FALL 2010 VOL 25 ISSUE 1

CONQUEST

Branching Out to Conquer Cancer

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MD Anderson Cancer Center

Making Cancer History®

MISSION

The mission of The University of Texas MD Anderson Cancer Center is to eliminate cancer in Texas, the nation, and the world through outstanding programs that integrate patient care, research and prevention, and through education for undergraduate and graduate students, trainees, professionals, employees and the public.

VISION

We shall be the premier cancer center in the world, based on the excellence of our people, our research-driven patient care and our science.

We are Making Cancer History®.

CORE VALUES

Caring

By our words and actions, we create a caring environment for everyone.

Integrity

We work together to merit the trust of our colleagues and those we serve.

Discovery

We embrace creativity and seek new knowledge.



On the cover: MD Anderson's family tree is branching out — through international sister institutions, partnerships, affiliations and extensions — to conquer cancer. Illustrator: Dave Cutler.









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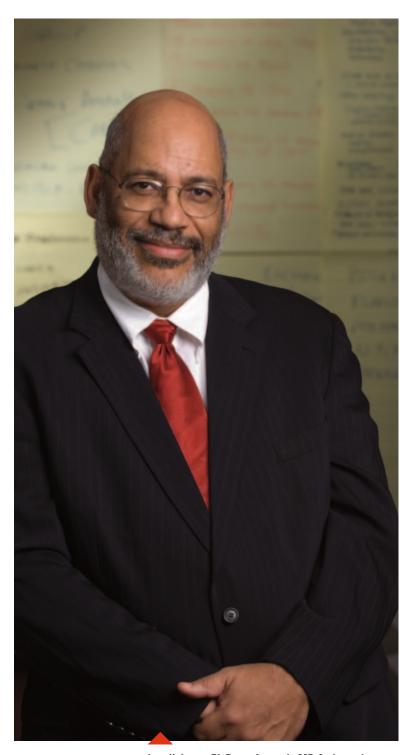
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FRONTLINE



Lovell Jones, Ph.D., professor in MD Anderson's Department of Health Disparities Research and director of the Center for Research on Minority Health, has recently added new federally funded programs to continue delivering resources to eliminate health disparities in underserved populations.

10TH ANNIVERSARY OF EXPANDING RESEARCH ON MINORITY HEALTH

By Katrina Burton

Established 10 years ago, MD Anderson's Center for Research on Minority Health (CRMH) continues to develop diverse programs that will address health disparities in the minority and underserved communities through research, education and community relations.

Research findings support the importance of this need.

Studies show that African-Americans have the highest cancer incidence rate of any racial or ethnic group and the highest rate of cancer-related deaths.

In a recently published article in the journal Cancer, Patricia Miranda, Ph.D., a Kellogg Health Scholar at CRMH, reported that "specific prevention and education strategies are needed to address breast cancer in Mexican-origin women in the United States because up to half may be undiagnosed or diagnosed in late stages if recent Preventive Task Force guidelines for Hispanic women are not recognized."

The CRMH's Asian American Health Needs Assessment revealed that Chinese and Vietnamese in the Greater Houston area have the lowest rates of screening for cervical, prostate and colorectal cancer as compared to other racial and ethnic groups in Texas.

And in the Native American community, lack of knowledge and access to care are barriers to cancer screening and treatment.

"Reducing cancer among minorities is an enormous undertaking and will involve continued collaborations, funding and community involvement," says Lovell Jones, Ph.D., professor in MD Anderson's Department of Health Disparities Research and director of CRMH. "We are pleased to have so many valuable programs that are helping us serve the community."

CRMH will continue developing more integrated programs, increasing minority participation in clinical trials and disseminating research findings to the community.

Some examples of current programs coordinated by CRMH:

Project EXPORT (Center of Excellence in Partnerships for Community Outreach Research on Health Disparities and Training) addresses environmental health and long-term multidisciplinary research in minority communities, as well as includes educational programs from kindergarten to postgraduate education.

EMPaCT (Enhancing Minority Participation in Clinical Trials) supports and coordinates efforts to recruit and retain minorities in clinical trials and is backed by the National Institutes of Health's Center on Minority Health and Health Disparities with American Recovery and Reinvestment Act funds.

SECURE/Gulf Coast Transdisciplinary Research Recovery Center for Community Health brings together a consortium of seven medical and public health institutions to address challenges affecting the health of those living in Gulf Coast communities prone to disasters and environmental contamination.

The Centers for Medicare and Medicaid Services Demonstration Project is a national project assessing the costs and benefits of cancer screening and patient navigation services for Hispanic/Latino Medicare recipients. The CRMH site (Project FAROS) is one of six collaborating institutions and one of two focused on Hispanic/Latino populations.

TWO IMPORTANT DISCOVERIES IN OVARIAN CANCER

Two new findings are adding to the understanding of ovarian cancer. One takes an important step by identifying a target that inhibits cell division. The other identifies a protein that unexpectedly regulates the creation of new blood vessels that feed a tumor from outside.

Researchers in one study found that depleting Salt Inducible Kinase 2, known as SIK2, from ovarian cancers made the cancer cells sensitive to paclitaxel, a commonly prescribed chemotherapeutic agent that inhibits cell division, making the drug more effective in stopping the cancer's growth.

"There's a large window of opportunity to improve the effectiveness of existing chemotherapies by modifying the sensitivity of cancer cells to the drugs," says study senior author Robert Bast Jr., M.D., professor and vice president for translational research at MD Anderson. "In our search for proteins that are responsible for that sensitivity, we found that SIK2 was required for cell division and that its inhibition offers a novel approach to improving chemotherapy for ovarian cancer that deserves further study."

In the second study, a protein associated with cancer progression — when it is abundant inside of tumors — was discovered to also regulate the creation of new blood vessels that feed the tumor from outside. By using a nanoparticle-based, gene-silencing system to block production of the protein, the researchers inhibited formation of new blood vessels to the tumor and caused a steep reduction in tumor burden in a mouse model of ovarian cancer.

"We've discovered that EZH2 promotes tumor growth by shutting down genes that block formation of new blood vessels," says study senior author Anil Sood, M.D., professor in the departments of Gynecologic Oncology and Cancer Biology. "Tumors treated with current anti-angiogenesis drugs eventually progress. The study presents a new mechanism for angiogenesis (blood vessel formation) that opens the door for development of new treatment approaches."

EZH2 has been associated with the progression and spread of bladder, breast, prostate and gastric cancers, as well as one type of pharynx cancer.

BOTH STUDIES REPORTED IN THE AUGUST 2010 EDITION OF CANCER CELL.

A new technique detects genetically abnormal cells in the blood of non-small cell lung cancer patients that match abnormalities found in tumor cells and that increase in number with the severity of the disease, according to findings made by Ruth Katz, M.D., professor in MD Anderson's Department of Pathology, and her colleagues.

REPORTED IN THE JULY EDITION OF CLINICAL CANCER RESEARCH.



Daniel Karp, M.D.

SELENIUM DISAPPOINTS

Selenium is a supplement taken daily by millions in hopes of protection against cancer and a host of other diseases. However, it has proven to be of no benefit in reducing a patient's risk of developing lung cancer, either a recurrence or second primary malignancy, according to results of a decade-long, international Phase III clinical trial.

"Several epidemiological and animal studies have long suggested a link between deficiency of selenium and cancer development," says Daniel Karp, M.D., professor in the Department of Thoracic/Head and Neck Medical Oncology.

From 2000 to 2009, the international NCI-sponsored Phase III study enrolled 1,522 stage I non-small cell lung cancer patients, all of whom had their tumors surgically removed and were cancer-free for at least six months post-surgery.

The study was halted early after an interim analysis revealed that the progression-free survival was superior in the placebo arm. The researchers did find that in a small group of lung cancer patients who had never smoked, selenium provided a small benefit. However, the size of the group of patients, 94, was too small to be statistically significant.

"Our results demonstrate that selenium is not an effective chemoprevention agent in an unselected group of lung cancer patients, and it's not something we can recommend to our patients to prevent a second cancer from developing or recurring," Karp says. "These findings also remind us that people who never smoked may represent a unique disease and should be an area for special consideration for research focus."

REPORTED IN JUNE ATTHE 2010 ANNUAL MEETING OF THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY.

An oral medication produces significant and lasting relief for patients with myelofibrosis, a debilitating and lethal bone marrow disorder, for which there have been no approved treatments. Principal investigator on the study was Srdan Verstovsek, M.D., Ph.D., associate professor in the Department of Leukemia.

REPORTED IN THE SEPT. 16 ISSUE OF THE NEW ENGLAND JOURNAL OF MEDICINE.

Specific prevention and education strategies are needed to address breast cancer in Mexican-origin women in the United States. In a survey of this population, half were diagnosed before age 50, earlier than the national average for non-Hispanic white women, which puts them outside the recent guidelines for recommended screenings, including mammograms beginning at age 50. Study lead author was Patricia Miranda, Ph.D., post-doctoral fellow in the Center for Research on Minority Health in the Department of Health Disparities Research.

REPORTED IN AUGUST IN THE ADVANCE ONLINE EDITION OF THE JOURNAL CANCER.

SHARK CARTILAGE DOESN'T DELIVER

In the first scientific study of its kind, shark cartilage extract, AE-941 or Neovastat, showed no benefit as a therapeutic agent when combined with chemotherapy and radiation.

The absence of blood vessels in cartilage, as well as preclinical studies analyzing cartilage extracts, have supported the hypothesis that cartilage contains inhibitors of blood vessel formation. Also, shark cartilage has long intrigued the public because the incidence of cancer in this cartilaginous fish is very rare.

"This is the first large Phase III randomized trial of shark cartilage as a cancer agent. A unique and important aspect about this shark cartilage study was that this product, Neovastat, was never sold over the counter, unlike other shark cartilage compounds previously studied," says Charles Lu, M.D., associate professor in MD Anderson's Department of Thoracic/Head and Neck Medical Oncology.

"Unfortunately, the study produced no data showing improvements in survival, tumor shrinkage and/or clinical benefits to patients," Lu says. "Now when patients ask their oncologists about shark cartilage, physicians can point to this large NCI-sponsored Phase III trial and tell patients that, at this point, the only studies that have been done with cartilage-derived products have been negatives."

REPORTED IN THE MAY ISSUE OF THE JOURNAL OF THE NATIONAL CANCER INSTITUTE AND FIRST PRESENTED AT THE 2007 ANNUAL MEETING OF THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY.

In a collaborative study between MD Anderson and the Life Sciences Institute of Zhejiang University in China, scientists have discovered an enzyme crucial to a type of DNA repair that also causes resistance to a class of cancer drugs most commonly used against ovarian cancer. Co-corresponding author is Junjie Chen, Ph.D., professor and chair of MD Anderson's Department of Experimental Radiation Oncology.

REPORTED IN JULY IN THE SCIENCE EXPRESS ADVANCE ONLINE PUBLICATION OF SCIENCE.



Hagop Kantarjian, M.D., professor and chair of the Department of Leukemia, presented encouraging results of a study with dasatinib for patients with chronic myeloid leukemia at the 2010 annual meeting of the American Society of Clinical Oncology.

NEW GENERATION OF DRUGS FOR CML

Although Gleevec® (imatinib) was lauded as a "smart bomb" for chronic myeloid leukemia 10 years ago, today second-line drugs — Tasigna® (nilotinib) and Sprycel® (dasatinib) — are providing quicker, better responses as a first therapy for many patients.

Separate international Phase III clinical trials compared high-quality remissions after one year of treatment between the standard-of-care drug Gleevec and the two second-line drugs. In both trials, previously untreated CML patients who took the newer drugs reached complete cytogenetic response and major molecular response — two important measures of remission — faster than those taking Gleevec. These patients were also less likely to have their disease progress to advanced stages.

"We've learned in cancer therapy that it's important to use your big guns up front," says Hagop Kantarjian, M.D., professor and chair of MD Anderson's Department of Leukemia, as well as corresponding author on both the dasatinib and nilotinib studies. "We know that achieving complete cytogenetic response or major molecular response within a year of starting treatment is associated



See more about this study in Conquest online at www.mdanderson.org/conquest.

with more favorable long-term survival. Using these second-generation drugs first will likely improve outcomes for patients with CML."

REPORTED IN THE JUNE ONLINE EDITION OF THE NEW ENGLAND JOURNAL OF MEDICINE AND AT THE 2010 ANNUAL MEETING OF THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY.

Oropharyngeal cancer patients whose tumors in the upper part of the throat test positively for the human papillomavirus have better overall survival than patients with HPV-negative disease. Lead author is K. Kian Ang, M.D., Ph.D., professor in MD Anderson's Department of Radiation Oncology.

REPORTED IN JUNE IN THE NEW ENGLAND JOURNAL OF MEDICINE, WITH FOLLOW-UP DATA PRESENTED AT THE 2010 ANNUAL MEETING OF THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY.



Hear more about this study in Conquest online at www.mdanderson.org/conquest.

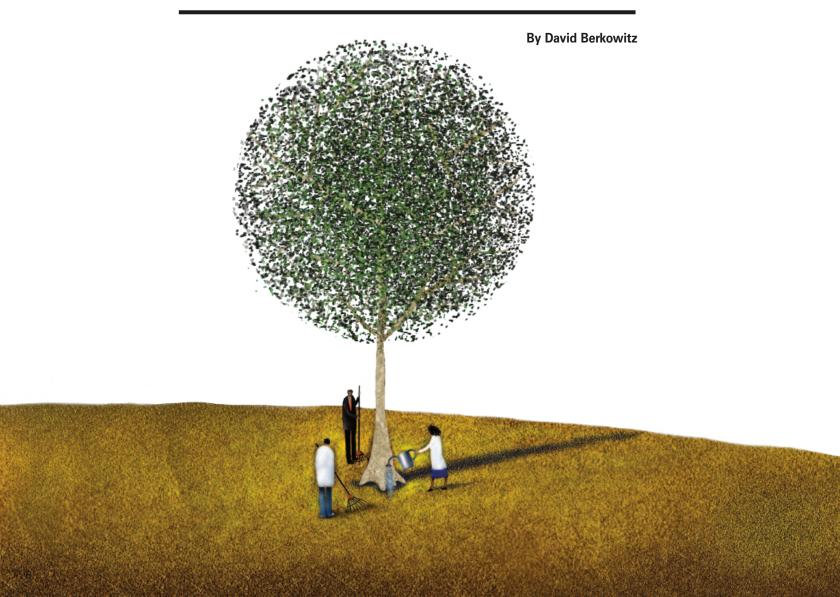
When you examine MD Anderson's family tree, you may discover relationships that you never knew existed.

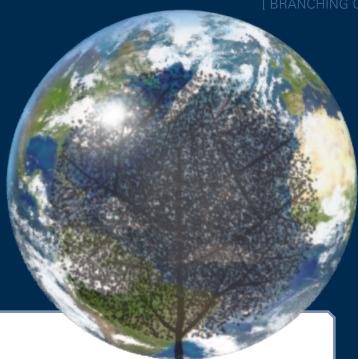
Sister institutions. Partnerships. Affiliations.

Extensions. You name it, MD Anderson has them.

Feeding off the deep roots and sturdy trunk of the main campus in Houston, these branches stretch across the United States and far beyond.

BRANCHING OUT TO CONQUER CANCER





ur mission to eliminate cancer extends around the world," reminds Oliver Bogler, Ph.D., vice president for Global Academic Programs.

Bogler works closely with other leaders in MD Anderson's Center for Global Oncology who concentrate on clinical programs and business development. His aim is to build the world's premier scholarly network dedicated to:

- preventing and treating cancer,
- · conducting basic, clinical and translational research, and
- educating future generations of scientists and health care professionals focused on eliminating cancer.

From Texas to New Mexico, Arizona and Florida; from Central to South America; and from Europe to the Middle East and Asia — MD Anderson is sharing its expertise across the globe and learning from others, as well.

Among the extended family are 20 sister institutions representing leading cancer centers and academic institutions around the world. These relationships serve as a major artery for the international exchange of scientific data and scholarship.

While much has been gained to date, Bogler envisions taking the sister institution approach to the next level.

"We need to evolve our sister institution model into a true network, where many institutions work together in an integrated fashion,"

A prime area for expansion is clinical research. To help Bogler develop these activities, Hagop Kantarjian, M.D., professor and chair of the Department of Leukemia, recently was named associate vice president for Global Academic Programs for Clinical Research.

Identifying new sources of philanthropy is also crucial to help spark research on the international level, according to Bogler.

As MD Anderson continues to branch out, "we have the opportunity to make a significant impact on the understanding and treatment of cancer throughout the world," he says. "Addressing cancer on a global scale is MD Anderson's next great frontier."

Read more about MD Anderson's international outreach and services in the following two articles on the Japan TeamOncology Program and the onsite International Center that helps patients from abroad navigate the institution.

BRANCHING OUT TO CONQUER CANCER

ONE MAN'S VISION + A TEAM'S DEDICATION = A CULTURAL SHIFT

MD ANDERSON TAKES ITS 'NORMAL' TO JAPAN

By Sandi Stromberg



In 2000, Naoto Ueno, M.D., Ph.D., traveled to Japan to talk about Herceptin for breast cancer patients. But he also listened. To patients, investigators, scientists, surgeons.

What struck him repeatedly was the Japanese approach to cancer drug development, treatment and patient care. While he had received his medical degree in Japan, he'd never practiced medicine there, never experienced its hierarchical nature or its traditions. Though he had a deep respect for them, he also knew how beneficial MD Anderson's multidisciplinary care was for patients and health care professionals.



Naoto Ueno, M.D., Ph.D., has shown how the power of one man's vision can galvanize a team of health care professionals and inspire a nation to re-evaluate its approach to cancer care. At the educational workshop in Japan in November 2009, he presented the ABC concept of multidisciplinary cancer care, which was published in the September 2010 edition of Nature Review Clinical Practice.

"Could Japan benefit from this approach?" he asked himself. "Would it translate into another culture?"

"I didn't know how we could teach it," says Ueno, professor in MD Anderson's departments of Breast Medical Oncology and Stem Cell Transplantation and Cellular Therapy. "I just knew that MD Anderson faculty did a good job of it. For us, it's normal. I wasn't even sure how to define it."

But he decided to try.

A 10-YEAR EVOLUTION

The biggest challenge was to be culturally sensitive, honoring Japanese pride in their more paternalistic style of leadership while introducing a different way of thinking.

The other challenge was defining "multidisciplinary" and how to translate it. "Multidisciplinary is hard to pronounce in Japanese," Ueno says. "But the word 'team' is easy, and 'oncology' has become a rather well-known term. TeamOncology sounded good in Japanese so we decided to call this the Japan TeamOncology Program, or JTOP."

And that helped with the definition that began to take shape: cancer care delivered by representatives of a variety of health care professions and functions working in concert. At MD Anderson, not only do surgical, radiation and medical oncologists work together to provide patient care, but also mid-level providers like advanced practice nurses, pharmacists and others are encouraged to expand their roles and take part in decision-making processes.

Over the last 10 years Ueno's efforts, and those of the team he inspires, have evolved from a virtual presentation to 1,000 members of the Japanese Society of Clinical Oncology in 2001, into three-day educational workshops each autumn since 2002, as well as training programs at MD Anderson each spring since 2003. More recently, a website — explaining the institution's multidisciplinary concept in Japanese — receives 70,000 hits a month.

To date, JTOP has trained more than 420 Japanese health care professionals, many of whom are in leadership positions promoting multidisciplinary care in different oncology centers in Japan. And 49 of those trained at MD Anderson provide similar workshops in their medical communities.

"Our greatest, collective accomplishment, however," Ueno says with great pride, "was our influence on the Japanese Diet's passage of the Cancer Act, similar to the one President Nixon signed in 1971. Initiated in spring 2007, it includes professional funding for promoting multidisciplinary cancer care in Japan and for oncology professional development in 18 regional areas of the country."



MD Anderson's team packs up to head back to Houston after the November 2009 workshop in Japan: (from left) Hiroshi Fueki, Japan TeamOncology Administration; Barry Feig, M.D., professor, Surgical Oncology; Dina Patel and Hillary Prescott, both Pharm.D., Pharmacy Clinical Programs; Zhongxing Liao, M.D., professor, Radiation Oncology; J.Jack Lee, professor, Biostatistics; Jeffrey Bryan, Pharm.D., **Pharmacy Clinical Programs; Paul Scott,** staff; Nicholas Szewczyk, advanced practice nurse, Stem Cell Transplantation and Cellular Therapy; Janis Apted, Faculty Development; Richard Theriault, D.O., professor, Breast Medical Oncology; Joyce Neumann, advanced practice nurse, Stem Cell Transplantation and Cellular Therapy.



A COHESIVE TEAM OF EXPERTS

Intent on ensuring the program is stable and ongoing, Ueno has masterfully galvanized a team of experts to help it grow. The dedicated MD Anderson team comprises surgical, radiation and medical oncologists, clinical statisticians, nurses and pharmacists.

In 2002, he recruited, among others, Richard Theriault, D.O., professor in the Department of Breast Medical Oncology, who is a member of JTOP's newly established Management Executive Committee.

"I went for the first workshop, and it was a phenomenal event," Theriault says. "Although it was no surprise, we were quick to see that in Japan the system is dramatically different. Multidisciplinary care, as we understand it, is a team of health care professionals working together for the common good of the patient. Things aren't quite that open in Japan.

"But these workshops set out to explain what multidisciplinary care is, how it's practiced at MD Anderson, what training nurses and pharmacists receive and how they do their jobs."

Each year, after general presentations, the 60 participants split into groups of 15 with five surgeons, five nurses and five pharmacists in each. Then, they are given the task of developing a clinical trial.

"It's very intense," Theriault says. "A physician helps lead each team while a biostatistician roams from group to group, and the three professions work together to design a clinical trial and prepare to present it to the other participants the next morning."

Directly after those presentations, Ueno, Theriault and the other MD Anderson experts discuss each attendee as they choose six people — two physicians, two nurses, two pharmacists — who will travel to MD Anderson for a five-week training course the following spring. They weigh criteria such as the person's resume, participation in the presentation and level of English.



Richard Theriault, D.O., professor, Department of Breast Medical Oncology, takes part in the ice breaker activity that helps improve communication skills.



Barry Feig, M.D., professor, Department of Surgical Oncology, has been instrumental in developing the Japan TeamOncology Program, bringing his expertise in gastrointestinal and breast cancer surgeries. The Chinese character he holds — Wa — means "harmony" and "team work," qualities he brings to the program.

CULTURAL SENSITIVITY A MUST

Nurses and pharmacists have played an equally important role in the development of the program, taking part in the fall workshops and the spring visits.

Having worked closely with Joyce Neumann on clinical cases and knowing of her interest in professional nursing in Japan, Ueno invited her to join them at the fall conference in 2002.

An advanced practice nurse and program director in the Department of Stem Cell Transplantation and Cellular Therapy, Neumann's interest in Japan was kindled in 2001 when she lectured at a meeting on stem cell transplantation. During that stay, she visited several hospitals and felt she'd stepped back in time when she saw nurses still wearing white uniforms and caps, and taking a much less assertive role in patient care.

"I'm an advanced practice nurse (APN) who functions much like a nurse practitioner," she says. "While they have the APN role as clinical nurse specialists in Japan, they do not have the combined medical nursing model that goes beyond the traditional nursing role. They were shocked when I first spoke about expanded roles."

Neumann emphasizes that when the MD Anderson team (including the nursing team) gives presentations in Japan, they continue to stress that what they are discussing is one example of multidisciplinary care. The expanded nursing role in Japan will mean a major shift in how the professional nurse is educated and viewed by other professionals, their patients and caregivers. This will mean further empowering the nurse and breaking some traditions that include gender, pay and hierarchy.

"Our model of multidisciplinary care might not be the right model for Japan, but the nurses are very interested in exploring a different professional model," she says. "I talk about changes our culture has gone through that have helped shape this expanded role for nurses in the United States."

'LEADING FROM WHERE YOU ARE'

In 2006, Ueno realized the importance of leadership skills that make a multidisciplinary approach possible. So he brought in Janis Apted, associate vice president for Faculty Development.

"I found that a lot of the participants are young and not yet leaders, so I talked about 'leading from wherever you are in the institution,'" Apted says. "Leadership, I tell them, is a set of behaviors, not a position."

Ueno then asked her to take those ideas to the larger workshop group in Japan that autumn. Since then, Apted's presentation on leadership and communication is an integral part of the annual content and has led to the establishment of an Academy of Cancer Experts, founded to focus entirely on leadership.

"I focus on interpersonal skills, influencing others, communication, role playing, career development planning, their goals and how to get there," Apted says. "They're hungry to learn, and they take away ideas on how to keep growing and learning."

The introduction of this model caused its own shift in the workshops.

"Three or four years ago, we adjusted the focus to help participants be more successful in multidisciplinary care through three areas: leadership, communication and evidence-based medicine," Ueno says.

"The majority of cancer patients in Japan are not seen by oncologists, but rather by surgeons specialized in a certain type of surgery, be it breast, thoracic, gastrointestinal. It's the surgeon who takes care of the patient through chemotherapy, radiation and any other type of therapy. Only recently are there two programs that offer oncology training and certification."

- Richard Theriault, D.O., professor, Department of Breast Medical Oncology

EMERGING LEADERS JOINTHE EFFORT

Hillary Prescott, Pharm.D., in MD Anderson's Department of Pharmacy Clinical Programs, became part of JTOP in time for the 2007 November symposium in Japan. She is also a member of the newly established Management Executive Committee.

"I am grateful that I was offered this unique opportunity to join the team," she says. "We're encouraged to rely on our own expertise. And while we work independently from our own perspectives, we take a team approach as we prepare.

"The other members," she says of Ueno, Theriault and the MD Anderson team, "are incredible leaders. Everyone has a different expertise and leadership style. It helps me better develop myself as a leader."

In Japan, she found that until recently physicians only dealt with other physicians. The JTOP model shows how much nurses and pharmacists can take leadership roles. "In fact, the whole program shows that it takes a skilled team with a strong vision to make change," she says.

Ueno's vision and his ability to infuse others with his enthusiasm have brought JTOP to its 10th anniversary with strong financial backing from unrestricted grants provided by Chugai Pharmaceutical Co., Roche and, since 2007, Novartis Pharma Oncology. Before 2005, Pfizer Oncology was a partial supporter. Sister institutions in the development are St. Luke's Life Science Foundation and St. Luke International Hospital in Tokyo.

In addition, an advisory board and the Management Executive Committee have taken form, passing leadership and decision making to a larger, dedicated group. Beginning in 2010, the Tokyo Oncology Consortium-MD Anderson Cancer Center Sister Institution agreement supports this program through the Oncology Education Promotion Foundation in Tokyo.

"Naoto Ueno has impacted cancer care in Japan and inspired a whole team at MD Anderson that participates with no fanfare and works very hard," Apted says. "We love this project and working with him. It's no small achievement. He has what I call leadership magic — magic with people — and he's brilliant in knowing how to get things done through groups of people."



Five physicians, five nurses and five pharmacists, along with MD Anderson team members, work to design a clinical trial to present to workshop participants.



Jeffrey Bryan, a clinical pharmacy specialist, Department of Pharmacy Clinical Programs, helps participants discuss how they can learn and expand their roles in the cancer setting.



Participants take the Myers-Briggs Personality Test to gain a better understanding of each other and their differing work styles.

What they bring, what they gain

Richard Theriault, D.O., professor in the Department of Breast Medical Oncology

What he brings: "I provide experience in oncology, the ethics of clinical research, regulatory knowledge and experience, the teaching of evidence-based medicine and practice, clinical research expertise, a calm demeanor and a respectful attitude, and very important, a sensitivity to cultural differences."

What he gains: "There are so many rewards, but I'll name the big ones. I made many new colleagues and had an apparent influence in developing new education and research opportunities. I found experiencing a different culture uplifting, and I've seen so many new things, from a 900-year-old Buddhist temple to volcanic hot springs. But most of all it's the people. They're extraordinarily kind and gifted."

Joyce Neumann, advanced practice nurse in the Department of Stem Cell Transplantation and Cellular Therapy

What she brings: "I provide my many years of experience as an oncology advanced practice nurse with an expanded role, who has seen many changes within our society and professional nursing. I'm an active member of our ethics committee here at MD Anderson and bring that experience by stressing that nurses become strong patient advocates. I also have experience in program development."

What she gains: "It's been an honor and privilege to be involved in this program. It's given me new insight into nursing from a global perspective. It's evolved into a collaborative relationship, and I've already witnessed changes in the Japanese nursing profession. It's gratifying to be a small part of their change and to be asked about some of the issues they struggle with. I'm fortunate to have traveled there so many times that I think I have a sense and respect of their culture that many may not have."

Janis Apted, associate vice president in the Department of Faculty Development

What she brings: "I provide my experience in leadership development, communication skills in a growing career, role playing, practicing. We talk at some length about how they will develop their careers when they won't have access to these programs. They take away ideas on how to keep growing and learning."

What she gains: "The exciting thing about doing this is: It's a gift. It's an act of service, and it's hard work. We start at 6 a.m. and finish at 10-11 p.m., but it's worth every minute. They're so appreciative and enthusiastic. It also gives our MD Anderson team the opportunity to sit down and talk about some of the issues we have in Houston. The Japanese are also excellent teachers."

BRANCHING OUT TO CONQUER CANCER

Hillary Prescott, Pharm.D., clinical pharmacy specialist in the Department of Pharmacy Clinical Programs

What she brings: "I bring my experience as a board-certified oncology clinical pharmacist and my commitment to promoting multidisciplinary cancer care. I go with a desire to help pharmacists realize their potential and advance the pharmacy profession. I have an appreciation for cultural differences and practices."

What she gains: "This program has greatly enriched my professional and personal life. I gain new friends and colleagues and new ideas that enhance my work. The program invigorates me and inspires me to further my practice of pharmacy. We strive to energize their practice. They, in turn, energize me."

It's a task she performs every day, but this meal is taking place 730 miles from her home in Mexico, while she is in Houston for treatment at MD Anderson with assistance from the International Center (IC).

For patients like Lopez-Andrade, who are diagnosed with cancer abroad, the IC is hope on the horizon. Designed to remove barriers and ease the transition for international patients seeking medical care at MD Anderson, the center helps about 1,100 people each year, or 3 percent to 4 percent of all new patients.

"Patients have a lot of hope that our expertise and specialists can provide them with the best advice in the world," says Martha Coleman, nurse manager in the IC. "It's a center whose mission is, quite literally, bigger than itself."

AN UNSETTLING DIAGNOSIS

Hailing from Veracruz, Mexico, a port city on the palmfringed Gulf of Mexico, Lopez-Andrade never imagined she would one day board a plane with her health, and quite possibly her life, hanging in the balance.

"It began when I noticed a problem with my leg," she says. "It always felt very tense and since one of my legs is a little longer than the other, I thought I should go to an orthopedist."

Lopez-Andrade made her way to a local doctor to have a series of diagnostic X-rays. What was discovered made her heart sink — little shaded spots, as they appear on film, often signaling a tumor or area of abnormal growth.

She was immediately referred to a hospital in Mexico City for further evaluations, which confirmed the worst: a soft-tissue sarcoma, which had spread to her lungs.

"It came as a complete shock," she says. "When you think about cancer, you automatically think the worst."

GATEWAY TO HOPE

Diagnosis in hand and with the help of her family, Lopez-Andrade took on the mission of finding the best place for care.

"My husband sent a mass e-mail to people at work, including the company's offices in the United States, asking for suggestions," she says. The answer was clear and three weeks later, her cancer journey in Houston began.

Before beginning treatment, Lopez-Andrade arrived at MD Anderson for a week-long visit to begin the formal registration process.

That's when she met Hanna Palomino, one of eight international patient assistants, who would guide her through the entire appointment and treatment process. Patients entering the center are assigned a representative who is fluent in their languages and cultures. The IC and Language Assistance provide support for speakers of Arabic, Turkish, Spanish, Mandarin Chinese, German, Italian, Russian, Portuguese, Swedish, Vietnamese and French.

"When a patient calls, I explain to them that this is a process, and I will be there every step of the way," Palomino says. "It's amazing, because when patients arrive, they are nervous and scared but so grateful to have someone who can explain all the procedures in their own language."



Elsa Lopez-Andrade (left), who is being treated for sarcoma at MD Anderson, visits with Hanna Palomino, the bilingual international patient assistant helping her navigate the institution and Houston.





Martha Coleman, nurse manager of the International Center (IC), and Daniel Epner, M.D., associate professor and clinical medical director of the IC, assess the needs of an international patient from the Middle East.

Palomino helped Lopez-Andrade schedule appointments, fill out paperwork, learn about the center and did so in a way that seemed so efficient and easy she could have been in Mexico City.

With a confirmed diagnosis, Lopez-Andrade entered MD Anderson's sarcoma clinic.

"I was put on a 21-day chemotherapy cycle and thought it was going to be worse, but it wasn't," she says.

INTERNATIONAL CENTER ADDS A PERSONAL TOUCH

A motto described by Coleman as "do for the patient" underscores the significance of MD Anderson's global role in cancer care. To this end, the IC offers services, including assistance with lodging, transportation, visas and insurance to make the journey as easy as possible.

The IC works closely with patients to ensure they are granted entrance to the United States. "We provide a medical appointment letter to home governments or embassies to indicate that a patient is scheduled for evaluation and to expedite any necessary approvals," Palomino says.

Part of this foreign relations role is to provide accurate follow-up care when a patient returns home. A complementary DVD — containing treatment plans, pathology reports and diagnostic imaging, as well as reports from the physician on the diagnosis — is available via myMDAnderson (each patient's

individual website). This provides presenting community physicians with a complete patient history.

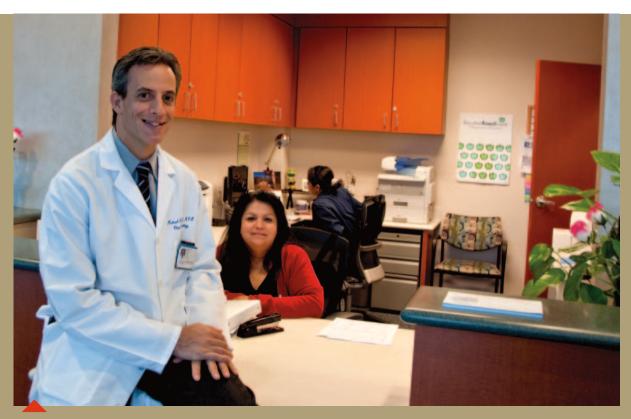
Another service extends beyond MD Anderson's walls, ensuring that patients have access to comfortable living arrangements. The IC provides a list of local hotel accommodations, which can be prearranged at a discounted price and fit the needs of cancer patients. Lopez-Andrade took advantage of this service, but later decided to rent an apartment for a better sense of "home."

In addition, the IC helped her obtain car insurance, so Lopez-Andrade could use her own Honda to travel to and from appointments.

"I had so many questions about what is normal," she says. "I made a big list for Hanna."

While this question list is an important one, the significance lies in the very fact that she had someone to ask. Without the IC's dedication to serving diverse populations, Lopez-Andrade would undoubtedly have faced steeper challenges, in addition to the cancer. Her experience is similar to that of many other international patients, who are grateful that the IC provides a slice of familiarity at a time when it's needed most.

"The kind of work that we do at such a vulnerable time in someone's life is a huge honor," Coleman says. "To show the compassionate and caring side of MD Anderson to the world is very rewarding."



Michael Fisch, M.D., associate professor and chair of the Department of General Oncology, oversees the International Cancer Assessment Center. Celia Garcia is a patient access specialist in the ICAC.

Cultural competence in a clinical setting

While the International Center (IC) provides patients with the logistical, administrative and representative services, the clinical component of the journey for some begins in the International Cancer Assessment Center (ICAC). Here, patients missing necessary tissue diagnostics or staging studies are evaluated and triaged to the appropriate clinic, depending on their needs.

"International patients face a common existential crisis regarding the life-threatening nature of cancer, but they also encounter new customs and languages," says Daniel Epner, M.D., associate professor in the Department of General Oncology and clinical medical director of the IC. "Staff members in the ICAC help patients acclimate to these changes and formulate their plan of care."

One of the main benefits of the center is that it sets the stage for MD Anderson's multidisciplinary care. For these patients, the opportunity to be evaluated by a team of experts, along with MD Anderson's strong reputation and cutting-edge technologies, are a major draw. "We spend a great deal of time preparing patients for their future visits with the subspecialists they will see," Epner says.

In addition, the clinical environment relies heavily on solid communications skills, which impacts how patients and physicians work together. The key to "cultural competence" is to be totally patient-centered and highly adaptive to each person, rather than focusing on preconceived notions, Epner says.

In the end, the thread that connects the IC with its clinical partner, the ICAC, is a deep devotion to patients, families and the mission to provide expert care.

"Caring for international patients is tremendously gratifying because they're so far removed from their routine and disconnected from their support systems," says Michael Fisch, M.D., associate professor and chair of the Department of General Oncology. "These patients are comforted by our compassionate, authentic and accessible staff."

— William Fitzgerald



For more information in English, Spanish, Turkish and Arabic on the International Center, including details on the appointment process, what to expect, financial information, travel and lodging resources and staff biographies, see Conquest online at www.mdanderson.org/conquest and www.mdanderson.org/international.

Detecting a devastating disease

By Laura Sussman



When Betty Frost (left) and her daughter, Kathy Pasta (center), lost their daughter/sister Linda to ovarian cancer, they suggested that her best friend, Liz Stegall, enroll in a low-risk ovarian cancer study that may very well have saved her life. An artist, Frost gave Stegall an easel and encouraged her to use art as part of her healing process.

When diagnosed with ovarian cancer in its most curable stage, Liz Stegall knew someone was watching over her — her dear friend, Linda.

Best friends since meeting as sorority sisters at age 18, together they experienced life events: marriages, raising families, losing loved ones and Linda's diagnosis with late-stage ovarian cancer.

"Then, no one talked about ovarian cancer. Linda was just 34 when diagnosed and died at 43. I was there when she had her first surgery and her last. We had the same blood type so I even donated blood and platelets. We were just that close," Stegall says.

Seven years later, when Linda's family suggested Stegall participate in a study evaluating a simple blood test as a screening tool for the early detection of the disease, her decision to enroll was an easy one.

"They'd heard that MD Anderson was looking for healthy women at low risk and thought I was the healthiest person they knew," she says. "I had been blessed with good health — no history of gynecologic or other health problems, exercised for 30 years and never smoked — so I participated, in Linda's memory."

OLD TEST, NEW POSSIBILITY

Via a simple blood test, the study evaluates the protein long recognized for predicting ovarian cancer recurrence, CA-125, and its change over time.

MD Anderson has a long history with this important biomarker. In the 1980s, Robert Bast Jr., M.D., professor, vice president for translational research and the study's co-investigator, discovered CA-125 and its ability to track ovarian cancer.

"Since then, researchers have been trying to determine its role in early detection," Bast says. "However, CA-125 can become elevated for reasons other than ovarian cancer, leading to false positives in screening. The marker is shed by 80 percent of all ovarian cancers."

Over the last 10 years, there's been excitement over new markers and technologies in ovarian cancer, explains Karen Lu, M.D., professor in the Department of Gynecologic Oncology and the trial's principal investigator.

"We thought we'd ultimately find a better biomarker for early detection of the disease. But after looking at new markers and testing them head-to-head in strong, scientific studies, we've found none better than CA-125," she says.

The prospective study enrolled 3,252 women from seven sites, with MD Anderson serving as the lead. All were healthy, post-menopausal women with no strong family history of breast or ovarian cancers. The study's primary endpoint was specificity, or few false positives.

Participants received a baseline CA-125 blood test. Then, using the Risk of Ovarian Cancer Algorithm, a mathematical model based on their age and CA-125 score, women were stratified into one of three risk groups: low, intermediate and high.

After considering each woman's CA-125 change over time, researchers determined 85 women to be at high risk. This group received transvaginal sonography and were referred to a gynecologic oncologist. Of those, eight underwent surgery: five had ovarian cancer — three with invasive and two with borderline disease — all in early stage. Of great importance is that the invasive cancers detected were the most aggressive form of the disease and were caught early when the disease is often curable.

ENCOURAGING THOUGH NOT DEFINITIVE

While encouraging, the findings are neither definitive nor immediately practice changing. A large, randomized prospective trial is ongoing in the United Kingdom. Results from more than 200,000 women should be known by 2015.

In the meantime, MD Anderson's study continues. Lu and Bast will look at combining other markers with CA-125 to determine the screening impact of their combined change over time.

"As a clinician treating women with this disease for more than 10 years, I'm an admitted skeptic of ovarian cancer screening" Lu says. "Now, with these findings, I'm cautiously optimistic that, in the not-too-distant future, we may have a screening method that detects the disease in its earliest, curable stages, which can make a difference in the lives of women with this devastating disease."

SHARING HER DIAGNOSIS

After six years of annual testing, Stegall's CA-125 score rose dramatically in July 2009; she was diagnosed with early-stage disease. While thankful that hers was detected when curable, telling Linda's family, with whom she's remained close, may have been harder than telling her own children.

"I couldn't imagine telling them that I also had ovarian cancer," Stegall says. "They consider me part of the family, and I was worried about putting them through this again. It's just so surreal. How sad that this research was not done in time to help Linda, but she definitely would have done anything she could for me — and she did."



More than a pipeline

By Julie A. Penne

Development programs positively affect patient care, retain nurses, affirm profession

MD Anderson's nursing professional development program is nurturing a proud legacy today and for the future.

With a wide array of programs that enhance and support the development of students and professionals at virtually every level of the nursing workforce, MD Anderson is among the most progressive institutions in the nation for preparing, retaining and engaging top-flight oncology nurses.

Currently, more than 2,800 nurses work in about 40 different job titles that span all mission areas and make up about 15 percent of MD Anderson's total workforce. With the complexity of cancer and its many complications, nursing at MD Anderson is a vital and specialized discipline that summons the highest level of critical thinking and clinical expertise as well as collaboration, caring and leadership.

As the institution grows with the opening of the Alkek Hospital expansion, as projections for new patient registrations continue to tick upward and as cancer treatments, clinical trials and diagnostics become even more sophisticated, recruiting and retaining high-quality nurses is a priority.

That's where the strategy of nursing workforce development comes in, and it's a strategy that pays dividends.

INTRODUCING ONCOLOGY NURSING

By offering a wide range of development programs that include academic preparation, clinical practice, mentoring and professional growth, MD Anderson not only exposes students, new nursing graduates and seasoned professionals to oncology, but also prepares them for advancement, refines their skills and gives them the confidence so important to quality care.

The return on investment with such programs has yielded a higher retention rate, particularly among new nurses, opened a steady stream of top-notch applicants and generated a buzz among student nurses now enthusiastic about oncology and MD Anderson.

Jan Keller, Ph.D., registered nurse and director of Nursing **Workforce Planning and** Development (left), leads a dynamic team of professionals who develop and oversee a broad spectrum of nursing education programs. One of them is Debbie Cline (right), oncology nurse and project manager of Nursing Workforce. She leads the Rising Stars Program and the Certified Nursing Assistant Cohort Program, and collaborates with colleagues to create integrated and unique educational opportunities.

This is the first of

a three-part series

on nursing that will

appear in Conquest

throughout the

coming year.







But the most important result is seen in exceptional nurses who also are well-rounded, motivated people and who often remain at MD Anderson as clinical nurses or nursing leaders.

One example is the Rising Stars, a one-year program for select, high-performing nurses who want to develop additional clinical leadership skills and learn more about collaboration and team building, evidence-based practice and quality improvement. Implemented in 2006, the Rising Star program has generated more than 80 clinical nurses who continue to lead at the patient's bedside; 87 percent of the graduates have remained in direct patient care.

Another example is the "Launch into Nursing" New Graduate Nurse Residency Program that is part of the formal MD Anderson nursing orientation process. Residents are newly graduated clinical nurses who participate in a year-long mentoring program that includes structured classes and activities designed to build their interpersonal, critical thinking and technical skills. The program supports residents during the critical transition from student to novice practitioner.

EDUCATION AT ALL LEVELS

Other nursing workforce development programs include:

- the Advanced Practice Nurse Fellowship, a one-year program of clinical study that embeds mid-level providers in comprehensive oncology care (see pages 24-25),
- the Professional Student Nurse Extern Program, a curriculum in the summer and throughout the year that gives nursing students the opportunity to work at MD Anderson alongside a registered nurse preceptor (see page 23),
- Nursing Student Clinical Placement, an opportunity that offers coordination of nursing student clinical rotations, corresponding to didactic classes in the university classroom, and
- multiple programs that reach out to elementary, junior and senior high school students
 who show interest in nursing, medicine and
 science.

Barbara Summers, Ph.D., vice president and chief nursing officer, walks through the bone marrow and stem cell transplant unit with Assistant Nurse Manager Todd Rowe.

For the third time,
MD Anderson has
been granted Magnet*
recognition, a prestigious
international status that
honors nursing excellence
from the American Nurses
Credentialing Center.
See story on page 31.







Top left: Lorretta Ilochi, clinical nurse, updates the information board on an inpatient floor.

Top right: Anh Tran, clinical nurse (standing), and Kathleen Shannon-McAdams, supervisor and advanced practice nurse for myeloma and lymphoma (sitting), confer on a patient's care.

Lower left: Advanced Practice Nurses Michelle Rohlfs (right) and Jessie Richard (left) from melanoma medical oncology check on patient status reports, while a multidisciplinary team works alongside. Complementing these nursing education programs are nursing academic cohorts supported by the institution, which pay tuition and fees upfront for any employee who wants to pursue an initial degree in nursing or nurses who would like to earn advance degrees while still working. Nurses use the funding from the tuition reimbursement program more than any other group in the institution, and the Division of Nursing provides supportive resources to help the nurses be successful.

CRITICAL THINKERS, CARING PARTNERS

Barbara Summers, Ph.D., vice president and chief nursing officer, says that education programs are vital to affirming the value of nurses, building and retaining the nursing community at MD Anderson, and strengthening the profession.

"Research tells us that patients have better treatment outcomes where there is a well-educated, highly competent nursing staff," says Summers, who has led MD Anderson's Division of Nursing for the last seven years. "When you look at our program, envision a flywheel that spins evenly and constantly across all levels, and along the way, you can see the momentum of the wheel in the faces of many great nurses and nursing leaders. All are exceptional people who are homegrown and inspired to teach and mentor not only our newest nurses and students, but also all of their colleagues.

"My vision for these programs is about more than ensuring we have nurses to staff our units and clinics. Our nurses are critical thinkers, the caring partners and the constants in every patient's journey, and it's incumbent upon us to maximize their talents and opportunities," says Summers, an oncology nurse her entire career. "The ultimate beneficiaries of all our nursing development programs are our patients, which is why we all became oncology nurses."

Beyond the textbook By Julie A. Penne

Externs develop confidence, skills and love of nursing

Courtney Armstrong probably would not have earned the nickname of the "Leech Whisperer" or "Leech Wrangler" if it weren't for her Professional Student Nurse Externship at MD Anderson this summer.

Going into her final year of a bachelor's program at Prairie View A&M University College of Nursing after a 10-week rotation on an inpatient floor dedicated to patients who had delicate head and neck, as well as reconstructive surgeries, Armstrong is convinced she made the right career choice with nursing, and she knows she'll be a step ahead of her classmates this fall.

Mentored by clinical nurse and preceptor Rachel Lantz, 21-year-old Armstrong is one of 30 nursing students selected for the summer program that includes classroom study, outside speakers and one-on-one bedside coaching. This year, more than 250 students applied for the summer positions.

For Rosa Semien, who leads both the summer and year-long externship programs, the most obvious reward comes in the final weeks when the students reflect on their experiences, both personally and professionally.

"For so long, MD Anderson was not a place student nurses wanted to come, but now they are begging to participate. It's very rewarding throughout the 10-week summer program and the extended year-long program to see the students' confidence in their skills rise and hear how beautifully they speak about their patients and the nurses who mentor them," Semien says. "You can track how they mature as individuals and as nurses."

LEARNING TO THINK CRITICALLY AND COMPASSIONATELY

For Armstrong, whose aunt is being treated for thyroid cancer at MD Anderson, one of the many lessons she learned was to always be patient and calm. That's one of the ways she earned her nickname: holding the hand and giving reassurance to patients who were treated using medicinal leeches. She says she learned this valuable lesson from her preceptor (mentor), who taught her to work with the ancient remedy and by her example as an outstanding clinical nurse.

"All the nurses on the floor have been so helpful and so great, especially Rachel. I'm hoping I can come back very soon so they don't miss me," she laughs. "I learned so much this summer. I'm so grateful for the experience."

Franklin Wynn is one of Armstrong's classmates at Prairie View A&M and another summer extern.

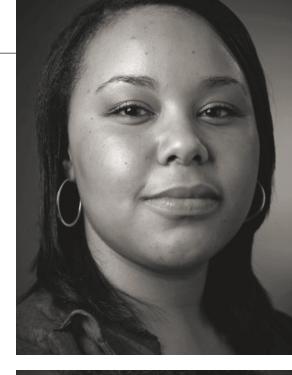
Working in MD Anderson's Intensive Care Unit, Wynn says one of the greatest insights he gained from the experience was how much he really wanted to be a nurse.

"When I came to MD Anderson at the beginning of the summer, I was 100 percent convinced that I wanted to be a nurse," says the Houston native, who also participated in MD Anderson's outreach program as a high school senior and as a nursing student completing his clinicals. "When I left at the end of the 10 weeks, I was 200 percent sure."

Wynn's preceptor was Allison Starghill, a clinical nurse in the Intensive Care Unit for the last five years. He says she encouraged him to think constantly and critically, but also compassionately.

"The nurses that participate in this program as preceptors are so receptive and such great teachers. They know what a positive influence they can have on a nursing student," Semien says. "Plus, it's a way for them to give back to the profession they love and teach what they most value about nursing — the patients."

> **Courtney Armstrong and Franklin Wynn** (top and middle) were enrolled in the **Professional Student Nurse Externship** this past summer, a program supervised by Rosa L. Semien, registered nurse and project manager in Nursing Workforce Development.







Advancing oncology through advanced practice nurses

By Julie A. Penne







Advanced Practice Nurses Marcia Brandert Holloway (left) and Ashley Martin (bottom right) graduated this summer from the Post-Graduate Fellowship in Oncology Nursing, while Advanced Practice Nurse Liz Sorensen (top right) completed the program in 2007.

Advanced Practice Nurse Marcia Brandert Holloway belongs to an exclusive group.

She is one of only 10 graduates of MD Anderson's Post-Graduate Fellowship in Oncology Nursing, the only such in-depth program for advanced practice nurses in oncology in the nation. Holloway and Advanced Practice Nurse Ashley Martin graduated in August as the fifth class to complete the intense, year-long program. Three new fellows, with a wide range of backgrounds, started the program in September.

Open to nurses or nurse practitioners with a minimum of a clinical master's degree in nursing, the fellowship includes work in the classroom, many short clinical rotations through multiple areas and a concentrated longer-term specialty rotation of the fellow's choice, under the supervision of an advanced practice nurse preceptor. Participants attend post-graduate courses through The University of Texas School of Nursing at Houston and classes at MD Anderson, earning a joint post-master's certificate in oncology.

They also conduct an evidence-based practice project with the goal that it be published in a peer-reviewed journal or presented at a national nursing forum. Since the fellowship began, six fellows have presented evidence-based projects at the Oncology Nursing Society annual meetings and two others have presented to a relevant clinical practice group conference. In addition, one has had a manuscript accepted for publication and two other fellows have manuscripts pending.

Carrying nursing excellence forward

According to Joyce Dains, Dr.P.H., J.D., an advanced practice nurse who leads the fellowship and the advanced practice nurse program, three of the program's 10 graduates have come from MD Anderson and seven remain with the institution. The other three graduates have taken positions in other hospitals where they share their expertise every day with patients and colleagues. That, too, is part of MD Anderson's education mission.

"While this fellowship meets our education mission, through it we also can carry forward our standard of nursing excellence and cancer care," Dains says. "It's a highly sought-after fellowship nationally because of its breadth, depth and length, and because it's based at MD Anderson."

Though only two or three fellows are selected each year, there typically are 30 to 40 applicants. For Dains and others on the selection committee, the tipping point in the selection process often is the genuine spark and passion for oncology. The majority of fellows have come from across the nation, while Holloway and Martin are two of three from the MD Anderson nursing community.

Holloway, who worked as a clinical nurse in MD Anderson's bone marrow and stem cell transplant inpatient unit for almost nine years, says she developed an even better understanding of the complexity of cancer and the many personal variables that patients and caregivers face. In August, she was hired as an APN in the Department of Genitourinary Medical Oncology

"This post-master's certificate in oncology is a highly sought-after fellowship nationally because of its breadth, depth and length."

— Joyce Dains, Dr.P.H., J.D., advanced practice nurse and leader of the program

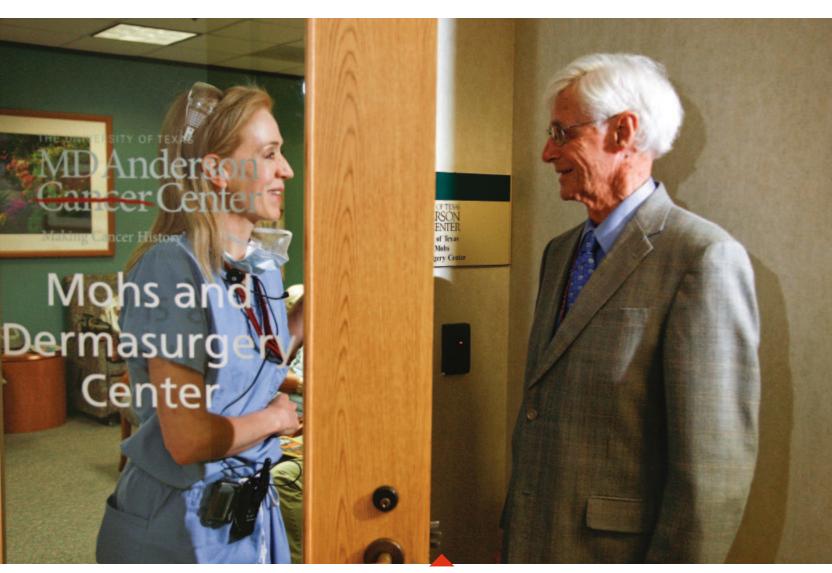
"Cancer is a very individual disease, not only in terms of biology, but also with variables such as family support, faith and finances. I learned how to better take all of these into consideration with this fellowship," she says. "It also broadened my exposure and knowledge of solid tumors since I came from a unit that cared for so many patients with leukemia, lymphoma or myeloma."

A survivor of leukemia thanks to a bone marrow transplant she had in her 20s, Holloway says the fellowship was one more way to give back to the medical community that saved her life. Treated in her native state of Nebraska, she says the nurses who cared for her molded her career path, and she hopes to be a significant influence for patients and colleagues at MD Anderson.

Mohs Unit puts MD Anderson mission into practice

By Lana Maciel

When Charles LeMaistre, M.D., was president of MD Anderson, he played a monumental role in building the institution's reputation for complete cancer care. But it wasn't until June 2009 when he would fully experience that level of care himself.



Deborah Mac Farlane, M.D., professor in the Department of Dermatology and a Mohs surgeon, greets Charles LeMaistre, M.D., as he pays a visit to the Mohs and Dermasurgery Center. A former president of MD Anderson, LeMaistre is also a patient at the Mohs Center, where he received treatment for basal cell carcinoma and returns regularly for check-ups.

Diagnosed with basal cell carcinoma, LeMaistre chose to have the lesion removed at MD Anderson's Mohs and Dermasurgery Unit, part of the Department of Dermatology, which he personally helped build and grow during his tenure as president from 1978 to 1996.

His experience at the Mohs Unit involved three doctors who specialize in different fields. Each played a critical part in his comprehensive care. Madeleine Duvic, M.D., deputy chairman of the Department of Dermatology, consulted LeMaistre regarding his screening and prevention; Deborah Mac Farlane, M.D., professor in the Department of Dermatology and a Mohs surgeon, performed the surgery to remove the lesion from the tip of his nose; and Roman Skoracki, M.D., professor in the Department of Plastic Surgery, performed the reconstructive surgery.

This multidisciplinary approach to diagnosis and treatment is what makes the Mohs Unit one of the most specialized clinics in skin cancer therapy. And according to LeMaistre, its highly skilled faculty provide efficient care with a dedication to the preservation of healthy skin from the beginning to the end of treatment.

THE 'GOLD STANDARD' OF CARE

Since its establishment, the Mohs and Dermasurgery Unit has offered specialized treatment for skin cancers. The highly specialized service of Mohs micrographic surgery is ideal for many types of lesions and skin cancers, but it is most often used to treat primary or recurrent basal and squamous cell carcinomas that appear on the body where tissue conservation is especially important.

While a number of services and procedures are performed, Mohs surgery is the most common procedure done at the clinic, says Mac Farlane, director of the Mohs Unit.

"For non-melanoma skin cancers on the head or neck area, Mohs surgery is the golden standard," Mac Farlane says. "The tumor is mapped and tracked stage by stage so that we maximize the amount of tumor removed and minimize the amount of normal tissue removed. With each stage, we test 100 percent of the margin until it is clear, so we can guarantee approximately 98 percent to 99 percent of the time (for previously untreated tumors) that the tumor won't come back."

In most cases, Mohs surgery is an outpatient procedure that uses a local anesthesia and is completed in one visit. Patients not only receive consultation and surgery at the clinic, but doctors and surgeons from other departments also may be brought in

to assist in a patient's pre- or post-surgery needs.

Interdepartmental collaboration with the departments of Radiation Oncology, Diagnostic Imaging, Dermatology, Plastic Surgery, Head and Neck Surgery and Melanoma Medical Oncology helps complete the full circle of care that patients have come to expect at MD Anderson.

COLLABORATION BENEFITS PATIENTS

Physicians who treat other types of cancers also recognize the expert treatment given at the Mohs Unit. They will often refer their patients to Mac Farlane and her experienced staff for further treatment, particularly if the patient is elderly and cannot undergo general anesthesia, or when the patient develops skin cancer as a second cancer.

"A lot of patients here at MD Anderson are immunocompromised, so they are more prone to developing skin cancer," Mac Farlane says. "In particular, organ transplant recipients, patients with leukemia or lymphoma, or those who have received radiation have an increased risk of developing skin cancer. In those cases, Mohs surgery is often the best choice for treatment."

Maintaining an active collaboration with other departments is a goal the physicians at the Mohs and Dermasurgery Unit aim to achieve. Not only does it further advance skin cancer therapy, but it also provides patients with the kind of treatment plan that optimizes recovery and overall health. It's a true reflection of the MD Anderson mission LeMaistre helped put into practice 30 years ago.

"The Mohs and Dermasurgery Unit is an integral part of the MD Anderson care program," LeMaistre says. "I think it's one of the hidden gems of the institution. My entire experience at the clinic was a true example of the complete care that MD Anderson is known for, from prevention and treatment to recovery."

Mohs micrographic surgery was developed by Frederic E. Mohs, M.D., a surgeon who pioneered the cancerremoving technique in 1936.



Mac Farlane identifies a suspicious area on LeMaistre's nose, and in less than five minutes, performs cryotherapy and removes the tissue for further testing.

GETTING TO KNOW THE MOHS AND DERMASURGERY UNIT

The Mohs and Dermasurgery Unit at MD Anderson looks just like any other doctor's office from the outside. But take a closer look and you see that there's much more to this "hidden gem" than meets the eye.

The unit houses eight operating rooms with a relatively small staff that consists of three Mohs surgeons, one nurse manager, three registered nurses, three medical assistants, two histotechnicians, one medical photographer, three front desk assistants and one fellow in training. A number of residents and medical students are also constantly rotating through the clinic to gain hands-on experience in dermatologic surgery.

They all stay busy. In the past year, the Mohs Unit has performed between 600 and 900 procedures each month, including biopsies, Mohs micrographic surgery, mole removal, laser surgery, scar revision, removal of atypical pigmented lesions and CO2 laser treatment of benign and malignant skin growths.

The Mohs faculty offer expertise in the treatment of a variety of dermatologic diseases and conditions. In addition to surgery, the Mohs Unit also treats skin cancer patients using various non-surgical modalities such as photodynamic therapy, cryotherapy, and topical and intralesional therapies.

Stuart Luster undergoes preparation for his fifth and final surgery in two days at the Mohs Unit.



Deborah Mac Farlane, M.D., examines patient Dennis Parker during a follow-up visit. Initially diagnosed with metastatic colon cancer, Parker developed basal cell carcinoma on his nose, which Mac Farlane removed through Mohs surgery.





Signs of Hope

Motivated & Moving program adds color to life

By Lana Maciel

A lot of patients are walking the halls of the Stem Cell Transplantation and Cellular Therapy Center these days. They are part of the Motivated & Moving program designed to encourage patients undergoing stem cell transplantation to increase their physical activity.

Kelly Faltus, advanced practice nurse in the inpatient unit, says the exercise performed through the program helps promote a sense of well-being and reduces the fatigue common among transplant recipients.

"Before we started the program, patients were getting out and walking, but it wasn't consistent," Faltus says. "Sometimes they were too tired, or the nurses were busy and weren't reminding them. So we wanted to find a fun way to encourage them to exercise on their own."

The result was the creation of the incentive-based program, in which patients earn rewards based on how much they exercise each week.



The goal is for patients to walk around the unit hallways at least three times a day. Other options include riding a stationary bike, using exercise stretch bands or participating in weekly exercise classes.

Each day, patients log their activity on a Motivated & Moving paper and post it on their door. One point is awarded each time the patient leaves the room to walk, and three points are given for taking an exercise class. For every 15 points earned, patients are given a colored bandana. For example, red bandanas denote 15 points, while purple denotes 90. The program has even developed a bit of healthy competition in the units.

For many patients, being in the inpatient setting for a prolonged time can often cause depression and keep them from wanting to leave their room, Faltus

says. But in addition to exercise, the program also promotes social interaction.

The Motivated &
Moving program has proven
so successful in the past year that the
Stem Cell Transplantation and Cellular
Therapy Center was awarded the J Patrick
Barnes Grant for Nursing Research from
the Daisy Foundation in the amount of
\$3,332 to begin scientific research
on its effectiveness.

"As patients are walking, they're also meeting new people and talking with nurses and other patients," she says.

"It's created a new kind of culture on our floor."





For every exercise activity performed at the Stem Cell Transplantation and Cellular Therapy Center, patients earn colorful circles to post on their door. Many patients receive colors by attending weekly group exercise classes, which incorporate a variety of exercise movements that include standing, sitting and stretching.

Cancer Briefings

BONE DISEASE PROGRAM OFTEXAS MAKES \$10 MILLION GOAL

As the visionary who built the nation's largest inland tank barge operation from the ground up, Berdon Lawrence knows how to face a challenge head-on.

So after being diagnosed with osteoporosis, he turned to one of the nation's top bone health specialists, Robert Gagel, M.D., professor and head of the Division of Internal Medicine at MD Anderson, for help. Together they formed a partnership that would lead to the creation of a nationally recognized bone disease research and treatment program.

It happened during an appointment. Gagel shared with Lawrence the serious health threats of metabolic and oncologic bone disease and how little had been done to develop effective therapies to prevent and treat this disorder. He envisioned a bone disease program located in the Texas Medical Center — with collaboration between two of its internationally recognized research centers, MD Anderson and Baylor College of Medicine — that would generate the critical treatments necessary to improve the health of those affected by bone disease.

As a patient living with osteoporosis, Lawrence along with his wife, Rolanette, decided to make Gagel's vision a reality. They generously provided the first of two endowments, and in 2002, the Bone Disease Program of Texas was established.

The program is now named in honor of the Lawrences, and their total donations have reached \$6 million. Additional gifts from other donors and equipment grants from the Department of Health and Human Services allowed the program to meet its \$10 million fundraising goal this year.

"Bone loss is a special concern for cancer patients," Gagel says. "The outstanding generosity of the Lawrences and their support for the program offers these patients hope for a healthier future. Through their efforts, researchers are actively involved in studies that may one day be translated to therapies that can treat the devastating effects of osteoporosis — and even keep it from occurring."

- BY VICTOR SCOTT



Bone Disease Program of Texas co-directors Robert Gagel, M.D. (far left), from MD Anderson, and Brendan Lee, M.D., Ph.D., (far right), from Baylor College of Medicine, celebrate with Berdon and Rolanette Lawrence (center) after being recognized for their support of bone health at the 2010 National Osteoporosis Foundation's Silhouette Awards.

AGREEMENT AIMS TO SPEED CANCER VACCINE PRODUCTION

In May, the chancellors of The University of Texas and Texas A&M Systems signed an agreement to combine resources in creating the National Center for Therapeutic Manufacturing (NCTM), a state-of-the-art biological pharmaceutical manufacturing facility, being constructed on the A&M campus.

Through this agreement, MD Anderson will become a long-term partner and collaborator of the NCTM, increasing the ability of researchers from its laboratories to quickly provide important new cancer vaccines and treatments, including vaccines targeted to specific people.

"More than 30 potential new drugs devised at MD Anderson are in clinical trials or poised to enter clinical trials, and using this new facility will improve our drug-making efficiency tremendously, as well as lower the cost," says Provost and Executive Vice President Raymond DuBois, M.D., Ph.D.



MD ANDERSON CONTINUES TO RANK NO. 1 IN U.S. NEWS & WORLD REPORT

MD Anderson remains the leading hospital in the nation for cancer care for the fourth year straight, according to the annual "Best Hospitals" survey published by U.S. News & World Report.

This is the seventh time in the last nine years that MD Anderson has ranked number one in the annual listing. Since the survey began in 1990, the institution has been ranked one of the top two cancer hospitals in the United States.

Five MD Anderson subspecialties also were singled out for high rankings, including ear, nose and throat (6), urology (10), gynecology (11) and gastroenterology (19). MD Anderson's ranking in diabetes and endocrinology jumped to 21 this year, up from 41 last year and unranked the year before that.

In a separate survey of pediatric hospitals, published in June by U.S. News & World Report, MD Anderson's Children's Cancer Hospital was ranked 12th in the nation.

"We are proud to be ranked again as the top cancer center — an honor that reflects the expertise and accomplishments of our outstanding physicians, researchers, nurses, staff and volunteers, all focused on reducing the burdens of cancer for patients here and everywhere," says John Mendelsohn, M.D., president of MD Anderson.

"The last decade of cancer research has yielded real benefit for patients worldwide, with declining death rates and improving five-year survival rates. To hasten our progress, the need for collaboration among the fine



cancer programs recognized by U.S. News & World Report is greater than ever, and we must broaden our cooperation internationally and with government, industry and patients."

MD ANDERSON NURSING EARNS MAGNET® STATUS FOR THIRD TIME

For the third time, MD Anderson has been granted Magnet recognition, a prestigious international status that honors nursing excellence from the American Nurses Credentialing Center (ANCC).

MD Anderson first received Magnet recognition in 2001 and was re-designated in 2006. A panel from the ANCC voted unanimously to re-designate MD Anderson a Magnet hospital this year after it successfully completed a rigorous four-day, on-site survey.

"Our nursing community makes Magnet recognition a major goal, and it's a status that we share with each other, our MD Anderson colleagues and certainly, our patients and survivors," says Barbara Summers, Ph.D., vice president and chief nursing officer at MD Anderson. "This designation recognizes our extraordinary community of nurses, their commitment to their profession and those they care for."

RECOGNITION

MD Anderson employs more than 2,800 registered nurses, one of the largest contingents of clinical nurses in a highly specialized, high-acuity setting in the nation. Approximately 15 percent of the institution's employment is its nursing staff, and its ranks are expected to increase as new units

open with the expansion of the Albert B. and Margaret M. Alkek Hospital in the coming year.

Also in the coming year, MD Anderson's new academic department within the Division of Nursing will continue to grow nursing research and evidence-based practice initiatives and enhance educational opportunities for all levels of nurses. Currently, about 550 nurses have master's degrees and an increasing number have doctoral degrees.

The Magnet Recognition Program® was developed by the American Nurses Credentialing Center to recognize health care organizations that demonstrate nursing excellence. Magnet status requires ongoing monitoring of standards and is valid for four years, after which recipients must reapply.

See more about this recognition in Conquest online at www.mdanderson.org/conquest.

Moving Forward: Treesa Gold

By Mary Jane Schier

Violinist Treesa Gold glows with good health and happiness.

"I feel incredible to have celebrated five years since my cancer surgery. I get to play Beethoven and Rachmaninoff for a living. I'm married to an amazing man ... I know how precious life is," she confides.

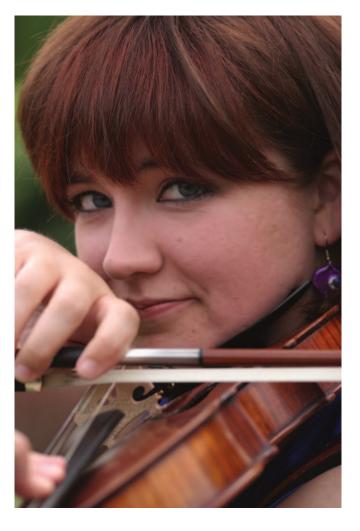
Gold, who started violin lessons at age 2, was performing with the Louisiana Philharmonic Orchestra when she became ill and eventually was diagnosed with adrenocortical carcinoma (ACC), a rare, fast-growing cancer of the adrenal glands. On June 27, 2005, her left adrenal gland, containing a 13-centimeter tumor, and left kidney were removed.

By the time she arrived at MD Anderson three weeks later, she was on an emotional roller coaster. Listening to Alexandria Phan, M.D., associate professor in the Department of Gastrointestinal Medical Oncology, outline limited options was like having her "dreams disappear."

Phan says about 250 cases of ACC are diagnosed annually in the United States. Even after seemingly successful surgery, almost 80 percent of patients have recurrences — and a dismal prognosis.

"There's been no new therapy for almost 40 years, and the best drug, mitotane, causes severe side effects," explains Phan, who coordinates care at MD Anderson for the nation's largest group of ACC patients.

Before starting drug therapy, Gold and husband Matt returned to New Orleans. A few days later, Hurricane Katrina struck the city and destroyed their house. After evacuating to Kansas, she had her eggs harvested and processed, noting: "We now have 16 embryos frozen if we should need them."



During two years on mitotane, Gold endured severe exhaustion, stomach cramps and memory loss. When her husband, who plays orchestral bass, was recruited to Viginia's Richmond Symphony Orchestra in 2006, the couple moved there. Both Golds play for the orchestra and in the Prabir/ Goldrush band that combines classical music with rock 'n' roll. She also teaches Suzuki violin.

Regular check-ups at MD Anderson show Gold remains cancer-free. Because so few patients enjoy long-term survival, Phan believes Gold is "a wonderful poster patient for ACC."

Note: MD Anderson is one of 16 centers participating in the first clinical trial of a new targeted drug, OST906, for ACC. Phan and colleagues also have developed an innovative staging for the disease.

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LOCATIONS

In addition to MD Anderson's main campus in the Texas Medical Center in Houston and two research campuses in Bastrop County, Texas, the institution has developed a number of local, national and international affiliations.

Houston Area

Regional care centers: Bay Area (Nassau Bay), Bellaire, Fort Bend (Richmond), Katy, Sugar Land, The Woodlands

Outside of Texas

MD Anderson Cancer Center-Orlando (Fla.) MD Anderson Radiation Treatment Center at Presbyterian Kaseman Hospital (Albuquerque, N.M.) Banner MD Anderson Cancer Center (Gilbert, Ariz.) opening in 2011

International

Centro Oncológico MD Anderson International España (Madrid, Spain)

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For information on patient services at MD Anderson, call askMDAnderson at 1-877-MDA-6789, or log on to www.mdanderson.org/ask.