



THE UNIVERSITY OF TEXAS

MD Anderson ~~Cancer Center~~ Children's Cancer Hospital

YEAR IN REVIEW

FALL 2010

Children's Cancer Hospital
at
The University of Texas
MD Anderson Cancer Center:

George Foreman Pediatric
and Adolescent Inpatient Unit

Robin Bush Child and
Adolescent Clinic

Kim's Place

R.E. (Bob) Smith
Research Facility

Our MISSION

To cure cancer
in children and
young adults within
a caring, life-affirming
environment.

Our VISION

We will offer children
and young adults hope and
an opportunity to lead full
and productive lives. We will
lead the efforts worldwide to
cure cancers through the
excellence and compassion
of our people, research-driven
innovative therapies,
education programs
and active collaboration
with patients, families
and communities.

Contact us at 713-792-5410
8 a.m.–5 p.m. (M–F)
and after hours at 713-792-7090.
Request the on-call
pediatric oncology attending.

We're on the web:
www.mdanderson.org/children
www.mdanderson.org/cchnewsletter

Cell-abrating the use of designer T cells and NK cells

Over the past 40 years, chemotherapy, radiation therapy and surgery
have brought the overall cure rate for childhood cancer to nearly 80%.



However, for
high-risk, relapsed,
and advanced
childhood cancers,
these conventional
therapies have
reached a point of
diminishing returns.

The future of
pediatric oncology
rests in understanding
the mechanisms behind
cancer cells' ability to resist
chemotherapy and develop-
ing new therapies that do
not rely on chemotherapy.
One approach is harnessing
a child's immune system to
be able to fight back against
cancer cells.

Laurence Cooper, M.D.,
Ph.D., far right, joins
physicians from the
pediatric cell therapy
team as they visit a young
patient in the Children's
Cancer Hospital.

At MD Anderson Children's Cancer Hospital, the
pediatric cell therapy team has been investigating the
use of designer T cells and natural killer (NK) cells to tip
the scales in the patient's favor. Immunotherapies that
began in the laboratory are now being translated to
clinical trials for children, with hopes that high-risk patients
will have increased potential to overcome their cancer.

continued on page 2



Cell-abrating continued from page 1 ● ● ● ● ●

Harnessing T cells

T cells are a major source of immune cells that a human body relies on for detecting and destroying abnormal cells. Most times, a patient's cancer learns to disguise itself and hide from the patient's T cells, leaving an ineffective immune system.

Laurence Cooper, M.D., Ph.D., from the Children's Cancer Hospital, has engineered a way to genetically alter T cells so they are tumor specific and have an improved ability to seek out and destroy cancerous cells while leaving normal cells alone. Using a gene transfer approach called Sleeping Beauty, Cooper and his team have introduced an immuno-receptor into human T cells to redirect the cells' specificity to a panel of tumor-cell types. Some of the genetically modified T cells are specific to CD19, a receptor found on B-cell leukemia and lymphoma. As a result, Cooper's team has opened a clinical trial to infuse tumor-specific T cells into patients with these B-cell malignancies.

Having the capability to genetically alter T cells allows MD Anderson researchers to potentially improve the graft-versus-leukemia (GVL) effect after bone marrow transplantation and, in particular, after umbilical cord transplantation. Currently, researchers take a small portion of the umbilical cord blood prior to transplantation and use this as a source of T cells to render them specific for CD19. After a patient receives an umbilical cord transplant, he or she would receive an infusion of the genetically modified T cells to improve the GVL effect. Researchers hope this booster infusion will add another line of defense against any remaining cancer cells.

Expanding NK cells

NK cells are another form of immune cells that the body uses to combat cancer. Researchers at the Children's Cancer Hospital have generated artificial antigen presenting cells (aAPC) that function as nurse cells to grow the number of NK cells within a short period of time. This technology is being adapted for clinical use to expand NK cells in cord blood and peripheral blood.

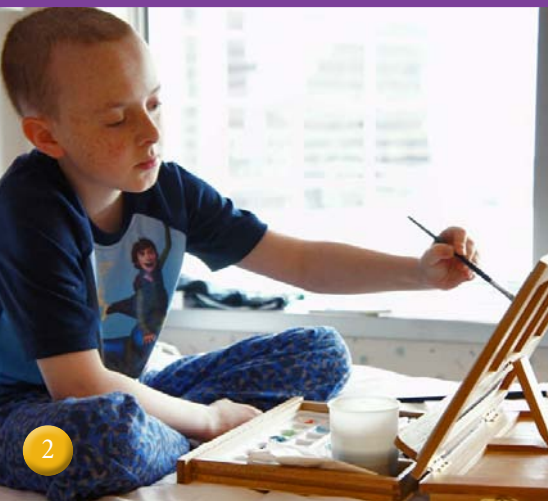
In addition, researchers are investigating ways to attach homing receptors to aAPC to help direct NK cells where they need to go, whether it's the lymph nodes, brain tissue, bone marrow or other areas.

- In the past year, the Children's Cancer Hospital has opened three clinical trials to test the ability of NK cells to prolong event-free survival. Patients are infused with
- NK cells from a related donor for the treatment of
- acute lymphocytic leukemia, acute myeloid leukemia
- and neuroblastoma.

Enhancing the AYA experience

There are a growing number of adolescents and young adults (AYA) being treated with cell therapy and stem cell transplantation at MD Anderson. To better meet the unique needs of this special patient population, the pediatric cell therapy team now oversees the inpatient care of all MD Anderson patients 25 years old and younger needing stem cell transplantation. The Pediatric Cell Therapy Program currently transplants approximately 80 to 90 patients a year.

In addition to the comprehensive medical care tailored to the AYA population, these patients benefit from a variety of specialized services offered through the Children's Cancer Hospital for their age group, such as an in-hospital school and education program, vocational counseling, peer-to-peer interaction, events and an AYA Advisory Council consisting of patients and staff.



Research Wrap-up

Brain Tumors and Neuroblastoma ▶▶▶

Preclinical study shows new chemotherapy combination promotes cell death in neuroblastoma

Published in *Cancer*



High-risk cases of neuroblastoma have poor survival rates and novel therapies are needed. AZ623 is an inhibitor of the Trk receptor tyrosine kinases, which have been implicated in neuroblastoma growth. Researchers [Peter Zage, M.D., Ph.D.](#), left, and [Patrick Zweidler-McKay, M.D., Ph.D.](#), below, studied AZ623 combined with topotecan, an agent already used in most current neuroblastoma treatment regimens, to test their effectiveness against neuroblastoma tumor models.

The pre-clinical study showed that AZ623 induces neuroblastoma tumor cell death in vitro and reduces tumor growth and vascularity in vivo. The combination of AZ623 and topotecan was more effective in reducing tumor growth than either treatment alone. The antitumor effects of AZ623 plus topotecan suggest a novel combination for use in neuroblastoma patients.



Intensive chemotherapy improves survival in pediatric high-grade glioma after gross total resection

Published in *Cancer*

Research led by [Johannes Wolff, M.D.](#), found that HIT-GBM-C chemotherapy after complete tumor resection for high-grade gliomas was superior to previous protocols. A previous HIT-GBM protocol consisted of intensive chemotherapy and simultaneous radiation followed by interferon gamma maintenance treatment. HIT-GBM-C evaluated the effect of a prolongation of the same type of treatment with the addition of valproic acid.

The most important finding in this study is that the overall survival of patients with total gross tumor resection was improved by the HIT-GBM-C treatment regimen, while there was no improvement for treated patients with less than total gross resection. The finding that some treatment protocols resulted in increased survival after complete resection indicates that the infiltrating cells are sensitive to certain types of chemotherapy but not to others. The collective experience shows that complete resection is an important step in treatment but so is chemotherapy, in particular after complete resection, and that resection alone is not enough.

Reirradiation for progressive diffuse intrinsic pontine glioma

Presented at 42nd Annual Congress of International Society of Pediatric Oncology

MD Anderson radiation oncologists have found a way to safely alleviate symptoms in patients with progressive diffuse intrinsic pontine glioma, an aggressive and fatal pediatric brain cancer. Pontine glioma accounts for 10% to 15% of pediatric brain tumors and usually targets children under the age of 10. The median survival for this



disease is less than one year, and patients are subject to multiple neurologic deficits.

Radiation oncologists at MD Anderson led by [Anita Mahajan, M.D.](#), left, have found that giving an additional round of radiation in selected patients after progression is not only feasible, but it can improve painful symptoms and may delay the growth of the tumor for a short time.

Sarcoma ▶▶▶

Prognostic factor discovered for pediatric bone cancer survival and ways to lower costs of care

Presented at 42nd Annual Congress of International Society of Pediatric Oncology

A recent study from the Children's Cancer Hospital has shown the importance of the absolute lymphocyte count (ALC) in predicting the prognosis of pediatric bone cancer patients. This is built on previous studies of other MD Anderson pediatric populations confirming ALC as a prognostic factor.

[Peter Anderson, M.D., Ph.D.](#) below, and other researchers discovered that pediatric osteosarcoma patients with a high ALC after two weeks



of chemotherapy had a 92% survival rate compared to patients with a low ALC who had a 33% survival rate. For Ewing's sarcoma patients with a high ALC at two weeks, their overall survival was 68% compared to an overall survival of 32% for patients with a low ALC. Dexamethasone is often given as an anti-nausea regimen to bone cancer patients. Since it has shown to possibly reduce ALC recovery, MD Anderson clinicians have recommended using other anti-nausea medications that won't affect the ALC negatively.

Also as a part of their study, researchers compared inpatient chemotherapy regimens to outpatient regimens and found that outpatient treatment for osteosarcoma and Ewing's sarcoma was 25% to 35% lower in cost than having the same chemotherapy given inpatient.

● ● ● *continued*

Sarcoma *continued*

Comparison shows inpatient chemotherapy more costly than outpatient delivery

Presented at 42nd Annual Congress of International Society of Pediatric Oncology

Improvements in the delivery of anti-nausea medication and fluid hydration have allowed for some chemotherapy regimens to be administered in an outpatient setting. Although surveys have shown patients prefer outpatient care compared to inpatient care, a new pilot study conducted by the Children's Cancer Hospital has further quantified the benefits of outpatient care, says [Winston Huh, M.D.](#)

The study showed that the costs associated with administering some outpatient chemotherapy are significantly less than delivering a similar therapy in the inpatient setting. Nursing interventions and paperwork were also less in the outpatient setting. The study results showed that some chemotherapy can be delivered to outpatients safely while cutting down on nursing paperwork and overall hospital costs.

Signaling pathway impacts spread of bone cancer and overall survival

Presented at 42nd Annual Congress of International Society of Pediatric Oncology

Researchers have identified an important signaling pathway that, when blocked, significantly decreases the spread of pediatric bone cancer.



In their pre-clinical study, [Dennis Hughes, M.D., Ph.D.](#), left, and other researchers at MD Anderson's Children's Cancer Hospital found that blocking the Notch pathway in bone tumors in mice decreased metastases in the lungs 15-fold. Their research showed that the Notch pathway and Hes1 gene play a key role in promoting the invasion and metastasis of osteosarcoma, the most common form of bone cancer in children.

In addition to Notch and Hes1's role in metastasis, the study unveiled that Hes1 expression can be correlated with a patient's prognosis. The researchers conducted a small retrospective study looking at patient samples, and 39% of patients with high expression levels of Hes1 survived 10 years versus the 60% survival rate for patients who had lower levels.

Pre-clinical study of Imatinib and TRAIL combination shows growth inhibition of Ewing's sarcoma

Published in *Cancer*



There is a crucial need for better therapeutic approaches for the treatment of Ewing's sarcoma. Tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) induces apoptosis in Ewing's sarcoma cells in vitro. However, in vivo, acquired resistance to TRAIL is a major limiting factor. Platelet-derived growth factor receptor-beta (PDGFR-beta) is highly expressed on Ewing's cells.

[Andrea Hayes-Jordan, M.D.](#), left, and Children's Cancer Hospital researchers were able to show pre-clinically that using imatinib mesylate (Gleevec) to inhibit PDGFR-beta in Ewing's cells enhanced the effects of TRAIL, both in vitro and in vivo. The

combination of imatinib mesylate and TRAIL significantly inhibited the growth of primary tumors and decreased the incidence of spontaneous Ewing's pulmonary metastasis compared with either drug alone. The study supports the possibility that combining these treatments will improve anti-cancer therapy for Ewing's sarcoma.

Leukemia/Lymphoma ▶▶▶

MD Anderson zeroes in on better way to predict prognosis in pediatric leukemia patients

Presented at the American Society of Pediatric Hematology/Oncology Annual Meeting

[Patrick Zweidler-McKay, M.D., Ph.D.](#), and other researchers may have found a way to more accurately predict treatment outcomes in young leukemia patients using information from a common and simple complete blood count test, also known as a CBC. The results of a retrospective study illustrated that measuring residual disease (MRD) indicator and the absolute lymphocyte count (ALC) together enable physicians to better predict which patients with acute lymphocytic leukemia (ALL) will remain disease free and who will most likely relapse.

The study was based on 171 pediatric ALL patients and showed that after a month of treatment, patients who were MRD positive with a low ALC had an event-free survival rate of 33% and an overall five-year survival outcome of 41%. However, those who were MRD positive but with a high ALC had an event-free survival rate of 69% and overall five-year survival of 92%. The most positive outcomes come from patients who are MRD negative and have high ALC. These patients have a 99% overall five-year survival.

Novel HDAC inhibitor initiates cell death in pre-clinical studies of acute leukemia

Published in the *International Journal of Cell Biology*



Histone deacetylase inhibitors (HDACi) have become a promising new avenue for cancer therapy, and many are currently in Phase I/II clinical trials for various tumor types. In a recent study led by [Joya Chandra, Ph.D.](#), left, findings show that apoptosis induction and histone alterations by PCI-24781, a novel hydroxamic acid-based HDAC inhibitor, require caspase-8 and the adaptor molecule, Fas-associated death domain (FADD), in acute leukemia cells.

PCI-24781 treatment also causes an increase in superoxide levels, which has been reported for other HDACi. However, an antioxidant does not reverse histone alterations caused by PCI-24781, indicating that ROS generation is likely downstream of the effects that PCI-24781 exerts on histone H3. Taken together, these results provide insight into the mechanism of apoptosis induction by PCI-24781 in leukemia by highlighting the roles of caspase-8, FADD and increased superoxide levels.



Endocrine Tumors ▶▶▶



Children's Cancer Hospital faculty selected as endocrine tumor experts for prestigious textbook

Pediatric endocrinologists [Steven Waguespack, M.D.](#), left, and [Anita Ying, M.D.](#), along with pediatric oncologist, [Winston Huh, M.D.](#), authored a chapter on pediatric endocrine tumors in the Principles and Practice of Pediatric Oncology textbook edited by Philip Pizzo and David Poplack. The chapter appears

in the newest edition of the book, viewed as one of the most credible resources in pediatric oncology.

Multiple endocrine neoplasia virtual clinic opens for families

MD Anderson has opened a new virtual clinic for multiple endocrine neoplasia (MEN) that will offer families a multidisciplinary approach for MEN risk assessment and treatment. Children of parents with the hereditary disease will have access to a team of pediatric endocrinologists, genetic counselors and endocrine surgeons who can monitor children for any signs of the disease and treat it if diagnosed.

First national MEN patient education conference hosted at MD Anderson

Pediatric endocrinologists [Steven Waguespack, M.D.](#), and [Anita Ying, M.D.](#), presented at the first Multiple Endocrine Neoplasia (MEN) patient education conference in the nation. The conference, hosted by MD Anderson, was geared toward families and offered education of genetic testing, diagnosis and treatment for adult and pediatric patients.

Waguespack and Ying were also authors on a comprehensive review of pediatric pheochromocytoma and paraganglioma published in the May 2010 edition Journal of Clinical Endocrinology and Metabolism. Both continue to speak nationally and internationally on a variety of topics related to endocrine tumors and endocrine sequelae of cancer care.

Neurofibromatosis ▶▶▶



Neurofibromatosis Clinic opens new clinical trials for patients

MD Anderson is home to the largest neurofibromatosis program in the country, seeing more than 1,000 pediatric and adult patients a year. Neurologist [John Slopis, M.D.](#), left, and neuropsychologist [Bartlett Moore, Ph.D.](#), right, have collaborated on numerous research studies on the biology of cognitive abilities in neurofibromatosis patients.

As a result, they were able to standardize cognitive testing for school-age patients and develop a guide for school interventions.

Currently, [Slopis](#) and [Razelle Kurzrock, M.D.](#), have clinical trials under way to test two different drugs, one targeting skin tumors and one targeting NF2. In addition, [Dina Chelouche-Lev, M.D.](#), is conducting molecular genetics research investigating the drivers of malignant transformation of neurofibromas.



Patients who receive care at MD Anderson for neurofibromatosis benefit from a comprehensive team including experienced surgeons, pain management experts, nurse practitioners, psychologists, cognitive testing specialists, education specialists, sarcoma oncologists and researchers.

Psychosocial Support ▶▶▶

Problem-Solving Skills Training helps mothers of newly diagnosed patients cope with stress

Presented at 42nd Annual Congress of International Society of Pediatric Oncology

Mothers who have children diagnosed with cancer now have a better approach to address and cope with stresses associated with their child's disease. A new certified intervention, called Problem-Solving



Skills Training (PSST), has proven to be more effective long term compared to other psychological methods, such as reflective listening.

Three months after their child's initial diagnosis, the stress levels of mothers receiving PSST had decreased twice as much as mothers who had no intervention. [Martha Askins, Ph.D.](#), left, from the Children's Cancer Hospital, is a collaborator on the multi-institution study. Her next goal is to adapt the training method to an online program that parents can access from home or when psychological support is unavailable.



Psychosocial and functional comparison of limb-salvage surgery and amputation

Published in the Journal of Pediatric Blood and Cancer



Researchers at MD Anderson Children's Cancer Hospital have completed a study of 57 osteosarcoma patients who received either a limb-salvage surgery or amputation while under treatment at the children's hospital. When comparing emotional and physical outcomes from the surgeries, they found that better leg function was significantly related to better emotional well-being in long-term osteosarcoma patients. In the study, led by [Winston Huh, M.D.](#), [Rhonda Robert, Ph.D.](#), left, and [Norman Jaffe, M.D.](#), right, physical function outweighed the impact of other variables on emotional well-being, including age at diagnosis, duration of treatment, hip involvement, rotationplasty and gender. Late amputation was associated with body image concerns.



The researchers concluded that anticipated physical function outcomes should be emphasized throughout treatment-related decision making for patients with osteosarcoma. Informing patients of long-term survivorship issues and projecting functional needs across their lifespans may inform and guide treatment.

● ● ● continued

AYA and Survivorship ▶▶▶

Factors influencing adherence to follow-up care in childhood cancer survivors

Presented at 42nd Annual Congress of International Society of Pediatric Oncology

Despite their increased risk for late effects and secondary cancers, nearly half of childhood cancer survivors at the Children's Cancer Hospital did not continue follow-up care seven years after their diagnosis.



In their study, Children's Cancer Hospital researchers, led by **Joann Ater, M.D.**, left, found that patients treated with only surgery were highly less likely to return for follow-up care five years after treatment. Survivors of central nervous system cancers or solid tumors other than bone cancers were less likely to adhere to follow-up standards, as well as survivors over the age of 18 without private health insurance. At five years post-diagnosis, African-Americans were significantly less likely to not return for follow-up care. The findings from the study showed the primary factors that influenced compliance to follow-up care.

As a result, a more in-depth analysis of a larger survivor population will be studied. All patients will receive a survivor's guide from MD Anderson called Passport for Care that will include essential information needed for follow-up care. More education will also be given to patients and families before the child turns 18 about the importance of continuity of insurance coverage.

Health behaviors and preferences of childhood cancer survivors

Presented at 42nd Annual Congress of International Society of Pediatric Oncology

Approximately 40% of childhood cancer survivors are overweight or obese, according to researchers at the Children's Cancer Hospital. Led by **Joann Ater, M.D.**, researchers recently studied the health behavior and preferences of Children's Cancer Hospital survivors to determine what can be done to encourage healthier lifestyles.

The study showed that childhood cancer survivors who were overweight or obese were significantly less likely to view their health as good and were much more likely to be worried about their cancer. Overall education about late effects and the importance of maintaining healthy behaviors was low for all survivors, but those who were overweight expressed interest in weight control and getting in shape. Of the 157 survey participants, most preferred a computer-based intervention. As a result, the Children's Cancer Hospital is planning a web-based diet and exercise intervention targeting survivors.

Starting an Adolescent and Young Adult (AYA) Program: some success stories and some obstacles to overcome

Published in the Journal of Clinical Oncology

MD Anderson's **Anna Franklin, M.D.**, left, recently collaborated with multiple institutions to review the best practices used by cancer centers that have implemented an AYA program. This particular age group has unique needs that are not often met by traditional pediatric and adult cancer programs.



The analysis unveiled that the most important factors for the successful establishment of an AYA oncology service are the degree of engagement of both pediatric and adult medical oncologists, the philanthropic support of charities, and the role of dedicated professionals across a range of disciplines in driving the development of services for AYA patients. To improve the patient

experience for its AYA patients, MD Anderson has established an AYA Advisory Council of patients and staff, a fertility clinic, young adult social programs, as well as targeted clinical studies.

Prestigious osteosarcoma expert joins the Children's Cancer Hospital



World-renowned sarcoma specialist **Najat Daw, M.D.**, joined the Children's Cancer Hospital in August as a professor of pediatrics. Bringing a wealth of experience, she will oversee the treatment of pediatric sarcoma patients at MD Anderson as part of

the hospital's new Virtual Osteosarcoma and Ewing's Sarcoma Center.

Daw brings a research background focused on the clinical characteristics, treatment and outcome of osteosarcoma, as well as the development of new agents for pediatric cancers, to MD Anderson. She began her career with a medical degree from the American University of Beirut in Lebanon, but moved to the United States to complete her residency in pediatrics at Baylor College of Medicine in Houston. In 1993, Daw began her postdoctoral fellowship in pediatric hematology/oncology at St. Jude Children's Research Hospital in Memphis, Tenn., and became a full-time faculty member at St. Jude in 1996.

Since that time, Daw has dedicated her career to opening frontline clinical trials for newly diagnosed sarcoma patients. She is a member of the Children's Oncology Group's Developmental Therapeutics Committee, and led an international collaboration with a referral center in Chile to enhance accrual of clinical trials.

"The recruitment of Dr. Daw is crucial to the mission of the Children's Cancer Hospital as we work to improve the survival rate of children with bone cancers," says **Eugenie Kleinerman, M.D.**, head of the Children's Cancer Hospital. "Her clinical expertise and devotion to translational research are coupled with her outstanding compassion for children with cancer. We're excited to have her on our team."



Virtual Osteosarcoma and Ewing's Sarcoma Center

For patients with sarcomas, MD Anderson has long been a leading source for excellent treatment and research expertise. Now, that standard of excellence will be taken to a new level with the creation of the Virtual Osteosarcoma and Ewing's Sarcoma Center.

The Virtual Osteosarcoma and Ewing's Sarcoma Center is a referral center that will oversee the care of children and adults with osteosarcoma and Ewing's sarcoma at MD Anderson. The center provides multidisciplinary care to patients from a variety of specialists as well as access to any relevant protocols available at MD Anderson – all within one center.

How will patients be seen at the center?

Facilitated through MD Anderson Children's Cancer Hospital, the center will be directed by [Peter Anderson, M.D., Ph.D.](#), section chief of sarcoma within the Children's Cancer Hospital. Each patient's case will be reviewed by a committee of pediatric oncologists, medical oncologists and orthopedic surgeons, all of whom specialize in sarcoma care. The committee will confer on a patient's diagnosis, evaluate available protocols and collectively decide on the best treatment plan for the patient. Once a course of treatment is determined, patients will receive care where most appropriate, either within the Children's Cancer Hospital or MD Anderson's adult sarcoma department.

How will the center benefit patients?

Patients referred through the center will benefit from an expert panel of oncologists and surgeons focused on the treatment of osteosarcoma and Ewing's sarcoma. In addition, patients will receive comprehensive care from dedicated specialists, including physical therapists, research assistants, child life specialists for adolescents and young adults, education specialists and psychologists, to improve the overall experience of bone cancer patients.

From this streamlined process of care, enrollment on clinical protocols will be more efficient. Decisions can be made sooner as to which protocols to bring to the frontlines for newly diagnosed patients. In addition, sarcoma researchers will work collaboratively with clinicians to translate their laboratory research into new clinical trials, which will benefit patients with relapsed or refractory sarcomas. Overall, the Virtual Osteosarcoma and Ewing's Sarcoma Center will ensure that all of the extensive resources and expertise at MD Anderson will be available to every patient with these rare sarcomas.

RESOURCES FOR REFERRING PHYSICIANS

PhysicianRelations.org is MD Anderson Cancer Center's online guide for referring physicians.

This guide provides easy access to numerous news features including live MD Anderson Cancer Center news feeds, a live Twitter feed, expanded access to clinical trials information and more:

Faculty Profiles - The online guide contains more than 800 searchable faculty profiles. The profiles are highly detailed and searchable by keyword, department, division, the physician's care center assignments, medical school and training. In an innovative twist faculty members can also choose to provide links to their Twitter or Facebook accounts.

Print on Demand and Custom Guides - Users may download and print a complete version of the pediatric referring physicians guide or add individual faculty members from multiple departments to a custom guide, which can be downloaded in PDF format.

Referral Pathways - The guide makes patient referral and follow-up easy by integrating links to myMDAnderson for Physicians throughout the site. Recent enhancements allow referring physicians to securely access even larger portions of their patient's personal health records and send messages directly to the patient's oncologist. Reports of laboratory test results and pathology reports are available to referring physicians as soon as they are finalized.

Explore the guide at www.physicianrelations.org.

DIVISION OF PEDIATRICS

Academic Office:
713-792-6620

Division Head

Eugenie Kleinerman, M.D.

Deputy Division Head

Robert Wells, M.D.

Adolescent/Young Adult

Anna Franklin, M.D.
Martha Askins, Ph.D.
Michael Rytting, M.D.

Bone Marrow Transplantation

Laurence Cooper, M.D., Ph.D.
Susan Kelly, M.D.
Dean A. Lee, M.D., Ph.D.
Demetrios Petropoulos, M.D.
Laura Worth, M.D., Ph.D.

Brain/Neural Tumors

Joann Ater, M.D.
Vidya Gopalakrishnan, Ph.D.
Michael Rytting, M.D.
Tribhawan Vats, M.D.

Endocrinology

Steven Waguespack, M.D.
Anita Ying, M.D.

Hematology

Deborah Brown, M.D.
Nydra Rodriguez, M.D.

Leukemia/Lymphoma

Robert Wells, M.D.
Joya Chandra, Ph.D.
Anna Franklin, M.D.
Cesar Nunez, M.D.
Michael Rytting, M.D.
Patrick Zweidler-McKay, M.D., Ph.D.

Nephrology

Joshua Samuels, M.D., M.P.H.

Neurology/Neurofibromatosis

Bartlett Moore, Ph.D.
John Slopis, M.D., M.P.H.

Non-Neural Solid Tumors

Peter M. Anderson, M.D., Ph.D.
Najat Daw, M.D.
Nancy Gordon, M.D.
Cynthia Herzog, M.D.
Dennis Hughes, M.D., Ph.D.
Winston Huh, M.D.
Shulin Li, Ph.D.
Eugenie Kleinerman, M.D.
Peter Zage, M.D., Ph.D.

Critical Care

Jose Cortes, M.D.
Rodrigo Mejia, M.D.
Regina Okhuysen-Cawley, M.D.

Pediatric Surgery

Richard Andrassy, M.D.
Mary Austin, M.D.
Charles Cox, M.D.
Andrea Hayes-Jordan, M.D.
Kevin Lally, M.D.
KuoJen Tsao, M.D.

Orthopedic Surgery

Valerae O. Lewis, M.D.
Patrick P. Lin, M.D.
Bryan Moon, M.D.

Neurosurgery

Raymond Sawaya, M.D.
Fred Lang, M.D.
Jeffrey Weinberg, M.D.

Psychology

Martha Askins, Ph.D.
Bartlett Moore, Ph.D.
Rhonda S. Robert, Ph.D.

Survivorship

Joann Ater, M.D.
Winston Huh, M.D.

The Children's Cancer Hospital Newsletter is an educational resource for physicians interested in the treatment, research and prevention of pediatric cancers, produced quarterly from the Division of Pediatrics at The University of Texas MD Anderson Cancer Center.

Division Administrator: David B. Coe

Managing Editor: Gail Goodwin

We welcome your questions and suggestions.

Change of address or other communication regarding this newsletter may be directed to David Coe at 1515 Holcombe Blvd., Unit 087, Houston, TX 77030; 713-792-6620.

The University of Texas
MD Anderson Cancer Center
Division of Pediatrics
1515 Holcombe, Unit 853
Houston, Texas 77030

ADDRESS SERVICE REQUESTED

Non-Profit Org.
U.S. Postage
PAID
Houston, TX
Permit No. 7052



New pediatric surgeon brings her passion to the Children's Cancer Hospital

Mary Austin, M.D., brings her passion for pediatric surgery to the Children's Cancer Hospital where she is a new assistant professor in surgical oncology and pediatrics. Austin will team up with two pediatric oncologists to support one of the largest childhood melanoma programs in the country.

The Duke University graduate earned her medical degree at Vanderbilt University Medical Center in Nashville, Tenn., where she remained to complete her surgery residency. During this time she also received a master's degree in public health from the Vanderbilt University School of Medicine.

Austin then moved to Children's Hospital Los Angeles to complete her pediatric surgery and surgical critical care training. She is board certified in surgery and surgical critical care and board eligible in pediatric surgery.

"My position in the Children's Cancer Hospital is a perfect fit for me," Austin says, "because I believe that children should be taken care of by people who are trained to take care of children. I also enjoy the added bonus of the translational care that comes from the adult side of MD Anderson."

When asked what led her to pursue pediatric oncology, Austin credits relationships, both with her mentors in Los Angeles and the patients she treated. Austin explains that she appreciates the relationships formed with patients and their families and finds it both fascinating and humbling to meet patients at diagnosis and work with them throughout their cancer journey. "It's a unique and special opportunity," she says. "I love this part of medicine."

Austin is enjoying the southern hospitality of Houston that she remembers from growing up in Kentucky. Even though the triathlete misses the California hills for cycling, newlywed Austin plans to continue her hobby of competitive triathlons with her husband and considers Texas a great place to get back into another favorite pastime, horseback riding.



▲ Each year, patients from the Children's Cancer Hospital conquer the mountains on a rehabilitative ski trip to Park City, Utah.

▼ Cesar Nunez, M.D., gets treated by a young patient during a reverse medical play activity during Child Life Month.

