As all of you know, we suffered a great loss when Dr. Jack Grayhack died in August. The impact of his leadership on the department and its graduates has been profound. It was a pleasure to see the Grayhack children and their families at Jack’s and Betty’s wakes this year. They are a remarkably talented, friendly, and generous group of individuals. Many of you contributed your thoughts to a written legacy as a surprise for Jack’s family, which is available online, and we hope to keep a copy of it within the department.

One of Jack’s greatest achievements was instilling a love of urology in his residents and faculty members. He was very proud of all their accomplishments. Two of his former residents have recently accepted chairmanships: Dean Assimos was named the inaugural chair of the Department of Urology at the University of Alabama Birmingham School of Medicine and Kevin McVary at Southern Illinois University School of Medicine in Springfield, IL. Both of these gentlemen are highly accomplished clinician-scientists and will make a significant impact on their new respective institutions.

It is also a pleasure to see that 13 Northwestern medical students have elected to go into urology this year. As you all know, more students have entered urology from Northwestern by several fold greater than the next closest institution. When these students crisscross the country, they are delighted to interact with the multitude of Northwestern students, residents, and faculty who are populating the best urology programs.

We look forward to seeing many of you at the AUA meeting in San Diego with George and Susan Kaplan and Franklin and Jean Gaylis as the hosts.

With best regards.
A world-renowned physician, surgeon, researcher, and scholar, John T. Grayhack, MD, professor emeritus and former chairman of urology, died August 8, 2012.

“He was a professor, chief, colleague, and mentor,” said Anthony J. Schaeffer, MD, chair of Department of Urology and Herman L. Kretschmer Professor of Urology, who has known and worked with Grayhack since 1976. “He was highly regarded by everyone and had a commitment to improve patient care.”

“He was a thoughtful, understanding, and inspiring clinician, scientist, and leader. He made an immediate impact on the Department of Urology by being a tremendous surgeon-scientist and as a mentor whose students will continue his legacy,” he said. “He had a high level of excellence and expected the highest levels of integrity and scientific rigor from everyone. He was an outstanding caregiver, who had an individual zest for life.”

Grayhack received his BA and MD from the University of Chicago. After a general surgery internship and residency at Johns Hopkins, Grayhack spent a year in their research labs and became interested in all phases of urology. He completed his urological training in 1953. He was an assistant professor at Hopkins and served two years in the Air Force before being recruited to Northwestern University in 1956.

At the medical school, he was appointed the chair and Herman Kretchmer Professor of Urology in 1963, a position he held until 1989. Grayhack also distinguished himself as an inspiring teacher and investigator. When he became chair, the Northwestern urology residency was extended to include a year of research fellowship in his laboratory. The residency program grew under his direction and was strengthened by an affiliation with Children’s Memorial and Evanston Hospitals in 1970. Approximately one-third of residents completing the program have entered academic careers.

During his tenure as chairman, he established the Kretschmer Urological Research Laboratories, which today is a premier research center.

Grayhack received some of the most prestigious awards in urology, including the American Urological Association (AUA)’s Hugh Hampton Young Award in 1979, the Eugene Fuller Prostate Award in 1989, the Russell and Mary Hugh Scott Education Award in 1991, the Ramon Guiteras Award in 1994, and the Presidential Citation in 2002.

He served on numerous AUA committees, as well as president of the American Board of Urology, the American Association of Genitourinary Surgeons, the Clinical Society of Genitourinary Surgeons, and the Society of University Urologists. Grayhack was editor of the Yearbook of Urology from 1963 to 1978 and editor of the Journal of Urology from 1985 to 1994.

Grayhack was the beloved husband for 62 years of the late Elizabeth “Betty” Grayhack and the loving father of Beth, John, Bill, and Anne Grayhack and Linda Replogle.
For the last decade, Northwestern’s Department of Urology has ranked in the top 10 in funding by the National Institutes of Health (NIH). As of 2013 the Department of Urology has ascended to number three in the entire country for medical school funding according to the Blue Ridge Institute for Medical Research.

The Department of Urology isn’t the only department excelling, however. Eight of Feinberg’s departments rank in the top 10 of their research areas, and 11 departments rank in the top 20, with the Department of Urology ranking the highest among Feinberg departments.

- Urology (3); Physiology (3); Obstetrics and Gynecology (4); Preventive Medicine (4); Dermatology (7); Physical Medicine and Rehabilitation (8); Cell and Molecular Biology (9); Neurology (10); Medicine (17); Otolaryngology (20); Surgery (20).

- Also included are two affiliated specialty hospitals: Rehabilitation Institute (1); Children’s Memorial Hospital (8).

Overall, Northwestern ranks 21st among the 130 institutions awarded grants directly from NIH. This qualifies Northwestern as the biggest gainer, 19 spots, since 2001. The ranking is also the highest Feinberg has achieved to date, an increase from 24 in 2011 and 41 in 1997.

“This vital NIH funding enables our investigators to make breakthrough discoveries while mentoring and training the next generation of scientists and physician-scientists,” said Eric G. Neilson, MD, vice president for medical affairs and Lewis Landsberg Dean. “Our new ranking is a validation of our superb Feinberg faculty and their diligent efforts to conduct important biomedical research.”

The growth isn’t coming from NIH, either. Thanks to the unstable economic climate of the last few years, NIH hasn’t changed significantly, but that has not stopped Northwestern from progressing.

“The NIH budget has been relatively flat for the last several years,” said Rex Chisholm, PhD, vice dean of scientific affairs and graduate education, and associate vice president for research at Northwestern University. “The medical school faculty hasn’t grown significantly. Feinberg faculty have been focused and effective in securing funding; we’ve been more successful than other institutions in competing for awards by increasing our market share.”
When PGY5, Laurie Bachrach, signed up for her IVUMed trip, she had high hopes for a great experience. This was tempered by her previous international experiences where she felt limited in her ability to leave a lasting impact. She was more hopeful for this trip based on the experiences of other IVUMed participants and the strong mission of “teach one, reach many.” She is delighted to say that this trip exceeded all of her hopes and expectations. A combination of receptive and competent hosts and realistic goals made this a worthwhile experience, which she believes will have a lasting impact on the Mongolian urologists and patients.

The trip started with a late arrival to Ulan Bator on a Wednesday night. The next morning they went to the hospital around 8 am and were immediately ushered into a conference room. With very little introduction they immediately began to see patients who were pre-selected by their Mongolian colleagues as potential operative candidates. As their trip was focused on reconstruction and laparoscopy, the patients they saw were almost exclusively candidates for urethroplasty or laparoscopy. The IVUmed team evaluated the patients’ brief histories and appropriate imaging and rapidly filled their schedule for the entire trip over the course of a morning, including their first case to be performed that afternoon. For Dr. Bachrach’s own records she took notes and photos of every patient along with relevant imaging and organized it into an ad hoc medical record. This ended up being utilized by the rest of the team and enhanced their experience, as it allowed them to think about and discuss their surgical approaches in advance and anticipate challenges in the operating room. There were several notable things about the process of meeting patients and scheduling their surgeries. Many of the patients were waiting in the hospital for IVUmed’s arrival with their families, and were very assertive about being seen. Patients also seemed surprisingly well informed about their disease process and the treatment options available. Dr. Bachrach believes this is a testament to the Mongolian doctors. The existing knowledge and skill of the Mongolian doctors, coupled with a very focused teaching mission, contributed strongly to the success of the trip. This was made possible in no small part by the participation of Dr. Jeremy Myers, who had been there a year ago. Because they knew his expertise and had been exposed to some of the techniques he had taught the previous year, they seemed ready to use this trip to solidify their skills. Dr. Bachrach says it was a professionally and personally gratifying experience.

One of her concerns early on was that it would be tough to balance her desire to pursue her own training and education without taking away from their training. Dr. Myers was very helpful in negotiating this by defining specific roles for each case. In the end, they became so busy that there was room for all of the IVUmed members to work at the same time. That allowed them to take care of more patients, while also permitting everyone to get a richer training opportunity. Dr. Bachrach says she was very impressed with the organization of the trip and the impact they had and she hopes to make IVUmed a part of her professional life once she goes into practice.
This past year all of the residents were given iPads to assist in training. They have taken full advantage, not only for learning but teaching as well. During chief conference (left) recently, the residents were able to use the application DrawMD to assist with teaching as they marked up anatomy photos which they then projected.
Joan Barbara Mundie O'Conor, of Glenview, Illinois and San Diego California, passed away at her home in California on Saturday, February 2nd, 2013. Joan, known affectionately as "Jo," was born in Los Angeles in 1930, the daughter of Mary Margaret Kirwin and Paul Howard Mundie. Jo attended Flintridge Sacred Heart Academy in Pasadena, California and graduated from Beverly Hills High School, going on to earn a Bachelor of Arts Degree in Education at Northwestern University. She met her husband of forty years, Dr. Vincent John O'Conor, Jr., while attending Northwestern. After college she settled in to life as a wife and mother, raising four children and traveling the world with her husband. She assisted Vince with medical relief work in Algeria and Haiti, and was an active supporter of Boy's Town, the Susan G. Komen Foundation, and several other charities. A generous, free spirit and active traveler, she spent several years living part-time on a small island in the Bahamas, hiked The Grand Canyon in her sixties, and traveled to Mexico and Cuba with her son Sean at the age of eighty.

She is survived by sons Rory O'Conor, Vincent John (Sean) O'Conor III, and daughter Andrea Duncan (Andi) O'Conor. She is predeceased by Vincent John O'Conor Jr. (1927-1992) and son Peter Carey O'Conor (1962-1988.) In lieu of flowers, memorials may be sent to The Vincent J. O'Conor Fund at Northwestern University Feinberg School of Medicine, 420 E. Superior St., Rubloff Bldg., 9th floor, attn: Ross Crampton, Chicago, IL 60611. Memorial services to be announced.

Assistant Professor Praveen Thumbikat have been named to the O'Conor Family Research Professorship. Praveen has been awarded a second R01 grant from NIDDK, T Cells in Chronic Pelvic Pain. Chronic pelvic pain is the hallmark of patients with chronic pelvic pain syndrome (CPPS), a category of prostatitis that is a significant source of morbidity in American men. The cause of CPPS is unknown and there is an urgent need for understanding the disease mechanism, to drive targeted therapy. This project will attempt to define the role of the Th1/Th17 immune response in CP/CPPS and to identify novel methods to achieve disease resolution.

Associate Professor David Klumpp is the first recipient of the Anthony J. Schaeffer Chair. The formal investiture ceremony will be held on June 5, 2013, and will be attended by many of the donors who contributed to the endowment.
Dr. Joshua Meeks joined the faculty at Northwestern University as an Assistant Professor of Urology and the Section Chief of Robotic Surgery at the Jesse Brown VA Medical Center in January 2013. Josh splits his time between the VA Medical Center doing robotic surgery, oncology at NMH, and his basic science research focused on the genetics and epigenetics of bladder cancer. Prior to this appointment, Josh completed his residency at Northwestern University, and a fellowship in urologic oncology at Memorial Sloan-Kettering in New York City.

Dr. Sarah Flury joined the faculty as an NMFF member in January 2013. She is a general urologist with specific interest in kidney stone management and work up, hematuria evaluation, and prostate cancer screening. She is working in three locations including our Galter office downtown, the Jesse Brown VA Medical Center, and the Northwestern Medicine Glenview office which opened on March 1, 2013.

Dr. William Kaplan will be stepping down from the position of Division Head of Children’s Memorial Hospital, effective July 1, 2013. Bill was appointed to this position in 2003, and under his leadership the Division has grown in both size and stature to be ranked 6th in the nation by US News and World Report. In addition, he has served as the President of the Children’s Surgical Foundation and was instrumental in developing the business relationship between CSF and the Hospital. Bill will remain an active and engaged member of the Division.

The Annual AUA meeting will be held in San Diego, CA, this year at the San Diego Convention Center.

The meeting will include more than 100 courses, with more than two dozen hands-on courses, including nine robotics courses, and nine hours of live surgery.

As always, Northwestern will be hosting an Alumni dinner, this year to be held at Bandar on Sunday, May 5th.

Bandar is located at 845 4th Ave in San Diego, CA.

Details will be mailed to alumni soon. The event coordinator is Brittani Miller (brittani-miller@northwestern.edu)
In January, 2013, Dr. Kevin T. McVary left the department in order to become Department of Urology Division Chairman at Southern Illinois University School of Medicine.

Before leaving, Dr. McVary had been a valuable member of the Department, serving as Professor of Urology.

Dr. Kevin T. McVary graduated with distinction from Northwestern University. He received his medical degree and urology residency training from Northwestern Medical School. This included a one-year urology research fellowship investigating neural influences on sexual reflexes. In addition, he was granted a Riba Urology Research Fellowship.

Dr. McVary joined the staff at Northwestern Memorial Hospital in 1989 and was Professor of Urology at Northwestern University Feinberg School of Medicine until 2013. He served as the Director of the Center for Sexual Health and conducted the Prostate Diseases Minimally Invasive Program at Northwestern Memorial Hospital. He also served as Visiting Professor at over a dozen different schools.

Dr. McVary’s primary clinical areas include prostate diseases such as prostate cancer and BPH as well as the evaluation and treatment of sexual dysfunction. He also treats male LUTS/voiding dysfunction, urethral stricture, and Peyronies disease. He had extensive experience conducting clinical trials for the National Institute of Health and numerous private and industry foundations. An experienced investigator in prostatic disorders, andrology and erectile dysfunction, Dr. McVary has been principal investigator of more than 115 clinical trials.

“Few achieve the level of clinical and academic success that Kevin has achieved. He is a true role model for his students, his residents, and his peers. He is a dear friend, and he is already missed here at Northwestern,” says Dr. Robert Brannigan, who co-chaired the Andrology fellowship with Dr. McVary.

He has generated more than 300 publications including refereed journal articles, books, book chapters and abstracts. He currently serves as an Associate Editor of the Journal of Urology. Here are some of his most prominent publications from his time at Northwestern:


The department is sad to see Dr. McVary depart, but wishes him the best of luck as he returns to his hometown.
How do you annihilate lymphoma without using any drugs?

Starve it to death by depriving it of what appears to be a favorite food: HDL cholesterol.

Northwestern Medicine® researchers discovered this with a new nanoparticle that acts like a secret double agent. It appears to the cancerous lymphoma cell like a preferred meal – natural HDL. But when the particle engages the cell, it actually plugs it up and blocks cholesterol from entering. Deprived of an essential nutrient, the cell eventually dies.

A new study by C. Shad Thaxton, MD, Assistant Professor in Urology, and Leo Gordon, MD, Abby and John Friend Professor of Oncology Research, shows that synthetic HDL nanoparticles killed B-cell lymphoma, the most common form of the disease, in cultured human cells, and inhibited human B-cell lymphoma tumor growth in mice.

The paper was published on Monday, January 21, in the journal Proceedings of the National Academy of Sciences.

“This has the potential to eventually become a nontoxic treatment for B-cell lymphoma which does not involve chemotherapy,” said Gordon, a co-corresponding author with Thaxton on the paper. “It’s an exciting preliminary finding.

Recent studies have shown that B-cell lymphoma is dependent on the uptake of natural HDL – short for high-density lipoprotein – from which it derives fat content, such as cholesterol.

The nanoparticle – originally developed by Thaxton as a possible therapy for heart disease – closely mimics the size, shape, and surface chemistry of natural HDL particles. But it has one key difference: a five nanometer gold particle at its core. Thus, when the nanoparticle is incubated with human B-cell lymphoma cells or used to treat a mouse with the human tumor, it socks lymphoma with a double whammy. After it attaches to the lymphoma cell, the gold particle’s spongy surface sucks out its cholesterol while the gold core prevents the cell from absorbing more cholesterol typically carried in the core of natural HDL particles.

Continued on page 10...

HDL nanoparticles inside of lymphoma cells in progressively higher magnification. The little black dots are the HDL.
The lymphoma research showed Thaxton that the HDL nanoparticle had more than one trick up its golden sleeve.

“At first I was heavily focused on developing nanoparticles that could remove cholesterol from cells, especially those involved in heart disease,” Thaxton said. “The lymphoma work has broadened this focus to how the HDL nanoparticles impact both the removal and uptake of cholesterol by cells. We discovered the particles are multi-taskers.”

The Northwestern study also showed that natural HDL did not kill the cells or inhibit tumor growth. The nanoparticle was essential to starve the lymphoma cell.

After developing the HDL nanoparticle, Thaxton gave a lecture in 2010 to Feinberg faculty. Gordon was in the audience. He knew that patients with advanced forms of B-cell lymphoma sometimes have dropping levels of cholesterol. A long-time lymphoma researcher and oncologist, Gordon was looking for new methods to deliver drugs to patients. He contacted Thaxton and they began to collaborate.

They tested the HDL nanoparticle alone and the HDL nanoparticle transporting cancer drugs. Surprisingly, the nanoparticle without drugs was just as effective at killing the B-cell lymphoma cells.

“We thought, ‘That’s odd. Why don’t we need the drug?’” Gordon recalled.

“Gold has a good track record of being compatible with biologic systems,” Thaxton said.

Thaxton and Gordon are encouraged by their early data showing that the HDL nanoparticles do not appear toxic to other human cells normally targeted by HDLs, normal human lymphocytes or to mice. Also, because gold nanoparticles can be made in a discreet size and shape, they are excellent scaffolds for creating synthetic HDLs that closely mimic those found in nature.

“Like every new drug candidate, the HDL nanoparticle will need to undergo further testing,” Thaxton said.

The co-first authors of the paper are Shuo Yang and Marina Damiano. Shuo is a research associate in medicine in Gordon’s laboratory in the division of hematology/oncology and Marina is a graduate student in the department of chemistry at Weinberg College of Arts and Sciences.

The research was supported by The Howard Hughes Medical Institute and the Schwartz Foundation. Thaxton is a co-founder of AuraSense, LLC a start-up biotech company that holds the license to the HDL nanoparticles used in the study.