do.
- Scientists must take a more proactive role in communicating the benefits of science to society and in translating science into policy!!

I could go on and on—because there is so much at stake.

No doubt you graduates will create this "next society." You will focus most of your "brain power", energy, and passion in the pursuit of innovative research and solutions. These advances will be important forces on behalf of change. Yet, they, too, will be made obsolete by the next idea, and on and on—faster and faster.

You may ask whether there is anything of lasting value. I believe there are a few "constants" that will endure. I also believe that these "basics" are crucial if you want to leave a legacy of genuine achievement to the organizations you will lead, to your society, to the world community. I will take the liberty of leaving you with some simple thoughts about the basics.

Number one, it is important to have career goals but it is equally important to be open to opportunities. Follow your instincts. Remember success is about adding unique value to what ever you do and that there is absolutely no substitute for tenaciousness and perseverance.

Above all remember leaders must define the values of the institutions they lead. Values always start with leaders—with you. You will make personal decisions about how you conduct your work. You will define your constituencies—and how you relate to them. The "what" you do is obviously important. But I submit to you that "how" you and your colleagues pursue what you do is even more important—and will be of even greater lasting importance.

What matters is how you live your values—the values that you have defined for yourself. You not only have to talk your values but you have to "walk the talk"—and do it consistently. Values help people "cut through" complexity, make good decisions, and take the right actions. So, good values help you

move forward with confidence and purpose—even in turbulent times.

Number two, it is people—or better how you exercise your influence on people—that is of lasting value. Your colleagues are the source of everything you accomplish in this complex world. In our fast-changing, knowledge-driven world—where the intellectual component continues to rise in value—people are more important than ever.

In March, Bruce Alberts, arguably one of the most outstanding scientific leaders of our time, was appointed Editor of *Science* magazine. This was after serving as President of the National Academy of Sciences where he was one of the first strong advocates for improving math and science education and proactively encouraging the globalization of scientific research. In his inaugural editorial he stated “...Science is a remarkable social construct, which relies on constant vigilance to maintain the standards that make it so successful. It matters a great deal how we scientists treat our colleagues, reward excellence, share our data and resources, and relate to the public, whose taxes support the enterprise with generous research funding.”

Ladies and gentlemen, I agree with Bruce, in a world that is moving this quickly, only one thing really lasts. And that one thing is the impact we have on the people we work and live with. As leaders, our effectiveness—and our legacy—are determined by the influence we have on our colleagues in work, in the community, and at home. Perhaps the latter is of greatest importance because there is no success in

work that can compensate for failure at home.

I can personally attest to this. My greatest fortune has been an extremely supportive husband, Ralph, and our daughter, Cynthia. Without their strong support I could have accomplished nothing. Sadly, I have had many scientific colleagues who have not been so fortunate.

Leaders are people who leave footprints long after they have gone. These footprints represent evidence of the tangible, lasting impact that true leaders have on people—both individually and collectively. Moreover, these footprints provide direction—and guidance—for the next generation of leaders. Ladies and gentlemen, I believe you will leave footprints not only for the people you work with—but also for the “next society.”

When you walk from this auditorium today with diploma in hand, you and your family and friends can be very proud that you have completed a difficult and demanding graduate program—and a rewarding program. As alumni of this program you will have remarkable opportunities. Yet as we have discussed today, you have significant responsibility. You will have the capacity for great influence in this “flat world.” Because of who you are, and how you will live your life based upon the values you choose, you will touch the lives of many, many people the world over.

Members of the class of 2008, I congratulate you and I wish you the very best and thank you for the opportunity to participate in this special moment of your lives.

A FEW HIGHLIGHTS ABOUT DR. GAIL CASSELL

Hosted by Diana Hawkins, the Graduate School Advisory Council and community friends met with Dr. Cassell just prior to Commencement to hear the latest information about graduate education from Capitol Hill.

Dr. Gail Cassell has been intimately involved in the establishment of science policy and legislation related to biomedical research and public health. She is the chairman of the Public and Scientific Affairs Board of the American Society of Microbiology and a current member of the Director’s Advisory Committee of the National Centers for Disease Control and Prevention.

*She currently serves as immediate past chair of the American Association for Advancement of Science, 2007-2009, Dr. Cassell was a leading author of the National Academy of Science, the National Academy of Engineering, the Institute of Medicine and the National Research Council Report, **Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Future.***



Greetings from a very proud GSBS Faculty. There are a lot of proud people in this room, but let me state on behalf of all the faculty who taught and worked with you that many of us are as proud of what you have accomplished

these last several years as you are. Some of you will go on and find out for yourselves that mentoring students is not always easy (maybe some of you already suspected that). But it is deeply rewarding to teach and to learn from students like you, the students who have the curiosity, skill, and commitment to finish the research projects and write the thesis. And let me say to your families that all of the shared setbacks and triumphs of the last few years have forged lasting bonds between these graduates and the faculty lucky enough to have worked with them.

I have only a few minutes up here, but I am a professor, and you are a captive audience, so I really can't resist offering you one quick piece of advice before you get away. This advice is directed at those who are graduating, but I hope it will also help you, the proud families of these graduates, to come to an even greater appreciation of all that they have achieved in getting here today.

My advice is this: work on your story-telling skills.

I'm not talking about fiction, or about salacious gossip you might overhear at the bench while preparing gels. I'm talking about your scientific stories. I'll divide these into 3 types:

1. stories for scientific peers
2. stories for lay strangers
3. stories for lay people and scientists who have to live with you.

The first requires no discussion. Each one of you just finished a scientific epic – your thesis – and you have published other scientific stories in primary, peer-reviewed scientific journals. These stories are for a highly critical, usually specialized scientific audience: fellow scientists reviewing your manuscripts and research proposals (both in academia and industry). We've been training you to write these stories since you arrived here; by now you've learned

the language and style, and I bet that some of you already are better primary scientific writers than your mentors are. The importance of effectively telling the story of each of your scientific discoveries to an audience of peer reviewers is clear: if you can't do it effectively, you'd better find a collaborator who can.

The second type of scientific story is for people I will call lay strangers. Some lay people you encounter will simply be curious about what you do for a living. We should always remember when talking to lay people that our research enterprise is founded on the generosity of the citizens of this free society, and one of the few ways we can show our gratitude is by providing intelligible explanations for how we spend their tax dollars.

Some lay people, such as private donors and politicians, may be in a position to more directly send financial support your way. Their support will certainly be more likely if these people are excited by your scientific story. The problem is, it takes effort and practice to tell effective scientific stories to nonscientists. You have to pay attention to your audience's interests and then tell a scientific story that highlights the significance of your research for their concerns (of course, a big advantage of biomedical research is that almost everybody is potentially interested in biomedical questions related to their own health and that of family members). The most difficult task that you have is to use a second language (common English) that often is ignored in scientific training – this is especially difficult because we all rely on arcane jargon as shorthand to communicate with other specialists, and it is not easy to translate terms such as “PI3 kinase” or “homeodomain” into meaningful images for people who have had few if any science classes. Again, it takes a lot of thought, practice, and inspired metaphors to do this well, but artful explanations may help you land needed research funds, and the effort is important for promoting your field. If you are truly gifted and like attention, you can try your hand at writing popular science. The superstars in this demanding area (e.g., Stephen Jay Gould or Jared Diamond) are better known than any contemporary Nobel laureate.

The third scientific story is for those who have to live with you. This includes two groups. One group is sitting in this room – your families and close friends (who I hope will remind you of this advice). The other group is your future work associates. Of course, both of these groups should hear other types of stories from you: your family and close friends should hear your scientific stories for nonscientists,

(continued on pg. 14)



Commencement Ceremony



COMMENCEMENT GREETINGS

(continued)

and your future work associates will read and hear your technical stories for scientific peers. But because each of these groups is going to have to live with you, each needs another story from you: a personal story. This is the type of story we often forget to tell – after all, science is supposed to be objective, not subjective, so why include personal elements?

I'll tell you why—biomedical science is conducted in an environment full of other people, and these people can help make or break your scientific careers, and help make you happy or miserable. These people share your lives, and some of them will be asked to make sacrifices of one kind or another for your science (your families and loved ones already have). They need to understand what drives you, and they need to buy into your personal scientific story. That means you should have a narrative in mind that clearly ties together where you came from, what you've done, and (especially important) where you want to go. This narrative should combine non-fiction (your actions thus far) with planned future actions (even if some eventually turn out to be fiction). Believe me, your spouse will want to hear this saga, and (recent graduates often fail to realize this) so will scientists interviewing you for positions in their departments or divisions in academia or industry.

If other scientists are going to be sharing duties, resources, and space with you for many years (sometimes many, many years), they want to know, does your story dovetail with theirs? This should be straightforward to decide with regard to your objective scientific story. But there is more to it than that. While the trajectory of your objective science may very well change in the future, your character is

unlikely to. Scientists who have to live with you want to know about your character, and they will be sensitive to any discrepancies between your narrative and information they glean from other sources (e.g., letters of recommendation, comments that may slip out of you after a few beers, etc.) so the narrative you compose should be the narrative you live.

You want to compose, live, and tell your personal scientific story in a way that makes your character strengths clear – that, in a sense, you aspire to be a kind of scientific hero, a person who can be admired and depended on by those who choose to associate with you and invest in your scientific goals. What does the narrative you are composing reveal about you, the hero? Does the hero have the judgement to make good choices, the consideration to help others, and the courage to fight for his or her beliefs against the dark forces of scientific dogma and intellectual venality that lurk even in the corridors of biomedical research?

And, finally, to stretch the literary metaphor just a little further, make sure this personal scientific epic is really your own; biomedical research may not be the field for you if somebody else has been writing your story.

So let me leave you with this: while it sometimes goes unsaid, your family and work associates expect some good stories from you. Your presence here today shows that you can do a good job with at least one kind of scientific story. I hope you will continue to expand your story-telling skills, and I wish you the best of luck in living your scientific saga.

Once again, congratulations.

JOHN P. MCGOVERN OUTSTANDING TEACHING AWARD

PENG HUANG, M.D., PH.D.

The **McGovern Award for Outstanding Teaching** recognizes a GSBS faculty member that has significantly contributed to the education and training of GSBS students. Each year, students nominate faculty by writing an essay addressing these criteria which include specific examples. **Dr. Peng Huang** is the McGovern Outstanding Teacher for the 2007-2008 school year. He not only has an impressive CV but has been issued 3 anti-cancer patents and has 11 currently funded grants. In addition to being an alumnus of GSBS, he has taught several classes, served on 67 student committees, and currently supervises ten students in his lab with five graduating this year.

When his students were asked to describe their mentor Dr. Huang, they were all incredibly excited and proud to speak of him. They shared story after story describing his motivation and genuine interest in training students. He provides them with many opportunities that will certainly advance their careers, but at the same time has great respect for their well-being and family lives. When students are looking for advisors, the qualities they seek in a professor focus on someone who will foster their training, challenge and promote their development of independent thinking while being a noteworthy scientist. Dr Huang personifies these qualities.



MEMBERS REAPPOINTED
WITH COMMENDATION

Jeffrey Frost
Yasuhide Furuta
John Putkey
Subrata Sen
Wei Zhang

NEW REGULAR MEMBERS

Wei Cao

Assistant Professor, Immunology
M. D. Anderson Cancer Center
Ph.D., University of North Carolina at Chapel Hill,
1995

Research interests: plasmacytoid dendritic cells;
dendritic cells; innate immune responses; immune
regulation; immune receptors; signaling receptor
complex; signal transduction; human immunology;
autoimmune diseases

Christopher M. Evans

Assistant Professor
Pulmonary Medicine - Research
M. D. Anderson Cancer Center
Ph.D., Johns Hopkins University, 2001
Research interests: regulation and function of airway
mucus

John F. Hancock

Professor and Chair
Integrative Biology & Pharmacology
UT-H Medical School
M.B., B.Chir., University of Cambridge, 1981
Ph.D., University of London, 1989
Research interests: mammalian signal transduction;
Ras signaling; Ras trafficking; cancer biology; plasma
membrane structure and function; drug discovery

Rebecca M. Howell

Assistant Professor, Radiation Physics
M. D. Anderson Cancer Center
Ph.D., The University of Texas Health Science Center
at San Antonio, 2005
Research interests: risk of secondary cancers follow-
ing radiotherapy; neutron detection; peripheral organ
dose

Jianping Jin

Assistant Professor
Biochemistry & Molecular Biology
UT-H Medical School
Ph.D., Texas A&M University, 2000
Research interests: ubiquitin signaling pathway and
DNA damage response

Seonhee Kim

Assistant Professor
UT-H Medical School, Pediatrics
Ph.D., Rutgers University/University of Medi-
cine & Dentistry of New Jersey, 2000
Research interests: molecular and cellular
mechanisms of cerebral cortex development;
asymmetric cell division of neural progenitor;
neuronal migration; synapse formation; neuronal
polarity and morphology; polarized protein
targeting

Sendurai A. Mani

Assistant Professor, Molecular Pathology
M. D. Anderson Cancer Center
Ph.D., Indian Institute of Science, 1998
Research interests: the role of epithelial-mes-
enchymal transition (EMT) and the stem-like
cells generated by EMT in cancer invasion and
metastasis; the role of FOXC2 in EMT, stem
cells and cancer metastasis

Ali J. Marian

Professor
UT-H Medical School, Medicine
Institute of Molecular Medicine
M.D., Tehran University, 1981
Research interests: molecular genetics of cardio-
vascular diseases; pathogenesis of cardiomyopa-
thies/heart failure

Mary K. Martel

Professor, Radiation Physics
M. D. Anderson Cancer Center
Ph.D., Clark University, 1982
Research interests: radiation physics; dose-
response studies; outcome analysis; biological
modeling

Richard D. Wood

Professor, Carcinogenesis
M. D. Anderson Cancer Center
Ph.D., University of California-Berkeley, 1981
Research interests: DNA repair mechanisms and
damage responses; DNA polymerases; DNA
damage tolerance; genetic dependence of muta-
genesis and carcinogenesis

Ying Yuan

Assistant Professor, Biostatistics
M. D. Anderson Cancer Center
Ph.D., University of Michigan, 2005
Research interests: missing data; clinical trial
design; Bayesian statistics; statistical methodol-
ogy in behavioral science; survey sampling

Peter E. Zage

Assistant Professor, Pediatrics
M. D. Anderson Cancer Center
M.D., Ph.D., Columbia University, 1997, 1999
Research interests: neuroblastoma; retinoblas-
toma; molecular therapeutics; neurobiology;
kinase signaling pathways

NEW ASSOCIATE MEMBERS

Sandeep K. Agarwal

Assistant Professor
Internal Medicine – Rheumatology
UT-H Medical School
M.D., Ph.D., The University of Texas Health
Science Center at Houston, 2000
Research interests: cytokine regulation of
immune function in autoimmune diseases;
fibroblast-immune interactions; cadherin
regulation of fibroblast function; regulation of
myofibroblast differentiation and behavior

Fernando J. Benavides

Assistant Professor
M. D. Anderson Cancer Center
Carcinogenesis (Science Park - Research Divi-
sion)
D.V.M., University of Buenos Aires, 1986
Ph.D., University of Buenos Aires, 1998
Research interests: mouse models of skin
inflammation and cancer; gene mapping in the
mouse

Massimo Cristofanilli

Associate Professor
M. D. Anderson Cancer Center
Breast Medical Oncology
M.D., University la Sapienza, 1986
Research interests: detection and
characterization of micrometastatic disease
in primary and metastatic breast cancer; gene
therapy (p53); inflammatory breast cancer

Elisabeth A. Cummings

Training Specialist
Scientific Publications
M. D. Anderson Cancer Center
Ph.D., Rice University, 1989
Research interests: applied linguistics and
linguistic anthropology; applied language and
culture; international scientific communication
and discourse; technology and ethics; language
proficiency assessment; accent reduction train-
ing in English; contrastive rhetoric; ethnography
of speaking

Cheryl J. Erwin

Assistant Professor
UT-H Medical School
Center for Health, Humanities & the Human
Spirit
J.D., University of Houston, 1999
Ph.D., University of Texas at Galveston, 2002
Research interests: ethics and compliance
issues in leadership; ethics of biomedical

research; biotechnology law; bioethical issues of
stem cell research; human subjects protection regu-
lations; ethical, legal and social issues in genetics

Karin M. E. Hahn

Assistant Professor
Gastrointestinal Medical Oncology
M. D. Anderson Cancer Center
M.D., University of Toronto, 1994
Research interests: medical oncology

Hyunggun Kim

Assistant Professor
Internal Medicine – Cardiology
UT-H Medical School
Ph.D., University of Iowa, 2005
Research interests: cardiovascular
biomechanics: experimental and computational
evaluation of heart valve physiology;
cardiovascular ultrasound imaging: diagnosis and
treatment of atherosclerosis using targeted
echogenic immunoliposomes

Donna F. Kusewitt

Professor
M. D. Anderson Cancer Center
Carcinogenesis (Science Park - Research Division)
D.V.M., University of Missouri, 1977
Ph.D., University of New Mexico, 1987
Research interests: veterinary pathology; animal
models; photobiology; carcinogenesis

Karen L. Posey

Instructor
UT-H Medical School
Pediatrics
Ph.D., University of Houston, 2000
Research interests: skeletal disorders; arthritis;
extracellular matrix function

Deepa Sampath

Assistant Professor
Experimental Therapeutics
M. D. Anderson Cancer Center
Ph.D., The University of Texas Medical Branch at
Galveston, 1995
Research interests: chromatin modulation;
microRNA; leukemia

Kate L. Wilson

Clinical Instructor/Genetic Counselor
UT-H Medical School
Obstetrics, Gynecology &
Reproductive Sciences
M.S., University of South Carolina, 2007
Research interests: genetic counseling

FACULTY | NEWS

RAY A. AND ROBERT L. KROC FACULTY FELLOWSHIP

This Kroc Foundation endowment was created to support the broad areas of neuroscience and or endocrinology. With excellence in research from the broad areas of neuroscience and/or endocrinology, Dr. Terry Walters is the first faculty member to be selected to receive this honor and award. Dr. Walters will receive \$8,000 in support of his academic work in research and teaching.



In the News...

Christopher Amos, Ph.D., and **Margaret Spitz, M.D.,** were quoted in a *Houston Chronicle* article discussing three studies that suggest smokers with cancer-prone variants are more likely to become addicted to nicotine.

Michelle Barton, Ph.D., was recognized as Faculty Educator of the Month during May in the Department of Biochemistry and Molecular Biology at M. D. Anderson.

Carol Etzel, Ph.D., was recognized as Faculty Educator of the Month during April in the Department of Epidemiology at M. D. Anderson.

Danielle Garsin, Ph.D., published an article in *Genetics* entitled, "Oxidative stress enzymes are required for DA" with GSBS student **Violeta Chavez.**

Katherine A. Loveland, Ph.D., and **Deborah A. Pearson, Ph.D.,** were cited as health experts on the Profnet Expert website during Autism Awareness Month.

Guillermina Lozano, Ph.D., was senior author on a report that was published in *Genes and Development* journal. The research is focused on denoting which version of the p53 gene is present before deciding how to treat it.

Steven J. Norris, Ph.D., has received a grant from the Normann Hackermann Advanced Research Program (ARP) by the Texas Higher Education Coordinating Board for his research on Southern-Tick Associated Rash Illness (STARI).

Sudhir Paul, Ph.D., and GSBS student **Stephanie Planque** have been in the spotlight several times for discovering the weakness of HIV in the protein gp120.

Jack Roth, M.D., was highlighted for inventing Advexin, a drug that expresses the tumor-suppressing gene p53, for end-stage head and neck cancer.

Charles Streckfus, D.D.S., and research collaborators have developed a method for identifying and quantifying specific protein markers in human saliva to provide an early, non-invasive diagnosis of breast cancer

Stephanie S. Watowich, Ph.D., was recognized as Faculty Educator of the Month during June in the Department of Immunology at M. D. Anderson.

Karen Vasquez, Ph.D., was senior author on a report featured in *Proceedings of the National Academy of Sciences* online. The report highlighted the chromosomal protein that binds to damaged DNA, defending against the birth and reproduction of mutant cells that cause cancer and other illnesses.

Xifeng Wu, M.D., Ph.D., has been awarded The Margaret and James A. Elkins, Jr. Faculty Achievement Award in Cancer Prevention. **Jack Roth, M.D.,** has been awarded The Otis W. and Pearl L. Walters Faculty Achievement Award in Clinical Research. **Michelle Barton, Ph.D.,** has been awarded The William Randolph Hearst Foundations Faculty Achievement Award in Education. **Sadhan Majumder, Ph.D.,** has been awarded The Dallas/Fort Worth Living Legend Faculty Achievement Award in Basic Research. They will be honored at the Faculty Honors Convocation on Thursday, November 20, 2008 at 4:00 p.m. in the Ballroom of the Charles A. LeMaistre Clinic.

MICHAEL J. SICILIANO, PH.D. RETIRES

A retirement symposium was held on Friday, May 16 at the Onstead Auditorium on the third floor of the Mitchell Basic Sciences Research Building. Scientists and friends joined together to commemorate Dr. Siciliano's work and lifetime of achievements under the theme, "From Fish to FISH and Beyond."





AARON BLANCHARD RESEARCH AWARD IN MEDICAL PHYSICS

Named in memory of Aaron M. Blanchard, a GSBS student in the Medical Physics Program who succumbed to brain cancer in 1998, this \$300 cash award recognizes a Medical Physics graduate (M.S. or Ph.D.) for completion of an outstanding thesis or dissertation judged to make a significant contribution to cancer therapy or diagnosis. Award recipient for 2007-2008 is:

Student	Advisor
Stephen Kry, Ph.D.	Mohammad Salehpour, Ph.D.

ROSALIE B. HITE FELLOWSHIP

In 1946 Houston citizen Rosalie B. Hite left her entire estate to establish a fellowship program for cancer research. In 2007-2008 this award includes a stipend of \$25,000 per year, tuition and fees, and a single travel allowance up to \$850 for each student to present his or her research at a national meeting. The recipients are:

Student	Advisor
Karina Falbo	Xuetong Shen, Ph.D.
Aimme N. Iberg	Mark Bedford, Ph.D.
Shannon Kidd	Frank Marini, Ph.D.

M. D. ANDERSON ALUMNI AND FACULTY ASSOCIATION GRADUATE STUDENT AWARD IN BASIC SCIENCE

	Student	Advisor
1st Place	Svitlana Kurinna	Michelle Barton, Ph.D.
2nd Place	Yen-Michael Hsu	Xin Lin, Ph.D.

GRADUATE STUDENT AWARD IN CLINICAL/TRANSLATIONAL RESEARCH

	Student	Advisor
1st Place	Lenka V. Hurton	Laurence Cooper, M.D., Ph.D.
2nd Place	Serk In Park	Gary Gallick, Ph.D.

JOHN P. MCGOVERN, M.D., SCIENTIFIC POSTER COMPETITION

M.S. CATEGORY

	Student	Advisor
1st:	Raymond Yong	Dr. David Loose
2nd:	Stacy Langmeyer	Dr. Judith Smith

PH.D. PRE-CANDIDACY CATEGORY

	Student	Advisor
1st:	Nancy Nabils	Dr. David Loose
2nd:	Sharon Way	Dr. Michael Gambello
3rd:	Mylinh Duong	Dr. Khandan Keyomarsi
4th:	Jacob Verghese	Dr. Kevin Morano

PH.D./POST-CANDIDACY CATEGORY

	Student	Advisor
1st:	Andrea Lafont	Dr. Dianna Milewicz
2nd:	Binbin Deng	Dr. Z. Hong Zhou
3rd:	Xiaofeng Ye	Dr. Reuben Lotan
4th:	Faiza Baameur	Dr. Richard Clark

Special thanks to our judges: Drs. Joseph Alcorn, Hesham Amin, Krishna Balasubramanian, Michael Beierlein, Oliver Bogler, Phillip Carpenter, Seth Corey, Nachum Dafny, Chinnaswamy Jagannath, Nobuhide Kobori, Hui-Kuan Lin, Osama Mawlawi, Valerie Moore, Kevin Morano, Laszlo Radvanyi, Rajagopal Ramesh, Andrei Rodin, Dos Sarbassov, Subrata Sen, Judith Smith, Shinako Takada, Scott Wenderfer, Shuxing Zhang, Wei Zhang, Wenzheng Zhang

AWARDS

WILLIAM W. AND PEARL WALLIS KNOX FOUNDATION SCHOLAR

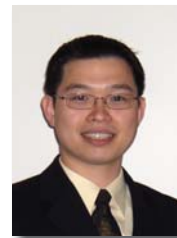
Established in 2007, this is the second year to award a scholarship from the Knox Foundation, whose interests are research in the areas of AIDS and other infectious diseases in humans. This \$2,000 award was presented to:

Student

Yen-Michael Hsu

Advisor

Xin Lin, Ph.D.



P.E.O. SCHOLARSHIP

The **P.E.O. National Scholarship Awards** were established in 1991 with a focus on assisting women of the United States and Canada who are pursuing a graduate degree, or undertaking advanced study or research. Since that time over 1,000 women have become P.E.O. scholars. This year the "A.C." Chapter of the group, from Houston, has nominated **Cameron Jeter** (Dr. Anne Sereno, advisor) to follow in the footsteps of several earlier GSBS recipients of this highly competitive, prestigious, and valuable (\$15,000) award. Previous GSBS students who were named P.E.O. Scholars include Raegan Hunt, Pamela Yang, and Ruth Ann Barkley.



ANDREW SOWELL-WADE HUGGINS ENDOWED SCHOLARS, PROFESSOR AND FELLOW CANCER ANSWERS/SYLVAN RODRIGUEZ

The Andrew Sowell-Wade Huggins Scholars, Professor and Fellow, and the Cancer Answers/Sylvan Rodriguez Scholars represent the culmination of seventeen years of determined support and growth of the Cancer Answers charitable organization through two founding mothers, Joann Sowell and Marcia Huggins Jahncke, their families, cancer survivors, and contributing foundations including the Vivian L. Smith Foundation, Sylvan Rodriguez Charities, and especially Bobby Sue Smith Cohn and Bo and Amy Huggins. Originally started as the fund raising entity to support the Andrew Sowell-Wade Huggins Endowment which generates support for all of these awards to fund graduate education in cancer research, it has gained in size and prestige. Since 1991 over 50 scholars and 4 sets of professor/fellow teams (renewable up to three years) have been honored with awards ranging from \$3,000 scholarships up to \$20,000 in stipend support. The 2007-2008 recipients are:

ANDREW SOWELL-WADE HUGGINS ENDOWED SCHOLARS

Student

Jheri Dupart
Hsu-Ping Kuo
Taichun Qin
Brian Grabiner

Advisor

Wei Zhang, Ph.D.
Mien-Chie Hung, Ph.D.
Jean Pierre Issa, Ph.D.
Xin Lin, Ph.D.



ANDREW SOWELL-WADE HUGGINS
PROFESSOR AND GRADUATE FELLOW
Dr. Timothy McDonnell and Nicole Pinaire

CANCER ANSWERS/SYLVAN RODRIGUEZ SCHOLAR

Student

Claudia Miller

Advisor

Joya Chandra, Ph.D.





Rina Bhagat steps up to the plate at the Student vs. Faculty softball game in May.

STUDENT NEWS

Annelise Giebeler received glowing recognition for a presentation of her article entitled, “Dose perturbations caused by implanted helical gold markers used in patients receiving proton radiation therapy for prostate cancer.” She received the Best Talk award and was invited to talk at the winter meeting of the American Nuclear Society. In addition, her manuscript has been accepted for publication in the *Journal of Applied Clinical Medical Physics*.

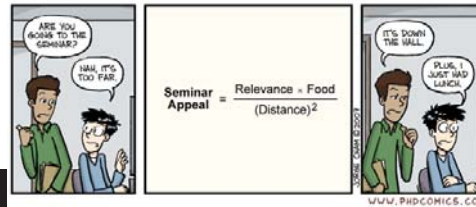
Yen-Michael Hsu was first author on a feature article published in *Nature Immunology* entitled, “The adaptor protein CARD9 is required for innate immune responses to intracellular pathogens.”

For the first time, **Tzu Chi**, the Chinese global organization whose mission is compassion, education, and medicine, has awarded \$1,000 scholarships to three GSBS students: **Kari Brewer (Dr. Chun Li, advisor)**; **Chirag Patel, (Dr. Ponnada Narayana, advisor)**; and **Joe Taube (Dr. Michelle Barton, advisor)**.

“Piled Higher and Deeper”



In May, the Graduate Student Association, in collaboration with the M. D. Anderson Alumni and Faculty Association, hosted cartoonist **Jorge Cham** as part of the M. D. Anderson Trainee Lecture Series. GSA past president, Melanie Dujka, led **Cham** on a tour of a GSBS-M.D. Anderson lab, as well as a lab in the Medical School. Following his tour, **Cham** gave a comical lecture and a brief history of how his comic strip came about—a product of procrastination!



“Piled Higher and Deeper” by Jorge Cham, www.phdcomics.com

STUDENT OUTREACH



GSBS students and faculty hosted 36 Houston Independent School District high school students for two weeks in conjunction with the GSBS Summer Seminar for Project Grad. The students toured labs and learned about various aspects of science, including protein measurements, DNA extraction, microbiology, human senses and eye dissection.



Tré O'Brien teaches students about human senses

“Your Ticket to Discovery”



In April, GSBS students volunteered to share their love for science at West University Elementary’s Science Night. The science night included interactive displays in astronomy, marine biology, chemistry, geology, botany, genetics and health. **Brett Chiquet, Jennifer Dale, Susan Daniels, Patrick Gibney, Jennifer Kerr, Adam Riegel, Vanessa Vazquez, Jacob Verghese, and Yanyu Wang**, along with parent volunteers, helped the elementary students model DNA using licorice and gummy bears at “The Gene Machine.” To learn more about genetics, the West University Elementary students looked under a microscope to see what happens when scientists change the genes of fruit flies.



Hussein Abbas does some fancy footwork at the GSA soccer game in April

Summer Research Program at GSBS

This year the Graduate School began a ten-week summer research program led by Victoria Knutson, Associate Dean for Admissions. Occasionally paired with students from the MARC program and the Texas Southern University summer program, these undergraduate students attended seminars and workshops focused on current research in prostate cancer research, genomics, diabetes and tumor suppressor genes. This summer 12 undergraduate students attended.

Dr. Thomas Goka

Assistant Dean of Outreach and Minority Affairs

As Assistant Dean of Outreach and Minority Affairs as well as alumnus of the Graduate School, I come with two different perspectives to my position and want to share a few thoughts with you. It seemed to make the most sense to let some of the projects I work on speak for themselves.

Project Grad

Project Grad is a non-profit organization that encourages low-income and minority students to increase high school graduation and college attendance. This summer the Graduate School, in collaboration with Project Grad, hosted 36 students from the Houston Independent School District. Students who have shown an affinity for science attended the two-week session at the Graduate School, termed the “Biology Institute,” where they had a hands-on experience and learned about various biological processes. GSBS students and Faculty taught them about protein measurements, DNA extraction and electrophoresis, cell biology, human senses and eye dissection, physiology of heart with exercise and the human heart. This is the fifth year we have participated in this program, and we are seeing positive outcomes; one of our past Project Grad students not only graduated from high school, but will begin her freshman year at Harvard University in fall 2008.

Department of Defense

The Graduate School also works in conjunction with Texas Southern University to plan lectures and a summer program for TSU students—a one-year program that focuses on raising awareness, and encourages prostate cancer research by providing more funding into that area. Supported by a grant from the Department of Defense, each year four TSU students are chosen to receive a one-year stipend after a competitive process, beginning in January of their junior year. During the summer each student is paired with a GSBS Faculty member during some phase of prostate cancer research with Dr. Timothy McDonnell as the principle investigator. Faculty from the Graduate School give lectures in the fall semesters and provide each student with literature on prostate cancer. Part of the GSBS mission is to promote science and science education to the community, both as an opportunity and an obligation to researchers. If students can learn that now, they’ll remember to go back and help the community.

The Apple Award

The Apple Award is given each year by the Houston Independent School District in order to highlight outstanding vol-

unteers. This year Brookline Elementary has acknowledged the Graduate School’s cumulative 15 years of volunteering and I have accepted this award on behalf of all GSBS students.

MARC

Minority Access to Research Careers is a grant we received a year ago with the University of Houston-Downtown. The program provides funding for four minority students from UH-D to participate in summer research at the Graduate School and helps with academic advising for UH-D minority students. I serve as a graduate advisor for all students until they graduate from the two-year program—one summer is spent at GSBS and the other is at a site outside of Houston. During this time I meet regularly with the students to advise them about graduate school, the application process, and their preparation at UH-D. Another GSBS alumna, Vicky Estrera, Ph.D., director of the UH-D Scholars’ Academy, which is an honors program for their best students in the Department of Natural Sciences, worked with me to organize and direct the program. These students take selected courses to prepare for professional education and graduate school, as well as complete a research project. Students in the Scholars Academy with an interest in biomedical research apply to the MARC program.

A Unique Opportunity

When I was a student at the Graduate School, Dr. Tom Matney was the Associate Dean and he sought to help the atypical student. I was one of these “Matney kids,” where I experienced first hand the importance of outreach.

Like Dr. Matney, scientists need to be more aware of other things outside their field, such as ethics, compliance and public policy. We as scientists have gone from being members of the orchestra to the conductors—still proficient at our instruments, but also understanding the integration of everyone’s contributing parts that make up that whole. Today, my job is much the same as Dr. Matney’s—I seek out the minority students in an effort to ensure they benefit from their time at GSBS.



Special Thanks and Gratitude

March 2008 - August 2008

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Alumni Spotlight

Ted Mullins, Ph.D. (1986)

My current position is the Program Manager for an NIAID-sponsored biodefense and emerging infections contract at the American Type Culture Collection (ATCC) in Manassas, Virginia. In directing outside contracted work, I am blessed to work with some of the brightest minds in government, industry and academia to provide critical reagents that support efforts to better prepare our country for bioterrorist threats and support development of diagnostics and therapeutics for a broad range of emerging infections.

I believe that I am here because of the grace of God and a valuable lesson I learned from my dear wife: that one should never be defined by what they do for a living. Case in point, one evening my wife may be engaged in a conversation with a friend discussing a particular opera aria that moves her. The next day, she may be up to her elbows in blood and mire while rescuing trauma victims in an automobile accident as a paramedic. "Ok, will the real Patricia please stand up?" Fact is....she is. She is both. But don't waste your time trying to define her because you can't.

I have such fond memories of my days at UT-GSBS. Long hours were spent in the dark with nothing but the green glow of the electron microscope in Dr. Michael Ahearn's laboratory at M. D. Anderson Cancer Center. After graduation, my career seemed fairly straight down the academic path while doing my post-doc at Duke, but instead I took a detour into biotechnology and never looked back. I quickly discovered that there was a great deal of satisfaction in having a tangible product to show for one's efforts. Following enjoyable positions at Gibco in New York, Berlex Biosciences in California and CytoTherapeutics in Rhode Island, I ran the BioProduction group at ATCC for a few years, but when this biodefense contract was awarded, I jumped at the opportunity.

What does this have to do with cancer research as a cell biologist at UT-GSBS? Well, very little. But, if I had allowed myself to be defined only as a cell biologist, who knows what adventures I would have missed? UT-GSBS opened my eyes to a world full of opportunities and gave me the confidence needed to adapt in my career.



BOSTON AND BEYOND!

New England Alumni Reunion,
Lenox Hotel in Copley Square

Boston, MA
June 21, 2008



CONGRATULATIONS

Fariba Behbod, Pharm. D., Ph.D., is now an assistant professor of pathology and laboratory medicine at the University of Kansas Medical Center.

Simon Gould, Ph.D., is working as the Uganda County Director of Malaria Consortium in Kampala, Uganda.

AMVETS has awarded **John Kopchick, Ph.D.**, a

Silver Helmet Award, considered the most prestigious award to be given by veterans organizations.

Mark Nolte, Ph.D. and his wife had a baby girl in April 2008.

Larry Thompson, Ph.D., received the Barbara Bowman Award for Outstanding Contributions to Genetics in Texas from the Texas Genetics Society.

Saturday, June 7, 2008

Alumni Career Fair



Steven Lott, Ph.D.



Marya McCarty, Ph.D.



Luetta Allen, Ph.D.

MELVA S. RAMSAY AWARD

Lily D'Agostino (right), staff assistant and receptionist, and **Heidi Porter** (left), executive assistant to the Dean, are the 2008 recipients of the **GSBS Melva S. Ramsay Awards** for outstanding service to faculty, students and staff. The award of \$500 for each (plus a plaque and flowers) is presented by George Stancel, dean of the GSBS, in memory of Melva Ramsay, long time employee of the Graduate School.



Dear Alumni,

Mark your calendars: Friday, **November 7, 2008**, at 6:00 p.m. is the date for the annual GSBS **Alumni Reunion** in Houston. This year's Distinguished Alumnus will be Danny Welch, Ph.D. (1984/Nicolson). As you may know, Danny is internationally recognized for his work in cancer metastasis, and is the Leonard H. Robinson Professor of Pathology at the University of Alabama at Birmingham.

As president, I was pleased to represent the Alumni Association at this year's Commencement and to welcome 56 new graduates into our organization. We now number over 1,800 members worldwide.

Our third annual Career Day was held in early June and was a great success. A total of 32 students attended and heard the experiences and insights of twelve experts in a wide range of careers. I want to thank those experts who generously gave their time to describe the often tortuous routes to their specific careers and to answer the many questions asked by the students. This year's experts included Eric Solberg (Associate Dean); Luetta Allen (Ph.D.



2001); Sangeeta Cheema (Ph.D. 2002); Jennifer N. Fernandez (Ph.D. 2000); Ralf Krahe (Ph.D. 1995); Steve Lott (Ph.D. 1997); Suneeta Mahagaokar (Ph.D. 1979); Marya McCarty (Ph.D. 2002), Madhu Purewal (Ph.D. 1990; J.D.); Joy Marshall (Ph.D. 2003; Steering Committee member); and Vicky Estrera (Ph.D. 2001; Alumni Association vice president). In case you are counting, I also had the pleasure of participating as well.

We welcome two new members to the Alumni Association Steering Committee: Jackie Peltier-Horn (Ph.D. 1981; now a professor at Houston Baptist University), and Molli Murray McGahren (Ph.D. 2007; now a research scientist at M. D. Anderson). They bring the Steering Committee to a total of eight, including Joya Chandra (Ph.D. 1998); Maureen Goode (Ph.D. 1985); Dorrie Lamb (Ph.D. 1980), as well as Joy, Vicky, and me.

They are a dedicated group, and a true pleasure to work with.

Finally, one of our tasks this year is to help redesign and update the Alumni website. January 2009 is now the target launch date. In the meantime, please take a look at our old website and enjoy the photos of this year's out-of-town reunion that was held in Boston [http://gsbs.uth.tmc.edu/alumni/Boston_Reunion_08.htm]. My special thanks to Deborah Anderson (Ph.D. 1976; Distinguished Alumna 1991), for entertaining us with her remarks, and to Travis Hollmann (Ph.D. 2005) and Susan Ritter (Ph.D. 2005) for helping to host the occasion—we borrowed all of them from their day jobs at Harvard. I also want to thank Dean Stancel for his unwavering support of the Alumni Association and its goals.

As you can see, it has been a busy year. See you at the November Reunion!

Best regards,

Ben Thomas, Ph.D. (1973)
GSBS Alumni Association President
2007-2008

Deadline for news to be included in the next newsletter is January 1, 2009

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