On June 10th in the year 1910, the Trustees of the Massachusetts General Hospital voted to establish a “Genito-Urinary Department” at the hospital, meaning that our department will celebrate its 100 year anniversary in June 2010. We are also honored to help celebrate the hospital’s bicentennial in 2011, marking 200 years of commitment to clinical care, teaching, research and community outreach.

The number of patients treated by the Massachusetts General Urology Department continues to grow annually, making us one of the fastest growing departments in the hospital. In 2009 we had 27,807 outpatient visits, reflecting 15.6% growth compared to 2008. In the outpatient clinic, we performed 3,493 procedures which included prostate biopsies, cystoscopies, ureteral stent placements, prostate reduction therapies and ablation of small bladder tumors. In the hospital operating rooms, we performed 2,786 cases, reflecting 3.5% growth over the previous year.

Our activities in the Mass General-North Shore Center for Outpatient Care continue to expand rapidly. Currently, five members of the department dedicate part of their weekly activities to seeing patients in the new satellite Danvers urology office and outpatient operating suites.
Given our high clinical volume and the significant amount of congestion at the Mass General main campus, we are exploring new avenues to provide care to our patients in an efficient manner. In a pilot project led by Dr. Aria Olumi, we are exploring utilization of telemedicine for some of our urologic oncology patients. We will utilize our satellite site at Mass General-North Shore to tele/video-conference with the main campus in Boston. We expect that patients will be able to access the Mass General-North Shore site with greater ease than the main campus, while we can be more efficient with the utilization of our onsite resources at the main campus.

The research activity within the department continues to grow at a steady rate as seen from the faculty summaries listed below. One measure of our growth is reflected by the increased number of presentations from Mass General Urology at local, national and international meetings. The graph demonstrates the number of presentations given by our residents and faculty and the total number of presentations at the New England AUA meetings from 2005 to 2009. As shown in the graph, in 2009, there has been a significant increase in the number of presentations compared to prior years. We have observed similar increased number of presentations at the national AUA meeting as well. The increased presence of Mass General Urology at the regional NE-AUA meeting is a reflection of the dedication, commitment and the value that our residents and faculty place on advancing our knowledge in urologic practice.

We have been accredited to increase the number of residents in training from two to three per year. This year we received applications from 180 medical students, of whom 38 were interviewed. We are very pleased that we matched three outstanding individuals from our top-tiered applicant pool: Seth Bechis (UCSF), Timothy B. Brown, PhD. (Jefferson Medical College), Monica G. Velasquez (Virginia Commonwealth University). The training program remains the core of our program at Mass General, and we have been fortunate to be
able to offer very creative learning opportunities with special focus on each individual’s strengths. These unique learning opportunities for our trainees are discussed later in the newsletter.

Our urologic oncology fellowship program underwent review and was accredited by the Society of Urologic Oncology. One individual has completed the program and a second is currently enrolled. In the coming years we will participate in the match for SUO to attract and train top candidates interested in urologic oncology.

RESEARCH REPORT

We have significantly grown our research activities over the last several years. As noted from the descriptions below, many faculty members are actively involved in federally and externally funded research projects. Our annual research expenditure and grants exceeds $1.1 million dollars. In addition to external research grants, we have been fortunate to have outstanding philanthropic support to grow our research endeavor.

Dr. Douglas Dahl
Dr. Douglas Dahl, along with Dr. William Shipley (Radiation Oncology), is the principal investigator of a new RTOG national trial for patients with high grade superficial (stage pT1) bladder cancer. The study will evaluate the outcomes of this patient population who will be treated with combination of endoscopic surgery, radiation and chemotherapy. On another front, Dr. Dahl published a prospectively designed study which compared the outcomes after laparoscopic and open radical prostatectomy.

Dr. Brian Eisner
Dr. Brian Eisner, after completing his residency at Mass General and his endourology fellowship at UCSF, returns to Mass General as the newest member of the faculty. He has received a multi-center NIH grant in conjunction with University of Minnesota and Mayo Clinic to evaluate the relationship between testosterone and nephrolithiasis.
**Dr. Adam Feldman**

Dr. Adam Feldman, recipient of a Young Investigators’ Award from the Prostate Cancer Foundation, continues his efforts in identifying novel secreted biomarkers that may help differentiate between benign and malignant prostate cancer cells.

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**Dr. Pablo Gomery**

Dr. Pablo Gomery received a grant from Mass General Physician Leadership Capstone project for his efforts in developing the Division of Geriatrics within the Department of Urology. In 2002, the American Urological Association formally recognized geriatric urology as a subspecialty of urology by creating the affiliate Geriatric Urology Society. Dr. Gomery, in collaboration with Dr. Charles Pu (Department of Medicine-Geriatrics), has created a multidisciplinary approach in managing complex urologic issues for geriatric patients.

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**Dr. W. Scott McDougal**

Dr. W. Scott McDougal, along with Dr. Leo Cheng (Department of Radiology), is the principal investigator of an NIH funded grant to study the metabolomics of early prostate cancer. In other areas, Dr. McDougal is an active investigator on several other projects: outcomes of penile sparing surgery for penile cancer, genetic profiling of superficial bladder cancer, and gene expression profiling of prostate cancer.

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**Dr. Aria Olumi**  
*Director of Research*

Dr. Aria Olumi, director of research, has obtained a grant from the NIH to evaluate molecular alterations associated with bladder dysfunction in type 2 diabetes. Urologic complications associated with diabetes are very common, but the molecular and pathophysiology associated with the secondary complications of type 2 diabetes are poorly understood. Dr. Olumi’s lab hopes to identify specific genetic alterations that play a direct role in diabetic cystopathy.
Dr. Dianne Sacco

Dr. Dianne Sacco is initiating a clinical trial to use thermal sensitive polymers which will aid in preventing migration of ureteral stones during ureteroscopic laser lithotripsy. Another exciting research endeavor includes her work with Dr. Jolesz Ferenc who is developing a GPS-like device to auto-navigate endoscopic instruments. In addition, Dr. Sacco was chosen to participate in the AUA Leadership Program. This program is designed to develop leadership skills in those individuals interested in becoming active participants in the AUA.

Dr. Chin-Lee Wu

Dr. Chin-Lee Wu received an industry grant to study the gene expression profile to predict prostate cancer progression. Dr. Wu was the lead author in an article published in Science Translational Research which demonstrated the potential application of combining MRI technology with metabolomic prostate tissue signature for better diagnosis of prostate cancer. In addition, in his role as director of urology research labs, he obtained a grant to continue the Mass General Urologic Tumor Bank.

Dr. Christopher Cutie

Dr. Cutie, in his role as a urologic oncology fellow, has had the opportunity to attend the Harvard Business School in order to combine his interests in urologic oncology and business innovations in urology. As a first-year student at HBS he was named as one of the Kaplan Life Sciences Fellows, which is awarded to only 10 members of his class. He will be pursuing a project at bioMerieux, a multinational medical diagnostics company, to develop a commercialization strategy for several prostate cancer diagnostic platforms.
Dr. Brian Chapin
Dr. Brian Chapin, who will be beginning his urologic oncology fellowship at MD Anderson Medical Center in July 2010, has obtained a research grant from the American Foundation of Urologic Association (AFUD) to examine the molecular mechanisms of resistance to the anti-angiogenic medication, Sunitnib, for advanced renal cancer.

Dr. Rongbin Ge
Dr. Rongbin Ge, a postdoctoral fellow in Dr. Olumi’s lab, has received a very competitive young investigator’s award from the American Association of Cancer Research that was presented to less than 10% of the applicants. Dr. Ge will be presenting his work as a podium presentation at the annual AACR meeting in Washington, D.C.

Dr. Ying Hua Jura
Dr. Ying Hua Jura received one of the 2010-11 IVUmed Traveling Resident Scholarship programs. IVUmed is a nonprofit organization founded in 1995 that provides urologic care to thousands of patients in the developing world every year, as well as medical and surgical education to physicians and nurses. The IVUmed Traveling Resident Scholar Program allows residents to experience urology in a developing country under the guidance of a board certified urologist. Dr. Jura’s plans are to learn about and serve the female urologic needs of women in Africa.

Dr. Sarah Psutka
Dr. Sarah Psutka has been selected to participate in the clinical effectiveness program at Harvard School of Public Health. The course will build on her prior clinical research experience that has focused on outcomes of surgically treated locally advanced prostate cancer. Her research has been presented at podium presentations at the annual AUA and the Society of International Urology (SIU) meetings.

For more information contact the Mass General Department of Urology
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