GSBS NEWS

Summer 2004

The University of Texas Graduate School of Biomedical Sciences at Houston

Graduating Scientists Who Value Truth and Honesty

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

THE UNIVERSITY of TEXAS HEALTH SCIENCE CENTER AT HOUSTON

TABLE OF CONTENTS

Benefactor News

Lynda Horton
Department President
2003-2004

Texas American Legion Auxiliary hits $1,000,000 mark supporting graduate cancer research studies

Vicki Pollard
Department President
2004-2005

United States and Texas flags, mounted in the background, and patriotic music increasing to a crescendo, as **Lynda Horton**, Mineral Wells, outgoing Auxiliary President, Department of Texas, welcomed **Vicki Pollard**, Plano, incoming President for 2004-2005 at the recent annual statewide convention held in Beaumont. Under Ms. Horton's leadership, and with **Evelyn Klausmeyer**, as chair of the cancer research fund raising committee, the group has reached its long-sought milestone of $1,000,000, cumulatively raised over the last ten years. According to **Nancye Whitson**, Texas' Auxiliary Public Relations Chair, "This is the biggest altruistic effort of its kind (though one of 29) that the Auxiliary regularly commits support. Encouragement of education is a high priority for the American Legion Auxiliary. The association with the UT-Houston Graduate School of Biomedical Sciences is an outstanding relationship which reaches the highest quality students and goals set for the project. The American Legion Auxiliary of Texas is extremely proud of these accomplishments."

To reach its goal, some 327 units of Auxiliary women throughout Texas participated. They organized bake sales, hosted broom dances and flower bazaars, garage sales and $1 jars of everything from "M&M cures," to "pay the pot for your curses." Various other creative money-making endeavors contributed to amassing the proceeds for their project—that of giving scholarships to exemplary GSBS students who are doing their research studies in all kinds of cancer: prostate, breast, pancreatic, liver, urinary, gastrointestinal, leukemia, lung cancer and others—to help find the cures for this disease in all of its forms.

This November, many of the Auxiliary will gather in Houston, as the guests of the Graduate School, to meet the 2004-2005 American Legion Auxiliary Fellowship recipients. There's talk of national officers as well as John Mendelsohn, M.D., president of The University of Texas M. D. Anderson Cancer Center, coming for the occasion, and some of the earliest fellowship recipients too. Presentations will be made, awards given, and yellow roses of Texas accepted, but when all is said and done, it is these women—mothers, daughters, sisters, wives—who have played their remarkable part, as an army, by "just doing our share" in a fight against an enemy that sees no boundaries or borders. We salute you, American Legion Auxiliary!

Truth and Honesty—our cover theme reflects the words of this year's commencement speaker, Teresa Sullivan, Ph.D., Vice Chancellor, The University of Texas System, as well as GSBS faculty president, Jack Waymire, Ph.D. It also echoes the heritage of the Graduate School. In 1985 a mandatory course in scientific ethics was established at the GSBS, one of the first of its kind in the United States. An integral part of the Texas flag, this star, in history, is the visual symbol of a moral compass.

Cover photos: (Clockwise to the right of the star) Kevin Houston, Rob Rounbehler, Paula Miliani de Marval; Joye Marshall; Si Wan Kim; Brent Parker, Stephen Kry, Kent Gifford, Michael Price, Peter Balter; Ruth Ann Barkley; Jamie Chance, Carol Linsner, Alice Schindler, Colleen Buechner, Andrea Atherton.

Dean's Notes

"After the Move"

As most of you know the Graduate School is scheduled to move into the new George and Cynthia Mitchell Basic Sciences Research Building (BRSB) this coming fall, and we are eagerly awaiting this exciting event! In anticipation of this move we have been actively planning for the past 24 months – office assignments, classroom designs, phone and computer networks, etc., etc. While this required a great deal of effort, we had a pretty good idea of what to do because we were given a clear blueprint early in the planning process; this enabled us to design our space to fit the building plan and to be certain we had sufficient resources to achieve our goals.

I believe that the School should soon begin a major effort to assess its academic programs and goals, its organization, and its operations. Both of our parent organizations are poised for major changes within the next several years. The most visible signs of such change are the many construction projects currently underway or planned, including the BRSB and other M. D. Anderson facilities, new buildings for the Health Science Center's Institute of Molecular Medicine (IMM) and on the Freeman Building site, and other facilities for biomedical research, biotech efforts, and imaging programs. More significant than the structures are the faculty who will occupy them and the programs they will conduct. At the same time there are other important changes on the state and national horizon for biomedical research and graduate education, e.g., changing funding patterns, the emergence of new areas of research emphasis, increasing competition to continue recruiting excellent students and to meet their career expectations, and important demographic trends in Texas and the nation.

These are monumental changes that are *inevitable and will occur at a rapid pace*, and they are certain to have major implications for graduate education at GSBS. It would be prudent to proactively develop a comprehensive plan to adapt to these changes rather than react to them after they happen. Thus, I am planning to call for a major self-study and planning effort within the year after we move into our new quarters. It will be an important opportunity for the Faculty to consider how best to shape the academic future of our graduate education and to incorporate their ideas into the strategic planning efforts of our parent institutions. I believe a close alignment of GSBS goals with the strategic plans of both M. D. Anderson and the Health Science Center is critical if we are to achieve our full potential. This effort will be successful with input and support from our faculty members, students, staff, and leaders of our parent institutions acting cooperatively as the architects of our future. Get your hard hats ready – I'll be asking for your help shortly after the move!

George

Jack Waymire, Ph.D.

Graduate School of Biomedical Sciences
Faculty President, 2003-2004

On behalf of the graduate Faculty I have the distinct honor of welcoming everyone here to The University of Texas Graduate School of Biomedical Sciences graduation ceremony. It is indeed gratifying for me to talk to the 2004 graduates and thank you on behalf of the entire faculty for the pleasure and privilege of working with you. I congratulate you on the occasion of your earning your MS and PhD degrees. Today's date will always be a memorable one for you. On this day, you exit the world of student, trainee, and novice — and enter the world of post-doctoral fellow, teacher, mentor, and respected scientist.

It is also important to acknowledge the dedication and support of your family and friends. Without their support, the long hours of studying, preparing for advisory and supervisory committee meetings, and the hours in the lab would not be possible, or at a minimum, would be made much more difficult.

In many ways it seems like only yesterday that you began your graduate studies here at The University of Texas Graduate School. But in many ways it also seems like eons since I first met many of you at your initial recruiting visits. I can remember sitting out on the picnic tables in the park between the Graduate School and School of Public Health talking with you. We have all come a long way over the past several years. We have had many changes and challenges with which to deal. We adjusted to the relocation of the GSBS to Houston Medical Center, we weathered, so to speak, the enormous destruction and disruption caused by tropical storm Allison, and we experienced the horror of the attack on September eleventh, and are dealing with the instability and changes in our society that have occurred in response to the threats of terrorism. We live in a different world than the one that existed when many of you began your studies several years ago.

During this time, you as graduate students, have changed as well. You entered as enthusiastic recruits, went through a period of being overwhelmed and often discouraged, and gradually matured into competent scientific investigators and colleagues. The ultimate goal and satisfaction of the graduate faculty is to see our students evolve to become our scientific colleagues, to emerge with understanding and confidence – confidence to ask pertinent questions and the confidence to trust the answers to those questions. When the autoradiogram turns up a result that is unexpected, you don't immediately assume you botched the experimental protocol. You are all to be congratulated on making the transition from student to colleague.

Graduation speeches are supposed to educate, inspire, and most importantly, advise. In considering the advice that would be most relevant to share with you, I was drawn to an issue that hits home in our world today– the need for integrity. Accounts of a lack of integrity are in the news every day and seem to permeate most of our society; from the world of business, clergy, government and even our armed forces. In talking about integrity I want to use this word to describe all aspects of personal behavior that are important in our world today. This ranges from the seemingly small issues of meeting our obligations in a timely manner to the larger issues of honesty in our personal and professional life. Do we waste our colleague's time by being late to appointments or committee meetings; do we waste society's time by dishonesty in our profession?

I was talking with a friend about conveying the significance of integrity, especially in the midst of the present climate. I described what I felt to be important, and she said she had just come across the term "sovereignty" that seems to encapsulate much of what I thought to be critical to living a life which is rich and valuable. Sovereignty is the quality or authority of being independent and in charge of the conditions you live under.

Sovereignty means that you ARE in charge of your life, and that you are prepared for challenges to your **integrity**. Sovereignty carries with it **responsibility**. That is, if you take your life in your own hands, you also take it upon yourself to act **responsibly** and with **integrity** in regards to your own life, your family life, your community life, your fellow human beings and the planet as a whole. I challenge you all to live with integrity and exercise your sovereignty.

Finally, I would like to end with a story of a young woman, who, while traveling down a country path encountered a turtle sitting on top a wooden post. The woman was amazed that the turtle was on the wooden post and asked how the turtle got there. The turtle's reply was:

"I didn't do it alone."

Nor have you, who are graduating here today, done it alone. Your goals have been achieved with the help of many: your advisor, other members of your laboratory, and, as I stated earlier the support of your family and friends. Continue to depend on others in the future. Use your sovereignty, responsibility and integrity as individuals, coupled with the cooperation of others, to discover and create great things.

The future is yours to shape.

Congratulations!

John P. McGovern Teaching Award, 2004
Gilbert J. Cote, Ph.D.

This is truly an honor and an award that means a great deal to me. I can't begin to express my many thanks to all the students for this recognition. It was a little more than 10 years ago that I came to the M. D. Anderson Cancer Center and joined the GSBS. It may surprise some of you to learn that a major factor in my decision to come here was that for the first time I would have the opportunity to teach and mentor students. As graduating students I'm sure you realize that not every job in science provides you with this opportunity. For those of you who may one day get the chance, I highly recommended it. While teaching is definitely time consuming, and filled with both "highs" and "lows," for me there is a great satisfaction that comes with being able to impart knowledge.

So what have these past 10 years taught me? I've learned that teaching is an ever evolving and involving process. Thankfully, no one has been here long enough to remember my first classes. Back then, I was told that if you use the chalkboard, this gives the students plenty of time to copy things down. The problem was that half the class couldn't decipher my handwriting, the chalkboard doesn't have a built in spellchecker, and I spent most of class with my back to the students. Things have changed a great deal since those days. This past year my lectures were posted online and I had students coming up after class with their USB microdrives asking to download PowerPoint and PDF files. However, despite all these technological advances, I think my most important teaching tools have always been - finding the time to interact and listen to what students have to say, learning from my missteps, and striving each year to be a better teacher.

Let me end by extending my congratulations to all of you. Today marks a remarkable accomplishment, an end to a long journey and the beginning of another. Something that I hope you'll all look back upon with great pride and satisfaction.

Commencement Address
The University of Texas
Graduate School of Biomedical Sciences at Houston
Saturday, May 8, 2004

Teresa A. Sullivan[1]

"The Virtuous Professional"

First, let me extend my warm congratulations to all of you graduates. You have completed a challenging curriculum and helped to shape the knowledge and health of your fellow citizens. You are truly at the cutting-edge of knowledge generation, and many people look to research like yours to help them and their loved ones. Our country invests heavily in such research because it is so important, and you have become a key part of our labor force. I know that it has been a wise investment.

I also want to thank those in the audience who have made this day possible: parents, grandparents, spouses, children, and creditors – and of course the faculty who have been mentors and maybe sometimes tor-mentors during the past few years. I would also like to thank the federal and state taxpayers who have subsidized your education in this fine institution. All of us are proud of your accomplishments and welcome you to your profession.

Most people who have been to graduate school identify those years as transformative. You have learned to work very hard. If the faculty were successful, you should be feeling just a little guilty right now because you are not in the lab. You have formed habits of careful work and close attention to detail while still being able to assimilate a great deal of information and to make generalizations. You have a valuable skill-set, and we are proud and happy about how well you have done.

In addition to having learned your discipline and research techniques, however, I hope that you have also learned the intangibles that make you a professional of integrity. The need to have scientists who value truth and honesty has never been higher.

In the wake of corporate scandals, fraud investigations, and numerous incidents of plagiarism, there is an air of cynicism about the ethics of professionals. In nearly every field, there have been disenchanting reports of misbehavior. Who would have thought that my Martha Stewart recipes would produce a pang of regret?

Essentially no area of life has been left untouched. Just last week, the University of Washington School of Medicine announced a negotiated settlement of a four-year criminal and civil investigation by the federal government; in mid-June, the University of Washington will repay $35 million as a result of physician billing errors. I don't need to remind people in Houston about Enron or the whole dreary list of scandals that take up so much room in our daily newspapers.

These developments have consequences. There has been a striking decline in the confidence Americans have in our institutions. The General Social Survey is a high-quality annual survey that provides us with a snapshot of American opinion.[2] This survey shows that over the twenty-year life span of the survey, American confidence in nearly every institution has declined.

In the early 1970s, almost half of all Americans had "a great deal of confidence" in education, and 45% had a great deal of confidence in organized religion. By 2002 only one-quarter of Americans had a great deal of confidence in education and only 19% still had a great deal of confidence in organized religion. Confidence in financial institutions dropped from 40% to 22%. Confidence in business dropped from one-third to 18%. Confidence in organized labor dropped from 19% to 12%. Confidence in the press dropped from 26% to 10%. And

confidence in television dropped from 24% to 10%.

You are fortunate to be entering the institutional sectors that enjoyed the highest level of confidence in 1974. Over 61% of Americans reported a great deal of confidence in medicine and 50% reported a great deal of confidence in science. Regrettably, these levels have also declined. The bad news is that by 2002, the level of confidence in medicine was 37% and in science was 39%. The good news is that despite substantial drops, confidence in science and medicine is still well above the levels for most non-governmental institutions.

We can think of lots of reasons for this long-term decline in confidence, but a more important issue is how we come to deserve confidence. I know that UT-M. D. Anderson and UT-Health Science Center Houston are institutions that value fairness, equity, honest, and integrity, and I know that you have received appropriate training in research and publication ethics. The test of this part of your education, however, is yet to come.

There is no question that research – while an exciting activity and essential to our future – is also full of tension, competition, and some of the darker emotions. Of course you are interested in advancing knowledge and improving the health of patients, but most of us are also susceptible to more concrete and personal rewards. Unlike the miscreants at Enron or WorldCom, who appeared to be interested mainly in money, researchers are tempted by a variety of currencies. Money is nice, but most researchers are not motivated principally by large financial rewards. The rewards that researchers treasure the most come from others: fame, the autonomy that comes from having your own lab and funding, and gatekeeping power over journals and grants. And eventually, there are the signal rewards from your peers – honorific prizes, endowed positions, election to learned societies, and on and on.[3]

The path to destruction for most scientists begins when you seek to deceive your peers, whether it is in recording data, writing grant applications, or publishing results. It's easy to shade your data, or spin your conclusions, or fail to cite a result, or in other ways to debase the currency of scholarly communication. But many projects, especially large collaborative projects, rely crucially on the expectation that each scientist's work is accurate and honest.[4] It's so easy to do these things that it might not immediately occur to you that you have also compromised your principles and undermined the public confidence a little bit more. But you work in areas that are so important to us that a minor falsification designed to help your career might directly or indirectly end up hurting a patient. Moreover, every publicized violation of scientific integrity erodes a bit further the confidence of the public – that same public that is called upon to pay taxes so that the National Institutes of Health will support biomedical research.

I am conscious that you will work in a highly competitive arena that does not value negative results, dead-ends, and failures to replicate. The paradox is that in biomedical sciences, unlike most fields of work, honesty may blight your career. Nevertheless, and precisely because what you do is so important, we call upon you to be steadfast in integrity and resolute in honesty. These are the virtues that will make you truly successful, even if your peers do not immediately recognize you for them.

I hope that here in the auditorium we have future Nobel laureates and future members of the national academies. But most of all, I hope that we have here virtuous professionals who will be truly successful because they upheld the value of honesty in their work, no matter what.

Congratulations, and best wishes for a bright future.

[1] Executive Vice Chancellor for Academic Affairs, The University of Texas System, tsullivan@utsystem.edu

[2] The figures reported below were calculated from the General Social Survey archive maintained at the Survey Documentation and analysis site, http://sda.berkeley.edu:7502/ The calculations here have been rounded to two significant digits and were generally based on a comparison of 1974 with 2002 data. The exception is the level of confidence in financial institutions, for which the baseline year was 1976.

[3] One expert on scientific misconduct writers, "Scientists are not disinterested truth seekers; they are more like players in an intense, winner-take-all competition for scientific prestige and the resources that follow from that prestige." David Goodstein, "Scientific Misconduct," *Academe* 88,1 (January-February, 2002), http://www.aaup.org/publications/Academe/2002/02JF/02jfgoo.htm

[4] See Moore, John W. *J. Chem. Educ.* **2002** *79* 1391, for two recent examples of scientific misconduct that involved deceiving collaborators. For another case, see **"Bell Labs announces results of inquiry into research misconduct" (press release of September 25, 2002), http://www.lucent.com/press/0902/020925.bla.html**

Doctor of Philosophy

Geetha Achanta (Peng Huang, M.D., Ph.D.)
A role for p53 in sensing DNA damage and triggering apoptotic responses to anticancer agents

Ruth Ann Barkley (Eric Boerwinkle, Ph.D.)
Candidate gene identification following linkage: search for hypertension susceptibility genes

Chandra Bartholomeusz (Naoto Ueno, M.D., Ph.D.)
Mechanism of anti tumor activity of adenovirus type 5 E1A in ovarian cancer

Sol Bobst (Rodney Kellems, Ph.D.)
The role of AT1 receptor autoantibodies in the pathophysiology of preeclampsia

Keith Chan (John DiGiovanni, Ph.D.)
Significance of signal transducer and activator of transcription 3 during multistage mouse skin carcinogenesis

Tsung-Cheng Chang (Ann-Bin Shyu, Ph.D.)
Mechanism of translationally coupled mRNA turnover mediated by c-fos protein-coding-region determinant

Mary Coolbaugh-Murphy (Michael Siciliano, Ph.D., D.Sc. (Hon.))
Genome instability quantified in stable tumor and constitutive tissues in hereditary non-polyposis colon cancer patients by small pool pcr

Tracy Costello (Christopher Amos, Ph.D.)
A full pedigree based method for the statistical assessment of genetic anticipation

Sandeep Dayal (William Klein, Ph.D.)
Evolution of CIS-regulatory elements in a repetitive sequence adjacent to a sea urchin aboral ectoderm-specific gene

Melissa Drysdale (Theresa Koehler, Ph.D.)
Capsule gene regulation in bacillus anthracis and implications for virulence

Yvonne Evrard (Sharon Dent, Ph.D.)
GCN5 and its role in genome instability

Tara Gaertner (M. Neal Waxham, Ph.D.)
A novel mechanism for regulation of calmodulin signaling by RC3

Matthew Gastinger (David Marshak, Ph.D.)
Function of histaminergic retinopetal axons in rat and monkey retinas

Shilpa Ghurye (Honnavara Ananthaswamy, Ph.D.)
The role of UV radiation in the development of myeloid malignancy in Rag2 knock out mice

Kent Gifford (John Horton, Ph.D.)
A 3-D CT assisted Monte Carlo evaluation of intracavitary implants

Esther Guzman (Laurie Owen, Ph.D.)
Effects of the microenvironment on Fas/FasL interactions and their implications for UV-induced immune suppression

Khalid Hanafy (Ferid Murad, M.D., Ph.D.)
CCTeta: a novel soluble guanylyl cyclase interacting protein

Cruz Hinojos (Peter Doris, Ph.D.)
Genetic mechanisms of Na+, K+-ATPase regulation in hypertension

Kevin Houston (Cheryl Walker, Ph.D.)
Convergent etiology of eker rat and human uterine leiomyoma

Si Wan Kim (Pierre McCrea, Ph.D.)
Developmental functions of Xkaiso, a transcriptional repressor associating with the p120 catenin in xenopus laevis

Gene Lang (Guillermina Lozano, Ph.D.)
Gain of function of the p53R172H mutation in a mouse model of Li-Fraumeni Syndrome

John Langowski (Laurie Owen, Ph.D.)
DNA damage-induced fas ligand expression by epidermal dendritic cells mediates UV-induced immune suppression of contact hypersensitivity

Lawrence Lee (Eric Brown, Ph.D.)
The identification and characterization of the staphylococcus aureus microbial immunomodulatory molecules (MIM) Map and Efb

Sangjun Lee (Timothy McDonnell, M.D., Ph.D.)
Functional studies of Ras and Bcl-2 oncoproteins in keratinocyte homeostasis and multistep skin carcinogenesis

Yan Li (Mien-Chie Hung, Ph.D.)
Her2 mediated signaling pathways in tumor angiogenesis and metastasis

Jerry Lu (John DiGiovanni, Ph.D.)
The role of AKT activation in mouse skin tumor promotion

Christopher Machado (Jocelyne Bachevalier, Ph.D.)
The contributions of the amygdala, orbital frontal cortex and the hippocampal formation to primate social cognition

Michael McLeod (George Weinstock, Ph.D.)
The sequence comparison index: a novel method for comparing proteins and proteomes

Paula Miliani de Marval (Claudio Conti, D.V.M., Ph.D.)
Role of the Cyclin Dependent Kinase-4 in Normal and Neoplastic Proliferation

Jarah Meador (David Mitchell, Ph.D.)
A comprehensive assessment of environmental ultraviolet radiation induced DNA damage in marine microorganisms

Christopher Neal (Dihua Yu, M.D., Ph.D.)
14-3-3 zeta overexpression in multiple human cancers plays a critical role in cancer progression

Jiangong Niu (Paul Chiao, Ph.D.)
Mechanism of constitutive nuclear factor kappa B (NF-kappa B) activation in pancreatic cancer cells

Brent Parker (Almon Shiu, Ph.D.)
Verification of intensity modulated stereotactic radiotherapy using Monte Carlo calculations and EPID dosimetry

Jose Rivera (Heidi Kaplan, Ph.D.)
An extracytoplasmic function sigma factor operon regulates myxococcus xanthus developmental gene expression

David Roe (Jack Waymire, Ph.D.)
Regulation of tyrosine hydroxylase gene expression by mRNA stabilization

Robert Rounbehler (David Johnson, Ph.D.)
Using K5 MYC transgenic mice to delineate MYC's apoptotic and tumorigenic pathways

Jamie Russell (David Johnson, Ph.D.)
Characterization of E2F1's oncogenic, apoptotic and tumor suppressive activities utilizing the K5 mouse model

Bryan Schaubach (Rodney Kellems, Ph.D.)
Gene regulation during placenta development: murine adenosine deaminase as a model to study placenta specific expression

Jennifer Sims (Hector Martinez-Valdez, M.D., Ph.D.)
Studies on gene expression within germinal centers

Chi-Hui Tang (Elizabeth Grimm, Ph.D.)
Endogenous nitric oxide regulates P53 signaling and DNA damage-induced apoptosis in melanoma cells

Meena Tanwar (Eric Holland, Ph.D.)
YKL-40, a vascular-associated serum marker for glioblastoma, correlates with chronic activation of Akt

Claudia Vidal (Wadih Arap, M.D., Ph.D.)
The identification and characterization of a molecular marker in epithelial ovarian cancer

Degang Wang (James Martin, M.D., Ph.D.)
The roles of Smads and Pitx2 in cardiac development

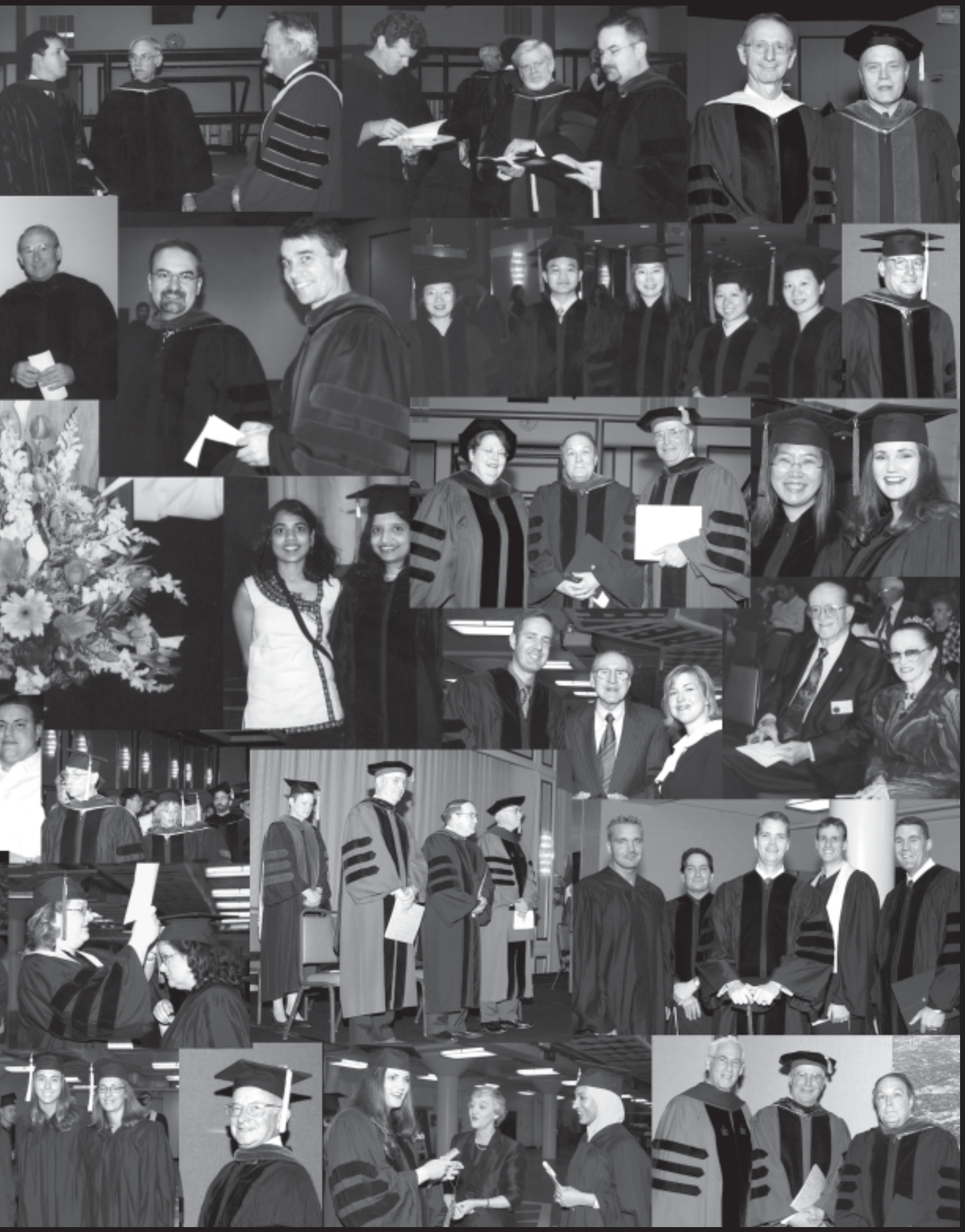
Xiaoyan Wang (Lawrence Lachman, Ph.D.)
Prime and boost vaccination against HER2/neu in breast cancer

Donghoon Yoon (Stephanie Watowich, Ph.D.)
Molecular mechanisms of signal transducer and activator of transcription (stat) protein function in hematopoiesis

Hays Young (Michael Blackburn, Ph.D.)
The contribution of A3 adenosine receptor signaling to pulmonary inflammation and mucus secretion in the mouse

Wei Zhang (William Dowhan, Ph.D.)
Role of phosphatidylethanolamine in the function and assembly of phenylalanine-specific permease of escherichia coli

COMMENCEMENT 2003-2004



Master of Science

MahRukh Aslam (Gary Gallick, Ph.D.)
Src-dependent and independent pathways regulating VEGF expression in HT 29 colon cancer cells

Andrea Atherton (Bartlett Moore, Ph.D.)
Assessing the quality of life in children and adolescents with neurofibromatosis type 1

Colleen Buechner (Michael Gambello, M.D., Ph.D.)
Prenatal, perinatal, and neonatal risk factors for autistic disorder

Thomas Burrows (Michael Weil, Ph.D.)
Design, production, and evaluation of a custom mouse cDNA array to evaluate gene expression changes in mouse tissues

Jamie Chance (Jacqueline Hecht, Ph.D.)
Decisions in genetic counseling: control, conflict and confidence

David Crotzer (Judith Wolf, M.D.)
The effect of upregulation of lipid phosphate phosphatase-1 on the growth of ovarian cancer cells in vitro

Stephen Kry (Mohammad Salehpour, Ph.D.)
Secondary dose equivalent from IMRT treatments

Tim Lee (Eugenie Kleinerman, M.D.)
VEGF165 production by Ewing's sarcoma tumors chemoattract CD34+ cells which contribute to the neovascularization of the growing tumor

Anita Leung (Jagannadha Sastry, Ph.D.)
Adjuvant-free delivery strategies for peptide-based vaccines

Carol Linsner (Susan Peterson, Ph.D.)
Psychological distress and genetic counseling for hereditary breast and ovarian cancer syndrome

Joe Ontiveros (John Powers, Ph.D.)
Intensity of light-emitting diode irradiance through various ceramic thicknesses and opacities

Vanessa Owens (Keping Xie, M.D., Ph.D.)
Regulation of endothelial nitric oxide synthase gene expression by signal transducer and activator of transcription-3 in human pancreatic cancer

Michael Price (Richard Wendt, Ph.D.)
Modification of the pencil-beam redefinition algorithm to predict central-axis percent depth dose for rectangular fields

Jason Runyan (Pramod Dash, Ph.D.)
The Role of prefrontal extracellular-regulated protein kinase activity in retention of trace fear conditioning

Alice Schindler (Stephen Daiger, Ph.D.)
Autosomal dominant retinitis pigmentosa (RP) and clinical heterogeneity: are modifying haplotypes affecting phenotype variability?

Karen Shumway (Michelle Barton, Ph.D.)
Replication kinetics: implications of histone H1 phosphorylation and interactions between RPA and p53

Premal Thaker (Isaiah Fidler, D.V.M., Ph.D.)
Anti-vascular therapy of human ovarian cancer

Christopher Wilson (Magnus Hook, Ph.D.)
Topology of Gossypium hirsulum cellulose synthase A1

Tao Xue (Gregory May, Ph.D.)
MAP Kinase regulation of proliferation and growth in aspergillus fumigatus

Alyson Zeamer (Jocelyne Bachevalier, Ph.D.)
Visual recognition memory and the hippocampus: effect of task manipulations

Community Awards

Outstanding Community Service Awards for 2004

Student	Professor
Shen-An Hwang	Dr. Jeffrey Actor
Joanna Koch	Dr. Guillermina Lozano
Meghan Minard	Dr. Gary Gallick
Eric Williams	Dr. Henry Strobel

(left to right) Koch, Minard, Williams, Hwang

Graduate Student Education Committee (GSEC) Medical School Research Poster Contest

3rd Place

Student	Professor
Melissa Drysdale	Dr. Theresa Koehler
April Hebert	Dr. Pramod Dash
Shen-An Hwang	Dr. Jeffrey Actor
Jonathan Volmer	Dr. Michael Blackburn

2nd Place

Tera Guidry	Dr. Jeffrey Actor
Susan Ritter	Dr. Gailen Marshall

1st Place

Amir Mohsenin	Dr. Michael Blackburn

P.E.O. (Philanthropic Educational Organization Scholar) Award for 2004-2005

In 1991 the P.E.O. Scholarship Awards were established as the fifth international project of the P.E.O. Sisterhood. They are one-time, highly competitive awards for women of the United States and Canada who are pursuing a graduate degree, undertaking advanced study or research. Since 1992 over 900 women have become P.E.O Scholars selected, in part, for their potential to excel. Recipient of Houston's E Chapter of the P.E.O Scholarship of $10,000 was:

Student	Professor
Pamela Yang	Dr. Alan Swann

2004 Barnes and Noble Scholars for 'Above and Beyond' Outreach

Student	Professor
Jennifer Brannan	**Dr. Z. Hong Zhou**
Ivone Bruno	**Dr. Gil Cote**
Joanna Koch	**Dr. Guillermina Lozano**
Athanasia Panopoulos	**Dr. Stephanie Watowich**
Meghan Minard	**Dr. Gary Gallick**
Diana Medrano	**Dr. Juan Fueyo-Margareto**
Eric Williams	**Dr. Henry Strobel**
Malcolm Heard	**Dr. Geoffrey Ibbott**
Katherine Roeder	**Dr. Jill Schumacher**
Travis Vaught	**Dr. Pierre McCrea**
Stacey Ruiz	**Dr. David McConkey**

GSBS Awards

Recipients for 2003-2004 (*shown here left to right)*
Andrew Sowell-Wade Huggins Scholars
Steffan Nawrocki, (Advisor David McConkey, Ph.D.) and
Gregory Aune, (Advisor, Yves Pommier, Ph.D., and Zahid Siddik, Ph.D.)
Yvonne Evrard Fellow and **Sharon Dent, Ph.D**., Professor, *not shown*
Cancer Answers/Sylvan Rodriguez Scholar, **Shreya Kant**, (Advisor, Jeffrey Moldrem, M.D.)
Andrew Sowell-Wade Huggins Scholar; **Jiangong Niu**, (Advisor, Paul Chiao, Ph.D.)

Andrew Sowell-Wade Huggins Endowed Scholars
The Andrew Sowell-Wade Huggins Professor/Fellow
The Cancer Answers/Sylvan Rodriguez Scholar

Cancer Answers, a 501 c (3) organization, was established in 1996 as the fundraising arm of the Andrew Sowell-Wade Huggins Endowed Scholarship Fund at The University of Texas Graduate School of Biomedical Sciences at Houston. This fund provides financial assistance to exceptional graduate students engaged in cancer research at The University of Texas Health Science Center and the M. D. Anderson Cancer Center. Since its earliest beginnings, when Joann Sowell and Marcia Huggins started the Fund (1991) as a response of gratitude to the recovery of their teenage sons from cancer, the support for the mission of 'finding cancer answers' through awarding exceptional students in training for their Ph.D. degrees has grown. Through this support, there are now up to five $2,000 annual scholarships and a $20,000 professorship/fellowship stipend provided through a highly competitive process at the Graduate School. The Sylvan Rodriguez Foundation partners with Cancer Answers to share in the effort of support for The Cancer Answers/Sylvan Rodriguez Scholarship, honoring the memory of Sylvan Rodriguez, local newscaster, who died of pancreatic cancer in 2001.

Rosalie B. Hite Award

In 1946, Houston citizen Rosalie B. Hite left her entire estate to establish a fellowship program for cancer research. This award includes a stipend of $19,000 per year, tuition and fees, and a single travel allowance up to $850 for the student to present his or her research at a national meeting. Hite Scholars for 2004-2005 are:

Student	Professor
Renewed:	
Christopher Danes	Dr. Dihua Yu
Meghan Minard	Dr. Gary Gallick
Ke Zhang	Dr. Sharon Dent
New:	
Ilyssa Okrent	Dr. Ralph Freedman

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 2004-2005 is

Student	Professor
Stephen Kry	Dr. Mohammad Salehpour

GSBS Awards

Dee S. & Patricia Osborne Endowed Scholarship in the Neurosciences

Established by the Linda and Ronny Finger Foundation in 2001-2002, this endowed scholarship honors former University of Texas Health Science Center at Houston Development Board president, Dee Osborne and his wife Patricia. Through the endowment an award of $500 is provided to the winning presenter in the graduate student category at the Annual Neuroscience Scientific Poster Session. This award is given during Brain Awareness Week. The 2003-2004 Osborne Scholar is

Student	Professor
Jason Runyan	Dr. Pramod Dash

The Schissler Foundation Fellowships

The Schissler Foundation is a major benefactor of the Graduate School. Now in its ninth year, the Foundation has chosen to support excellence through its awards to top students involved in research in the human genetics of common diseases. For the 2003-2004 academic year, funding is provided for two Schissler Foundation Fellows in the amount of $20,000 to each of the following students:

Student	Professor
Joanna Koch	Dr. Guillermina Lozano
Joshua Vincentz	Dr. Yasuhide Furuta

Roberta M. & Jean M. Worsham Endowed Scholarship in the Behavioral and Neurosciences

This endowed award fosters exceptional students working in the fields of the behavioral or neurosciences with focus on the areas of addiction or obsessive/compulsive behavior. This unique scholarship is for $1,000 and will be formally presented during Brain Awarness Week. The 2003-2004 scholar is

Student	Professor
Chris Machado	Dr. Jocelyne Bachevalier

In Progress

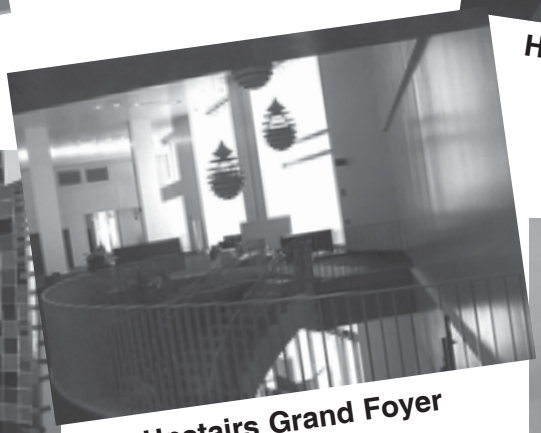
Interior Report - Summer 2004

The Graduate School is still tentatively scheduled to make the big move to the new George and Cynthia Mitchell Basic Sciences Research Building (BSRB) in the December-January time frame. This future location of the GSBS in the very heart of the Texas Medical Center, is shaping up beautifully, and will soon be called home base for our graduate faculty, students and staff. Photos were taken by Paul Darlington, Ph.D., Associate Dean and primary GSBS liaison for the building's status.

Grand Entry

Large Classroom

Hall and Windows



Upstairs Grand Foyer

Against the Wall

Interior Stairway
(leading to Grand Foyer)

Library
(awaiting the many completed dissertations)

Reception Area

Professional Development: The Preparation of Students for Careers

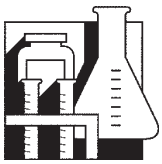
The training and preparation of students for the career of their choice is called professional development. We at the GSBS pride ourselves that the flexible system of biomedical training offered here, in conjunction with our superb complement of faculty, provides outstanding training to students for the scientific endeavors they will encounter as researchers and academicians. However, an ever- increasing number of students are seeking careers in science that are not research-oriented, or are not academic in nature. These include industrial and government positions, as well as 'alternative' careers in patent law, science writing, science entrepreneurship, technology transfer, and teaching, to name a few. In the past five years, the GSBS has undertaken the goal of providing students with the resources to investigate the various career choices of their interest.

Students must be informed of professional development resources early in their graduate training to allow them maximum preparation time for various career paths. In our view, a centralized professional development program is required to reach students early in their training and achieve less redundancy of effort. The immediate goals of the GSBS concerning professional development include providing students with: exposure to the numerous alternative career choices now available via interactive workshops, various career seminars, a network of career contacts who can assist students in preparing for their chosen endeavor, networking with other universities, the development of an interactive professional development webpage for the GSBS website, and the generation of new courses in professional development (e.g., *Professional Science Skills: Communications*, and *Surviving in Science*).

Our current program is beginning to offer students in the GSBS opportunities to research their chosen profession, learn that their profession is reachable, and enable them to realistically compete for positions in their profession by providing them with the appropriate skill sets.

For more information, please contact Jon R. Wiener, Ph.D., Assistant Dean for Academic Affairs, 713.500.9870, Jon.R.Wiener@uth.tmc.edu

Project GRAD, a science enrichment program sponsored by the University of Houston, provided a two week seminar for youth to explore the world of biomedical sciences here at the GSBS. Tom Goka, Ph.D., led the presentation with GSBS alumna, Brenda Whaley, Ph.D., (shown here) overseeing the eye-ball dissection experiment.



News & Events

★ Contratulations!!

Alfred George Knudson, Jr., Ph.D., GSBS Dean, 1970-1976, and currently a senior member at Fox Chase Cancer Center and an adjunct professor of pediatrics and human genetics at the University of Pennsylvania's medical school, will receive the 2004 Kyoto Prize of $450,000 awarded by the Inamori Foundation. Dr. Knudson will receive the prize in basic science in the field of life sciences. His cancer research led to the discovery of tumor-suppressor genes and an understanding of their role in cancer development.

M. Neal Waxham, Ph.D., Director of the Program in Neuroscience, recently had a successful renewal of the National Institutes of Health Training Grant "Training in Neuroscience." This is of particular note, that since serving as PI of the grant, seven of our trainees successfully competed for Ruth Kirschstein individual predoctoral fellowships.

Alumni Outreach to Sylvan Rodriguez Elementary School
Tom Goka, Ph.D., Assistant Dean for Outreach and Minority Affairs (and GSBS Alumnus), visits with Sonya Coffey, Math Department Chair; and Elena Martinez Buley, Principal, following an interactive presentation about "mixtures."

Julia Javarone (Advisor, Rena D'Souza, D.D.S, Ph.D.) was elected as **president of the National Student Research Group**, American Association of Dental Research. She is the first D.D.S./Ph.D. trainee on campus.

Sigma Xi, professional science organization, represented here by Gene Brams, Ph.D., and Elizabeth Smith, recently thanked graduate students for their efforts to bring biological science lectures into the schools. Here left to right: Amy Whitetree, student, Tom Goka, Ph.D., Yasmin Valentin, student, Elizabeth Smith, Sigma Xi , Ivone Bruno, student, and Gene Brams.

Best wishes to all those great faculty who are retiring:

M. L. Jack Crawford, Ph.D.; **Kenneth Hogstrom**, Ph.D.; **Jan Liang**, Ph.D.; **Emanuel Murgola**, Ph.D.

These individuals have been brought to our attention. If you would like your name, or the name of your colleague who is retiring, listed in the newsletter, contact Linda.M.Carter@uth.tmc.edu or call (713) 500-9865.

Scenes from the recent Faculty-Graduate Student Softball Game

Special Thanks

Benefactors

American Legion Auxiliary
L. D. Blackwell
The Harry S. & Isabel C. Cameron Foundation
City Federation of Women's Clubs
Rekha Halligan
Evelyn Howell
Margaret Hsu
Marilyn and Frederick Lummis, Jr.
John P. McGovern Foundation
Peggy O'Neill
William Plunkett
Joanna Ross
The Schissler Foundation
The Shell Oil Company Foundation
Rick Wetsel
Mary Ruth Williams
Mary Wright
Wei Yu

With Gratitude

American Society of
Biochemistry & Molecular Biology
Applera Corporation
Valerie Banks
Roger Bick
Carol Blanchard
Bristol-Myers Company
R. William Butcher
Leslie Cagle
Linda Carter
Mimi Cho
Richard Clark
Sheila Davis
Kimberly Dodge
Tommy Douglas
Julie Ellerhorst
Cindee Ewell
Jennifer Fernandez
Rhonda Friedberg
Gregory Fuller
Varsha Gandhi
Chuan Gao
Thomas Goka
Jason Goldsmith
Diane Hammond
Carol Helton
Jen-Tzaw Huang
Tricia Ishimoto
Jefferson Pilot Foundation
James Knierim
John Kopchick
Johnson & Johnson Co.
Ajay Kwatra
Karin Loftin
Beth Maxwell
Marvin Meistrich
Yuko Miyamoto
Kevin Morano
Kathleen Morrison
Ponnada Narayana
Steve and Debbie Norris
Thomas Poorman
Heidemarie Porter
John Powers
Aaron Roome
R. Wanda Rowe-Horwege
Maribelis Ruiz
Schering-Plough Corporation
Robert Scott
Lauren Serper
Ann-Bin Shyu
Joseph Sorrentino
Emil and Anna Steinberger
Michael Stern
Ming Tan
Janet Travis
Yining Wang
Brenda Whaley
Rick Wetsel
Barbara Williams
Jing-Ren Zhang
Xiaohong Zhang

A tax-deductible gift may be sent to
UT-GSBS, P. O. Box 20334, Houston, Texas 77225-0334
For information call (713) 500-9865

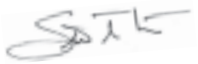
Dear Alumni and other friends,

Heading into the next academic year and fall breezes I hope, the Graduate School is now completely vested in its new home, the George and Cynthia Mitchell Basic Sciences Research Building. So, while this is all still fresh, I want to invite you to a housewarming…or homecoming, whichever you prefer. Please mark your calendars for Friday, 6:30-9:30 p.m. November 11, 2005 for our now annual Alumni Reunion. It will take place in this sparkling new building midst fabulous art and cutting edge educational and scientific accouterments.

Our Distinguished Alumnus for 2005-2006 is Bhudatt Paliwal, Ph.D., (1973/Almond) who has made, and is making, his world mark in radiation dosimetry, radiation imaging, and the use of hyperthermia in cancer care. Dr. Paliwal will be on hand at the Alumni Reunion (as well as a faculty/student seminar that afternoon open to the public) to talk about his current endeavors and his beginnings at GSBS.

In the 2006 we want to bring a breath of the GSBS closer to you. Our thought is to host the makings of a few informal GSBS alumni chapters, and start to link GSBS friends and colleague around the country. The initial sites being considered include Washington D.C., or the Maryland area, New York City, California around Palo Alto—midway, and Texas in San Antonio. Still in its formative stages I welcome your comments (stlott@mdanderson.org) about location preferences, interest, and of course any volunteers who would like to help us host an informal event, if one of these happens in your business/living area. As I read over this letter I am struck by the many mentions of home. One of the best memories I have about the GSBS, besides the educational experience, was how much I felt at home.

We'd like to bring a bit of that to you. I hope you will join us for the Reunion, elect one of your next Alumni Association leaders then, and relish an evening of camaraderie and new information.



Steven Lott, Ph.D. (1997)
President, 2004-2005
GSBS Alumni Association

Newsletter ***Editor: Linda Carter*** ***Graphic Design: Jeannice Theriot***
Photography: Linda Carter, Tom Goka, Ester Fant

The University *of* Texas
Graduate School *of* Biomedical
Sciences *at* Houston

PO Box 20334
Houston, Texas 77225-0334

Address Correction Requested