E. Albert Reece, MD, PhD, MBA
Vice President for Medical Affairs, University of Maryland
John Z. and Alice K. Bowers Distinguished Professor and
Dean, University of Maryland School of Medicine

School of medicine Mourns Loss of Nate Schnaper, MD

Nate Schnaper, MD, a professor in the Department of Psychiatry for more than 50 years, died on August 23 after a brief illness. He was 92. Dr. Schnaper was still seeing patients until just weeks before his death, counseling them at the University of Maryland Marlene and Stewart Greenebaum Cancer Center (UMGCC). The various research groups at the Columbus Center facility in the Inner Harbor have been divided between the School of Medicine, the University of Maryland, Baltimore County and the University of Maryland for Environmental Science. The School of Medicine's portion of the reorganization has become the Program in the Biology of Model Systems (PBMS) at the School of Medicine. The program's seven faculty members have become part of the Department of Biochemistry & Molecular Biology and the Department of Microbiology & Immunology, and they will continue their research into marine life and its impact on and role in ecology and human health. Even before this program became a part of the School of Medicine, our scientists have long collaborated on research. We look forward to many more collaborative studies now that the Program in the Biology of Model Systems has been established in the School of Medicine.

The value of using marine life as model systems for the study of human health and disease is huge. A key part of the PBMS is a zebrafish research facility. Zebrafish are used in research as models for humans, much as mice are. Zebrafish are terrific models for a number of reasons. Their simplicity allows scientists to zero in on a biological process of interest without the interfering factors sometimes found in a mouse. In addition, genetically modified zebrafish can be developed and bred in greater numbers and with far more ease and lower cost than mice. I hope many of our SOM faculty will reach out to the PBMS to explore new areas of research using marine model systems. Scientists at the PBMS also will be able to share their resources in the study of marine microorganisms, which express unique proteins, have the capacity to withstand harsh environments and have novel metabolic and synthetic capabilities. Direct application of these properties to further understand human disease and treatment and the health of the Chesapeake Bay has already been demonstrated, but there is so much more to be gained.

The second group transferred to the SOM is the team of W. Jonathan Lederer, MD, PhD, professor, Department of Physiology and acting director of the School of Medicine’s new BioMET Center. Dr. Lederer and seven of his fellow scientists from the former UMBI Medical Biotechnology Center have joined our department of Physiology, Anatomy & Neurobiology and Biochemistry & Molecular Biology. The group specializes in using innovative imaging techniques to examine biology on the most basic level, gaining insight into cellular and molecular activity with a level of detail not possible without these state-of-the-art imaging technologies. I am delighted to have these new faculty members and their highly regarded research as part of our enterprise. I also expect the rest of our faculty will find the expertise and equipment available in the BioMET center to be invaluable and an incredible resource for exploring their own work in new ways through collaborations and partnerships.

Dr. Schnaper was the son of Russian Jewish immigrant parents who was born in a second-floor apartment above his father's East Baltimore shoe store, and in 1925 moved with his family to a home near Pimlico racetrack. After graduating from Polytechnic Institute in 1936, he enrolled at Washington College, where he earned a bachelor's degree in 1940. Even though he had been accepted as a student at the University of Maryland School of Medicine, Dr. Schnaper could not afford the tuition, so in 1940 he enlisted in the Army instead. He served five years with the 185th General Hospital's psychiatric unit in the Pacific. "It was like an apprenticeship to medical school," Dr. Schnaper told The Baltimore Sun in a 2003 interview. It was this military experience that helped him decide to become a psychiatrist.

After the war, he entered the School of Medicine, where he earned his medical degree in 1949. He completed his internship at the former U.S. Public Health Hospital in Wyman Park, MD, and his psychiatric residency at Sheppard & Enoch Pratt Hospital.

School of medicine Mourns Loss of Nate Schnaper, MD

hat's on my mind this month is welcoming to the School of Medicine 15 new faculty members and exciting new research resources, now that the University of Maryland Biotechnology Institute (UMBI) has closed. The Board of Regents of the University System of Maryland chose to distribute the resources of UMBI among several schools within its system, assigning to the School of Medicine UMBI's rich programs in marine biotechnology and in cutting-edge medical imaging techniques. I am certain these new research laboratories and faculty will serve to enhance the School of Medicine’s research enterprise and help accelerate the development of new medical treatments and techniques from bench to bedside.

The various research groups at the Columbus Center facility in the Inner Harbor have been divided between the School of Medicine, the University of Maryland, Baltimore County and the University of Maryland for Environmental Science. The School of Medicine's portion of the reorganization has become the Program in the Biology of Model Systems (PBMS) at the School of Medicine. The program’s seven faculty members have become part of the Department of Biochemistry & Molecular Biology and the Department of Microbiology & Immunology, and they will continue their research into marine life and its impact on and role in ecology and human health. Even before this program became a part of the School of Medicine, our scientists have long collaborated on research. We look forward to many more collaborative studies now that the Program in the Biology of Model Systems has been established in the School of Medicine.

The value of using marine life as model systems for the study of human health and disease is huge. A key part of the PBMS is a zebrafish research facility. Zebrafish are used in research as models for humans, much as mice are. Zebrafish are terrific models for a number of reasons. Their simplicity allows scientists to zero in on a biological process of interest without the interfering factors sometimes found in a mouse. In addition, genetically modified zebrafish can be developed and bred in greater numbers and with far more ease and lower cost than mice. I hope many of our SOM faculty will reach out to the PBMS to explore new areas of research using marine model systems. Scientists at the PBMS also will be able to share their resources in the study of marine microorganisms, which express unique proteins, have the capacity to withstand harsh environments and have novel metabolic and synthetic capabilities. Direct application of these properties to further understand human disease and treatment and the health of the Chesapeake Bay has already been demonstrated, but there is so much more to be gained.

The second group transferred to the SOM is the team of W. Jonathan Lederer, MD, PhD, professor, Department of Physiology and acting director of the School of Medicine’s new BioMET Center. Dr. Lederer and seven of his fellow scientists from the former UMBI Medical Biotechnology Center have joined our department of Physiology, Anatomy & Neurobiology and Biochemistry & Molecular Biology. The group specializes in using innovative imaging techniques to examine biology on the most basic level, gaining insight into cellular and molecular activity with a level of detail not possible without these state-of-the-art imaging technologies. I am delighted to have these new faculty members and their highly regarded research as part of our enterprise. I also expect the rest of our faculty will find the expertise and equipment available in the BioMET center to be invaluable and an incredible resource for exploring their own work in new ways through collaborations and partnerships.

I am certain these new research laboratories and faculty will serve to enhance the School of Medicine’s research enterprise and help accelerate the development of new medical treatments and techniques from bench to bedside.
Many studies in the past few years have found a benefit to acupuncture for low back pain, particularly when added to conventional therapy. MRI and a clinical examination, and the evidence for the potential benefits for acupuncture, the team would suggest a course of 10 to 12 acupuncture treatments over a period of eight weeks with a qualified practitioner.

"In a case such as this, we would first want to reassure the patient that the clinical exam and MRI showed no evidence of a serious underlying condition such as cancer or spinal infection. In addition to acupuncture, we would encourage this patient to stay active and consider a stretching and strengthening exercise program," explained Dr. Berman.

The idea to use acupuncture with standard treatments such as pain medicines and physical therapy is one of the keys to integrative medicine, a growing field of medicine looking at combining conventional and complementary treatments where there is evidence about safety and effectiveness. The funding for the new study comes from the NIH’s National Heart, Lung and Blood Institute (NHLBI). The NIH announced that it is expanding a nationwide group of scientists focused on understanding how genes affect a person’s response to medicines. The expanded Pharmacogenomics Research Network (PGRN) consists of 14 research groups and seven resource networks. Dr. Shuldiner heads one of the research groups; NHLBI expects to spend an estimated $161.3 million on the grants over the next five years. In the new study, Dr. Shuldiner and his team will work with researchers at other institutions, including Johns Hopkins University, Sinai Hospital, Ceresign Health System in Downsville, Pennsylvania, and Cherry Hill Health Services in Wilmington, Delaware. The study will be called the Pharmacogenomics of Anti-Platelet Intervention-2 (PAPI-2) Study.

The project also will bring together an international team of investigators in eight countries, including the United States. The project will include a total of 2,400 patients treated with clopidogrel to search for common and rare variants in other genes that may play a role in people’s response to clopidogrel therapy," commented Dr. Shuldiner.
Da Vinci Robot Used to Remove Cancers of the Throat, Tongue and Tonsils

Technique enables doctors to treat hard-to-reach tumors in a minimally invasive way

Head-and-neck surgeons at the University of Maryland are now using the da Vinci surgical robot to remove hard-to-reach cancers of the throat, tongue and tonsils in a minimally invasive way. It is called transoral robotic surgery, and doctors are able to access the tumor site through the mouth without having to make a large incision. They say the technique significantly reduces patients’ recovery time, helps to preserve their ability to speak and swallow normally and produces fewer complications.

“Using the da Vinci robot gives us unprecedented access to the back of the throat with really good 3-D visualization—it’s like you’re standing on the patient’s tongue. We’re now able to perform intricate surgeries in a very small space with great dexterity,” said Jeffrey S. Wolf, MD, associate professor, Department of Otorhinolaryngology-Head and Neck Surgery.

The da Vinci surgical robot system is commonly used to treat gynecologic and prostate cancers as well as to perform heart bypass and other cardiac surgeries. The U.S. Food and Drug Administration recently approved its use to treat certain head-and-neck cancers. Dr. Wolf and Duane A. Sewell, MD, associate professor, Department of Otorhinolaryngology-Head and Neck Surgery, who was instrumental in starting the transoral robotic surgery program, have performed four of these robotic surgeries for head-and-neck cancer since June.

According to Dr. Wolf, patients who may benefit the most from robotic surgery are those with cancers at the base of the tongue or of the soft palate and tonsils who experience a recurrence after being treated with chemotherapy and radiation. He says the procedure also may be used for early-stage primary cancers that have not spread.

In a traditional “open” surgery, doctors would make a large incision and split the patient’s jaw, which would require performing a tracheotomy to alleviate breathing problems caused by swelling and may also require extensive reconstruction. Typically, the patient would remain in the hospital for more than a week. With the robotic surgery, surgeons don’t need to cut bones for access, and patients can leave the hospital in two to three days. “Patients get out of the hospital much sooner, and preliminary data indicate that they swallow better and have fewer problems with speech after surgery,” Dr. Wolf said. After traditional surgery, it can take months for patients to regain their ability to swallow normally.

During the procedure, the surgeon operates the robot while sitting at a console in the operating room. Binocular cameras provide three-dimensional images magnified 10 times greater than what can be seen by the human eye, and the surgeon has great flexibility to move the robotic arms in different directions with sophisticated hand controls. The arms have tiny tools attached to them, including a laser and cautering device that can be used to remove the cancer.

Cancers of the base of the tongue, throat and tonsils (the oropharynx) are often difficult to treat with surgery because of their location. Many of these cancers are caused by infection with the human papillomavirus (HPV), a sexually transmitted virus. Other risk factors are smoking and chewing tobacco and heavy alcohol use. The most common symptoms are pain in the neck and difficulty in swallowing. Patients are treated with chemotherapy, radiation and surgery, or a combination of these therapies.

“We know that people whose cancers are HPV-positive respond much better to chemotherapy and radiation than those who are HPV-negative,” Dr. Wolf noted, adding that the exact reason for this is unclear. “About 20 percent of patients with advanced disease who are HPV-positive have a recurrence or metastasis of their cancer while the recurrence rate for advanced non-HPV-related cancers is much higher—40 to 80 percent.”

Dr. Wolf says he doesn’t expect surgery with the da Vinci robot to replace chemotherapy and radiation as a first-line treatment option for many patients with advanced disease; but it is an excellent option for some. “It’s revolutionary in that it gives us unprecedented access to the oropharynx,” he explained. Dr. Wolf adds that he and his colleagues plan to use the da Vinci robot to treat thyroid cancer in the near future.

Patients get out of the hospital much sooner, and preliminary data indicate that they swallow better and have fewer problems with speech after surgery.
Doc Stars Kick Off the Stress of Medical School

The first year of medical school is a difficult one, so Kate Sharoky, MSII, thought it might be a fun bonding experience to form a kickball team with her classmates. She was inspired by a group from the class before hers, who had taken up the sport during their first year. Last winter, she sent out invitations to everyone in the Class of 2013, and 31 of them signed on for the first Doc Stars team, which started playing in March.

“We play in the Kickball League of Baltimore on Wednesday nights at Latrobe Park in Locust Point,” said Kate. “The spring season started in March and ended on May 19, which was right before our last exam. We were three and three going into that last game, and we needed to win the game to go to the playoffs. Unfortunately we lost, but it was one of our most competitive games, and everyone who played that day really gave it their all!”

The Doc Stars team that will play this fall is a little smaller, but they hope to have a better record during this season, which started in mid-September. “Doc Stars are going strong into the fall season,” declared Kate. “I’m the captain, and Katy Still, another second-year student, is the co-captain. Our shirts are red again, like last spring, for Maryland. It’s mostly current second-year students who played last spring, plus a few non-med school friends who were interested in playing and have a more predictable schedule than we have. I think we’ll make it for this season.”

Sports are an outlet for many in the Class of 2013, who have also formed an intramural basketball team and two softball teams during their time at the School of Medicine. “I guess we just really like organized sports!” commented Kate.

And as Kate had hoped, the team proved to be a great morale booster for her and her classmates. “The games were a stress relief,” she said. “It was nice to run around outside for a bit and goof around after a long day in the library. Katy Still and I often would bring our dogs to the games to help cheer, and other players would bring friends, significant others, even parents. It was a very relaxed atmosphere.”

Want to play? Learn more about the Kickball League of Baltimore at http://www.kickball-baltimore.com/.

Mark Your Calendars!

A memorial service and reception will be held on Wednesday, October 6, 2010, at 4:30 pm at Westminster Hall to honor Dr. Larry Anderson, professor of anatomy & neurobiology, who died unexpectedly this past May. Please join us to celebrate the life of Dr. Anderson and his many contributions to the School of Medicine.