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CONQUEST



Changing the stories we tell

Ronald DePinho, M.D.
President, MD Anderson

THE UNIVERSITY OF TEXAS
**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

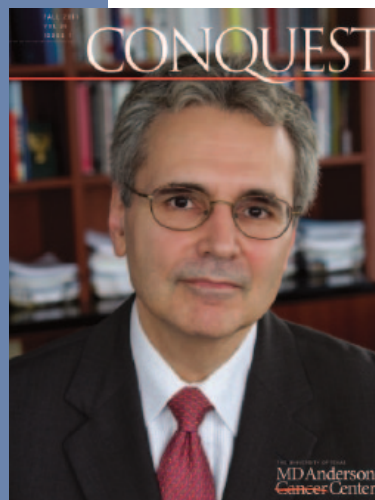
By our words and actions, we create a caring environment for everyone.

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: Ronald DePinho, M.D., became MD Anderson's fourth full-time president on Sept. 1.

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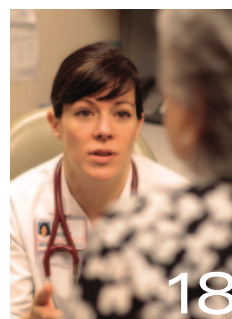
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This \$150 million grant pays tribute to His Highness, the late Sheikh Zayed Bin Sultan Al Nahyan, and his sons and makes possible a new technologically advanced building, endowed professorships and a center for pancreatic cancer research — all dedicated to the pursuit of personalized cancer care.

FRONTLINE



Ramon Yapp, CT technician at MD Anderson (right), prepares Mary Geary for a lung screening — a new offering for current and former smokers, led by Reginald Munden, M.D. (center).



CONQUEST

ANSWERS FOR LONG-TERM SMOKERS

Lung cancer screenings now available

Hope is on the horizon for current and former smokers with findings that CT scanning may reduce lung cancer deaths by 20%.

The National Lung Screening Trial (NLST), funded by the National Cancer Institute, compared the results of screening with the standard chest X-ray to the low-dose helical CT scan in 53,000 participants. MD Anderson was one of 33 sites that participated in the NLST and recruited more than 700 participants.

“In the past, chest X-rays were our only option for diagnosing lung cancer, but they didn’t detect the cancer until it was too late to treat it,” says Reginald Munden, M.D., professor in the Department of Diagnostic Radiology and MD Anderson’s lead investigator on the trial. “The results bring hope not only to smokers, but also to researchers and health care providers.”

‘Everything to gain’

In response to the findings and its leadership role in the trial, MD Anderson has launched a lung cancer screening program. The program targets current and former smokers 50 years and older who have smoked an equivalent of one pack of cigarettes a day for at least 20 years.

Former smoker Mary Geary wasted no time in getting screened at MD Anderson. The \$400 out-of-pocket cost didn’t deter her.

“I have nothing to lose and everything to gain from being screened,” says Geary, who hasn’t smoked in 30 years, but realizes her 20-year history with tobacco put her at a high risk for developing lung cancer.

MD Anderson’s program was developed to help prevent lung cancer deaths by using CT scans to more effectively detect lung cancer in its earliest stages. It incorporates a multidisciplinary team of experts in radiology, thoracic surgery, pulmonary and clinical cancer prevention.

Another benefit of the program is low-cost, smoking cessation services offered in the Cancer Prevention Center. Therese Bevers, M.D., is medical director of the center and co-investigator on the national trial. She hopes that people meeting the criteria follow the recommended guidelines for lung cancer screening and take advantage of the tobacco cessation programs.

The good news for Geary was an all-clear signal. Her lungs showed no sign of cancer, and she could breathe a huge sigh of relief.

For more information about lung cancer screening, please visit the Cancer Prevention Center website at www.mdanderson.org/cancerprevention. To schedule an appointment, contact askMDAnderson at 877-MDA-6789.

REPORTED IN THE JUNE 29, 2011, EDITION OF THE NEW ENGLAND JOURNAL OF MEDICINE.

— Katrina Burton

Scan this QR (quick response) code with your smartphone to see a video that tells you more about the lung screening program, or visit www.mdanderson.org/conquest.

DOCTOR STEPS TO THE FORE

Addresses a dangerous drug shortage

Early this year, Hagop Kantarjian, M.D., chair of MD Anderson's Department of Leukemia, began to hear from oncologists around the country asking for advice:

What do you offer a patient with acute myeloid leukemia (AML) when the drug cytarabine is not available?

Is there a substitute for the generic drug in the lone combination known to cure some patients with AML?

The grim answer — no.

"With cytarabine combination chemotherapy, the cure rate for AML is 40% to 50%," Kantarjian says. "Without cytarabine, it's 0%."

Approved by the U.S. Food and Drug Administration in 1969, cytarabine is used with antibiotics called anthracyclines to treat AML, other leukemias and lymphomas. Alternatives exist for treating the other cancers, but nothing else works for AML.

Cytarabine is one of many mainstay generic cancer drugs that have been in short supply during the past year. There are alternatives for most of the other chemotherapies.

In December, cytarabine went on the FDA's drug shortage list. Two of the three manufacturers cited production problems or raw material shortages. The third said it could not meet demand alone.

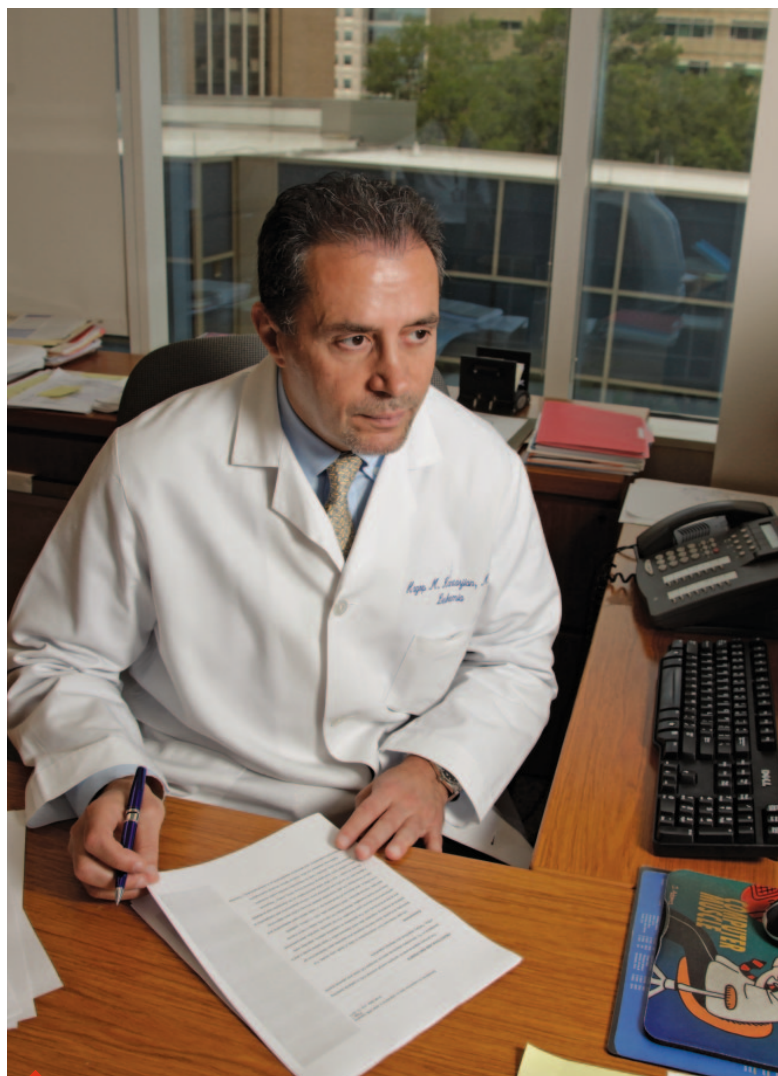
"In 30 years of treating leukemia, I've never seen such a critical drug shortage," Kantarjian says. As the largest leukemia practice in the country, MD Anderson buys enough cytarabine to assure a supply for its patients. The shortage was stressful elsewhere.

Raising awareness to save lives

An appeal to thousands of physicians via the department's Leukemia Insights email newsletter yielded hundreds of stories from doctors across the country with patients who needed the drug.

Starting with interviews with a Houston TV station and The Wall Street Journal, Kantarjian took every opportunity to draw attention to the problem. He wrote a widely read guest commentary for The Washington Post. Interviews with ABC News, NBC News and Science magazine followed.

Shortages of generic drugs climbed from 58 in 2004 to 211 in 2010, the FDA reports. "The root cause is financial," Kantarjian says. "This has almost never occurred with brand-name drugs."



Hagop Kantarjian, M.D., is raising awareness about the shortage of vital drugs, like cytarabine, for certain leukemia patients.

The cytarabine shortage, like most others of generic cancer drugs, is unique to the United States.

Cytarabine supply improved by mid-summer, but the long-term problem is unaddressed, Kantarjian says. Perhaps tax breaks or subsidies might be provided to manufacture crucial drugs, or controls that limit generic drug price increases might be eased.

"In a country as rich as ours, patients should not have the misfortune of contracting a life-threatening disease for which a non-profitable treatment is withdrawn or not available," Kantarjian says.

— Scott Merville

FIRST OF ITS KIND FOR ALL

A drug combining an antibody packaged with a potent chemotherapy agent has shown one of the highest response rates ever for the treatment of acute lymphoblastic leukemia (ALL), a cancer of the white blood cells.

The drug targets CD22, a protein found on the surface of more than 90% of ALL cases, and is the first of its kind for ALL treatment. In the Phase II study, the drug saw response rates of more than 50%, particularly significant as patients enrolled in the trial had recurrent or resistant disease.

“The drug is safe,” says Elias Jabbour, M.D., assistant professor in MD Anderson’s Department of Leukemia and a co-investigator on the trial. “Almost all side effects were low grade and manageable. Drug-induced fever was the most common.”

REPORTED IN JUNE 2011 AT THE 47TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY.

A CHANGING LANDSCAPE FOR MELANOMA

The first positive, randomized vaccine study for advanced melanoma, and one of the first in cancer overall, has shown the benefit of using the body’s own defense system to attack tumor cells without destroying healthy tissue.

Researchers reported the vaccine — when combined with the immunotherapy drug Interleukin-2 — improved response rates and progression-free survival in a randomized Phase III clinical study.

Melanoma is one of the fastest-growing cancers. In 2010, more than 68,130 people were diagnosed in the United States alone.

“This is a very exciting time for the field of melanoma. During the past few years, the entire landscape has changed,” says Patrick Hwu, M.D., professor and chair of MD Anderson’s Department of Melanoma Medical Oncology and the study’s senior author. “Now, our focus will need to turn toward studying these novel therapies in combination and continuing our quest for better vaccines. We must also research ways to make the study inclusive of more metastatic melanoma patients.”

REPORTED IN THE JUNE 2, 2011, EDITION OF THE NEW ENGLAND JOURNAL OF MEDICINE.

YOGA BETTER THAN SIMPLE STRETCHING

Researchers presented initial findings from the first study comparing the benefits of yoga against those of simple stretching exercises for women with breast cancer. The findings concluded that patients who practiced yoga while receiving radiation therapy experienced improved physical functioning and lower levels of stress hormones. They also reported increased ability to find meaning in their lives.

The study is the latest effort to scientifically confirm the impact of mind-body interventions for cancer patients.

“The combination of mind and body practices that are part of yoga clearly have tremendous potential to help patients manage the psychosocial and physical challenges associated with treatment and life after cancer — beyond the benefits of simple stretching,” says Lorenzo Cohen, Ph.D., professor in the departments of General Oncology and Behavioral Science and director of the Integrative Medicine Program at MD Anderson.

REPORTED IN JUNE 2011 AT THE 47TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY.





Jeffrey Myers, M.D., Ph.D. (center), and Curtis Pickering, Ph.D., share the success of their study, conducted through a postdoctoral fellowship program directed by Khandan Keyomarsi, Ph.D. (left), professor in the Department of Experimental Radiation Oncology.

DISCOVERY HOLDS PROMISE FOR CERTAIN HEAD AND NECK CANCERS

The first comprehensive studies of genetic variations in head and neck squamous cell cancers have uncovered mutations that may help refine treatment for patients with the disease.

“These findings should help us better treat patients, in the not-too-distant future, by allowing us to take a more personalized approach than is currently possible with this cancer,” says Jeffrey Myers, M.D., Ph.D., professor in MD Anderson’s Department of Head and Neck Surgery and co-author on one of the papers.

“We’ll see how patients whose tumors have these genetic mutations do with our conventional treatments of surgery-radiation, chemotherapy or chemoradiation. In this way, we can identify groups of patients who need additional or different treatments,” he says. “Also, some of the newly identified mutations might prove to be potential targets for treatment with drugs that are already available.”

REPORTED IN THE JULY 28, 2011, EDITION OF SCIENCE EXPRESS, AN ONLINE FEATURE OF SCIENCE.

TOOL PREDICTS THERAPY RESPONSE

Researchers have developed a new test to predict which patients with newly diagnosed breast cancer have excellent probability of response and survival following chemotherapy. Using an algorithm combining genomic information from the biopsy of a patient’s tumor, the test identified those for whom standard therapy had high probability of success, as well as those who might benefit from participating in a clinical trial.

“The research builds on a decade of collaborative work in developing a clinically meaningful chemotherapy predictor. If validated in future studies, it could guide therapy for about 80% of newly diagnosed women with invasive breast cancer who are candidates for chemotherapy,” says W. Fraser Symmans, M.D., professor in MD Anderson’s Department of Pathology.

REPORTED IN THE MAY 11, 2011, ISSUE OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

For more information about these and other research findings, visit www.mdanderson.org/newsroom, or the Cancer Frontline blog at www2.mdanderson.org/cancerfrontline.

Changing the MD Anderson's fourth full-time president stories we tell

By Sandi Stromberg

Ronald DePinho, M.D., has a mission —
to impact the human condition.

“**A**ll my science, all my efforts drive toward changing the stories we tell about our lives,” he says. “That parents don’t have to lose children, that grandmothers get to see their families grow up.”

No doubt, he would also change the story he tells of losing his father to colon cancer in the late 1990s when he was at a high point in his own career as a physician-scientist.

As MD Anderson’s fourth full-time president, a position he assumed Sept. 1, DePinho is intent on bringing science in line with the daily practice of medicine in the clinic.

“A physician by training, I feel the best way to solve the complex problems in human disease is to conduct penetrating science in a way that informs a translational path and ultimately has an impact on the practice of medicine and the care of patients,” he says.

This has been his thrust in whatever position he’s found himself — as head of a laboratory, director of an institute, founder of biotechnology companies or adviser to pharmaceutical companies — to help others do the best job they can to improve the condition of patients.

That’s why he decided that if he were given the opportunity to lead MD Anderson, which he considers “the greatest institution devoted to cancer,” he would take on that responsibility.

A leap of faith

DePinho graduated *summa cum laude* from Fordham University in 1977 with a bachelor’s degree in biological sciences and received his medical degree with distinction in microbiology and immunology in 1981 from Albert Einstein College of Medicine.

With a yearning to understand the “why” of disease, the physiology, he finished his internship and residency in internal medicine at Columbia-Presbyterian Medical Center. Then, unlike most of his classmates, who chose clinical sub-specialties, DePinho took a leap of faith.

“I thought the next stage of my career should be devoting some efforts to learning science and going into the laboratory, then coming back into the clinic and applying that to medicine,” DePinho says. “At that time, doctoral programs were not robust and physician-scientist programs were not yet well established. I went out there at enormous risk.”

While DePinho loved clinical medicine, and people thought he had good competence in that area, Qais Al-Awqati, M.D., professor at Columbia-Presbyterian, gave him the courage to say this was the right decision to make. He pursued that next step in his career at Albert Einstein. (See “From Martial Arts to Cloning Oncogenes,” page 11.)



Ronald DePinto M.D.
President



Passing the baton: Ronald DePinho, M.D. (left), MD Anderson's new president, shares a moment at the Festschrift celebrating the accomplishments of past president John Mendelsohn, M.D.

Attending physician, innovative scientist

DePinho was hired back at Albert Einstein as an attending physician and a researcher. One month a year, he worked in an inner-city, New York hospital attending very sick patients, many indigent, with complex and challenging medical problems. The remainder of his time was devoted to the laboratory.

"I enjoyed the experience," he says. "For 10 years, it gave me the opportunity to interact with clinicians and teach them about what was going on in the laboratory, to bring a level of scholarship to the clinical rounds. I love to read and teach students about medicine and science."

For the past 14 years, DePinho has guided basic-translational research programs at Dana-Farber Cancer Institute and Harvard Medical School in Boston. These have focused on brain, colorectal, pancreatic and prostate cancers.

A founding director of the Belfer Institute for Applied Cancer Science at Dana-Farber, he established the concept of tumor maintenance, discovered a core pathway of aging and demonstrated that aging is a reversible process.

With his wife, Lynda Chin, M.D., he also helped co-found several biotechnology companies, with which he will continue to be affiliated.

Aveo Pharmaceuticals, which went public in 2010, concentrates on genetics and cancer biology to help discover new cancer targets by using sophisticated mouse models of cancer. These, in turn, help evaluate the activity of the drugs that get created before putting them into clinical trials. The company is conducting Phase II and Phase III trials and has approximately 10 other drugs in the pipeline.

Metamark Genetics is attempting to exploit the power of the mouse to filter through the human cancer genome and identify genes that inform us how an early stage cancer is going to behave, then predict which patients' cancers will progress so they can receive appropriate treatments.

With an emphasis on transparency and to avoid any conflict of interest, DePinho has terminated several of his other outside and pharmaceutical involvements.

"Conflict-of-interest rules exist for a reason," he says. "But there's a role and responsibility for scholars in academic medicine to help shepherd the private sector toward products that will help patients. At the same time, we want to have meaningful, intimate links with industry that enable us to keep patients out of harm's way and maintain the highest ethical standards."

A firm foundation

While he was being interviewed for the presidency, DePinho says he was also interviewing the institution.

"I wanted to be sure that the management was outstanding, that the clinical operations were robust and that the science was strong," he says. "On that very firm foundation, I felt I could shepherd MD Anderson into this next era in which science-driven, evidence-based medicine moves patient care forward."

"I'm inspired that now is the time when we should not simply think about the next experiment, but instead about durable cures and what it would take to get to that point."

— Ronald DePinho, M.D.
president, MD Anderson



Lynda Chin ‘a powerful force in science’

As a busy medical student in 1978 at Albert Einstein College of Medicine in New York, Ronald DePinho found time to follow another passion — martial arts.

Little did he realize that founding the Einstein Hapkido Tae Kwon Do School would lead to a long-term relationship with his future wife and renowned physician-scientist, Lynda Chin, M.D.

“She happened to be one of my students, and it was, more or less, love at first sight,” DePinho says.

Chin and her family emigrated to the United States from mainland China when she was 15. She was valedictorian of her high school class and graduated from Brown University, before earning her medical degree at Albert Einstein.

Today, Chin is a member of the MD Anderson faculty and among the leaders of a national project that is changing the way we look at the cancer genome.

Before becoming chair of the new Department of Genome Medicine in the Division of Cancer Medicine, Chin was scientific director of the Belfer Institute for Applied Cancer Science at Dana-Farber Cancer Institute and co-leader of the Melanoma Disease Program for Dana-Farber/Harvard Cancer Center.

A board-certified dermatologist, she also was a professor in the Department of Medical Oncology at Dana-Farber and professor in the Department of Dermatology at Harvard Medical School.

Scientist, wife, mother, business woman

Described by DePinho as “an extraordinary scientist,” Chin is actively involved in “one of the most ambitious projects in the history of life sciences.”

She serves on the executive subcommittee of The Cancer Genome Atlas (TCGA) project, a massive effort to accelerate understanding of the molecular basis of cancer through genome analysis technologies.

Chin is co-principal investigator for TCGA’s Genome Data Analysis Consortium. Known as the “firehose project,” it focuses on mining and translating complex genome data to ultimately identify novel cancer targets and diagnostic biomarkers.

“What’s also remarkable about her is that she’s the founder of several biotechnology companies, the mother of our three children (Alexis, 10; Carolyn, 8; Joseph, 7) . . . and somehow finds the time to take care of the family in a warm and supportive way,” DePinho says. “She also has been very supportive of my career.”

Chin co-founded Aveo Pharmaceuticals, a cancer biotechnology company that emphasizes cancer biology, and Metamark Genetics, a cancer diagnostic company that develops prognostic and predictive diagnostic tests for personalized treatment of cancer patients.

“She’s a very powerful force in science. In Boston, I was known as Mr. Chin,” DePinho says, with great love and respect.

— David Berkowitz



Activities, like miniature golf, are important to the whole DePinho family: (clockwise from left) Alexis, Ronald DePinho, Carolyn, Joseph and Lynda Chin.



Aging and cancer: two sides of the same coin

Although presidential responsibilities take most of his time, Ronald DePinho, M.D., continues his research efforts to bring scientific knowledge to cancer patient care.

However, he's narrowed his focus to the areas in which he's most interested: the intersection between aging and cancer, and the work on two Program Project (P01) grants from the National Cancer Institute, which he has transferred to MD Anderson.

"Advancing age is the most important risk factor for the development of cancer," says DePinho, professor in the Department of Cancer Biology. "We're trying to understand the molecular basis of the intimate link between cancer and aging which, I believe, holds important implications for prevention."

Understanding aging, he says, might give investigators some insight into how to quell that risk, establish what the core pathways are, and how they might be commandeered to cause age-related illnesses such as cancer, Alzheimer's, diabetes and heart disease.

The P01 grants involve basic, translational and clinical science and focus on glioblastoma and pancreas cancer. For each of these, he and his talented team of researchers, some of whom have followed him to MD Anderson, are developing mouse models to understand how genes

work, discover new genes, conduct translational activities and develop drugs or diagnostics that might help treat the disease.

"I'm most interested in the patho-biology of disease so that we understand things at the genetic, cellular and organ-system level and really understand a particular cancer type," he says. "There's no place better to translate science than at MD Anderson."

Asking the question

DePinho says scientists must always ask themselves the question: "I have this knowledge. How can I use it to influence the human condition?"

"For example, by studying the pathway of a damaged telomere that causes aging, we could establish proof of principle to reverse that process," he says. "At the time, we didn't think we could reverse it, but maybe slow it down. So we performed an experiment to toggle the telomerase on and off and fix the problem that occurs during natural aging, and we achieved a striking reversal of aging. That's an example of always asking the question.

"So much of what we do is related to aging and regenerative medicine. Cancer and aging are really two sides of the same coin. The same pathways get commandeered in both cases. In one case, it causes aging. In the other, cancer."

— Sandi Stromberg

From martial arts to cloning oncogenes: four mentors

Though a grand master would seem a non-traditional mentor for a physician-scientist, Ronald DePinho, M.D., credits Ik Jo Kang and martial arts with his being a good student.

From Kang, he learned basic principles of this centuries-old tradition — built on a philosophy of respect, courtesy, humility, discipline and courage.

“It’s not about kicking and punching,” says DePinho, who was 16 at the time and a national champion. “It’s something very positive for people and makes them better social beings. It also set the stage for my academic accomplishments.”

That’s why mentoring rates high with him, and why he credits the growth of his career to four men who shepherded him to what he calls a “measure of competency.”

His second mentor came during his internship and residency at Columbia-Presbyterian Medical Center. Qais Al-Awqati, M.D., professor of physiology, cellular biophysics and medicine, encouraged DePinho to take that risky jump from pursuing a clinical sub-specialty to joining his laboratory and learning more about the “why” of disease.

Tale of two labs

That experience took him back to his medical school, Albert Einstein College of Medicine, to train in the laboratory of Matthew Scharff, M.D., professor in the Department of Cell Biology, and one of the leaders in molecular immunology.

“He took this person who knew very little science and patiently brought me to a point where I understood how to approach scientific questions and data — and communications,” DePinho says of his third mentor. “It wasn’t just about the next experiment. It was about gaining skills to build a sustainable career.”

While he was a resident at Columbia-Presbyterian, DePinho started a project with his fourth mentor, Fred Alt, Ph.D., also a leader in molecular immunology and oncogenes.

“I was working on cloning new oncogenes and moved back to Columbia to work with Fred and finish my scientific training,” DePinho says. “In fact, I worked in both Matt’s and Fred’s labs simultaneously. Eventually, I decided to pursue the project in Fred’s lab because it held the greater interest for me.”

Alt taught him molecular biology and modern science at an exciting time when recombinant DNA technology was starting.

“Fred is one of the best molecular biologists in the world,” DePinho says. “We were at the leading edge of science. He taught me to do very high-level science with an eye toward moving the knowledge gained forward into clinical medicine.”

A path DePinho still follows.



Ronald DePinho, M.D., was a martial artist in high school and competed around the United States.

— Sandi Stromberg



Having fun, while staying on message, with Stephen Colbert

Last winter was an unusually busy time for Ronald DePinho, M.D.

When his team of Harvard University scientists at Dana-Farber Cancer Institute partially reversed age-related degeneration in mice for the first time, it drew attention from the research community and the media.

“I was doing interviews every 20 minutes,” DePinho says.

Study findings reported in the journal *Nature* led to widespread coverage, including articles in *The Boston Globe*, *Popular Science* and *The Wall Street Journal*, and television pieces on BBC World, ABC News and CNN.

“Then this email arrives from the producer of ‘The Colbert Report,’ which I was about to delete when my secretary came into my office and said, ‘You have to do this one,’” DePinho recalls.

Not taking himself too seriously

He wasn’t familiar with Stephen Colbert, who hosts the late-night show on Comedy Central known for its satirical presentation of political and other news topics. But with a little encouragement from his team, he accepted the interview.

“I’ve interacted with the media for standard scientific communication, but this was different. It was a singular experience,” DePinho says.

He looked at it as an opportunity to reach a different demographic.

“I’m always trying to educate the public in different ways. This was a chance to connect with a younger audience about what’s going on in science,” he says.

In his introduction, Colbert stated that DePinho “may have found the secret to eternal youth.” During the segment, he referred to DePinho as “a mouse scientist” and pulled a large, foam-stuffed chromosome model from under his desk to help their discussion.

“The nature of the show is to keep people off-guard and to blind-side them as much as possible. What I tried to do was have fun and not take myself too seriously, but to stay on message,” DePinho says.

Which is exactly what he did.

“While he has this public persona, I learned that Stephen Colbert is a kind-hearted person who’s very smart and asks very good questions,” DePinho says.

“But it definitely was different than speaking with Katie Couric.”

— David Berkowitz



Picture This

Cancer patients bank on the kindness of donors

By David Berkowitz

Most people go through life never having to receive a blood transfusion. But the same can't be said for cancer patients.

MD Anderson's patients require approximately 150 units of red blood cells and 500 units of platelets every day. But where does all this blood come from?

MD Anderson's Blood Bank collects 26,000 units annually at two donation centers and through mobile blood drives at local schools, universities, churches and businesses. To meet patient needs, it imports additional blood products from other blood centers across the United States.

With more than 215,000 blood components (platelets, plasma or red cells) transfused during Fiscal Year 2011, the institution is the largest transfusing hospital in the nation.

Cancer doesn't stop for holidays. Blood is needed at MD Anderson 365 days a year for leukemia, lymphoma, anemia, and bone marrow and stem cell transplant patients, as well as for patients undergoing complicated surgeries.

While 60% of the population is eligible to donate, only 5% actually do. If you'd like to donate, call 713-792-7777 or go to www.mdanderson.org/bloodbank.



During a recent afternoon, the Holly Hall Blood Donation Center was a hub of activity:

1. Lundy Thornton of Houston is a frequent donor of platelets, which are specialized blood cells that help control blood clotting.

2. Subrina Narcisse, senior blood donor technician, sets up donors for blood draws and monitors their progress throughout the process.

3. The Trima blood collection machine separates a donor's whole blood into its components through an apheresis process. While some of the components are retained, the machine transfuses the remainder back into the donor.

4. These platelet units were collected through apheresis.

5. This cart holds all the supplies a donor technician needs for a blood draw.

6. Jeremiah Johnson of Houston and **Amanda Lane**, a Blood Bank community representative, are frequent platelet donors. At Lane's side is Sudhakar Mulpur, senior blood donor technician.

7. A fleet of donor coaches is used to collect blood donations in the community. More than 500 mobile collection activities are held each year.

8. After a unit of whole blood is centrifuged at 2,475 RPM to separate red cells from plasma and platelets, this Compomat blood-processing machine squeezes them into another bag.

9. These red cells were separated from a unit of whole blood. This component is used in surgeries and other types of cancer treatments. All blood products come from volunteer donors, with the donor source kept confidential.

J O U R N E Y I N T O



R E A L I T Y

By Sandi Stromberg

BUS ROUNDS REVEALS THE LANDSCAPE OF HOME HOSPICE CARE

As a bright red bus pulls away from the curb in front of MD Anderson, Eduardo Bruera, M.D., begins to share his extensive experience of patients in the palliative setting.

“The ‘f’ word should guide our care,” he tells passengers, then quickly adds, “that’s ‘f’ as in function. Whatever enhances a patient’s function is what counts.”

Twenty-four people — physicians, researchers, social workers, palliative care fellows, chaplains, nurses and a music therapist intern — strap two-way radios

around their necks. And we’re off on the Texas Community Bus Rounds to visit three patients in the care of Jani Whitney, a registered nurse with Houston’s Memorial-Hermann Home Health.

Bruera, professor and chair of MD Anderson’s Department of Palliative Care and Rehabilitation Medicine, started the rounds 11 years ago. Since that time, hundreds of health care professionals from the Greater Houston area and farther away have benefited.

His goal is to help them learn to identify the complex medical, ethical, spiritual and psychosocial issues that patients face near the end of life. Then, through visits to patients in home health care, he models effective ways of communicating with patients and caregivers that will improve understanding of their situations and needs.

Listen: To identify areas of suffering

As the bus moves toward north Houston and, then, from patient to patient, Whitney briefs participants on each case. We’re being trained to observe and, equally important, to listen.

“Counseling is about listening,” Bruera says. “The goal of visiting patients in home health care is to get them and their family members or caregivers to talk. A good therapist is there to listen, not to give advice. Talking allows them to get the pus out, to be like the dentist working on an abscessed tooth.”

He says one of the biggest problems is often avoided because it seems too sensitive to bring up. But the truth is, the cost of a patient’s long-term care can bankrupt a family.

“Financial fears and distress can affect quality of life,” Bruera says. “It’s very helpful to talk about these fears with the patient and the family, to let them know you understand. If you ignore it or pass over it, it can hurt them. Being supportive gives value to their situation. We need to address it because it’s an area of suffering.”

These insights have been invaluable for Amber Zulfqar, M.D.

She joined Bus Rounds at the recommendation of a physician in palliative care at The Methodist Hospital in Houston and found the experience rich.





Eduardo Bruera, M.D. (center), listens as a patient describes his daily activities and how he is feeling.

“We have a house call exposure during our training,” says Zulfiqar, a fellow in geriatrics and palliative medicine at Methodist.

“But seeing the cancer patients in their home settings helped me learn that prescribing pain medications is not enough. This experience has helped me take better care of my patients. I make it a point to ask them if they have any specific concerns — and to listen.”

Observe: What the eyes tell us

As we enter each home, Bruera also tells us to use our eyes.

- What do we see?
- Are there family photos?
- Is the house reasonably clean with crucial utilities, such as air conditioning?
- Is the patient dressed for the day or still in pajamas?
- Is there food in the kitchen? Are there signs of cooking?
- Is there a support system?

In other words, are the basic conditions of life being met?

For Wadih Rhondali, M.D., the experience was certainly eye-opening.

Colleagues at MD Anderson had recommended that the French psychiatrist in palliative care, and currently postdoctoral fellow at MD Anderson, participate in the Bus Rounds.

“They told me it was a different way to learn about patient care and to understand the daily reality of our patients in their home environment,” he says.

He found it was that, and much more.

“Instead of learning in the usual way, like in a classroom, I saw things you might never see working in a hospital or a cancer center,” he says. “I can still remember watching one patient drink her glass of wine, the smell of another home. I also learned, or maybe it was a strong reminder, that when you take care of the patient, you also have to take care of the caregivers or everyone suffers.”

When he returns home, Rhondali knows what he learned will help him with his daily practice. He plans to share this teaching method with his colleagues — and maybe even start Bus Rounds in France one day.

Decide: Home health care or a facility

Bruera claims that what we often hear — “it’s better to die at home” — can be a myth. Some families prefer to place their loved one in a facility that can better cope with the physical aspects of care. However, with the growing number of facilities, choosing is a challenge. He recommends that families ask the following questions when they visit facilities. He also suggests that to get the most honest answers, it’s best to show up unannounced.

- Does the facility have good security?
- Are there policies in place, such as making sure patients move out of their rooms or get some kind of physical activity every day?
- Does the staff know personal details about their patients without relying on the chart?
- Are patients dressed, groomed and clean?

Hannah Gregory, a music therapy intern at MD Anderson last spring, also joined the rounds. She’s familiar with hospice care in a



Bus Rounds provides new insights for Hannah Gregory, a music therapy intern who spent several months at MD Anderson under the auspices of the Integrative Medicine Program.

facility, first from her mother, a hospice nurse, and second, from her grandmother, who has gone into hospice.

Gregory's supervisor in MD Anderson's Integrative Medicine Program, which provides music therapy to patients, recommended she participate on the basis of his own rich experience on the rounds.

"Although I've accompanied my mother over the years and already knew quite a bit about hospice care," she says, "I saw in detail how home hospice works with cancer patients. I have a better insight into each diagnosis and more ideas of how I can use music therapy to better the quality of life for those who are nearing the end."

Understand: What can and cannot be done

To provide the best care, Bruera says that health care workers need to understand where the patient is and what can be done for him or her. His recommendations surprised many participants.

"Don't try to get a person in hospice care to stop smoking or recommend smoking cessation programs. They only have a limited time ahead of them, and they get some comfort from smoking.

"And at the end of life, it's actually better to eat fast food," he says to our amazement. "It's fried and packed with proteins for energy. It no longer helps to eat the healthy diet of broccoli, grilled fish and salad."

However, there are three things health care workers cannot give a patient at the end of life, he counsels:

- money,
- family support, and
- religious faith or some kind of spiritual connection.

These needs can only be handled by the patient and family members, but they may be important to address.



Amber Zulfikar, M.D., a fellow in geriatrics and palliative medicine at The Methodist Hospital, takes notes while Eduardo Bruera, M.D., discusses what he has learned through his years of working with hospice patients.



Wadih Rhondali, M.D. (left), appreciates his time as a postdoctoral fellow at MD Anderson, working in Eduardo Bruera's department.

We mull over these last thoughts as the bus rounds the corner and stops in front of MD Anderson. Conversations abound as participants descend, share contact information and prepare to return to their jobs — at Houston Hospice, The Methodist System, Baylor College of Medicine, Memorial Herman Hospital, The University of Texas Health Science Center at Houston and MD Anderson.

In evaluations over the years, health care professionals have given high marks to the program. They appreciate the opportunity these community experiences have provided. They value the suggestions for listening and coping, as well as the increased ability to observe family relationships. They've also gained insights into what might be happening in the home environment and how that impacts patient and family.

Most important, they're now using "function" to guide the management of their patient care.

Lines
between
medical and
geriatric
oncology
blur

A quiet crisis

By Mary Brolley

Elba Circelli is a sharp, energetic 86-year-old living in Friendswood, a Houston suburb.

Five years after chemotherapy and radiation treatment for breast cancer, she's a feisty survivor who jokes good-naturedly about cooking for her Italian husband of 40 years.

Her visit to MD Anderson's Internal Medicine Center in July put her in rare company, because her physician is a geriatrician. Holly Holmes, M.D., is the only practicing geriatrician at the institution. An assistant professor in the Department of General Internal Medicine, she specializes in the care of elders who are long-term survivors, as well as those in active treatment.

Unique concerns of aging cancer patients

Cancer is a disease of aging, and our society is aging. This presents problems in decisions about the best treatment choices.

Elders are, on average, more likely to be on medications — in fact, a larger combination of them. They may also be dealing with bone loss and its effects on balance, strength and healing. Or they may be suffering from cognitive losses, dementia or depression.

A physician who is board certified in medicine and geriatrics, a geriatrician tries to help older adults remain as functional and independent as possible.

A geriatrician's area of expertise, Holmes says, is taking care of frail elders.

Geriatric oncologists use well-established tools to assess the patient's physical and mental state — called "staging the aging" — then recommend which therapies would most benefit them.

These include screening tools for assessing gait (walking) speed, ability to complete activities of daily living, such as bathing, fixing meals, cognitive function and depression. Patients are identified as being very healthy, average or frail. Frail patients are most at risk for adverse effects from cancer treatments, Holmes says.

Research explores medication

A pharmacist before she went to medical school, Holmes also conducts research, which makes up 70% of her work and centers on polypharmacy — the interaction of medications — and on overmedication.

She's also helping to create a tool any physician can use as an aid to estimate the risks to elders of adverse effects from stem cell transplantation.

"We want to know who becomes medically frail as a result of certain treatments," Holmes says. "My goal is to let patients know the likely consequences of choosing certain therapies, and do so thoroughly. I take into account not just what's most effective to treat the cancer, but also how the patient will function afterward."

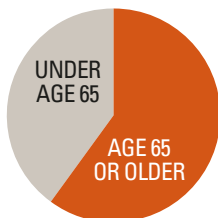
Too much or too little

The balance most difficult to strike — and the crux of what oncologists treating the elderly face daily — is between under-treatment and over-treatment.

Relatively few elders participate in clinical trials, though that is changing, and some treatments may be considered too harsh for those with co-morbid health conditions or physical or cognitive deficits. For frail elders, maintaining function and comfort may be more important than attempting lengthy or harsh treatments, Holmes says.

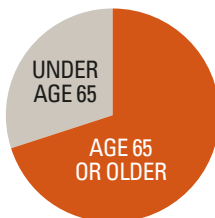


By the numbers



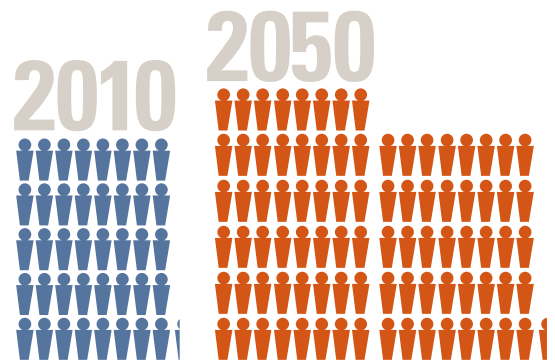
Cancers Diagnosed

*In 2011, 60% of cancers have been diagnosed in those age 65 and older.***



Cancer Deaths

*In 2011, 70% of cancer deaths have been in this age group.***



*By 2050, the number of Americans age 65 or older will be 88.5 million — more than double the 40.2 million in that age group in 2010.**

*The U.S. Census Bureau's 2008 national population projections

**The Geriatric Workforce Policy Studies Center 2011 Update

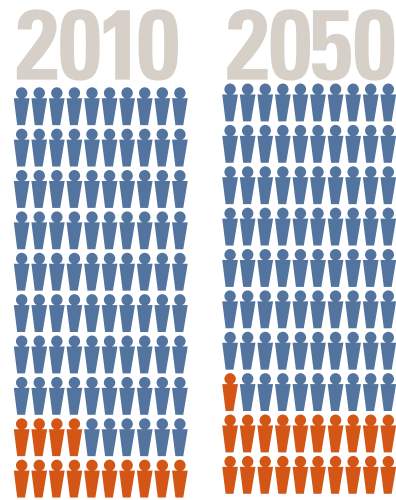
“If you have mobility issues, balance problems, a history of falls, or cognitive or memory deficits, cancer treatment is not going to improve them.”

Not enough geriatricians

Because there are only 7,000 geriatricians in the United States — three for every 10,000 adults older than 75 — Holmes says that family practice and internal medicine physicians must be aware that an older person diagnosed with cancer might need special attention and screenings before deciding on treatment.

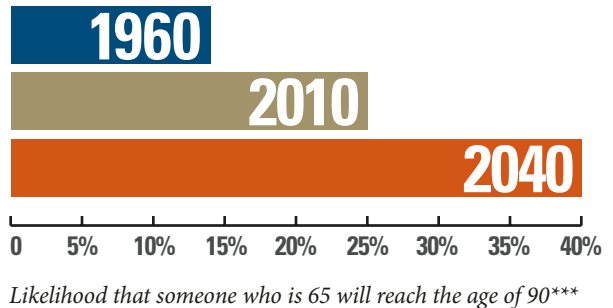
She also considers it essential for geriatricians to educate oncologists on the special needs of elderly patients.

Fortunately, the Accreditation Council of Graduate Medical Education, which accredits post-medical-degree training programs in the United States, recently mandated that oncology fellows receive training in geriatric oncology.



In 2010, 14% of the population was 85-plus.*

In 2050, 21% of the population will be 85-plus.*



Likelihood that someone who is 65 will reach the age of 90***

Coordinating care with patience, humor

During her visit, Circelli reports that she’s recently had symptoms of a urinary tract infection and some mild back pain. She went to her primary care physician for treatment, she says.

Soon Holmes is on the phone with this physician, finding out which tests he’s run and what he’s found. “This is what I spend a lot of time doing,” she explains to Morris. “Coordinating care.”

At the end of the call, she offers to send the primary care physician an email on the visit so he can keep Circelli’s chart up-to-date.

Holmes has a disarming bedside manner that is patient, yet direct. It’s obvious that she relishes her practice and sees her patients as distinct individuals.

And Circelli, whom Holmes calls “snazzy,” clearly adores the Internal Medicine Center — and Holmes. “I love her,” she says. “I feel I can tell her anything ... like she’s my niece, maybe. They take good care of me here.”



Holly Holmes, M.D. (left), and Van Morris, M.D., a hematology and oncology fellow, joke with Elba Circelli during her appointment.

Van Morris, M.D., a hematology and oncology fellow, shadowed Holmes as she saw patients on a recent Friday. Although Morris will focus on research, he understands the importance of the rotation with Holmes.

“As the U.S. population gets older, we’ll see more people in the geriatric population. It’s important for us to understand the co-morbidities that affect treatment,” he says.



Scan this QR (quick response) code with your smartphone to see a video that tells you more about geriatric care and cancer, or visit www.mdanderson.org/conquest.

*The U.S. Census Bureau’s 2008 national population projections

***Experience Corps’ “Fact Sheet on Aging in America,” statistics from the Center for Disease Control and Prevention’s National Center for Health Statistics Bureau



Social Work Counselors Heather Valladarez and Midge Myhre have created a support group for older adults and their caregivers.

Support for those aging with cancer

More than 60% of new cancers are diagnosed in people 65 years or older. Patients in this age group often face challenges, such as isolation, loss of independence, financial hardship and difficulty with mobility. Although people may experience these stressors at any age, older patients are at an increased risk of encountering them simultaneously, with fewer resources to address them.

As a social work counselor in MD Anderson's Gastrointestinal Center, Heather Valladarez sees many elderly patients facing common barriers. "Many struggle to balance cancer treatment with other health care needs," she says.

"Others need help with advanced care planning — for example, assistance in getting more care in the home or moving to a nursing home after treatment, or with completing advance directives. And quite a few have trouble managing and accessing medications."

To address these concerns, Valladarez and Midge Myhre, a social work counselor in MD Anderson's Emergency Center, created a support group for cancer patients 65 and older and their caregivers. Called Aging With Cancer, the group launched in September.

At the monthly meetings, experts from MD Anderson and the health care community discuss geriatric-specific concerns and provide information on available community resources. Valladarez and Myhre hope the support group helps foster relationships between MD Anderson patients, creating a support network that extends beyond the meetings.

"We want them to connect, to learn from each other and to realize they're not alone," Valladarez says.

— Lindsey Garner

SEER database 'an exceptional resource' for researcher

Elderly patients are underrepresented in clinical trials, but that doesn't mean their experiences and outcomes have been lost or forgotten.

Just ask Sharon Giordano, M.D., associate professor in MD Anderson's Department of Breast Medical Oncology.

She's used data from the SEER-Medicare database — a collaboration between the Surveillance, Epidemiology and End Results (SEER) cancer registries data and Medicare enrollment and claims files — as the basis for more than a dozen studies.

The database offers clues, she says, to how older patients fare during certain cancer treatments.

She's also interested in the late effects of cancer treatment, and the considerable database of 3.5 million cancer survivors is a font of information on both.

"It shows real-life patterns of care in a population that's been massively underrepresented in clinical trials," she says. "For example, what can we learn about long-term toxicities by studying how these patients fare years after treatment?"

Studies reveal late effects, risks of under-treatment

She cites a study on the long-term cardiac safety of adjuvant anthracyclines, a class of drugs used in chemotherapy. The study found a higher-than-expected risk of heart failure in older breast cancer patients, which seemed to increase as they aged.

Another of her studies found that intravenous bisphosphonates, which increase bone mineral density, are underused in women ages 65-75 with metastatic breast cancer.

Not all of her research concerns breast cancer. One study measured the survival of older patients with stage III colon cancer in relationship to whether they'd been referred to a medical oncologist. These high-risk patients were more likely to receive chemotherapy — and to survive — if they'd received such a referral.

"Although these studies need validation, they're provocative and should encourage further research," Giordano says.


She also notes that the SEER database shows a surprisingly wide variation in practice patterns throughout the United States.

"Though it's 'standard of care,' treatment on the East Coast might differ from that on the West Coast and in the Midwest," she says. "We need to identify populations who aren't receiving these standards of care, so we can improve care for everyone."

— Mary Brolley



Sharon Giordano, M.D., associate professor in the Department of Breast Medical Oncology, studies how elders handle cancer treatment, as well as the late effects of these treatments.



Kinder Foundation Classroom

A FIRM FOUNDATION

Education continues a strong emphasis

By Mary Jane Schier

Education has formed the foundation for MD Anderson since it was established in 1941 as part of The University of Texas System.

Its first formal training program began in 1949 with four histotechnology students, whose education taught them to prepare human or animal tissue samples for microscopic examination. Courses for other allied health disciplines were added over the years. Today, the School of Health Professions offers eight degree-granting allied health programs.

“The Bureau of Labor Statistics predicts that within a few years we will have a greater shortage of allied health professionals than nurses and doctors. Our school’s goal is to prepare more allied health specialists who are critical to MD Anderson’s continuing to lead the world in excellent cancer care and research,” says Michael Ahearn, Ph.D., the school’s founding dean.

He notes that enrollment has increased more than 10-fold — from 35 allied health students a decade ago to 367 for fall 2011.

Ahearn says one reason for this growth is more donors supporting scholarships. About 15% of current students receive financial support.

In recent years, more than 40% of the school’s graduates have been hired at MD Anderson, another 25% went to other Houston-area hospitals and the others were in high demand across the country.

Training for students interested in allied health careers is in short supply. MD Anderson’s school offers the only baccalaureate molecular genetics program in Texas and one of six accredited in the United States. The diagnostic imaging program is one of only two that award degrees in Texas.

“Our students have access to an unparalleled array of equipment, laboratories and expert clinical and teaching faculty. In addition to MD Anderson’s extensive resources, students can take clinical rotations at several other Houston-area hospitals and diagnostic laboratories,” says Ahearn, who retired at the end of August.

Scan this QR (quick response) code with your smartphone to see a video that tells you more about the virtual classroom, or visit www.mdanderson.org/conquest.



CONQUEST

▶ Anhdiep Tran, a student in the Radiation Therapy Program, wears special 3-D goggles as she practices clinical skills in the new Virtual Environmental Radiotherapy Training system classroom that is the first of its kind in the country.



Two educators leave their mark

The most important educational advance for MD Anderson was gaining approval to award bachelor's degrees to allied health students in 2001 and to jointly confer master's and doctoral degrees in the biomedical sciences in 2002.

"After becoming a degree-granting institution, the next major milestone was earning an initial five-year accreditation in 2005 from the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) that reaffirmed MD Anderson as a leading academic institution. SACS approved re-accreditation last year," notes Stephen Tomasovic, Ph.D., former senior vice president for academic affairs.

Tomasovic and Ahearn have shared leadership in much of MD Anderson's educational progress over the years. Before both retired recently, they reflected on their highly satisfying careers.

After coming to MD Anderson in 1965, Ahearn directed the diagnostic ultrastructure hematology laboratory for 23 years and then joined the Office of Academic Programs with increasing administrative responsibilities.

In addition to being the founding dean of the School of Health Professions, he has directed the Carl B. and Florence E. King Foundation Summer Programs in Biomedical Sciences for graduating high school students and started a summer workshop for high school science educators now named for him.

His passion for preventing cancer led to developing Project S.A.F.E.T.Y. (Sun Awareness For Educating Today's Youth), a skin cancer awareness curriculum now in nearly 42,000 public schools nationwide.

Advice from someone who's been there

Tomasovic was recruited to MD Anderson in 1980 as an assistant professor in the Department of Tumor Biology and began teaching in the Graduate School of Biomedical Sciences (GSBS) the next year. He developed the cancer biology program at GSBS, was honored as the John P. McGovern Outstanding Teacher, was elected president of the graduate school faculty and, in 1999, was named associate dean.

For MD Anderson, he served as founding chair of the Institutional Animal Care and Use Committee and the Faculty Senate. Since 1998, he has held key administrative appointments that culminated in 2006, when he was appointed MD Anderson's senior vice president for academic affairs. In that position, he has been responsible for coordinating policies and programs affecting more than 7,000 trainees, 1,500 faculty members and 250 support staff.

Among their many honors for educational contributions, Tomasovic and Ahearn both were inducted into The University of Texas System's Academy of Health Science Education and named UT System Distinguished Teaching Professors.

They also shared the podium at the August graduation for 120 students at the School of Health Professions.

In his keynote address, Tomasovic told the students they will have "many opportunities and challenges as well as stress and worry" in their chosen careers. His advice included to "listen well, think critically, maintain balance, be adaptable, problem solve not problem create, and deliver dependably."

That advice obviously helped Ahearn and Tomasovic succeed.



Michael Ahearn, Ph.D., founding dean of the School of Health Professions, congratulates Melinda Garza, who graduated *summa cum laude* and received the Outstanding Student Award in the Clinical Laboratory Science Program. Ahearn retired after 46 years at MD Anderson.



Stephen Tomasovic, Ph.D., prepares to give his keynote address at the 2011 commencement for the School of Health Professions, where he shared advice he had used during 31 years at MD Anderson.

3-D isn't just for the movies

The latest teaching tool at the School of Health Professions has generated considerable excitement for instructors and students.

The new Virtual Environmental Radiotherapy Training (VERT™) system that creates a three-dimensional setting for radiation therapy students to learn how to treat patients is the first in the country.

“VERT provides a virtual example of a radiation treatment room so we can give students a direct, hands-on experience. It allows them to see inside a patient’s body and practice their clinical skills in a safe environment before they go into the clinic,” says Shaun Caldwell, assistant professor, who directs the school’s radiation therapy program.

“I’m amazed at how VERT is revolutionizing the way we teach radiation therapy,” Caldwell adds. For more than a year, he coordinated installation of the system, during which a large theater-style classroom was remodeled.

The VERT system was purchased with a gift from the Kinder Foundation of Houston that also supports endowed scholarships at the School of Health Professions. The classroom containing VERT was renamed the Kinder Foundation Classroom.

Raising the education bar

VERT uses rear-projection technology to show interactive 3-D images on a screen 14 feet tall and nine feet wide. Students wear special 3-D goggles while moving around the life-sized virtual patient to practice various radiation procedures.

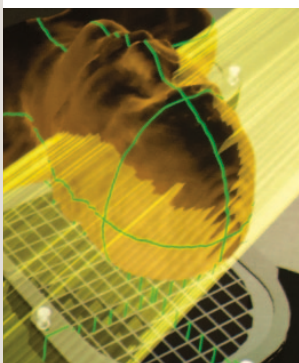
During a recent demonstration, students Anhdiep Tran and Eva Mohammed asked questions while following Caldwell’s instructions about the virtual patient who would be treated for a brain tumor.

“Wow, look at that,” was a frequent comment. Both students stress that after their VERT experiences, they felt more comfortable with patients in the clinic.

As he projected anatomical structures adjoining the virtual patient’s treatment target, Caldwell explained the complexities of aiming precise radiation through tissues, muscles and bones to reach the tumor. He says VERT helps reduce the time for teaching students about abstract concepts so they will better understand what they’ll deal with in clinical situations.

The computerized tomography data that is essential for radiation therapy planning and delivery can be incorporated into 3-D teaching for other allied health students.

“VERT is an incredible example of how MD Anderson keeps raising the bar in technology and educational opportunities,” Caldwell says.



Christina Coleman reflects on receiving MD Anderson’s first baccalaureate degree a decade ago.

A memorable day, a rewarding career

Christina Coleman considers herself truly blessed to be Making Cancer History® at MD Anderson.

In 2001, she was the first of 13 School of Health Professions students to receive baccalaureate degrees. Until then, graduates of the eight current allied health training programs earned certificates.

Approval from the Texas Legislature and the Texas Higher Education Coordinating Board allowed MD Anderson to begin awarding bachelor’s degrees 10 years ago.

“That will always be a memorable day,” recalls Coleman, now a senior cytogenetic technologist in the Division of Pathology and Laboratory Medicine, which last year performed more than 10.7 million procedures.

Coleman earned a bachelor’s degree in biology from Prairie View A&M University before coming to MD Anderson for cytogenetic technology training. Her interest in science stems from watching family members face several types of cancer.

The past decade has been marked with three other milestones for her. She completed a master’s degree in business administration from Florida Metropolitan University and, in 2008, married Joe Coleman Jr. Recently, she had the couple’s first child, a little girl named Katelyn Janae.

“I love being part of MD Anderson,” says Coleman, who after family medical leave will return to her laboratory. There, she uses advanced DNA probe technology, computer imaging and other tools to analyze patients’ blood, bone marrow and tissue samples for chromosomal changes. Her behind-the-scene expertise helps clinicians provide optimal diagnoses and treatments.

Coleman, whose mother is a long-time ovarian cancer survivor, says seeing patients and their loved ones in the halls reminds her “why I was meant to work here.”

▶ Two new leaders began directing educational programs on Sept. 1.

Oliver Bogler, Ph.D., who joined MD Anderson’s Department of Neurosurgery in 2005, was named senior vice president for academic affairs. He will continue as vice president for Global Academic Programs until a successor is selected. He also directs the Odyssey Program that supports outstanding postdoctoral fellows and chairs the National Brain Tumor Society’s Scientific Advisory Council.

Shirley Richmond, Ed.D., former dean of the College of Health and Human Sciences at Northern Illinois University (NIU), was appointed dean of MD Anderson’s School of Health Professions. Prior to going to NIU a decade ago, she spent 15 years at The University of Texas Medical Branch at Galveston in several leadership positions. She is a past president of the Texas Society of Allied Health Professions.

Khalifa Bin Zayed Al Nahyan Foundation makes largest-ever contribution to MD Anderson

By DeDe DeStefano

The Khalifa Bin Zayed Al Nahyan Foundation recently gave MD Anderson a grant of \$150 million.

The donation marks the largest in the institution's history and the largest single contribution from a living individual or family foundation to an institution in the Texas Medical Center or any Texas university. The grant was awarded by the President of the United Arab Emirates (UAE) and his family foundation to enable MD Anderson to make significant advances in personalized cancer therapies and accelerate the pace of pancreatic cancer research.

"The extraordinary generosity of the family through the Khalifa Bin Zayed Al Nahyan Foundation exemplifies the family's long tradition of philanthropy," says John Mendelsohn, M.D., who stepped down as MD Anderson's third president on Aug. 31.

The grant will pay tribute to His Highness, the late Sheikh Zayed Bin Sultan Al Nahyan, the founder and former President of the UAE, and his sons, His Highness Sheikh Khalifa Bin Zayed Al Nahyan, the current UAE President, and His Highness, the late Sheikh Ahmed Bin Zayed Al Nahyan. Their generosity makes possible the following:

The Sheikh Zayed Bin Sultan Al Nahyan Building for Personalized Cancer Care — a new, 600,000-square-foot, state-of-the-art building on approximately five acres of MD Anderson's main campus. The Zayed Building for Personalized Cancer Care will integrate delivery of basic and clinical research to support personalized cancer care and will house:

The Sheikh Khalifa Bin Zayed Al Nahyan Institute for Personalized Cancer Therapy — a comprehensive program designed exclusively to individualize cancer care so that each patient receives treatments that target the genetic and molecular abnormalities in his or her tumor. Mendelsohn will co-direct the Khalifa Institute for Personalized Cancer Therapy with Gordon Mills, M.D., Ph.D., who also chairs MD Anderson's Department of Systems Biology. Hundreds of MD Anderson faculty will participate.

KHALIFA BIN ZAYED AL NAHYAN
FOUNDATION



مؤسسة خليفة بن زايد آل نهيان
للأعمال الإنسانية

Fueling cancer care and research

The Khalifa Bin Zayed Al Nahyan Foundation's \$150 million grant to MD Anderson also will establish fellowships to further education in the field of oncology as well as three permanent endowment funds:

- the Sheikh Zayed Bin Sultan Al Nahyan Distinguished University Chair of Medical Oncology,
- the Sheikh Khalifa Bin Zayed Al Nahyan Distinguished University Chair, and
- the Sheikh Mohammed Bin Zayed Al Nahyan Distinguished University Chair.



His Highness Sheikh Mansour Bin Zayed Al Nahyan (second from left), Minister of Presidential Affairs and Chairman of the Khalifa Bin Zayed Al Nahyan Foundation, H.E. Ahmed Jumaa Al Zaabi (left), Vice Minister of Presidential Affairs and Deputy Chairman of the Khalifa Bin Zayed Al Nahyan Foundation, Kenneth Shine, M.D., executive vice chancellor for Health Affairs, The University of Texas System, and John Mendelsohn, M.D., past president of MD Anderson, mark the occasion of a \$150 million grant from the foundation to the cancer center.

The Sheikh Ahmed Bin Zayed Al Nahyan Center for Pancreatic Cancer Research

— dedicated to accelerating scientific discovery that will make a pivotal impact on pancreatic cancer, one of the most fatal types of cancer, which is rising in incidence yet remains significantly underfunded compared to other disease sites.

Research in personalized cancer therapies will enable physicians to determine the specific genetic and molecular abnormalities in each patient’s cancer and then prescribe or develop safer, more effective therapies that directly target these abnormalities.

“Personalized cancer therapy holds tremendous promise for the future of cancer care,” Mendelsohn says. “This gift will escalate progress exponentially, playing a critical role in our efforts to employ the most effective cancer treatment the first time, every time.”

A history of service to others

His Highness, the late Sheikh Zayed Bin Sultan Al Nahyan formed the United Arab Emirates (UAE) in 1971 and served as President until his death in 2004. He established lifetime government services for UAE citizens, including free schools, free health care and increased equality for women. He built cities, towns, hospitals and universities.

His son, His Highness Sheikh Khalifa Bin Zayed Al Nahyan, continues his tradition of philanthropy. Active in 35 countries outside the UAE, the Khalifa Foundation focuses on health care and education initiatives, innovative biomedical research and poverty.

Cancer Briefings

MD ANDERSON HEADS TO SPACE Astronaut honors institution with rare opportunity

MD Anderson's international reputation for fighting cancer helped launch a piece of the institution to the International Space Station earlier this year.

NASA Astronaut Tim Kopra, an Austin, Texas native, was assigned to fly to the space station aboard STS-133, the historic final mission of space shuttle Discovery. Prior to the mission, he had a tough decision to make.

"We have the opportunity as astronauts to fly items from different organizations," says Kopra, who lost his father, a University of Texas professor for 35 years, to cancer.

"I wanted to find an organization that I thought really represented excellence in our ability to fight this dreaded disease."

With the price of each ounce of cargo launched into space at a premium, Kopra was limited to flying 10 small items. He chose a piece of Georgia pink Etowah marble from MD Anderson's original façade. But due to the weight of the marble, he was only allowed to pack one additional item for his mission.

Then, just days before launch, Kopra was injured in a bicycle accident and scrubbed from the mission. The marble left Earth without him, traveled more than 5 million miles in space and made it home safely.

On April 19, Kopra proudly returned the historic piece of marble to MD Anderson to serve as inspiration in the mission to fight cancer. It will be displayed in the institutional awards display case in the Main Building, Floor 1, near The Fountain.

— Victor Scott



Edgardo Rivera, M.D. (left), Banner's medical director, celebrates the lighting of the "Lantern of Hope" with Margaret Row, M.D., MD Anderson's associate vice president for Global Clinical Programs, and Peter Fine, CEO of Banner Health.

A 'LANTERN OF HOPE' SHINES IN ARIZONA

On Monday, Sept. 26, cancer patients began passing beneath the Lantern of Hope that marks the entrance to the new Banner MD Anderson Cancer Center in Gilbert, Ariz.

The steel structure, which is nearly 70 feet tall, rises above an open-air pavilion at the entrance to the cancer center, which houses physician clinics, radiation and chemotherapy treatment rooms, and diagnostic imaging suites.

In this new facility, patients receive the first multidisciplinary clinical care sanctioned by MD Anderson doctors outside the Houston area.

The aluminum leaf and branch patterns adorning the lantern sculpture are designed to look like the paloverde tree. Native to Arizona, the tree is known for its ability to survive the dry desert heat while providing protection for animals and plants under its canopy.

Designers intended the lantern, which is illuminated every evening at dusk and visible for miles, to be a distinguishable landmark of hope in the community.

— Jacqueline Mason



John Mendelsohn, M.D. (right), past president of MD Anderson, holds the piece of Georgia Etowah marble that has traveled more than 5 million miles into space and back, as he and Raymond DuBois, M.D., Ph.D., receive the official NASA commemorative plaque from astronaut Tim Kopra.

INTELLIGENT DESIGN AND WIDE-OPEN SPACES

At first glance, Houstonians may think an ocean liner has moored near the banks of Brays Bayou. The building at the corner of Braeswood Boulevard and Bertner Avenue is a mix of curves and strong lines, glass and granite, resonating with nautical undertones. And at 25 stories, it's a striking addition to the Texas Medical Center skyline.

Its construction allows MD Anderson to vacate eight leased spaces and unite much of its administrative staff in one place.

From the beginning, institutional leadership and the planners, architects and builders of the MD Anderson Mid Campus 1 Building (1MC) charted a course for innovation. Contemporary interior design, environmental sustainability and technological advances combine to make the first building on the Mid Campus a structure worthy of MD Anderson's mission.

From the lobby to the abundant break rooms, 1MC is light, bright and spacious. But the most notable interior feature is its open office design.

Though traditional offices line the interior corridors of Floors 5-24, more than 75% of 1MC features open office space to encourage a sense of community, communication and collaboration.

Lowered walls allow natural light to penetrate the center of the building. The colors are new, too: bold, vibrant hues are in.

"We surveyed the tenant groups about many aspects of the interior finishes and spaces," says Lawrence Kubacak, project director in the Department of Capital Planning and Management. "The paint and carpet colors are a few of the interior finishes that reflect their feedback, as well as input from senior leadership."

The building boasts several green initiatives. Sun screens deflect light on the east and west elevations while an automated lighting system adjusts the brightness of overhead lights. And a condensate catch system collects water generated as a byproduct of the building's mechanical systems and uses it to irrigate the building's landscaping, saving nearly 170,000 gallons of equivalent city water annually.

To date, several departments have moved into the new building — with more to take up residency in 2012.

— Maggie Newell

MD ANDERSON RETAINS TOP RANKING

For the fifth straight year, MD Anderson is the leading hospital in the nation for cancer care, according to "America's Best Hospitals" survey published annually by U.S. News & World Report magazine.

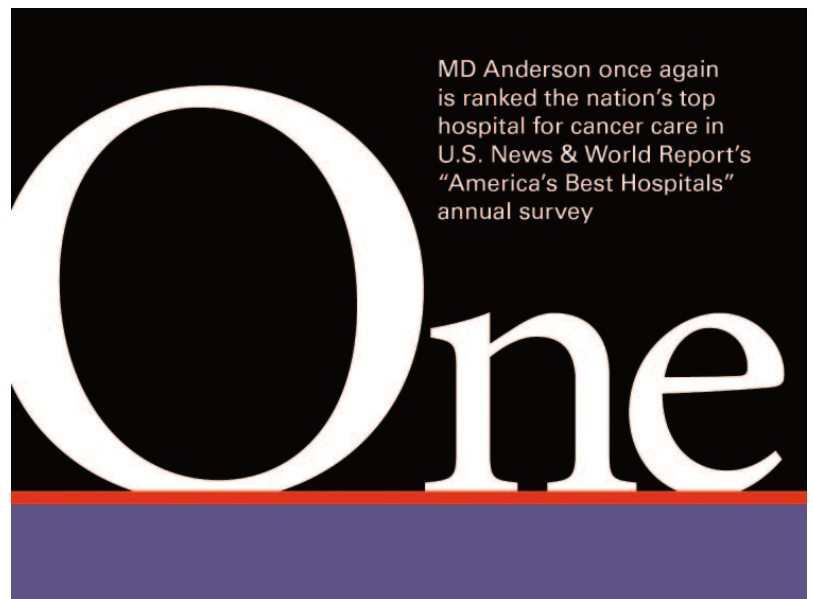
"This top national ranking acknowledges the signature care that our 18,000 employees deliver — and advance — every day," says Thomas Burke, M.D., executive vice president and physician-in-chief.

"We're honored to have our innovative patient care, nursing, clinical trials, research, supportive care and outreach programs recognized among so many great cancer centers in the nation. Our faculty, staff and volunteers share this accolade with our patients, who inspire us all every day."

With this top ranking, MD Anderson has been rated No. 1 eight times in the past decade, and one of the top two cancer hospitals over the 22-year history of the survey.

MD Anderson's gynecology service jumped to No. 6 position in its subspecialty ranking this year, up five slots from last year. Other subspecialties earning national rankings were ear, nose and throat (No. 6), urology (No. 10), gastroenterology (No. 22), and diabetes and endocrinology (No. 28).

— Julie Penne



Scan this QR (quick response) code with your smartphone to see a video that tells you more about MD Anderson's No. 1 ranking, or visit www.mdanderson.org/conquest.



Signs of Hope

By William Fitzgerald

When adversity rules, it's the little things that make a difference

For children diagnosed with cancer, powerful healing therapies don't always come in the form of surgery, radiation or chemotherapy. At MD Anderson, there is a program that relies on something entirely different — art.

For more than 37 years, the MD Anderson Children's Art Project (CAP) has given pediatric cancer patients the opportunity to channel their emotions through artwork. With assistance from volunteers and art instructors, each child works alongside other young patients facing the same reality. The immediate benefit is a supportive and inspiring environment at a time when it's needed most.

"During treatment so much is out of the patient's control, but the time spent creating artwork allows each child to feel empowered," says Shannan Murray, CAP's executive director. "It's a creative outlet that provides a way to look beyond the disease, and this offers the patient hope."

Patients and families notice the benefits

For Emily Garcia, 20, a longtime CAP artist who was diagnosed with osteosarcoma at age 11, cancer was overwhelming to say the least. Part of her treatment required a leg amputation, and, for an avid basketball player and gymnast, this was difficult to accept. During inpatient treatment, Garcia discovered CAP and has since created more than 15 designs.

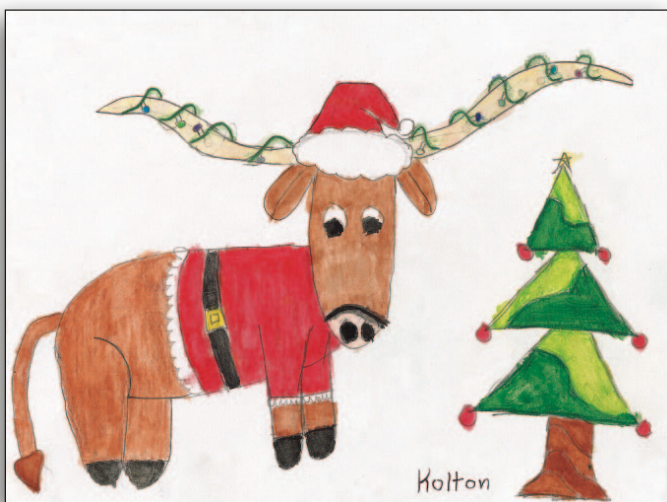
"The project gave me hope that I was able to do something when I felt there was nothing I could do," Garcia says. "When I had to give up sports and I couldn't see my friends, CAP showed me there were other ways to express myself and be who I am."

Samantha Garcia, Emily's mother, noticed an immediate change in her daughter's outlook once she began participating and making friends in the art classes.

"I think CAP gave her a sense of belonging because the kids at school didn't understand what Emily was going through," she says. "It provided a sense of independence, and it's strange to say, but Emily actually looked forward to going to the hospital because of CAP?"

Emily Garcia found that art filled the hole left when cancer made it impossible to continue gymnastics and basketball.





Artwork leads to opportunities

Kolton Lane, 15, who was diagnosed with large cell lymphoma at age 11, is a current designer and best known for his Texas longhorn artwork. He believes the best part about CAP is that it encourages patients to try new things while keeping their minds off harsh treatments like chemotherapy.

One of the most important aspects of CAP is the programs it supports through the sale of gift items and stationery featuring the children's designs. These include an annual rehabilitative ski trip to Utah each January, summer camps and a scholarship fund.

"It's incredible to watch these kids ski down a mountain and realize no obstacle will ever stand in the way of their dreams," Murray says. "This is the epitome of what CAP represents because it's not only inspiring for the patients, but it's also made possible by the very artwork they create."

CAP is indeed a world of transformations — from the blank canvas to one splattered with colorful paint, from the often anxious first-time participant to someone who soon realizes his or her own talent.

For Kolton, this realization came when he uncovered an inner creativity that he never knew existed. Now, he hopes to begin another design and acknowledges it will likely be for a holiday collection.

Perhaps the greatest testimony is seen in the former artists who continue to stay involved, whether as field trip counselors or art instructor volunteers. They recognize that the hope CAP provided during their own cancer experiences should be realized by each young artist.

However, in this hope, there is one commonality that supersedes everything and underscores the real impact.

"At the end of the day, we have to remember all the artists are still kids," Murray says. "They want to do normal things, and CAP offers a way to get through the treatments and come out on the other side."



Kolton Lane enjoys a little pool at Kim's Place, a hangout for adolescents and young adults at MD Anderson.

Moving Forward: Karissa Ma

By Lindsey Garner



October holds special meaning for Karissa Ma. This October, she will celebrate her seventh wedding anniversary, the birth of her first child — and that she is a six-year breast cancer survivor.

In December 2004, Ma discovered a lump during a breast self-exam. Concerned, she made an appointment to see her OB-GYN for a mammogram.

Her doctor said a mammogram wasn't necessary. She was too young, only 30, and had no family history of breast cancer.

Her husband, Erik, thought differently and urged her to insist on one.

On March 2, 2005, after a mammogram and lumpectomy, Ma was diagnosed with stage II breast cancer.

A native Houstonian, Ma knew that there was only one place for her to seek treatment, MD Anderson's Nellie B. Connally Breast Center.

Determined to beat her cancer, she told her oncologist in MD Anderson's Department of Breast Medical Oncology to "give me everything you've got."

She underwent a double mastectomy, followed by five reconstructive surgeries and six months of grueling chemotherapy. Once cancer-free, Ma began a five-year hormone therapy regimen of tamoxifen (Nolvadex®) to reduce her risk of recurrence.

This precaution meant that she and Erik had to postpone their dream of starting a family.

"I was devastated," she says.

A new home with the same care

In 2008, the Mas relocated to Phoenix.

Also moving to the Southwest was MD Anderson, an event that Ma celebrated in September when she gave a patient testimonial at the Banner MD Anderson Cancer Center grand opening.

The 133,000-square-foot outpatient treatment center is located in Gilbert, Ariz., southeast of Phoenix, and was built in collaboration with Banner Health. As MD Anderson's first full clinical extension outside of Greater Houston, it provides comprehensive, integrated and multidisciplinary treatment and care.

"It's comforting to know that MD Anderson is in my backyard," Ma says.

A birth on the horizon

In late 2010, Ma finished her tamoxifen regimen, and she and Erik focused on starting a family.

"After all that we've been through, I still can't believe we're having a baby girl!" she says.

Ma strives to be a sign of hope to other young breast cancer survivors and is involved with the Phoenix affiliate of Susan G. Komen for the Cure® and the Young Survival Coalition™. Through sharing her story, she wants young women to know that "life can go on after cancer."

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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), 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.)

International

Centro Oncológico MD Anderson International España (Madrid, Spain)

MD Anderson Radiation Treatment Center at American Hospital (Istanbul, Turkey)

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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.

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