



End of the Year Message from the Chair



Dr. Nader Abraham

Consistent with the university's strategic goals and objectives, our Department has continued to emphasize the importance of medical education, medical and graduate student research interaction, in addition to providing a number of scholarships to medical students to enhance their vision regarding opportunities for biomedical research. We have emphasized extramural funding with the goal of reaching the top-tier of medical school NIH funding and scientific productivity.

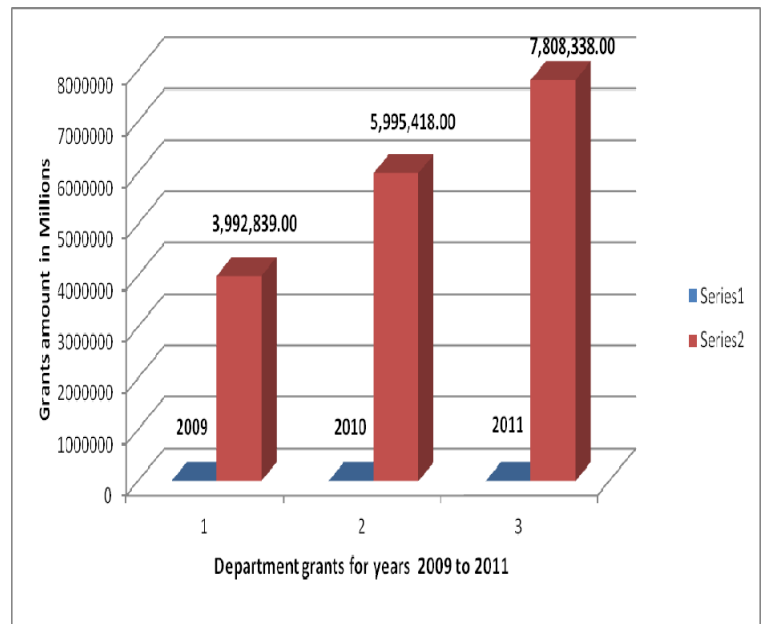
We have advanced on all fronts this past year. First, with medical education under the leadership of Dr. Howard C. Rosenberg, the Director of the Organ Systems course, along with the teaching core and our dedicated faculty teachers, Drs. Patricia Metting, John Turner, Andrew Beavis, Paul Brand, George Cicila and Ronald Mellgren. Their hard work helped to elevate the University of Toledo's medical student national scores above the 75th percentile. The department's second focus was to increase the interaction between medical students and graduate students to further promote opportunities in translational research and foster careers in academic medicine.

We continue to support faculty research activity in the context of the UT mission. To achieve such goals, we have focused on faculty obtaining more NIH funding with incentive programs, space allocation, investment in state-of-the-art equipment, aiding student costs when needed, providing faculty access to laboratories of other funded investigators; using those funded labs as models.

Our vision, along with the support of Dr. Jeffery Gold, Professor, Chancellor and Executive V.P. for Biosciences & Health Affairs, Dean of the College of Medicine, and the University of Toledo's President, Dr. Lloyd Jacobs, was to compete among top-tier medical schools during this difficult time of NIH funding. As a result of the hard work and the dedication of the faculty, each faculty member in the research track currently is supported by 1 to 3 NIH RO1 grants: Dr. Jian Xie (3 RO1s), Dr. Sonia Najjar (2 RO1s), Dr. Bina Joe (3 RO1s), Dr. Nader Abraham (3 RO1s), Dr. Jennifer Hill (1 RO1 and 1 R21), Dr. Edith Mensah-Osman (1 RO1), and Dr. Guillermo Vazquez (1 RO1), and the new faculty member, Dr. Ashok Kumar (2 RO1s).

Our goal is to have the department listed among the Top 10 medical schools for NIH funding and productivity, with a budget of \$15 million by 2013. The overhead can be used for UT research expansion, part of which can be reinvested into the department as an incentive with awards for successful faculty. This will raise the bar and result in additional NIH funding and increased scientific publications.

As indicated in the graph, we managed to increase the budget from \$3.9 million in 2009 to \$7.8 million in 2011. This increase, also reflected by an associated increase in faculty publications, places us within reach of the Top 10 medical schools. Last, but not least, let us not forget our dedicated administrator and office staff who work hard to assist the faculty with their lecture/course preparations and NIH deadlines. We thank Dr. James Trempe for his outstanding support in minimizing the NIH time of submission. We are



Jan. 2012, Hesham Youssef, MBA, Physiology & Pharm.

committed to support the CeDER Center under the leadership of an internationally acclaimed scientist, Dr. Sonia Najjar, and the new Hypertension Center, under the leadership of two outstanding world class scientists, Dr. Bina Joe, (Scientific director) and Dr. Joseph Shapiro, (Clinical Director and Chair of Medicine).

To further augment cross-talk between our department and the clinical departments, we arranged with Dr. Nabil Ebraheim, Chair of Orthopedics, to accept clinical fellows to be trained in the stem cell core. We collaborated with the cardiology Division (Dr. Samer Khouri) to study the effect of drugs on Biomarkers for human pulmonary hypertension, and (Dr. Christopher Cooper) the development of a pre-clinical study on the use of stem cell therapy to treat heart failure in mice. In collaboration with Dr. Joseph Shapiro, Chair of Medicine, we are developing a project on inflammatory molecules in kidney diseases.

In closing, I have been honored to serve as your Chair for the past two years. I would like to thank all of you for the opportunity to share in your successes and to especially thank you for all you do on behalf of our Department as well as our beloved Medical School. I look forward to our continued success.

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Faculty and CVMD students have experienced enhanced learning from world-class scientists invited to present seminars and presentations on our campus. Please note some of the outstanding speakers I invited:



*Dr. Jane Reckelhoff*

January 12, 2011: **Jane Reckelhoff, Ph.D.**, *Billy S. Guyton Distinguished Professor*, Professor of Physiology and Biophysics, Director, Women's Health Research Center, The University of Mississippi. Title of seminar: *"Update on Sex Differences in Control of Blood Pressure."*



*Dr. David Stec*

February 16, 2011: **David Stec, Ph.D.** Associate Professor, Director, Transgenic Core, The University of Mississippi Medical Center. Title of seminar: *"Role of Heme Oxygenase-1 and its Metabolites in the Regulation of Blood Pressure."*



*Dr. M. Schwartzman*

February 27, 2011: **Michal Schwartzman, Ph.D.**, Professor and Chair of Pharmacology, New York Medical College. Grand Rounds co-sponsored with the Department of Medicine. Title: *"Cytochrome P450-derived Eicosanoids in the Regulation of Renal Function and Blood Pressure."*



*Dr. Richard Roman*

March 9, 2011: **Richard J. Roman, Ph.D.**, Professor & Chair, Department of Pharmacology & Toxicology, The University of Mississippi Medical Center. Title of seminar: *"Genetic Basis of Altered Myogenic Response and the Development of Renal Disease in FHH Rats."*



*Dr. Donald Phinney*

**April 6, 2011: STEM CELL BASIC SCIENCE AND CLINICAL APPLICATION SYMPOSIUM**

**Donald Phinney, Ph.D.**, Professor, The Scripps Research Institute, Department of Molecular Therapeutics, Florida Campus. Title of talk: *“Functional Heterogeneity of MSC Populations and Implications for Clinical Medicine.”*



*Dr. Eva Mezey*

**STEM CELL BASIC SCIENCE AND CLINICAL APPLICATION SYMPOSIUM**

**Eva Mezey, M.D., Ph.D.**, Investigator, NICDR, National Institutes of Health, Neuroscience. Title of talk: *“Immuno-modulation by Bone Arrow Derived Stromal Cells.”*



*Dr. Nader Abraham*

**STEM CELL BASIC SCIENCE AND CLINICAL APPLICATION SYMPOSIUM**

**Nader G. Abraham, Ph.D., D. H.C., FAHA**, Professor and Chair, Department of Physiology and Pharmacology, The University of Toledo. Title of talk: *“Introduction of stem cells plasticity and types.”*



*Dr. Daniel Weiss*

**STEM CELL BASIC SCIENCE AND CLINICAL APPLICATION SYMPOSIUM**

**Daniel J. Weiss, M.D.**, Department of Pulmonary and Critical Care Medicine, The University of Vermont College of Medicine. Title of talk: *“Clinical Trials with MSCs.”*



*Dr. Luis Ortiz*

**STEM CELL BASIC SCIENCE AND CLINICAL APPLICATION SYMPOSIUM**

**Luis A. Ortiz, M.D.**, Associate Professor, The University of Pittsburgh, Director, Division of Occupational Medicine. Title of talk: *“The MSC Secretome in Acute Lung Injury.”*



*Dr. Matteo Russo*

April 13, 2011: **Matteo A. Russo, Ph.D.**, Professor, Experimental Medicine, The University of Rome, Italy. Title of talk: *“Sirtuins and Physical Exercise in the Maintenance and Repair of Post-Mitotic Cells.”*



*Dr. Raymond Frizzell*

April 14, 2011: **Raymond A. Frizzell, Ph.D.**, Professor, Director of Cystic Fibrosis Research Center, Department of Cell Biology, The University of Pittsburgh. Title of talk: *“Two Modes of Ion Channel Regulation by 14-3-3 Proteins.”*



*Dr. Ferid Murad*

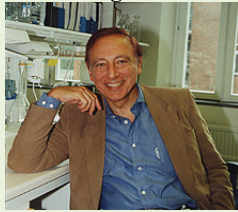
**1998 NOBEL LAUREATE – GRAND ROUNDS, April 28-29, 2011**

Dr. Abraham invited **Ferid Murad, M.D., Ph.D.**, the 1998 Nobel Laureate to give joint lectures between the Departments of Medicine and Physiology & Pharmacology. Dr. Murad received an Honoree Degree of Medicine which was presented by Dr. Lloyd A. Jacobs, the President of the University of Toledo and Dr. Jeffrey P. Gold, Professor, Chancellor and Executive VP for Biosciences & Health Affairs, Dean of the College of Medicine, in a special ceremony held at the Hilton Hotel.



**Dr. Sang Don Lee**

May 18, 2011: **Sang Don Lee, Ph.D.**, Professor, Pusan National University Yangsan Hospital, School of Medicine, Department of Urology, Division of Pediatric Urology, Busan, Korea. Title of seminar: *“Understanding the Basic Function, Morphological and Molecular Changes of Bladder after Bladder Outlet Obstructions.”*



**Dr. Robert Gallo**  
Institute of Human Virology

June 16-17, 2011: **Robert C. Gallo, M.D.**, [Background information on Dr. Gallo](#): In 1984, Dr. Gallo became world famous when he co-discovered HIV as the cause of AIDS. Little was known then of the mysterious disease that was fast becoming the deadliest in medical history. Since then Dr. Gallo has spent much of his career trying to put an end to this raging epidemic and other viral, chronic illnesses. Though best known for his co-discovery of HIV, Dr. Gallo and his team pioneered the development of the HIV blood test, which enabled health care workers for the first time to screen for the AIDS virus, leading to a more rapid diagnosis while simultaneously protecting patients receiving blood transfusions. His research also helped physicians develop HIV therapies to prolong the lives of those infected with the virus. In 1996, his discovery that a natural compound known as chemokines can

block HIV and halt the progression of AIDS was hailed by *Science* magazine as one of that year’s most important scientific breakthroughs. Dr. Gallo’s research has brought him international recognition as well as election into the National Academy of Sciences and the Institute of Medicine. He has been awarded honors for his contribution to science from countries around the world and holds 29 honorary doctorates. Dr. Gallo had the unique distinction of twice winning America’s most prestigious scientific award – the Albert Lasker Award in Medicine – in 1982 and again in 1986.

Dr. Nader Abraham said that The Institute of Human Virology (IHV) is the first center in the United States, perhaps the world, to combine the disciplines of basic science, epidemiology and clinical research in a concerted effort to speed the discovery of diagnostics and therapeutics for a wide variety of chronic and deadly viral and immune disorders.



**Dr. John Hall**

June 17, 2011: **Dr. John Hall, Ph.D.**, Arthur C. Guyton Professor, Chairman, Dept of Physiology & Biophysics, University of Mississippi Medical Center. Title of talk: *“The Kidney and Hypertension: Conceptions, Misconceptions and Perspectives.”*



**Dr. Mario Petrini**

November 30, 2011: **Dr. Mario Petrini, M.D.**, Dean of the Medicine Faculty at the University of Pisa, Italy. Dr. Petrini is located at the University Hospital in Pisa and is involved in translational research, teaching and patient care. Title of his seminar: *“Clinical Application of Stem Cells?”*



**Dr. Anupam Agarwal**

September 7, 2011: **Anupam Agarwal, M.D.**, (Interim) Chairman, Department of Medicine, Marie S. Ingalls Endowed Chair in Nephrology Leadership, Professor and Director, Division of Nephrology, University of Alabama at Birmingham. Dr. presented a seminar on *“Adaptive Responses in Renal and Vascular Injury: Role of Heme oxygenase-1.”*



**Dr. Ashok Kumar**

**Welcome! to new faculty member, Ashok Kumar, Ph.D** and his research staff. Dr. Kumar gave a seminar November, 2010 on the *“Effect of Different Haplotypes of Human Angiotensinogen Gene on Blood Pressure Using Transgenic Mice.”* Dr. Kumar joins us from New York Medical College, Valhalla, New York, where he had been a Professor of Pathology and Gene Expression researcher since 1994.

**Disclosure: this newsletter represents no conflict of interest by the Department Chair/editor, staff, or faculty and is an impersonal commentary.**

*Happy New Year!*