

Department of Pediatrics

2008-2009 Academic Annual Review



The University of Texas Southwestern Medical Center
Children's Medical Center



2008-2009 Academic Annual Review

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Introduction & Chair Activities



George Lister, M.D.
Professor and Chairman of Pediatrics

The Department of Pediatrics at UT Southwestern Medical Center has three major missions:

- The constant effort to improve the standard of practice and the provision of the best quality of patient care to infants, children and adolescents who seek care or are referred to us from North Texas, other regions of the United States or other countries.
- The acquisition of new knowledge in developmental biology and pediatric care through research by pursuing unanswered questions and continuing to test and refine previously established ideas.
- The education of medical students, residents, postdoctoral fellows and other healthcare professionals by transmitting knowledge, instilling excitement for learning, nurturing and recognizing the critical mind, and translating and refining questions raised during the process.

Under the leadership of Dr. George Lister, Professor and Chairman of Pediatrics at UT Southwestern and Pediatrician in Chief at Children's Medical Center, the department is clustered in 17 academic divisions, 16 representing traditional areas of clinical practice and one exclusively research-driven division. Within each clinical division, faculty members practice as a group to provide comprehensive services for their respective areas of expertise. Many faculty direct active research programs or engage in collaborative projects in areas closely aligned with their clinical interests. Each division also has specific educational goals for medical students and residents, and most divisions have fellowship programs aimed at providing education to prepare fellows for academic careers.

Dr. Julio Pérez Fontán, Professor and Vice Chairman of Pediatrics at UT Southwestern and Executive Vice President of Medical Affairs at Children's Medical Center (CMC), had major responsibility for integrating the clinical programs of the Pediatrics department with those of other academic departments who have faculty at CMC, for overseeing the organization of research programs at CMC and for developing the Children's Research Institute. Dr. M. Douglas Baker, Professor of Pediatrics at UT Southwestern and Director of Medical Services at Children's, assisted Dr. Lister with special projects and with oversight of clinical services in the department.

The department continued to grow, with the arrival of new leaders for some divisions and programs, while other division directors assumed new directions or new roles. After an extensive national search, Jeffrey Kahn, M.D., Ph.D., was recruited in May 2009 from Yale Medical School to serve as the Director of the Pediatric Infectious Disease division, to follow the long tenure of Dr. George McCracken in this role. In November 2009, Leticia Castillo, M.D., was recruited from Texas Children's Hospital and Baylor Medical School, and she joined the faculty as Director for the Division of Critical Care Medicine and was appointed the Thomas Fariss Marsh, Jr. Chair in Pediatrics. Dr. Fiona Levy had been serving as Interim Director since January 2008 and returned to her full-time role as Vice President for Quality at CMC.

Three other individuals were recruited to assist or lead major programs in the department. Andrew Koh, M.D., from Boston Children's Hospital and the Dana Farber Cancer Institute, joined the department in July 2009 to direct the Bone Marrow/Stem Cell Transplant Program; Carolyn Cannon, M.D., Ph.D., from Washington University, St. Louis, who has extensive research and clinical expertise in Cystic Fibrosis will be assisting with the further development of this program; and Jeffrey McKinney, M.D., Ph.D., also from Washington University, is serving as the Residency Program Director. Dr. George Buchanan announced his plans to relinquish his position as Director of Hematology-Oncology. He will remain actively engaged in the division.

Forty-three new faculty members joined the department and 27 left UT Southwestern to pursue other opportunities. Recruitment of additional faculty continues in a number of areas to address the increase in demand for clinical services at Children's, at both the Dallas and Legacy campuses, and to build a strong base in both laboratory and clinical research.

In the past year, Dr. Lister created the Texas PASS (pediatric access to subspecialists), a service for primary care providers in North Texas who are seeing Medicaid patients, to provide 24/7 telephone consultation with subspecialty pediatricians and psychiatrists within 30 minutes of a request. This program is an effort to improve access to care for the high number of children who are underserved, to reduce costs for lost time at work or lost days at school, to identify areas for continuing education and to build personal relationships between primary and subspecialty providers.

Dr. Lister also received a large contract from the NICHD to direct the National Children's Study for the Lamar County, Texas, site. As the PI, he developed a collaborative research group, the North Texas Children's Study Coalition, which includes investigators from the UT Southwestern, UT Health Science Center Tyler, UT Health Science Center Houston School of Public Health and Battelle Memorial Institute. Following a competitive application, The Coalition was also awarded a competitive contract from the NICHD to serve as a Vanguard Site for provider-based recruitment.

Faculty



George Lister, M.D., is Professor and Chairman of Pediatrics at UT Southwestern, holder of the Robert L. Moore Chair in Pediatrics and the Pediatrician-in-Chief at Children's. He earned his B.A. from Brown University in 1969 and his M.D., cum laude, from Yale University in 1973, where he was elected to the Alpha Omega Alpha Medical Honor Society in his junior year. While a student at Yale, he was awarded a Bay Area Heart Association Fellowship to work at the University of California-San Francisco (UCSF). Dr. Lister performed his residency in Pediatrics at Yale-New Haven Hospital from 1973 to 1975, where he began his research interest in post-natal adaptation to hypoxia. He performed a fellowship at UCSF and the Cardiovascular Research Institute from 1975 to 1978. His clinical training was in cardiology and neonatology with an interest in practicing in the emerging field of pediatric critical care medicine. He joined the faculty in the departments of anesthesia and pediatrics at UCSF before assuming a position at Yale in 1978, where he rose to Professor of Pediatrics and Anesthesiology. Dr. Lister founded the Section of Critical Care and Applied Physiology, started a fellowship program and was the Chief and the Director of the Pediatric Intensive Care Unit until he left Yale in 2003, when he moved to his current position at UT Southwestern. In addition to his interest in academic development, Dr. Lister is involved in research focused on oxygen transport during postnatal development. In 1992 the National Institute of Child Health and Development (NICHD) appointed him chair of The Collaborative Home Infant Monitoring Evaluation, a multi-center program to study the efficacy of home monitoring for sudden infant death syndrome (SIDS). The research from this program resulted in major changes in the use of home monitoring nationally and internationally, and was the basis for complete revision of the American Academy recommendations. He served in this role for 10 years and received two special awards for leadership by the National Institute of Health (NIH); his clinical studies in this area remain supported by a grant from the NIH.

Dr. Lister has been an active member of national and international academic societies and has served in a number of leadership roles including President of the Society for Pediatric Research, Editor-in-Chief of the journal, *Pediatric Research*, President of the American Pediatric Society, and Councilor and Secretary-Treasurer of the International Pediatric Research Foundation. Dr. Lister has had an active role in a number of other academic activities, such as Chairman of the Critical Care Section of the American Thoracic Society, the SIDS Long-range Planning Committee for the NIH, and the Institute of Medicine Committee on post-market surveillance of pediatric medical devices. He is also a senior editor of *Rudolph's Pediatrics*, and

has authored more than 150 scientific articles. He has served on the sub-board of critical care medicine and was the medical editor for 20 years, beginning with the inception of the board. He served as Chair of the Board of Directors of the American Board of Pediatrics. He also served on the Residency Review and Redesign Committee and serves on the Initiative for Innovation in Pediatric Education, national groups that are reassessing pediatric residency education in the United States.

Dr. Lister has a deep commitment to students, residents and fellows who wish to explore careers in medicine, particularly in academic fields. Toward this end, he directed an NIH-funded training program in Critical Care Medicine for 20 years, helped initiate the Student Summer Research Program, has participated actively in teaching programs in eastern Europe, and served as the clinical director of the M.D.-Ph.D. program at Yale. His presidential address to the Society for Pediatric Research in 1993 was entitled “Development of the Academic Pediatrician,” and to the American Pediatric Society in 2009 it will be entitled “The Complexity of Education in the 21st Century: What Can We Do.”

Among his other honors, Dr. Lister has been elected to membership of the Institute of Medicine of the National Academies and to the Academy of Medicine, Engineering, and Science of Texas. His deep commitment to teaching students, residents and fellows has earned him recognition through receipt of the Francis Gilman Blake Award and the Charles W. Bohmfalk Prize for teaching at Yale Medical School, a Fulbright Fellowship, the Distinguished Career Award of the Critical Care Section of the American Academy of Pediatrics, and the Society for Pediatric Research Maureen Andrew Mentor Award.

Julio Pérez Fontán, M.D., Professor and Vice Chairman of Pediatrics, holds the Joel B. Steinberg, M.D. Chair in Pediatrics and is serving as the Interim Director of Respiratory Medicine at UT Southwestern. He also is Associate Dean for Pediatric Services and Program Development at UT Southwestern and Executive Vice President of Medical Affairs at Children’s. The autonomic nervous system, control of airway smooth muscle and neurogenic inflammation are the focus of Dr. Pérez Fontán’s research. Dr. Pérez Fontán received his medical degree summa cum laude from the Universidad de Santiago de Compostela, Spain, in 1977. He performed his residency in Pediatrics at the Universidad Autonoma de Barcelona from 1978 to 1981, and a fellowship at the University of California and the Cardiovascular Research Institute in San Francisco from 1981 to 1984. Prior to joining the UT Southwestern faculty, Dr. Pérez Fontán was a member of the faculty at the University of California in San Francisco, Yale University and Washington University in St. Louis. He was honored as the Alumni Endowed Professor of Pediatrics at Washington University School of Medicine in 2001.



M. Douglas Baker, M.D., Professor of Pediatrics at UT Southwestern and Director of Medical Services at Children’s, holds the Sara M. and Charles E. Seay Distinguished Chair in Pediatric Medicine. Dr. Baker completed his residency in pediatrics at Children’s National Medical Center in Washington, D.C. After residency training, Dr. Baker engaged in fellowship training in newborn intensive care medicine at the Milton S. Hershey Medical Center in Hershey, Pa., and in pediatric emergency medicine at Children’s Hospital Boston. He is board certified in both pediatrics and pediatric emergency medicine. Dr. Baker has chaired numerous national committees, representing the field of pediatric emergency medicine within the American Academy of Pediatrics and the Ambulatory Pediatric Association. He also is a member of the Society for Pediatric Research and the American Pediatric Society. Dr. Baker has been instrumental in developing pediatric emergency services at Johns Hopkins Hospital in Baltimore, The Children’s Hospital of Philadelphia, Yale-New Haven Children’s Hospital in Connecticut, and at Children’s. He serves as a consultant for training programs in pediatric emergency medicine, and is a nationally recognized expert in the areas of evaluation and management of fever in infants.



New Faculty

- Mahmood Alasmi, M.D., Associate Professor, Neonatal-Perinatal Medicine
- Mohamed Badawy, M.D., Assistant Professor, Emergency Medicine
- Carmen Ballestas, M.D., Assistant Professor, Hematology-Oncology
- Beatrix Bansal, M.D., Assistant Professor, Emergency Medicine
- Amy Barton, M.D., Assistant Professor, General Pediatrics
- John Andrew (Drew) Bird, M.D., Assistant Professor, Allergy and Immunology
- Timothy Brannon, M.D., Assistant Professor, Neonatal-Perinatal Medicine
- Carolyn Cannon, M.D., Ph.D., Assistant Professor, Respiratory Medicine
- Leticia Castillo, M.D., Professor, Critical Care
- Nandini Channabasappa, M.D., Assistant Professor, Gastroenterology
- Kenneth Chen, M.D., Instructor, Hospitalist Medicine
- Steven Copenhaver, M.D., Clinical Associate Professor, Respiratory Medicine
- Jyothsna Gattineni, M.D., Assistant Professor, Nephrology
- Andrew Gelfand, M.D., Clinical Associate Professor, Respiratory Medicine
- Candace Gibbin, M.D., Assistant Professor, Cardiology
- Alexander Gozman, M.D., Assistant Professor, Hematology-Oncology
- Shelby Joseph, M.D., Assistant Professor, General Pediatrics
- Jeffrey Kahn M.D., Ph.D., Professor, Infectious Disease
- Colin Kane, M.D., Assistant Professor, Cardiology
- Muna Khan, M.D., Assistant Professor, Neurology
- Joshua Koch, M.D., Assistant Professor, Critical Care
- Andrew Koh, M.D., Assistant Professor, Hematology-Oncology
- Karen Latour, M.D., Assistant Professor, General Pediatrics
- Eron Linver, M.D., Assistant Professor, Hospitalist Medicine
- Shai Manzuri, M.D., Instructor, Hospitalist Medicine
- Rodica Catrinel Marinescu, M.D., Instructor, Neonatal-Perinatal Medicine
- Timothy McCavit, M.D., Assistant Professor, Hematology-Oncology
- Laura McClendon, M.D., Assistant Professor, Neonatal-Perinatal Medicine
- Donald McCurnin, M.D., Professor, Neonatal-Perinatal Medicine
- Jeffrey McKinney, M.D., Ph.D., Assistant Professor, Infectious Disease
- Adrienne McMillan, M.D., Instructor, Hospitalist Medicine
- Kimberly Mulson, M.D., Assistant Professor, Hospitalist Medicine
- Gayle Murray, M.D., Instructor, Hospitalist Medicine
- Roxana Narat, M.D., Instructor, Hospitalist Medicine
- Lorien Nassi, M.D., Instructor, Rheumatology
- Phuong Nguyen, M.D., Instructor, Hospitalist Medicine
- Raymond Nkwantabisa, M.D., Assistant Professor, Critical Care
- Anna Seong-Hee Pak, M.D., Assistant Professor, Hospitalist Medicine
- Anu Partap, M.D., Assistant Professor, General Pediatrics
- Kalpesh Patel, M.D., Assistant Professor, Emergency Medicine
- Amy Sun Pass, M.D., Assistant Professor, Hematology-Oncology
- Yolande Pengetnze, M.D., Instructor, Hospitalist Medicine
- Carol Podolsky, M.D., Assistant Professor, General Pediatrics
- Meghana Sathe, M.D., Assistant Professor, Gastroenterology
- Luis Segias, M.D., Assistant Professor, Hospitalist Medicine
- Rashmi Shetgiri, M.D., Instructor, General Pediatrics
- Deepa Sirsi, M.D., Assistant Professor, Neurology
- Julide Sisman, M.D., Assistant Professor, Neonatal-Perinatal Medicine
- Geetanjali Srivastava, M.D., Assistant Professor, Emergency Medicine

- Martha Stegner, M.D., Assistant Professor, Hematology-Oncology
- Kathryn Sumpter, M.D., Assistant Professor, Endocrinology
- Cristina Tarango, M.D., Instructor, Hematology-Oncology
- Shirley Tetteh, M.D., Instructor, Hospitalist Medicine
- Mercedes Uribe, M.D., Assistant Professor, Emergency Medicine
- Kathleen Vandiver, M.D., Instructor, Hospitalist Medicine

Faculty Departures

Robert Alisharan, M.D., Assistant Professor, Critical Care Medicine
Rebeca Alvarez-Piantini, M.D., Assistant Professor, General Pediatrics
Hernan Cruz, M.D., Assistant Professor, Neonatal-Perinatal Medicine
Jane Brotanek, M.D., M.P.H., Assistant Professor, General Pediatrics
Christina Dann, Ph.D., Assistant Instructor, Hematology-Oncology
Ami Dharia, M.D., Assistant Professor, General Pediatrics
Reenu S. Eapen, M.D., Assistant Professor, Cardiology
Vidu Garg, M.D., Assistant Professor, Cardiology
Julie Hayes, M.D., Assistant Professor, General Pediatrics
Patricia Hicks, M.D., Associate Professor, General Pediatrics
Bassil M. Kublaoui, M.D., Assistant Professor, Endocrinology
Katherine Madson, M.D, Ph.D., Assistant Professor, Rheumatology
Shai Manzuri, M.D., Instructor, Hospitalist Medicine
Karen E. S. Meador, M.D., M.B.A., Assistant Professor, General Pediatrics
Maria Asuncion Mejias, M.D., Assistant Professor, Infectious Disease
Naveen Mittal, M.D., Associate Professor, Gastroenterology
Gayle M. Murray, M.D., Instructor, Hospitalist Medicine
Monica Patel, M.D., Assistant Professor, Neonatal-Perinatal Medicine
Eneysis Pena, M.D., Assistant Professor, Neonatal-Perinatal Medicine
Stephen Pishko, M.D., Instructor, Hospitalist Medicine
Stephanie Porter, Instructor, Hospitalist Medicine
Octavio Ramilo, M.D., Professor, Infectious Disease
Tia A. Raymond, M.D., Assistant Professor, Cardiology
Felix Shardonofsky, M.D., Associate Professor, Respiratory Medicine
Maria Stephan, M.D., Associate Professor, Emergency Medicine
Daniel Stromberg, M.D., Associate Professor, Cardiology
Scott Williams, M.D., Assistant Professor, Nephrology

Faculty Promotions

Monica Ardura, D.O., Assistant Professor, Infectious Disease
William D. Engle, M.D., Professor, Neonatal-Perinatal Medicine
Andrew Feranchak, M.D., Associate Professor, Gastroenterology
Sunjun Kang, M.D., Assistant Professor, Neonatal-Perinatal Medicine
Matthew Lemler, M.D., Professor, Cardiology
Peter Lockett, M.D., Professor, Critical Care Medicine
Charles T. Quinn, M.D., Associate Professor, Hematology-Oncology
Norberto Rodriguez-Baez, M.D., Associate Professor, Gastroenterology
Zora R. Rogers, M.D., Professor, Hematology-Oncology
Maeve Sheehan, M.D., Associate Professor, Critical Care Medicine
Elizabeth K. Stehel, M.D., Associate Professor, Neonatal-Perinatal Medicine
Joshua Wolovits, M.D., Assistant Professor, Critical Care Medicine
Myra H. Wyckoff, M.D., Associate Professor, Neonatal-Perinatal Medicine

Faculty Recognition

Several faculty members were recognized locally, regionally and nationally for their achievements and potential for contributions by receipt of various important honors and grants.

Clinical Scholars Program

Dr. Timothy McCavit was selected in 2009 by the Department of Clinical Science as a new fellow for the Clinical Scholars Program. Fifteen pediatric faculty members have been honored by receipt of these competitive awards since the program's inception in 2005.

Excellence in Education Awards

Class of 2009 for MS4

- Dr. Myra Wyckoff – Acute Care

Class of 2010 for MS3

- Drs. Jose Aceves and Michael Dowling – Neurology
- Drs. Theresa Barton and Vineeta Mittal – Pediatrics

Class of 2011 for MS2

- Dr. Angela Mihalic – Clinical Medicine

Class of 2012 for MS1

- Dr. James Amatruda – Biochemistry
- Dr. Lewis Waber – Genetics

Major Local and National Recognition

- Dr. Kamal Bharucha received the 2009 President's Research Council Distinguished Young Researcher Award and a K-08 Physician Scientist Career Award.
- Dr. Drew Bird was named Dedman Family Scholar in Clinical Care.
- Dr. George Buchanan received the ASH Mentor Award for clinical science from the American Society of Hematology.
- Dr. Glenn Flores was the recipient of The Millie and Richard Brock Lectureship, Award and Visiting Professorship in Pediatrics from the New York Academy of Medicine.
- Dr. Robert Wiebe was recipient of a Pioneer Award from the Tennessee Emergency Medical Services for Children Foundation.
- Dr. Michihisa Umetani received the 2009 UT Southwestern O'Brien Kidney Research Center Pilot & Feasibility Award
- Drs. Rebecca Gruchalla and David Khan were named among The Best Doctors in Dallas by *D Magazine*.
- Twenty-three faculty were named Texas Super Doctors by *Texas Monthly*.

Many other important achievements and contributions of the faculty are acknowledged throughout this report.

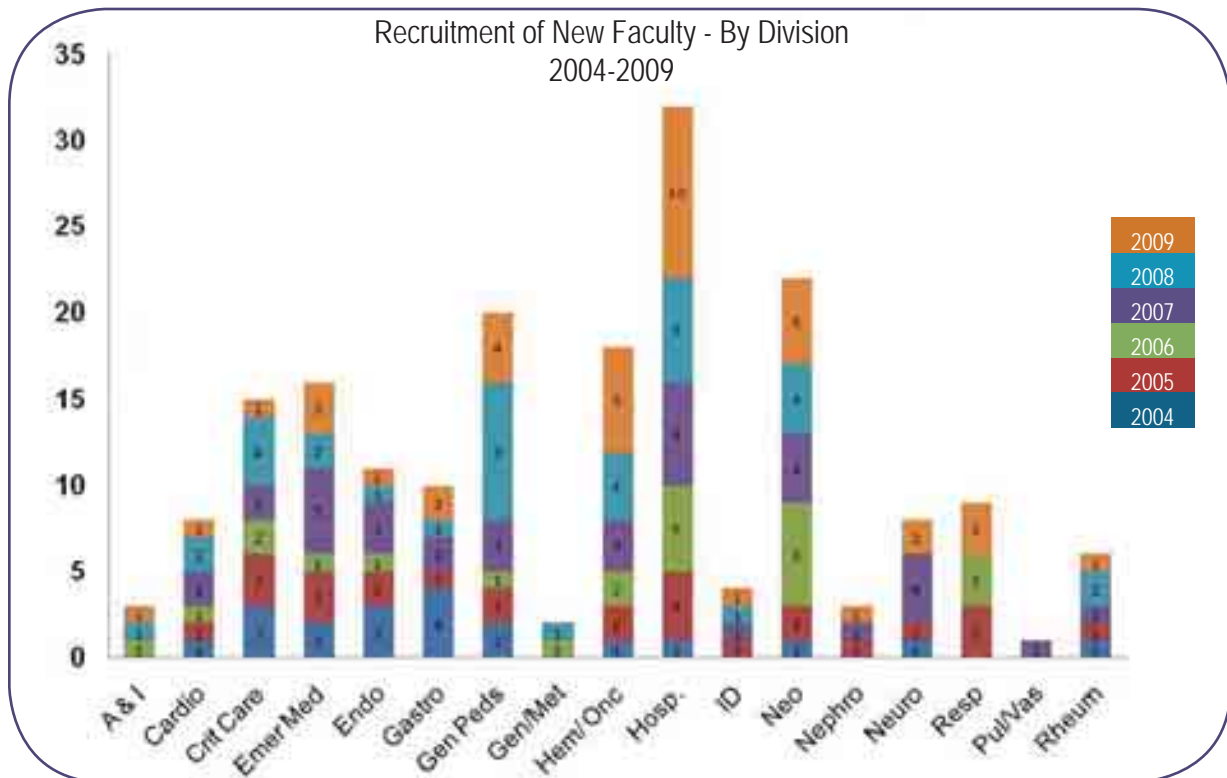
Twenty-eight junior faculty have received mentored research training awards in the past five years, including:

- 14 from K12 Clinical Scholars Program
- 3 from K12 Pediatric Scientist Development Program
- 1 from K12 Critical Care Scientist Development Program
- 10 from K08 Mentored Scientist Awards

Plans for the Coming Year

The department continues to dedicate considerable effort toward recruitment of faculty as the Children's Legacy campus grows in clinical activities and the clinical demands increase at Children's Dallas. As shown in the following figure, the Department has expanded substantially over the past five years and new divisions in Respiratory Medicine, Neurology and Pulmonary and Vascular Biology have been developed.

There will be continued support of entry-level faculty who are selected as Clinical Scholars in the Department of Clinical Science and those applying for extramural mentored research awards. Finally, the medical student, residency and fellowship programs remain major areas of importance for the department and are served by faculty who contribute as educators in a myriad of ways.



Activities of the Chair

Research Activities

- Mechanisms for apnea and bradycardia in infants during cardiorespiratory monitoring
- Response to hypoxia during postnatal development

Presentations/Teaching Activities

- Invited Lecturer, Recent Advances in Neonatal Medicine, Würzburg, Germany, October 2008
- Invited Lecturer, 112th Annual Meeting of the Japan Pediatrics Society, Nara City, Japan, April 2009
- Sixth Annual Fellows' Research Day, Seattle Children's Research Institute, WA, April 2009
- "Presentation of Abstracts and Scientific Talks," Pediatric Academic Societies Meeting, Baltimore, MD, May 2009
- Mattel Children's Hospital UCLA Science Day, Los Angeles, CA, June 2009

Major Administrative or Leadership Responsibilities

- Chair, Research Advisory Committee, American Board of Pediatrics
- Member, Executive Committee, Innovations in Pediatric Education
- Member, Credentials Committee, American Board of Pediatrics
- Member, American Board of Medical Specialties, American Board of Pediatrics
- Member, Long-range Planning Committee, American Board of Pediatrics
- Member, Long-term Investment Committee, American Board of Pediatrics
- Member, Subspecialties Committee, American Board of Pediatrics
- Member, Subspecialties Executive Subcommittee, American Board of Pediatrics
- Member, American Board of Pediatrics Foundation, American Board of Pediatrics
- Member, Joint Committee with AMSPDC, American Board of Pediatrics
- Member, Council of Past Chairs, American Board of Pediatrics
- President, American Pediatric Society
- Associate Director: Training Program in Burns, Trauma and Critical Care (JW Horton, PI: T32 GM 008593), Department of Surgery, UT Southwestern
- Member, Advisory Committee: Duke Research Training Program for Pediatricians (JW St. Geme, PI), Department of Pediatrics, Duke Medical School
- Member, External Advisory Board: Child Health Research Center at Duke University, Center for Molecular and Cellular Studies of Pediatric Diseases (MM Frank, PI: K12 HD 043494), Department of Pediatrics, Duke Medical School
- Member, Advisory Committee: Development of Cardiovascular and Pulmonary Function, (CW Bogue, PI: T32 HL 07272), Section of Critical Care, Department of Pediatrics, Yale Medical School
- Member, Advisory Committee: Cardiovascular Development and Disease in the Young (MR Rosen, PI: T32 HL 076113), Division of Cardiology, Department of Pediatrics, Columbia College of Physicians and Surgeons
- Member, Research Scientific Advisory Committee, Blythedale CMC, New York
- Member, Maureen Andrew Mentorship Award Selection Committee
- Member, Pollin Award Selection Committee
- Member, Program Committee, Pediatric Academic Societies
- Senior Editor, *Rudolph's Pediatrics*, 22nd Edition
- Associate Editor, *Current Opinion in Pediatrics*
- Member, Editorial Board, *Mount Sinai Journal of Medicine*

UT Southwestern Activities

- Member, Search Committee for Dean of Southwestern Medical School
- Member, Executive Clinical Chairs Committee
- Member, Dean's Research Advisory Committee
- Member, Finance Committee
- Member, Advisory Committee, Institute for Innovations in Medical Technologies
- Co-chair, Search Committee for Chair of Psychiatry
- Chair, Task Force on Global Health Programs and Programs Focused on Underserved Populations in the US

Awards and Honors

- Best Doctors in America
- Texas Super Doctor, Texas Monthly

Collaborative Partnership with Premier Facilities

The UT Southwestern Department of Pediatrics offers enhanced opportunities through its close association with three premier teaching institutions:

Children's Medical Center

Parkland Health & Hospital System

Texas Scottish Rite Hospital for Children

In conjunction with UT Southwestern, there is access to state-of-the-art facilities and emerging technologies to provide the highest standard of care for patients.



The University of Texas Southwestern Medical Center at Dallas

Ranked among the top academic medical centers in the world, the UT Southwestern includes among its faculty four Nobel Prize winners, 40 physicians and researchers elected as presidents of their national specialty associations, and three-fourths of Texas' medical members of the National Academy of Sciences – the most prestigious scientific society in America. It is one of the largest academic physician practices in the Southwest, serving as a major referral center for patients with complex diseases and providing care for nearly 97,000 total inpatient visits and approximately 1.7 million outpatient visits annually. A premier research institution pioneering breakthroughs in cardiovascular disease, cancer, neurosciences and women's health, UT Southwestern offers an unsurpassed pediatric heart disease program in association with Children's that achieved the first successful pediatric heart transplant in Dallas in 1988.



Children's Medical Center Dallas

Children's is one of the largest pediatric providers in the nation and is ranked in the Top 30 of "America's Best Children's Hospitals" by U.S. News & World Report. As the primary pediatric teaching facility for UT Southwestern, Children's is the only academic hospital in North Texas dedicated exclusively to the comprehensive care of children from birth to age 18, and it oversees more than 360,000 visits each year. The referral hospital provides care in more than 50 pediatric subspecialties, ranking 15th in cancer care, 26th in digestive disorders, 22nd in heart and heart surgery and 23rd in neurology and neurosurgery. Children's is a major pediatric kidney, liver, intestine, heart

and bone marrow transplant center, and has the only designated Level I trauma center for pediatrics in the Southwest. The institution has committed significant resources to expand its services to accommodate the region's pediatric population growth through the opening of a second campus north of Dallas.

Children's Medical Center Legacy

Opened in 2008, Children's Legacy is an extension of Children's Dallas and serves the growing number of families north of Dallas and beyond. The medical staff includes specialists from UT Southwestern, providing a vast base of talent and knowledge, with services offered in 28 subspecialties, including pediatric cardiology, diabetes, ear/nose/throat, eating disorders, endocrinology, maternal fetal medicine, sleep disorders, sports medicine and urology. The new facility includes four state-of-the-art operating rooms, 24/7 emergency services and full-service laboratory, pharmacy and imaging services.



Parkland Health & Hospital System

For the 16th-consecutive year, *U.S. News & World Report* has named Parkland Health & Hospital System one of "America's Best Hospitals." Parkland's legacy of achievements includes the first certified Level I Trauma Center in the region with 62 percent of trauma cases in Dallas County treated at Parkland. Today the hospital offers Centers of Excellence in burns, cancer, cardiology, endocrinology, epilepsy, gastroenterology, orthopedics, spinal cord injuries, trauma, and women and infants. The Parkland Burn Center is the second largest civilian center

in the United States and is regarded as among the best. A 90-bed Level III Neonatal Care Unit provides the most skilled health professionals and state-of-the-art tools and equipment for 1,200 severely premature infants and neonates annually. More than 50 percent of the doctors in North Texas have obtained formal training at Parkland. From the poor and homeless to the wealthy, Parkland's main hospital, 11 community health centers, 11 youth and family centers, nine women's clinics and four mobile healthcare vans treat one of the largest and most diverse composition of patients in the area.

Texas Scottish Rite Hospital for Children

TSHRC is one of the nation's leading pediatric centers for the treatment of orthopedic conditions, certain related neurological disorders and learning disorders such as dyslexia. Serving Texas children from birth to age 18, the hospital provided care for more than 40,100 clinic visits and performed 2,153 surgeries in 2009. The medical breakthroughs and new technologies developed through TSHRC's research efforts, including the discovery of the first gene associated with idiopathic scoliosis, dramatically impact the lives of children worldwide.



Medical Student



Resident

Fellow





Soumya Adhikari, M.D.
Assistant Professor
Director, Pediatric Clerkship

Soumya Adhikari, M.D., Assistant Professor of Pediatrics at UT Southwestern Medical Center and Director of the Pediatric Clerkship, completed his residency at UT Southwestern/Children’s Medical Center in 2004 and then pursued subspecialty training in pediatric endocrinology through a fellowship at UT Southwestern. During his fellowship, Dr. Adhikari became involved in clinical research in diabetes, leading Children’s involvement in the Type 1 Diabetes TrialNet, a consortium of research centers around the world collaborating on studies aimed at the eventual cure or prevention of type 1 diabetes. He has authored or co-authored two peer-reviewed manuscripts related to his work within the past year. Dr. Adhikari earned his Bachelor of Science degree at the University of Florida in Gainesville in 1996 and received his medical degree from the University of Miami School of Medicine in 2001.

Medical Student Education

As one of four medical schools in the University of Texas system, UT Southwestern accepts approximately 230-240 students annually. The education of these students remains one of the core missions of the Department of Pediatrics. A solid foundation in childhood health and illness has long been recognized as one of the central components of a well-rounded medical education, and the department strives to offer students the opportunity to explore the full breadth of pediatric medical care through their many programs.

At the center of these offerings is the core clerkship in Pediatrics for third-year medical students at UT Southwestern. This required element of the medical curriculum consists of an eight-week rotation through the many care units housed at Children’s, in addition to select locations at Parkland Health & Hospital System and, uniquely, through the offices of select community pediatricians from around the North Texas area who volunteer to participate in student education by hosting medical students in their offices. During this eight-week rotation, students spend four weeks on the inpatient service units at Children’s and another four weeks in various outpatient settings. The inpatient experience is aligned to maximize student participation in all aspects of patient care: students spend two weeks of their time on a general pediatrics ward and two weeks on one of the hospital’s subspecialty wards. The outpatient experience provides trainees a one-week exposure to neonatal care at the newborn nursery in Parkland, two weeks of ambulatory experience focused in the Medical Student Clinic, and the aforementioned opportunity to spend a week at the office of a private general pediatrician in the Dallas community. This latter week provides students a unique perspective into the provision of care outside of a traditional academic teaching environment.



In the Medical Student Clinic (MSC), third-year students work directly with attending physicians from the faculty of the Department of Pediatrics at UT Southwestern and with local pediatricians who volunteer their time. Knowing that patients who present to MSC will only be seen by them and their attending physician provides students a higher level of responsibility than in many other aspects of their 3rd year training. During these two weeks, students also rotate through many of the subspecialty care clinics located throughout the hospital to gain exposure to the full breadth of specialized care provided by staff physicians.

A full curriculum based on the core competencies as published by the Council on Medical Student Education in Pediatrics (COMSEP) is taught through bedside clinical supervision, daily rounds, in addition to various didactic sessions and interactive case-based discussions facilitated by faculty in nearly all the divisions in the Department of Pediatrics. The entire curriculum is reviewed on an ongoing basis based on feedback from medical school faculty, national regulatory agencies and students themselves. Students rotating through the core clerkship continue to outpace national averages on standardized assessments. For the 2008-2009 academic year, UT Southwestern students scored four points above the national average for comparable pediatric clerkships on the National Board of Medical Examiners subject exam in Pediatrics.

Fourth-year medical students at UT Southwestern have more flexibility to tailor their academic schedule to meet individual learning goals. Whether students want to gain a more in-depth exposure to pediatric subspecialties in preparation for an eventual career in pediatrics or just to strengthen their foundation in caring for children in advance of another career path, the department offers numerous opportunities to fourth-year students through the facilities at Children's and Parkland. Students can immerse themselves in acute/intensive care experiences via rotations in the Neonatal Intensive Care Unit, the Pediatric Intensive Care Unit, Cardiovascular Intensive Care Unit and Pediatric Emergency Medicine.

Extended experiences in any of the various subspecialty clinics including Pediatric Hematology-Oncology, Nephrology, Gastroenterology, Endocrinology and others are available for fourth-year students as well. The department also offers, and continues to strive to increase the number of, international-health elective opportunities for students. Medical students rated their experience on their Pediatrics Clerkship in 2008-2009 as overwhelmingly positive. Student feedback from course evaluations has remained consistently positive, specifically as it relates to autonomy, promotion of clinical skills, and preparation for internship. On the 2009 graduation questionnaire, 93.3% of UT Southwestern students rated their educational experience as "good" or "excellent," the highest such combined score for any clerkship in the past 5 years.



Faculty from the Department of Pediatrics also participate, often in leadership roles, in the more didactic curriculum of the first two years of medical school, including such key courses as genetics, biochemistry and medical ethics. Beginning with the 2007-2008 academic year, faculty members in the department also served as mentors in the new colleges system at UT Southwestern. Each mentored a group of six medical students in both first- and second-year classes and delivered curricula such as professionalism and ethics, communication skills like taking patients' histories, diagnostic and physical exam skills, and clinical reasoning and interpretation skills through weekly small group meetings.

The department takes great pride in the quality of teaching provided by the entire faculty. At the 2009 Excellence in Education Annual Reception and Award ceremony, six faculty members in the department received teaching awards. These included two faculty recognized for excellence for their role in the MS1 Preclinical curriculum (James Amatruda and Lewis Waber), an MS2 Preclinical Teaching Award (Angela Mihalic), two Pediatrics Core Clerkship Teaching Awards (Vineeta Mittal and Theresa Barton), and an MS4 Core Clerkship Teaching Award in Acute Care (Myra Wyckoff). Perhaps most telling, 28 students from the graduating medical school class of 2010 have chosen to pursue a career in pediatrics or some combined program including pediatrics.

On the 2009 graduation questionnaire, 93.3% of UT Southwestern students rated their educational experience as "good" or "excellent," the highest such score for any clerkship in the past five years.



Jeffrey McKinney, M.D., Ph.D.
Assistant Professor
Director, Pediatric Residency Program

Jeffrey McKinney, M.D., Ph.D., is Assistant Professor of Pediatrics and the Residency Program Director. He has a B.S.E. in Biomedical Engineering from the University of Iowa College of Engineering. He also received a degree in Physiology at Oxford University as a Rhodes Scholar, followed by M.D. and Ph.D. degrees from the University of Iowa College of Medicine. To seek additional patient and geographic diversity, he was a house officer at Yale New Haven Children's Hospital, where he stayed as an infectious disease fellow and junior faculty member at Yale. Between 1998 and 2003 he received all three of Yale's top service or teaching awards for Pediatric Resident, Fellow and Attending of the Year. He was recruited to the Infectious Diseases faculty at Washington University in St. Louis in 2003, where he was elected Pediatric Teacher of the Year by residents in 2008 and medical students in 2009.

Resident Education

The UT Southwestern Pediatric Residency Program at Children's Medical Center partners with the Department of Pediatrics faculty members to provide broad and deep educational experiences to our 97 house officers. Each division in the Pediatrics Department contributes substantially to the Residency Program in important ways, including educating residents during each rotation, as well as through noon conference didactic presentations, and as teaching mentors for resident-prepared large group lectures in the context of evidence based medicine series, the mortality and morbidity series, and the weekly department-wide featured clinical case teaching conference.

During residency, the residents go through 13 four-week rotations throughout the academic year. The rotations offer the residents their core education in pediatric medicine as practiced in the ER, pediatric ward medicine teams, newborn nursery, neonatal and pediatric intensive care units and subspecialty ward service teams. Training in subspecialty consult services and other specialized training are offered as electives. Learning clinic-based pediatrics with meaningful continuity of care and longitudinal follow up occurs throughout training.

Following years of successful leadership by Dr. Patricia Hicks, Dr. Jeff McKinney stepped into the role of Program Director, in September 2009. Dr. McKinney was recruited from Washington University School of Medicine, where he was Assistant Professor of Pediatrics and Molecular Microbiology, and the recipient of the 2007-2008 Department of Pediatrics Outstanding Teacher Award in General Pediatrics, the 2008-2009 Clinical Teacher of the Year from the Third Year Medical Students, and a March of Dimes Basil O'Connor Award winner.

In keeping the program moving forward in a progressive manner, while still preserving institutional memory and support of prior program initiatives and successes, the program is evaluated twice yearly by multiple stakeholders. These evaluators include our cadre of longitudinal mentors, program leaders, educational leaders within the inpatient and ambulatory areas, and current and future chief residents. Evaluations include resident assessment of rotations and faculty, in-training examination scores, certifying examination scores, duty hours and other ACGME compliance issues, and an in-depth review of educational experiences by all divisions. All divisions meet to discuss resident feedback provided through resident evaluation of rotations.

Pediatric Residency Program Team

The program is led by Jeffrey McKinney, M.D., Ph.D., Program Director, who works closely and collaboratively with the program's two Associate Program Directors, Dorothy Sendelbach, M.D. and Lauren Gore, M.D., and the Program Coordinator, Dawn Bayé, who each brings unique and complimentary talents and insights that are essential to the program and the education of its residents.

The 2009-2010 Chief Residents were Nalinda Charnsangavej, Elizabeth Keyes and Dale Lee. The chiefs are heavily involved in the day-to-day activities of the program and serve as a liaison among faculty members and residents. Chief Resident-focused project development efforts have led to substantial department-wide process improvements in house staff training, patient safety, and the front line use of medical literature and evidence based medicine.

A central element of the Pediatric Residency Program is its longitudinal mentorship actively provided to every resident. The mentor relationship allows residents the one-on-one interaction with a faculty member that guides them through residency, career development, evaluation review, and guidance through individual residents' projects. In 2009, there were 12 faculty members that served as mentors.

Dr. McKinney has inherited one of the largest and most robust residency programs in the nation, a direct legacy of the work of Dr. Patricia Hicks. From this strong existing framework, Dr. McKinney has focused his early innovation efforts on the following:

- Medical Problem Solving Skills Training Pathway Curriculum
- New Electives for Individualized Resident Training & Development
- Procedural Skills Labs
- Institutional Safety and Process Improvements, Developed & Tested by House Officers
- Prolonged Community Advocacy Training
- International and Transnational Medicine Training
- New Models of House Officer Ward Ownership and Autonomy
- New Teaching and Practice Guidelines Distribution Methods - for ready access by house officers
- Dedicated Mentoring of Chief Residents
- Novel Recruiting Strategies and Tactics to Attract UTSW House Officer Candidates
- Vertical integration of UTSW Pediatrics Training across Medical Student - House Officer - Fellow - Junior Faculty Stages



Dorothy Sendelbach, M.D., Associate Professor of Pediatrics and Associate Program Director, received her undergraduate degree in chemical engineering from Rutgers University. She graduated from New Jersey Medical School in Newark. She completed her residency at Children's Medical Center in 1985. She briefly worked in a pediatric emergency room, followed by seven years as a primary care pediatrician in an inner city clinic for the indigent and working poor. For the past 15 years, Dr. Sendelbach has worked in the Department of Pediatrics at UT Southwestern. Her clinical practice is as an attending pediatrician in the newborn nursery at Parkland Memorial Hospital where there are about 15,000 admissions annually and where she serves as medical director. Her interests include breastfeeding promotion, jaundice screening, neonatal abstinence syndrome and pulse oximetry screening. Since 2006, Dr. Sendelbach has served as an Associate Program Director for the Pediatric Residency Program and is the primary leader of the mentorship program, for internal program reviews, and for new electives creation and development. She is part of UT Southwestern's medical student mentoring program, and was honored as the 2009 Physician of the Year among all Parkland physicians.



Lauren Gore, M.D., Assistant Professor of Pediatrics and Associate Program Director, received her undergraduate degree from Texas A&M University. She graduated from UT Health Science Center, where she received her M.D. Dr. Gore completed her residency at UT Southwestern in 2007. She also served as Chief Resident during 2007-2008, which sparked her interest in resident education. She found that she really enjoyed working with multiple different types of resident learners, and being a teacher, role model, and mentor was supremely satisfying. Mentoring is one of her true passions, and Dr. Gore serves as a mentor with the current group of PL2 residents and helps the current chief residents through their year. In her first year as Associate Program Director, she has participated in recruitment of the new intern class, program development, continuity clinic logistics, and mentoring residents during CAT, M&M, and advocacy projects.

Beyond their essential day-to-day roles as teachers, role models, and leaders, the Chief Residents have been central to achieving specific program enhancements. The current Chiefs have incorporated the following into the Program.

Improved Handoffs

- Dr. Keyes developed a more systematic process for patient care handoffs that are built upon robust systems of inter-resident cooperation and quality control. This improved system has allowed for the incorporation of meaningful feedback during handoffs and patient care transitions.

Evidenced Based Medicine (EBM)

- Through intern morning report, Dr. Charnsangavej taught the interns ways to better search for literature on medical cases, a skill that improves the residents' ability to find medical cases on their own. In addition, Dr. Charnsangavej has conducted Clinical Citation Training Sessions, and has partnered with Dr. Claudia DeShay in obtaining faculty level access to the medical library for all house officers, plus rigorous training in effective medical literature search and retrievals using the UT Southwestern Medical Library.



Integration of Technology in Resident Education

- Dr. Lee had developed better portable teaching via the internet media and has moved the program towards using handheld touch screen devices as portable references and teaching tools. Dr. Lee worked at providing good curriculum via the devices which includes web-based teaching, such as suturing skills labs videos, which can be transmitted using so-called “new media” platforms and bandwidth.
- Dr. Lee also developed ethics curriculum that has been an example of thoughtful and insightful teaching and small group learning.

Chief Resident-focused project development efforts have led to substantial department-wide process improvements in house staff training, patient safety, and the front line use of medical literature and evidence based medicine.

Mentor Program

The mentor program was established in 2004 to increase the individualized approach to resident development and pursuit of educational goals. A mentor is assigned to a resident during intern orientation, and that resident/mentor dyad continues throughout the three years of residency training. The mentor is not necessarily intended to be an expert specialist in the particular field of subspecialty training that a resident may choose to pursue. Rather, the mentor's focus is to provide oversight, general counsel and guidance pertinent to the individual in the process of developing as a general pediatrician. The mentors are well positioned within the department to have broad connections to all subspecialty areas so that if a resident is interested in pursuing a particular path with some specificity, such as a research block, that mentor could be of assistance in arranging such interactions.

The 2009-2010 mentors are:

Laura Brumley, M.D.

Matthew Cox, M.D.

Maite de la Morena, M.D.

Becky Ennis, M.D.

Lauren Gore, M.D.

Michelle Hutchison, M.D., Ph.D.

Nancy Kelly, M.D., M.P.H.

Raymond Quigley, M.D.

Dorothy Sendelbach, M.D.

Maeve Sheehan, M.D.

Joel Steinberg, M.D.

Myra Wyckoff, M.D.

Pediatric Residency Program Enhancements

Evidence Based Medicine (EBM)

In order to prepare residents beyond residency, the program understands the importance of Evidence Based Medicine. To assist with the ease of access to residents, the program has:

- Secured faculty-grade UT Southwestern medical library access for all residents
- Intern medical literature search and clinical citation training sessions - led by chief residents, the program director and the department chair
- Junior resident EBM curriculum (critically appraised topics) - led by the program director and EBM faculty cadre
- Senior resident mortality and morbidity root cause analysis conference - led by the program director and M&M faculty cadre
- Department case of the week conference, to include real-time inter-service faculty debates of key decision branch points in patient evaluation and treatments

Electives Development

To continue to enhance the program and rotations, the program developed additional rotation electives. New electives developed include:

- Clinician Educator
- Nutrition
- Camp Physician (at defined subspecialty-specific camps)
- Palliative Care
- Pediatric Hospitalist
- Laboratory Bench Research
- Care of the Immunocompromised Patient
- Medical Safety and Process Improvement

The program also improved the international elective opportunities available to its residents by finding additional international opportunities for residents. In addition, Dr. McKinney secured travel reimbursement funding pathways. Residents are covered by medical emergency evacuation insurance coverage and are now given an emergency medical evacuation card to carry with them at all times when abroad.

Rotation Advancements

Twice a year, Division Directors have the opportunity to review rotation feedback provided by the residents. This allows Division Directors to keep rotation curriculum updated and interesting for the residents. Division Directors and faculty members work diligently at making sure the residents have an in-depth teaching/clinical experience that will allow them to increase their skills and knowledge. Some of the rotations that incorporated substantial changes were:



PICU

- Scenarios in the simulator to allow for increased teaching
- The curriculum has been enhanced to include a PICU manual on CD, containing a compilation of articles and hand outs on common PICU topics
- Educational opportunities were developed that allow residents to attend PICU rotating conference, PICU case conference and PICU resident lectures
- Teaching on rounds will allow for the residents to improve critical thinking, learn to appraise critically by incorporating components of exams, data and studies and give the residents the ability to recognize early signs of physiologic deterioration, a vital skill for every pediatrician

GI

- Development of new lecture series which includes the GI faculty presenting at the Noon Conference and multiple topics including calculating TPN, NGTs, GTUBES, central line and ostomy care.
- There will be an addition of the GI nurse educator to rounds
- The development of good pre and post notes for admissions and daily notes
- Another format, to increase teaching for the residents, was to assign an NP to care for the more critically ill children, which allows residents to be more available for teaching opportunities

Advocacy Projects

During each resident's training, there is an opportunity to do an advocacy project that allows residents with opportunity to develop hospital, community and cultural improvements. Residents are encouraged to cultivate community grass-roots and institutional networks for more sustained advocacy projects. In order to enhance the advocacy experience, the program took a shift in when projects begin and how they will be developed. The project timeframe has been expanded to all three years of residency training. For the incoming 2010-2011 interns, teams will be developed for advocacy projects, to include leaders with pre-existing advocacy expertise.

Samples of the 2009-2010 Advocacy Projects are:

- Improving education regarding vitamin D supplementation in infancy
- School readiness project in outreach clinics
- Palliative care
- Language barriers with general pediatrics, creating a database of area pediatricians who speak foreign languages

- Education/prevention of television tip-over accidents
- Anaphylaxis in school settings
- Focus on water safety/drowning prevention
- Transition of adulthood for chronic patients
- Child abuse screening in the Emergency Room

Intern Recruitment

Intern recruitment saw a 15% increase in applicants interviewed. This year the program once again partnered with Child Neurology offering a joint match for two residents going into Child Neurology. Core Interviewers commit to interviewing the applicants from November to January and provide informative feedback during Core Ranking meetings. This dedication allows the program to welcome 34 new interns in the upcoming 2010-2011 academic year. The core interviewers were:

Douglas Baker, M.D.	Tanya Martinez Fernandez, M.D.	Norberto Rodriguez-Baez
Brad Barth, M.D.	Tim McCavit, M.D.	Zora Rogers, M.D.
Amy Becker, M.D.	George McCracken, Jr., M.D.	Pablo Sanchez, M.D.
Matthew Cox, M.D.	Vineeta Mittal, M.D.	Gaith Semrin, M.D.
Cindy Darnell BOWENS, M.D.	Pam Okada, M.D.	Dorothy Sendelbach, M.D.
Reenu Eapen, M.D.	Ashish Patel, M.D.	Philip Shaul, M.D.
William Engle, M.D.	Reina Patel, D.O.	Kaili Stehel, M.D.
Lauren Gore, M.D.	Marilynn Punaro, M.D.	Marita Thompson, M.D.
Paul Harker-Murray, M.D., Ph.D.	Charles Quinn, M.D., M.S.	Myra Wyckoff, M.D.
Michelle Hutchison, M.D., Ph.D.	Yadira Rivera-Sanchez, M.D.	

Resident Research Projects

Rachel Chesly, M.D.

- For the past two years, Dr. Rachel Chesly has been involved in a research project with Dr. Janna Journeycake, Assistant Professor in Pediatric Hematology-Oncology at UT Southwestern, and Dr. Srinath Chinnakotla, Liver Transplant Surgical Director at Children's, regarding the use of heparin and antithrombin III in liver transplant patients.

Matthew Fletcher, M.D.

- Dr. Matthew Fletcher, along with Dr. Tim McCavit, Assistant Professor in Pediatric Hematology-Oncology, is involved in a study examining the effect of timing of antibiotic administration on outcome in the febrile neutropenic population. The study is a retrospective chart review of all patients presenting to Children's with febrile neutropenia between 2001 and 2009 for the purpose of evaluating if the timing from presentation until the first dose of parenteral antibiotics affects outcome among pediatric patients with cancer and febrile neutropenia.

Presentations

- Troendle D, Troendle S, "Hemosuccus Pancreaticus in a Pediatric Patient with Chronic Pancreatitis," CDHNF-NASPGHAN Clinical Scientific Conference, San Diego, CA, November 2008 (poster presentation)
- Kordy K, Barth B, "Argon Plasma Coagulation for Treatment of Radiation-Induced Hemorrhagic Gastritis," NASPGHAN Annual Meeting, Washington, DC, November 2009 (poster presentation)
- Mitchell SM, Rogers SP, Hicks PD, Hawthorne KM, Parker BR, Abrams SA, "Rickets and Osteopenia are More Common in Infants Less than 600g Birth Weight Than in Those Weighing 600-1000g," Pediatric Academic Societies Meeting, Baltimore, MD, May 2009 (poster presentation)

Publications

Mitchell SM, Rogers SP, Hicks PD, Hawthorne KM, Parker BR, Abrams SA. High frequencies of elevated alkaline phosphatase activity and rickets exist in extremely low birth weight infants despite current nutritional support. *BMC Pediatr.* 2009 Jul 29; 9:47.

Otto EA, Tory K, Attanasio M, Zhou W, Chaki M, Paruchuri Y, Wise EL, Wolf MT, Utsch B, Becker C, Nürnberg G, Nürnberg P, Nayir A, Saunier S, Antignac C, Hildebrandt F. Hypomorphic mutations in meckelin (MKS3/TMEM67) cause nephronophthisis with liver fibrosis (NPHP11). *J Med Genet.* 2009 Oct;46(10):663-70.

Tynismaa H, Ylikallio E, Patel M, Molnar MJ, Haller RG, Suomalainen A. A heterozygous truncating mutation in RRM2B causes autosomal-dominant progressive external ophthalmoplegia with multiple mtDNA deletions. *Am J Hum Genet.* 2009 Aug;85(2):290-5.

Wolf MT, Hoskins BE, Beck BB, Hoppe B, Tasic V, Otto EA, Hildebrandt F. Mutation analysis of the Uromodulin gene in 96 individuals with urinary tract anomalies (CAKUT). *Pediatr Nephrol.* 2009 Jan;24(1):55-60.

Awards

David Troendle, M.D. and Sarah Troendle, M.D.

- Co-recipients, AAP 2009 Community Access to Child Health (CATCH) Grant for our “Resident Oral Health Initiative”

David Troendle, M.D.

- 2008 NASPHGAN Teaching and Tomorrow Scholarship



Pediatric Housestaff
2009 - 2010



Charles R. Rosenfeld, M.D.

Professor

Director, Pediatric Fellowship Education

Charles R. Rosenfeld, M.D., Professor of Pediatrics and Obstetrics/Gynecology in the Division of Neonatal-Perinatal Medicine at UT Southwestern, serves as the Director of Fellowship Education and holds the George L. MacGregor Professorship in Pediatrics. His research focus is on mechanisms modulating uteroplacental and umbilical blood flows, development of the renin-angiotensin system, cardiovascular role of estrogens in pregnancy and fetal-neonatal blood pressure regulation. Dr. Rosenfeld obtained his medical degree from Emory University, Atlanta, Georgia, in 1966. Post-doctoral training included Pediatric Residencies at Yale-New Haven Medical Center, New Haven, Connecticut, 1966 - 1967, and Bronx Municipal Hospital Center and Albert Einstein College Medicine, New York, New York, 1967 - 1970, a Pediatric Pulmonary Medicine Fellowship at Albert Einstein College of Medicine, 1970 - 1971 and a Research Fellowship in Neonatal-Perinatal Medicine at the University of Colorado Medical Center, Denver, 1971 - 1973. He joined the UT Southwestern faculty in July 1973. Dr. Rosenfeld has had continuous NIH funding for more than 30 years and has published more than 160 peer-reviewed manuscripts.

Fellow Education

In January 2005, the department established an interdisciplinary program for subspecialty education. The objective, a work in progress, is to develop a departmental repository of educational and administrative resources and experiences to enrich the opportunities offered by the individual subspecialty training programs. The program is directed by Dr. Rosenfeld, who has more than 35 years experience in postgraduate education and research, in conjunction with the Program Directors, other faculty and, very importantly, the fellows. Central to the program's activities is a bimonthly conference designed to explore and discuss institutional resources, examine approaches and requirements needed to initiate clinical and laboratory research, plan a career and make career choices, present ongoing research by faculty and fellows, and provide a site for social interaction and discussions between trainees from all subspecialties. The program is unique in that much of the ACGME required core curriculum can be achieved in a manner that best meets the needs of each trainee.

During the 2008-2009 academic year, there were 81 subspecialty trainees within the various divisions. Tremendous value is placed on preparing these young pediatricians to undertake careers as clinician-investigators, teachers, subspecialty consultants and, more generally, as contributors to the growing body of knowledge in pediatric medicine and developmental biology. Fellowship education is viewed as the first and most important step in the transfer of the academic mission to the next generation. The last decade has been associated with a substantial change in postgraduate education, prompted by the recognition that the "old" apprenticeship system often shortchanged the education of the trainee in the interest of providing clinical service. This has resulted in guidelines that guarantee the integrity of the educational environment against the demands that the changing healthcare landscape has been applying on academic centers. Although the spirit of these guidelines has been welcomed by the academic community, the balance between clinical responsibility and education remains an issue that is presently in flux.

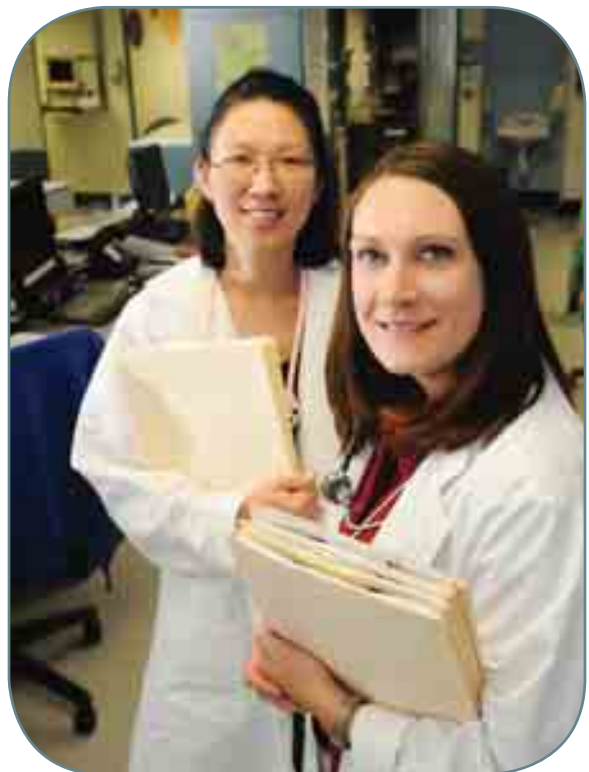
The department, therefore, sees opportunity in this changing educational environment. Key to realizing this opportunity is acknowledging that subspecialty training must accomplish three goals:

1. Prepare future subspecialists cognitively and technically to practice their discipline proficiently using an evidence-based approach
2. Provide analytical skills and critical thinking necessary to confront conditions they may not have previously encountered
3. Engender a desire to advance knowledge and improve care through research and teaching

To facilitate the pursuit of these goals, each division has a training program that provides the clinical experience and research environment for trainees to be exposed to scientific investigation and be taught the means to translate inquiry into scholarship. All subspecialty programs were reaccredited by the Residency Review Committee of the ACGME in 2008 and contain clinical and research experiences in accordance with the guidelines set forth by the American Board of Pediatrics. In compliance with these guidelines, each trainee has a Scholarship Oversight Committee that assists the Program Directors in monitoring each trainee's research experiences.

The Department of Pediatrics encourages its subspecialty fellows to participate in national and local activities that will enhance their education. UT Southwestern's fellows have been recognized for their accomplishments and academic potential by receiving awards and grants from multiple sources. Many fellows also have competed successfully for fellowships from the Pediatric Scientist Training Program and K-awards from the NIH or analogous mentored research grants. The Department and Medical School are committed to encouraging and assisting talented physicians to develop an academic career; to this end, UT Southwestern has created a Physician-Scientist Training Program and a Curriculum in Patient-Oriented Research to help launch the careers of promising trainees.

During the 2008-2009 academic year, there were 81 trainees within the various subspecialty programs in the Department of Pediatrics. Of these, 25 completed their training in June 2009. Thirteen of the 25 assumed academic positions in various medical schools, 69% remaining on the faculty at UT Southwestern. Notably, one trainee chose to do additional training/research, while the remaining trainees entered into clinical practice. Of the graduating fellows, 48% received peer-reviewed funding for their fellowship research project (e.g., the American Academy of Pediatrics) and seven published a peer-reviewed manuscript prior to completing their training. This group also presented 29 abstracts at regional, national or international meetings during their senior year.



The future of pediatric subspecialty training continues to change at UT Southwestern. Separate conferences have been established to meet the individual needs of the 1st year and of the 2nd-3rd year trainees in August and September. Plans have been made to establish a Senior Fellows' Research Day in May 2010, and, starting in 2010, the 2nd year trainees will present their research in the second half of the Core Curriculum in order to receive more timely critical review from their peers and the faculty at an early stage in their research efforts.



Rebecca Gruchalla, M.D., Ph.D.
Director, Allergy & Immunology

The Allergy and Immunology division in the Department of Pediatrics was established approximately seven years ago. The division originated in the Department of Internal Medicine, but now it spans both departments, with four Pediatric-based and two Internal Medicine-based faculty members, each board certified in Allergy and Immunology. Pediatric allergist specialists, Drs. Indulekha Warriar, J. Andrew Bird and William Neaville see children with allergic disorders and asthma at Children's, staffing nine allergy clinics per week. In addition, Dr. Maite de la Morena has established a primary immunodeficiency program at Children's. She sees all inpatient consultations for immunodeficiency disorders and has two clinics per week during which she evaluates patients with these disorders.

Dr. J. Andrew Bird joined the division in July of 2009, focusing primarily on food allergy treatment. He completed two years of Allergy and Immunology fellowship at Baylor College of Medicine in Houston and one year at Duke University Medical Center in Durham, N.C. Since joining

UT Southwestern, Dr. Bird has been awarded with the Dedman Family Scholar in Clinic Care. The Robert H. Dedman Jr. Family Foundation, The Robert and Nancy Dedman Foundation and Mrs. Robert H. Dedman Sr. have given \$2.35 million to launch the new Food Allergy Center, which will open in the spring of 2010. Because of its association with UT Southwestern, Children's Medical Center will have the only academic-affiliated pediatric food allergy center in North Texas. The Food Allergy Center will treat a broad range of allergic diseases in both inpatient and outpatient settings and will be conducting research that is instrumental in developing treatments and therapies.

Dr. David Khan is the Program Director of the Allergy and Immunology fellowship program. Both he and Dr. Rebecca Gruchalla, Division Director, see adults and children with asthma and allergic disorders at the Aston Center at UT Southwestern.

The division continues to participate in both clinical and basic science research efforts. As both a clinical and a mechanistic site in the Inner City Asthma Consortium (ICAC), it continues to expand its research efforts in pediatric asthma. The division also collaborates with various basic scientists on campus: Drs. Michelle Gill, Nitin Karandikar and David Farrar.

In addition to asthma research, the Clinical Immunology Program at UT Southwestern was awarded recognition by the Jeffrey Modell Foundation as a Center of Excellence for diagnosis and treatment of primary immunodeficiency diseases with Dr. de la Morena as its Director. The Immunology Program serves a large geographic referral area encompassing North Texas, eastern New Mexico, Oklahoma, western Louisiana and southern Arkansas. This comprehensive program provides both diagnostic and state-of-the-art treatment opportunities for patients with primary immunodeficiency diseases.

Furthermore, the Immunology Program is committed to the education of physicians and other healthcare providers, trainees, the general public, patients and families regarding diagnosis, manifestation, natural history and treatment of primary immunodeficiency diseases. The first symposium on Primary Immunodeficiency Diseases for the General Practitioner, held in 2008, was sponsored by the Department of Pediatrics and the Office of Continuing Medical Education at UT Southwestern in conjunction with Children's and the Jeffrey Modell Foundation.

Faculty

Rebecca Gruchalla, M.D., Ph.D., Professor of Internal Medicine and Pediatrics, is the Division Chief of Allergy and Immunology at UT Southwestern and holder of the William A. Sellars, M.D. and Joyce M. Sellars Distinguished Chair in Allergy and Immunology. She received her Ph.D. in Immunology in 1981 and her medical degree in 1985 from UT Southwestern and her Bachelor of Science degree from Texas Tech University, Lubbock, Texas, in 1976. Dr. Gruchalla completed her residency in Internal Medicine at The Hospital of the University of Pennsylvania in Philadelphia in 1988 and her fellowship training in Allergy and Immunology at UT Southwestern in 1990. Dr. Gruchalla's clinical interests are focused on anaphylaxis, asthma, drug allergy, mastocytosis and urticaria. In addition to her clinical activities, Dr. Gruchalla is principal investigator of the Inner City Asthma Consortium, Dallas site. This Consortium is a multi-site National Institutes of Health (NIH)-funded consortium that is performing both clinical and mechanistic studies pertaining to pediatric inner-city asthma. In 2007, Dr. Gruchalla was honored with the Gail G. Shapiro Memorial Lectureship and received the Women's Involvement in the American Academy of Allergy, Asthma and Immunology Special Recognition Award. She currently serves on the Board of Directors of the American Board of Allergy and Immunology and on the Editorial Board of the Journal of Allergy and Clinical Immunology. She recently completed a four-year term on the Board of Directors of the American Academy of Allergy, Asthma and Immunology.



John Andrew Bird, M.D.

Assistant Professor, Pediatrics and Internal Medicine
Dedman Family Scholar in Clinical Care

Clinical/research expertise: Food allergy treatment, anaphylaxis, eosinophilic esophagitis, development of oral tolerance

Education: Texas A&M, College Station, B.S. *cum laude*, 1999; UT Health Science Center at San Antonio, M.D., 2003

Post-doctoral training: Baylor College of Medicine, Houston, TX, Intern and Resident, Pediatrics, 2003-2006; Fellow, Allergy and Immunology, 2006-2008; Duke University Medical Center, Durham, NC, Clinical Research Fellow, Food Allergy, 2008-2009



M. Teresa (Maite) de la Morena, M.D.

Associate Professor, Pediatrics and Internal Medicine
Director, Jeffrey Modell Diagnostic Center for Primary Immunodeficiency Diseases

Clinical/research expertise: Primary immunodeficiencies, transplantation

Education: University Complutense De Madrid, Madrid, Spain, M.D., 1983

Post-doctoral training: Hospital Clinico San Carlos, Madrid, Spain, Research Assistant, Surgery, 1983-1986; Hospital General Gregorio Maranon, Research Assistant, Immunology, Madrid, 1986-1987; All Children's Hospital, University of South Florida, St. Petersburg, FL, Fellow, Immunology and Research, 1987-1988; Intern, Pediatrics, 1988-1989; Resident, Pediatrics, 1989-1991; Fellow, Allergy and Clinical Immunology, 1991-1994; Fellow, Clinical Laboratory Immunology, 1994-1995

With the opening of the new Food Allergy Center in the spring of 2010, UT Southwestern and Children's will have the only academic-affiliated pediatric food allergy center in North Texas.

David A. Khan, M.D.

Professor, Internal Medicine

Director, Allergy and Immunology Fellowship Program, UT Southwestern

Director, Asthma and Allergy Clinic, Parkland Memorial Hospital

Clinical/research expertise: Rush immunotherapy, anaphylaxis, mood disorders in asthma, nonallergic rhinitis and alternative therapies for chronic urticaria

Education: University of Illinois School of Medicine, Chicago, M.D., 1988

Post-doctoral training: Good Samaritan Medical Center, Phoenix, AZ, Resident, Internal Medicine, 1988-1991; Mayo Clinic, Rochester, MN, Fellow, Allergy and Immunology, 1991-1994



William Neaville, M.D.

Clinical Assistant Professor, Pediatrics and Internal Medicine

Clinical/research expertise: Asthma and allergies

Education: University of Arkansas at Little Rock, B.S., 1993; University of Arkansas for Medical Sciences, Little Rock, M.D., 1997

Post-doctoral training: University of Arkansas for Medical Sciences and Arkansas Children's Hospital, Little Rock, Resident, Pediatrics, 1997-2000; University of Wisconsin, Madison, Fellow, Allergy and Immunology, 2000-2003



Indulekha Warriar, M.D.

Assistant Professor, Pediatrics and Internal Medicine

Clinical/research expertise: Asthma, allergies, immunology, pharmacology

Education: Medical College, Trivandrum, University of Kerala, India, M.B.B.S., 1991

Post-doctoral training: Trivandrum Medical College Hospital and SAT Hospital, India, Intern, 1990-1991; Ophthalmic Hospital, Trivandrum, India, Graduate Student, Ophthalmology, 1991; Government BJ Medical College, India, Graduate Student, Radiology, 1991-1993; Children's Hospital of Michigan, Wayne State University, Detroit, Resident, Pediatrics, 1994-1997; Fellow, Clinical Pharmacology, 2003-2006; Fellow, Allergy and Immunology, 2005-2006; Research Fellow, Allergy and Immunology, 2007



Post-doctoral Fellows and Clinical/Research Staff

Fellows (Research Interests)

3rd Year

Douglas D. Min, M.D.

- Safety of rush aeroallergen immunotherapy using a modified protocol

Sandeep Reddy, M.D.

- Development of questionnaires for assessing rhinitis and urticaria symptoms and severity

2nd Year

Gene Devora, M.D.

- Immunopathologic changes in nasal polyps following systemic corticosteroids

Eric Kovash, M.D.

- Retrospective analysis of the safety and efficacy of drug challenges
- Review of the efficacy of second generation antihistamines in chronic antihistamines

Robert Silge, M.D.

- Role of microRNAs in T cell development

1st Year

Stephanie Boos, M.D.

- Therapies for management of chronic urticaria

Pooja Paranjpe, M.D.

- Quality of life in food allergic patients

Clinical/Research Staff

Maria Crain, APN

Allergy Clinic-Children's

Cangzhuan (Caroline) Dong

Research Associate

Deborah Gonzales

Clinical Data Specialist

Holly Grannon, RN

Immunology Clinic-Children's

Rebecca Hardy

Senior Research Nurse

Nan Jiang

Research Associate

Kristen Malone, RN

Allergy Clinic-Children's

Brenda Lewis

Clinical Data Specialist

Dolores Santoyo

Research Coordinator

Elizabeth Tschoepe, RN

Allergy & Immunology Clinic-Children's

Research Activities

Under Dr. Gruchalla's direction, the division continues to expand both its clinical and basic science research efforts. As both a clinical and a mechanistic site in the ICAC, it is making significant strides toward its clinical and basic research goals. The current ICAC clinical research study is evaluating the effectiveness of omalizumab therapy in the treatment of inner-city pediatric asthma. Concurrently, the scientific team is working with



colleagues at Mt. Sinai Medical Center in New York City to evaluate the associated mechanisms of this therapy. Basophil activation, FcεRI expression on basophils and T cell proliferative responses to allergens are being evaluated in study participants. Dallas is one of only four (out of eight) sites performing mechanistic studies in the Inner City Anti-IgE Therapy for Asthma (ICATA) study. The division also continues to partner with Dr. Michelle Gill, in the Division of Pediatric Infectious Diseases, whose area of scientific expertise is in evaluating the role of dendritic cells in pediatric respiratory viral infections. Over the past two years, Dr. Gill also has been working with Dr. Gruchalla's group to evaluate the role of dendritic cells in asthma pathogenesis.

In addition to pediatric asthma studies, Dr. David Khan is conducting various research projects, primarily in adults, focused on understanding the mechanisms of nasal polyp disease, mood disorders and asthma, rush immunotherapy and assessment tools for rhinitis and urticaria.

Clinical Activities

Asthma and Allergy

The Asthma and Allergy outpatient clinic is equipped to diagnose and manage the whole spectrum of allergic diseases. There are nine half day clinics per week to provide care for patients. An average of 200 patients are seen per month for diagnosis, including, but not limited to, asthma, allergic rhinitis, atopic dermatitis, food allergies and eosinophilic esophagitis. Procedures such as skin prick testing for environmental allergens, food allergy testing, hymenoptera venom allergy testing and testing for drug allergies are performed by trained personnel. Other services offered are immunotherapy - both traditional and rush - and anti-IgE immunoglobulin administration. The Pulmonary Function Lab is available for spirometry as well as exhaled nitric oxide studies for the evaluation and management of patients with asthma. Providers work closely with educators from the Asthma Education and Asthma Management programs to provide a comprehensive management strategy for patients with severe asthma. Special procedures such as drug challenges and food challenges are also performed in the outpatient clinic.

An active inpatient consult service is available for evaluation of patients with allergic diseases. Consults are usually requested in cases of suspected drug-allergy, anaphylactic reactions and severe asthma.

Immunology

Directed by Dr. de la Morena, the Immunology outpatient clinic at Children's serves as a referral center for primary immunodeficiency diseases for North Texas, southern Oklahoma, Arkansas, Louisiana and New Mexico. Patients with recurrent infections, persistent infections or unusual infections are evaluated for an inherited disorder of immune function. The clinic has expertise for management of all established primary immunodeficiency disorders (>155 disorders currently recognized). Referrals for periodic fever syndromes and evaluations for immunosuppressed states post transplantations also are seen in clinics.



Assisted by clinic personnel Holly Grannon and Elizabeth Tschoepe, more than 500 patients have been seen in the outpatient clinics. The Immunology program currently follows more than 150 established primary immunodeficiency diseases. More than 25 patients receive infusions of gammaglobulin regularly. Inpatient consultation services for evaluation of immunodeficiency are available seven days a week. More than 100 inpatient consults were provided last year.

In collaboration with Drs. Victor Aquino and Jennifer Cox of the Hematopoietic Stem Cell Transplantation (HSCT) team at Children's, 11 patients have received hematopoietic cell transplantation for primary immunodeficiency diseases. All are doing well.

- 1 Interferon-gamma defect
- 1 Chediak Higashi syndrome
- 1 Wiskott Aldrich syndrome
- 2 Hemophagocytic Lymphohistiocytosis (HLH)
- 5 Severe combined immunodeficiencies (SCID)
- 1 Hyper IgM

Presentations/Teaching Activities

The Allergy and Immunology division provides the major instruction to Pediatric residents in the evaluation and management of children with allergic diseases, asthma and immunodeficiency diseases. It also provides didactic teaching for the Pediatric residents on the basics of Allergy and Immunology and directs teaching for the Pediatric residents in the regular departmental clinical conferences and as part of the inpatient consultation service.

An Allergy and Immunology elective is available for Pediatric residents, and fourth-year medical students. The objectives of the elective are to:

- Develop a working differential diagnosis of allergies, asthma and primary immunodeficiencies;
- Learn how to conduct a complete physical exam including the upper and lower airways;
- Examine and discuss patients from all major allergy and immunology categories: allergic rhinitis, asthma, urticaria, drug allergy, food allergy and primary immunodeficiency.

The Pediatric residents see outpatients in our clinics under the supervision of one of the members of the division faculty. Relevant articles about specific allergic and immunologic disorders are provided to residents at the beginning of each rotation and residents attend clinical conferences offering didactic teaching for fellows.

In addition to resident training, the division has one of only 71 accredited programs for fellowship training in Allergy and Immunology. Dr. David Khan is the Program Director.

Rebecca Gruchalla, M.D., Ph.D.

- “Desensitization Protocols for Antibiotics and Other Medications,” AAAAI Annual Meeting, Washington, DC, March 2009
- Medical Microbiology, Antibiotic Hypersensitivity, 1-hour/year 1994-present
- Lectures in Cellular and Molecular Immunology, Immediate Hypersensitivity, 3-hour lecture/discussion/year, 1995-present
- Lectures in Clinical Immunology, Drug Allergy; 1.5-hour lecture/year, 1995-present
- PMH/VA Lectures, several allergy/immunology lectures per year (split with Dr. Khan)

J. Andrew Bird, M.D.

- “Safety of Sublingual Immunotherapy (SLIT) for Peanut Allergy,” European Academy of Allergology and Clinical Immunology Food Allergy Training Course, Castelbrando, Italy, November, 2008
- “Regulatory T-cell Patterns and Cytokine Profiles Suggest the Development of Tolerance in Patients Undergoing Peanut Oral Immunotherapy (OIT),” AAAAI Annual Meeting, Washington, DC, March, 2009 (Poster Presentation – Featured Poster)
- “Food Allergy,” Department of Pediatrics, UT Southwestern, August 2009
- “Food Allergy,” Division of Allergy and Immunology, UT Southwestern, September 17, 2009
- “Food Allergy Update,” In The Loop Kids, Lunch-n-Learn, Dallas, TX, November 2009

M. Teresa (Maite) de la Morena, M.D.

- “The Immune System and the Immunodeficiency Diseases” and “Primary Immunodeficiency Diseases Recognition and Evaluation,” ACAAI 2008 Annual Meeting, Seattle, WA, November 2008
- “Primary Immunodeficiency Diseases,” Pediatric Grand Rounds, UT Tyler, August 2009
- “Primary Immunodeficiency Diseases,” Texas Pediatric Society 2009 Annual Meeting, Dallas, September 2009
- Medical Microbiology Immunology Conference (Block I) Conference Leader, 10-13 students, two hours/year, 2007-present
- Immunology Graduate Program, case studies in immunology one hour/year, 2007-present

David A. Khan, M.D.

- “Allergic Rhinitis with Negative Skin Test,” “Anaphylaxis: Office Management” and “Drug Allergy: A Case Based Approach,” Southwest Allergy Forum, Puerto Vallarta, Mexico, January 2009
- “Update on Drug Allergy Parameter” and “Alternative Therapies in Chronic Urticaria,” Kentucky Allergy Society Meeting, Louisville, KY, March 2009
- “Practice Parameters HEDQ Interest Section Form” and “Alternative Therapies in Chronic Urticaria,” AAAAI Annual Meeting, Washington, DC, March 2009
- “Allergic Rhinitis with Negative Skin Tests,” “Alternative Therapies in Chronic Urticaria” and “Drug Allergy: A Case Based Approach,” Michigan State Allergy Society and University of Michigan, Ann Arbor, March 2009
- “Common Allergic Disorders,” ACP Meeting, Philadelphia, PA, April 2009
- “Update on Drug Allergy Parameters,” Tulsa Allergy Society Meeting, Tulsa, OK, April 2009
- “Cutaneous Drug Allergy,” Mexican Allergy & Immunology Society Meeting, Los Cabos, Mexico, May 2009.
- “Urticaria,” Internal Medicine Grand Rounds, UT Southwestern, June 2009
- “Case Based Drug Allergy” and “Anaphylaxis Management,” Intermountain Allergy Society Meeting, Sun Valley, ID, July 2009
- “Anaphylaxis” and “Drug Allergy,” Monterrey Allergy Meeting, Monterrey, Mexico, July 2009
- “Drug Allergy,” Pediatric Mexican Allergy Society, Acapulco, Mexico, July 2009
- “Drug Allergy, Urticaria/Angioedema,” Primary Care Residents Conference, Austin, TX, August 2009
- “Chronic Urticaria,” Tennessee Allergy Society Meeting, Nashville, August 2009
- “Exercise Induced Asthma,” San Antonio Allergy Society Meeting, San Antonio, TX, October 2009
- “Literature Review: Basic Immunology & Genetics,” “Office-based Challenges for Drug Allergy Symposia” and “Chronic Urticaria Management Symposia,” ACAAI Annual Meeting, Miami, FL, November 2009
- Medical Microbiology, Type 2-4 Hypersensitivity Response; two one-hour lectures/year, 1999-present
- Medical Microbiology, Clinical Immunology Case Presentations; one-and-a-half-hour lecture/year, 1999-present
- Clinical Medicine: Principles and Practice, Anaphylaxis & Rhinitis; one-hour lecture/year, 1999-present
- Graduate Immunology, Type 2-4 Hypersensitivity Responses; one-hour presentation, 2007-present

Major Administrative or Leadership Responsibilities

Rebecca S. Gruchalla, M.D., Ph.D.

- Director, Division of Pediatric Allergy and Immunology
- Member, Scientific Advisory Board, Bioinformatics Information Support Contract, DAIT, NIAID
- Member, Board of Directors, American Board of Allergy and Immunology (ABAI)
- Member, Editorial Board, Journal of Allergy and Clinical Immunology
- Secretary, Board of Directors, ABAI
- Medical Director, Allergy and Immunology Services, Children’s

M. Teresa (Maite) de la Morena, M.D.

- Member, Advisory Committee for the U.S. Immunodeficiency Network Consortium (USIDNet)
- Medical Director of the Jeffrey Modell Foundation Center for Primary Immunodeficiency Diseases at UT Southwestern/Children’s
- Vice-Chair, Primary Immunodeficiency Diseases Committee American Academy of Allergy Asthma and Immunology
- Member, Physician Advisory Committee, Children’s

The Immunology program received national recognition from the Jeffrey Modell Foundation in 2008.

David A. Khan, M.D.

- Program Director, UT Southwestern Allergy and Immunology Fellowship
- Director, Parkland Memorial Hospital, Asthma and Allergy Clinics
- Representative, FADDA Workshop, American Academy of Allergy, Asthma and Immunology
- President, Texas Allergy, Asthma, and Immunology Society
- Chair, In-Training Exam Subcommittee, American Academy of Allergy, Asthma and Immunology
- Vice Chair, ART Resource Development Committee
- Co-chair, ACAAI Allied Health Symposium Committee
- Co-chair, Conjoint Board Review Committee

Awards and Honors

J. Andrew Bird, M.D.

- Travel Grant, AAAAI Annual Meeting, Philadelphia, PA, 2008
- Travel Grant, AAAAI Annual Meeting, Washington, DC, 2009
- Outstanding Abstract Award, American Academy of Pediatrics, 2009
- Named Dedman Family Scholar in Clinical Care, UT Southwestern, July 2009

David A. Khan, M.D.

- Most Entertaining Faculty, UT Southwestern Medical School Class of 2009



William A. Scott, M.D., M.S.
Director, Pediatric Cardiology

The Division of Cardiology has three areas of primary focus: a commitment to advancing scientific discovery through clinical and basic research; provision of the pediatric cardiac service needs of the region; and serving as a resource for both the education of new physicians and the ongoing support of practicing physicians throughout the state.

Research is strongly supported by UT Southwestern's main campus resources, including extensive core facilities for genetic evaluation and both surgical and catheterization suites for large animal studies. Clinical research is further augmented by the Department of Clinical Sciences, with support services for study design, grant preparation and statistical analysis.

The clinical service program benefits from a large referral base, including those from regional, national and international sources in addition to the local Metroplex population. In collaboration with Children's, construction of a new Heart Center is under way to bring all cardiac services together on one floor of the hospital, beginning with a new 20-bed CVICU that opened this year.

The division actively participates in the training of students, residents and subspecialty fellows, which is provided by a diverse cardiology faculty, representing all of the major training programs in the United States.

Three new faculty members joined the division in 2009. Dr. Colin Kane, who recently completed training at Emory University, will support outreach efforts and fellow education. Dr. Shannon Blalock trained in pediatric cardiology at UT Southwestern and, after a one-year fellowship in advanced imaging at Boston Children's Hospital, returned to extend our MRI capabilities and support fetal cardiology. Dr. Candace Gibbin joined the team from Johns Hopkins where she had extensive experience in fetal imaging. Her primary role will be in support of divisional outreach efforts.

Additional faculty recruitments to support expansion in the areas of cardiac transplantation, heart failure and advanced noninvasive imaging are ongoing.

More than 8,000 inpatient, outpatient and diagnostic services were provided in 2009.

Faculty

William A. Scott, M.D., M.S., Professor of Pediatric Cardiology and Clinical Sciences, is the Director of the Pediatric Cardiology program at UT Southwestern. Dr. Scott specializes in cardiac electrophysiology, with clinical interests in catheter ablation, pacemaker and defibrillator management, syncope and noninvasive evaluation. His research involves arrhythmia diagnosis and management, cardiac involvement in neuromuscular disease, epidemiology of congenital heart disease, heart rate variability and pacemaker device therapy. Dr. Scott graduated from the University of Notre Dame, Indiana, with a Bachelor of Science degree in 1978 and the University of Michigan, Ann Arbor, with an Master of Science degree in clinical research design and statistical analysis in 1988. He received his medical degree from the Indiana University School of Medicine, Indianapolis, in 1982 and was a resident in the Pediatrics department from 1982 to 1984 and Chief Resident from 1984 to 1985. He held a fellowship in Pediatric Cardiology and Electrophysiology at the University of Michigan from 1985 to 1988. Dr. Scott was honored by inclusion in the Best Doctors of America database from 2003 through 2009.



Aliessa Barnes, M.D.

Assistant Professor

Clinical expertise: Congenital heart disease, ECHO, transplantation, cardiomyopathy, cardiac transplantation, fetal echocardiography.

Research expertise: Transplantation, echocardiography

Education: Southwestern University, Georgetown, TX, B.S., 1996; UT Southwestern, M.D., 2001

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2001-2004; UT Southwestern, Fellow, Pediatric Cardiology, 2004-2007



Shannon Blalock, M.D., M.S.P.H.

Assistant Professor

Clinical expertise: Fetal echocardiography, cardiac MRI, pulmonary arterial hypertension

Research expertise: Maladaptive ventricular changes in systemic right ventricles and pulmonary arterial hypertension

Education: University of Notre Dame, South Bend, IN, B.A., 1996; Texas A&M University College of Medicine, Temple, M.D., 2002

Post-doctoral training: University of Arkansas for Medical Sciences, Little Rock, Resident, Pediatrics, 2002-2005; UT Southwestern, Fellow, Pediatric Cardiology, 2005-2008; Children's Hospital, Boston, MA, Senior Fellow, Advanced Imaging, 2008-2009



Sarah Blumenschein, M.D.

Clinical Associate Professor

Clinical expertise: Cholesterol, congenital heart disease, hyperlipidemia, obesity, lipid disorders

Education: Wellesley College, MA, B.A., 1960; Cornell University Medical College, New York, NY, M.D., 1964

Post-doctoral training: New York University, Bellevue Hospital, Intern, Pediatrics, 1964-1965; Johns Hopkins Hospital, Harriet Lane Clinic, Baltimore, MD, Resident, Pediatrics, 1965-1966; University Medical Hospital, Durham, NC, Fellow, Pediatric Cardiology, 1966-1969



Michael Day, M.D.

Assistant Professor

Clinical expertise: Pediatric cardiology

Research expertise: Endocarditis

Education: University of Tennessee at Knoxville, B.S., *magna cum laude with honors*, 1997; UT Southwestern, M.D., 2001

Post-doctoral training: Brown University, Hasbro Children's Hospital, Providence, RI, Resident, Pediatrics, 2001-2004; Chief Resident; 2004-2005; Boston Children's Hospital, MA, Fellow, Cardiology, 2005-2007; Chief Fellow, Cardiology, 2007-2008



V. Vivian Dimas, M.D.

Assistant Professor

Clinical expertise: Interventional cardiology

Research expertise: Interventional cardiology and novel techniques, long-term post operative outcomes

Education: Southern Methodist University, Dallas, TX, B.A., *cum laude*, 1992; University of Oklahoma College of Medicine, Norman, M.D., 1999

Post-doctoral training: University of Oklahoma Health Sciences Center, Norman, Resident, Pediatrics, 1999-2002; Baylor College of Medicine, Houston, TX, Fellow, Cardiology and Interventional Cardiology, 2002-2006

Reenu Eapen, M.D.

Assistant Professor

Clinical expertise: Congenital cardiac disease, fetal and postnatal echocardiography, myocardial function, magnetic resonance imaging (MRI), adriamycin cardiotoxicity**Education:** University of Dayton, OH, B.S., *cum laude*, 1990; Ohio State University College of Medicine, Columbus, M.D., 1994**Post-doctoral training:** Columbus Children's Hospital, OH, Resident, Pediatrics, 1994-1997, Chief Resident, Pediatrics, 1997-1998; UT Southwestern, Fellow, Pediatric Cardiology, 1998-2001; Baylor College of Medicine, Houston, TX, Fellow, Pediatric Cardiology Imaging, 2001-2002**David Fixler, M.D.**

Professor

Dr. Fred S. Brooksaler Professorship in Pediatrics

Clinical expertise: Congenital heart disease, transplantation**Research expertise:** Epidemiology of congenital heart disease, childhood hypertension**Education:** University of Notre Dame, IN, B.S., 1960; University of Chicago Pritzker School of Medicine, M.D., 1964; University of London School of Hygiene and Tropical Medicine, M.Sc., Epidemiology, 1982**Post-doctoral training:** Northwestern University Medical School, Children's Memorial Hospital, Chicago, IL, Resident, Pediatrics, 1964-1966; Fellow, Pediatric Cardiology, 1966-1967; University of California at San Francisco Cardiovascular Research Institute, NIH Post-doctoral Research Fellow, Pediatric Cardiology, 1969-1971**Vidu Garg, M.D.**

Assistant Professor

Clinical expertise: Congenital heart disease**Research expertise:** Genetics of congenital heart disease, molecular basis of normal and abnormal cardiac development**Education:** Penn State University, University Park, B.S., 1992; Jefferson Medical College of Thomas Jefferson University, Philadelphia, PA, M.D., 1994**Post-doctoral training:** Nationwide Children's Hospital, Columbus, OH, Resident, Pediatrics, 1994-1997; UT Southwestern, Fellow, Pediatric Cardiology, 1997-2000; UT Southwestern, Fellow, Cardiac Development and Genetics, 2000-2002**Candace L. Gibbin, M.D.**

Assistant Professor

Clinical expertise: Echo, fetal echocardiography, preventive cardiology, Kawasaki Disease, outpatient pediatric cardiology**Research expertise:** Fetal echocardiography**Education:** Lynchburg College, VA, B.S., 1970; University of North Carolina, Chapel Hill, M.S.P.H., 1972; Medical College of Virginia, Richmond, M.D., 1976; Johns Hopkins University, Baltimore, MD, Certificate in the Business of Medicine, 2000**Post-doctoral training:** Georgetown University Medical Center, Washington, DC, Intern, Pediatrics, 1977-1978; Emory University, Atlanta, GA, Resident, Pediatrics, 1978-1979; Chief Resident, Pediatrics, 1979-1980; Children's Hospital National Medical Center, Washington, DC, Fellow, Pediatric Cardiology, 1988-1991



Lisa Heistein, M.D.

Assistant Professor

Clinical expertise: Congenital heart disease, fetal echocardiography, pediatric echocardiography

Research expertise: Echocardiography

Education: Case Western University, Cleveland, OH, B.A., *summa cum laude*, 1994; Ohio State University College of Medicine, Columbus, M.D., 1998

Post-doctoral training: Ohio State University & Children's Hospital, Columbus, Resident, Pediatrics, 1998-2001; UT Southwestern, Fellow, Pediatric Cardiology, 2002-2005; Fellow, Pediatric Echocardiography, 2005-2006



Catherine Ikemba, M.D.

Assistant Professor

Clinical expertise: Noninvasive imaging including transthoracic, transesophageal, and fetal echocardiography, perinatal cardiology and counseling

Research expertise: Noninvasive cardiac imaging, psychological impact of prenatal diagnosis

Education: University of California, Los Angeles, B.S., 1991; University of Southern California School of Medicine, Los Angeles, M.D., 1996

Post-doctoral training: Albert Einstein College of Medicine, Bronx, NY, Resident, Pediatrics, 1996-1999; Baylor College of Medicine, Houston, TX, Fellow, Pediatric Cardiology, 1999-2002; Fellow, Pediatric Cardiology Noninvasive Imaging, 2002-2003



Colin E. Kane, M.D.

Assistant Professor

Clinical expertise: General pediatric cardiology, echocardiography, fetal echocardiography

Research expertise: Web-based distance medical education

Education: Bucknell University, Lewisburg, PA, B.Sci., 1996; Loyola University, Stritch School of Medicine, Maywood, IL, M.D., 2002

Post-doctoral training: Christiana Care Health System, Newark, DE, Resident, Internal Medicine & Pediatrics, 2002-2006; Emory University School of Medicine, Atlanta, GA, Fellow, Pediatric Cardiology, 2006-2009



Matthew Lemler, M.D.

Associate Professor

Clinical expertise: Congenital heart disease, echocardiography, non-invasive imaging, fetal echocardiography, single ventricle palliation

Research expertise: Aspirin resistance in pediatrics, long-term chemotherapy toxicity, sedation

Education: UT Austin, B.B.A., 1985; UT Medical Branch at Galveston, M.D., 1989

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1989-1992, University of Colorado Health Science Center, Denver, Fellow, Pediatric Cardiology, 1992-1995; Fellow, Echocardiography, 1995-1996

George Lister, M.D.

Professor and Chairman, Department of Pediatrics
Robert L. Moore Chair in Pediatrics

Clinical expertise: Cardiopulmonary interaction

Research expertise: Cardiovascular and hematologic development, SIDS

Education: Brown University, Providence, RI, B.A., 1969; Yale University School of Medicine, New Haven, CT, M.D., 1973

Post-doctoral training: Yale University School of Medicine, New Haven, CT, Resident, Pediatric Medicine, 1973-1975; University of California San Francisco, Cardiovascular Research Institute, Fellow, Pediatric Cardiology and Neonatology, 1975-1978

**Lynn Mahony, M.D.**

Professor

Clinical expertise: Congenital heart disease, congestive heart failure, Marfan syndrome, student athlete pre-participation evaluation

Research expertise: Clinical trials and other studies examining short- and long-term outcomes for patients with congenital heart disease including quality of life

Education: Massachusetts Institute of Technology, Cambridge, B.S., 1972; Stanford University School of Medicine, CA, M.D., 1975

Post-doctoral training: Stanford University Medical Center, CA, Resident, Pediatrics, 1975-1978; University of California at San Francisco, Fellow, Pediatric Cardiology, 1978-1981; Cardiovascular Research Institute, Fellow, Research, 1978-1981

**Alan Nugent, M.D.**

Associate Professor

Clinical expertise: Pediatric cardiology, interventional catheterization, cardiovascular intensive care

Research expertise: Interventional cardiology

Education: The University of Melbourne, Australia, M.B.B.S., 1991

Post-doctoral training: Austin Hospital, Melbourne, Intern, 1992; Royal Children's Hospital, Melbourne, Resident, Pediatrics, 1993-1995; Fellow, Pediatric Cardiology, 1996-1999; Children's Hospital, Boston, MA, Fellow, Pediatric Cardiology, 1999-2002

**Claudio Ramaciotti, M.D.**

Associate Professor

Clinical expertise: Congenital heart disease, Duchenne muscular dystrophy, echocardiography, ventricular function, patent ductus arteriosus in extreme low birth weight infants

Research expertise: Congenital heart disease, echocardiography

Education: Universidade Federal do Rio de Janeiro, Brazil, undergraduate, 1972; Universidade Federal do Rio de Janeiro, Brazil, M.D., 1977

Post-doctoral training: Universidade Federal do Rio de Janeiro, Intern, Pediatrics, 1976-1977; Hospital dos Servidores do Estado, Rio de Janeiro, Resident, Pediatrics, 1978-1979; Chief Resident, Pediatrics, 1979; Emory University, Atlanta, GA, Intern and Resident, Pediatrics, 1987-1989; School of Pediatric Cardiology of the Institute of Child Health, University of London, England, Fellow, Pediatric Cardiology, 1982-1984; University of California at San Francisco, Research Fellow, Pediatric Echocardiographic Laboratory, 1984-1985; Children's Hospital of Philadelphia, PA, Fellow, Pediatric Cardiology, 1989-1992; Fourth Year Fellowship, Pediatric Cardiology, 1992-1993





Tia Raymond, M.D.

Assistant Professor

Clinical expertise: Congenital heart disease, intensive care unit (ICU)-pediatric critical care medicine, cardiopulmonary resuscitation

Research expertise: Cardio resuscitation

Education: Pepperdine University, Malibu, CA, B.S., 1992; UT Southwestern, M.D., 1996

Post-doctoral training: UT Southwestern/Children’s, Resident, Pediatrics, 1997-1999; Baylor College of Medicine, Houston, TX, Fellow, Pediatric Cardiology, 1999-2002; Fellow, Pediatric Cardiac Intensive Care, 2002-2003



Daniel Stromberg, M.D.

Assistant Professor

Clinical expertise: Congenital heart disease, ICU-pediatric critical care medicine, heart disease/cardiopulmonary bypass, cardiopulmonary resuscitation

Research expertise: Cardiopulmonary resuscitation, post operative outcomes

Education: Princeton University, NJ, A.B., 1986; University of California, San Francisco School of Medicine, M.D., 1990

Post-doctoral training: University of California, San Francisco Medical Center Resident, Pediatrics, 1990-1993; Chief Resident, 1993-1994; Texas Children’s Hospital-Baylor, Houston, Fellow, Pediatric Cardiology, 1994-1998; Fellow, Pediatric Cardiac Transplant, 1995-1998; Fellow, Pediatric Cardiac Critical Care, 1997-1998



Thomas Zellers, M.D.

Professor

Kathryne and Gene Bishop Distinguished Chair in Pediatric Care at Children’s

Clinical expertise: Interventional cardiology and novel techniques, congenital heart disease

Research expertise: Interventional cardiac catheterization and the role of interventional procedures and devices in congenital heart disease

Education: Wabash College, Crawfordsville, IN, 1977; University of Dallas, B.A., *cum laude*, 1979; UT Southwestern, M.D., 1983

Post-doctoral training: University of Virginia Children’s Medical Center, Charlottesville, Resident, Pediatrics, 1983-1986; Mayo Clinic and Mayo Foundation, Rochester, MN, Fellow, Pediatric Cardiology, 1986-1989; Baylor College of Medicine and Texas Children’s Hospital, Houston, Fellow, Interventional Catheterization, 1997



Ilana Zeltser, M.D.

Assistant Professor

Clinical expertise: Interventional cardiology, cardiac electrophysiology, cardiovascular screening, post-pericardiotomy syndrome, sports medicine

Research expertise: Interventional cardiology, post-pericardiotomy syndrome

Education: Columbia University, New York, NY, B.A., 1993; New York University School of Medicine, M.D., 1997

Post-doctoral training: Mount Sinai Hospital Medical Center, New York, NY, Resident, Pediatric Medicine, 1997-2000; Children’s Hospital of Philadelphia, PA, Fellow, Electrophysiology, 2003-2004; Fellow, Pediatric Cardiology, 2000-2003

Post-doctoral Fellows and Clinical/Research Staff

Fellows (Research Interests)

4th Year

Tejas Shah, M.D.

- Heart transplantation

Suren Reddy, M.D.

- Interventional cardiology

3rd Year

Poonam Punjwani, M.D.

- Patent ductus arteriosus in preterm infants

Ashleigh Richards, M.D.

- Genetics of cardiovascular disease

2nd Year

Adrian Dyer, M.D.

- Rejection in pediatric cardiac transplant patients

Jason Imundo, M.D.

- Cardiac electrophysiology

Jeremy Affolter, M.D.

- Cardiac Critical Care

1st Year

Preetha Balakrishnan, M.D.

- Cholesterol

Arshid Mir, M.D.

- Aspirin resistance (pharmacodynamic) treated with low dose aspirin after systemic pulmonary shunts in single ventricle patients

Clinical/Research Staff

Asha Acharya, Ph.D.

Postdoctoral Researcher

Meenakshi Maitra, Ph.D.

Postdoctoral Researcher

Haley Nichols, B.S.

Research Assistant

Hubert Pan, B.S., M.S.

Clinical Research Associate

Nita Sachan, Ph.D.

Postdoctoral Researcher

Tre Welch

Senior Research Scientist – CardioThoracic Surgery

Research Activities

The division had diverse research accomplishments. Dr. Vidu Garg continued investigation of the molecular biology of congenital heart disease with a specific interest in left heart obstructive lesions in addition to continuing his National Institutes of Health (NIH)-funded work on cardiac septation and March of Dimes-supported investigation of the role of GATA4 in congenital heart disease. The NIH-funded Pediatric Heart Network was led by Dr. Lynn Mahony and prominent results included the SVR trial to compare approaches to stage I Norwood therapy. Dr. Claudio Ramaciotti oversees investigations into the natural history of the ductus arteriosus in premature neonates. Dr. Thomas Zellers directs follow-up studies for a variety of catheter based interventions including ASD closure devices and Dr. Vivian Dimas is investigating the results of stent placement for patients with coarctation. A pilot study of the utility of screening athletes with electrocardiography and echocardiography was completed by Dr. Ilana Zeltser.



Clinical Activities

Pediatric Cardiology faculty provided more than 8,000 inpatient, outpatient and diagnostic services in 2009. Inpatients with cardiac disease receive care in the 20-bed CVICU and a 22-bed telemetry/step-down unit. Last year, care was provided for 500 surgical patients, including 350 open cases, 16 cardiac transplants, and 2,395 medical patients with an average length of stay of eight days in the CVICU and five days on the cardiology inpatient unit.

More than 8,100 patients were evaluated in the outpatient clinics at Children's main campus and Legacy facilities. In addition to overall cardiac evaluation, specialty clinics provided focused care for patients with implanted devices, arrhythmia, obesity, cholesterol and lipid disorders, heart transplantation, Marfan syndrome, and adults with congenital heart disease.



Diagnostic services included 807 cardiac catheterizations, most involving interventional procedures. Ninety-one of those were electrophysiologic procedures including catheter ablation. Noninvasive studies are comprised of imaging and electrocardiographic studies. The division performed 6,401 transthoracic ECHOs, 625 transesophageal studies and 495 fetal ECHOs. Additional studies included 11,119 electrocardiograms (ECGs), 683 Holter monitors, 226 pacemaker analyses, 125 exercise tests and 133 cardiac MRIs.

Additionally, telemedicine capabilities for transmission and review of echocardiographic and electrocardiographic studies are available to multiple institutions across the state, from Amarillo to Tyler; approximately 425 ECHOs and 100 ECGs were interpreted from these institutions.

Presentations/Teaching Activities

Sarah D. Blumenschein, M.D.

- “Approach to the Overweight Child with Hyperlipidemia,” Pediatric Endocrinology Society of Texas, Oklahoma Louisiana and Arkansas Annual Meeting, Dallas, TX, September 2008
- “Approach to the Obese Child,” 2008 Advance Practice Nurses Conference, Dallas, TX, October 2008

Michael Day, M.D.

- “Pediatric Murmurs: When to Worry and When to Refer,” 41st Kenneth C. Haltalin Pediatrics for the Practitioner Annual Seminar, UT Southwestern, April 2009

Candace Gibbin, M.D.

- “5 Problems Commonly Missed in Office,” “Syncope Practical Pediatrics,” “Everything You Always Wanted to Know About Murmurs But Were Afraid to Ask” and “Physical Preparticipation History and Physical: Cardiac Clearance for Sports,” AAP Practical Pediatrics, Orlando, FL, March, 2009

Lynn Mahony, M.D.

- “Clinical Trials in Pediatric Cardiology: The Pediatric Network Experience,” 5th Internal Conference on Pediatric Mechanical Circulatory Support Systems and Pediatric Cardiopulmonary Perfusion, Dallas, TX, May 2009
- “Clinical Studies in Children with Heart Disease: Lessons Learned from the Pediatric Heart Network Experience,” Eighth Annual William J. Rashkind Memorial Cardiology, Paradise Island, Bahamas, February 2009

Thomas Zellers, M.D.

- Moderator, Program Session on Congenital Heart Disease, Society of Cardiac Angiography and Intervention, Las Vegas, NV, May 2009

Major Administrative or Leadership Responsibilities

William Scott, M.D., M.S.

- Director, Division of Pediatric Cardiology
- Co-director, Heart Center, Children’s
- Director, Pediatric Cardiac Electrophysiology, Children’s
- Associate Editor, Pediatric Cardiology

Michael Day, M.D.

- Director, Cardiac Outreach

Reenu Eapen, M.D.

- Associate Director, Pediatric Residency Training Program
- Co-medical Director, El Centro College Pediatric Echocardiographic Training Program

David Fixler, M.D.

- Medical Director, Heart Transplant Program

Vidu Garg, M.D.

- Member, Western States Affiliate, Grant Review Committee, American Heart Association
- Member, Society of Pediatric Research, Richard D. Rowe Award Selection Committee

Catherine Ikemba, M.D.

- Chair, Pediatric Cardiology Scholarship Oversight and Monitoring Committee, UT Southwestern
- Director, Fetal Medicine, Heart Center, Children’s

Matthew Lemler, M.D.

- Director, Echocardiography Laboratory
- Reviewer, *Pediatric Cardiology*

Lynn Mahony, M.D.

- Chair, Pediatric Heart Network Steering Committee
- Editorial Board, American Heart Association, Circulation
- Abstract Reviewer, American Heart Association
- Director, Pediatric Cardiology Fellowship, UT Southwestern
- Member, Department of Pediatrics Grand Rounds Committee

Alan Nugent, M.D.

- Director, Cardiac Catheterization Laboratory

Claudio Ramaciotti, M.D.

- Director, Echocardiography Laboratory
- Member, Ethics Committee, American Society of Echocardiography
- Member, Peer Review Committee, Children's

Daniel Stromberg, M.D.

- Director, Cardiac Intensive Care Unit, Children's

Thomas Zellers, M.D.

- Vice President, Medical Staff Service, Children's
- President, CCISC, Children's



Leticia Castillo, M.D.
Director, Pediatric Critical Care Medicine

The Division of Pediatric Critical Care Medicine plays a vital role in providing care to critically ill children at Children's and is continuously making improvements and innovations to ensure the patient care provided is of the highest quality. The division has a long-standing history of clinical bench and translational research, with three NIH-funded laboratories and multiple lines of support from other sources.

Some of the country's brightest pediatric graduates enroll in the division's internationally recognized Critical Care Fellowship program, one of the oldest and largest of its kind in the United States. Teaching of fellows, residents and medical students takes place at the bedside and during lectures and interactive sessions. In addition, there is an array of research training opportunities helping fellows learn to ask and answer scientific questions relating to the genetic, molecular, cellular and physiologic aspects of pediatric critical care medicine.

In November 2009, Dr. Leticia Castillo was recruited from Texas Children's Hospital and Baylor Medical School in Houston to serve as Director for the Division of Critical Care Medicine. Dr. Fiona Levy, who had been serving as Interim Division Director, returned to her full-time role as Vice President for Quality at Children's. Drs. Joshua Koch, Susan Morris and Raymond Nkwantabisa also joined the faculty this year. Three faculty members received promotions during this annual year: Dr. Peter Luckett to the rank of Professor, Dr. Maeve Sheehan to Associate Professor and Dr. Joshua Wolovits to Assistant Professor. Dr. Steven Kernie was named the medical director of research administration at Children's.

Recruitment of additional faculty continues in an effort to meet the growing demands of patients and referring physicians in the area.

Faculty

Leticia Castillo, M.D., Professor, is the Director of the Division of Pediatric Critical Care Medicine and was appointed the Thomas Fariss Marsh, Jr. Chair in Pediatrics. She began her medical career at the Universidad Nacional Autonoma de Mexico, where she received her M.D. Following her internship and residency in pediatrics in Mexico City, she served as an intern and resident at the New England Medical Center, Boston, Massachusetts. She then completed a fellowship in Pediatric Critical Care Medicine at Massachusetts General Hospital and a postdoctoral fellowship in Nutrition Biochemistry at Massachusetts Institute of Technology, where she worked in the laboratory of the late Vernon Young, one of the giants in the field of human nutrition, who developed many of the quantitative methods for determining basic needs of amino acids. Dr. Castillo was on the faculty at Harvard Medical School, where she was an Associate Professor and scientist at the laboratory of Human Nutrition, Massachusetts Institute of Technology, until 2005. She then moved to Baylor College of Medicine and joined the faculty as a member of the Critical Care Section and as a Senior Investigator at the Children's Nutrition Research Center. She has served as a board member of the National Center for Rehabilitation Research at the Eunice Shriver National Institute of Child Health Development at NIH, which oversees pediatric critical care research portfolios, and in a wide range of other leadership roles locally and nationally.



Robert M. Alisharan, M.D.

Assistant Professor

Clinical expertise: Pediatric critical care

Research expertise: Electronic health records and performance improvement

Education: University of British Columbia, Vancouver, Canada, B.Sc., 1995; Howard University College of Medicine, Washington, DC, M.D., 1999

Post-doctoral training: Children's National Medical Center, Washington, DC, Resident, Pediatrics, 1999-2002; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 2003-2007



Deborah L. Carlson, Ph.D.

Assistant Professor, Pediatrics and Surgery

Research expertise: Surgery, cardiac function following burn injury and sepsis, matrix metalloproteinases in cardiac dysfunction

Education: State University of New York at Fredonia, B.S., 1989; State University of New York at Buffalo, Roswell Park Division, Ph.D., Molecular and Cellular Biology, 1996

Post-doctoral training: University of Nebraska, Lincoln, Fellow, Protein Biochemistry, 1995-1997



Mandeep Chadha, M.D.

Assistant Professor

Clinical expertise: Ischemic brain injury, traumatic brain injury

Research expertise: Traumatic brain injury

Education: University of Tulsa, OK, B.S., *cum laude*, 1994; UT Medical Branch at Galveston, M.D., 1998

Post-doctoral training: Arkansas Children's Hospital, Little Rock, Resident, Pediatrics, 1998-2001; Children's Hospital of Pittsburgh, PA, Fellow, Pediatric Critical Care Medicine, 2001-2004; Safar Center for Resuscitation Research, Pittsburgh, PA, NRSA Fellow, Neurointensive Care and Resuscitation Research, 2003-2005



Cindy Darnell, M.D., M.S.C.S.

Assistant Professor

Clinical expertise: Pain control, sedation

Research expertise: Effects of low dose ketamine infusion, safety of Lorazepam use in critically ill children

Education: University of Louisville, KY, B.A., *cum laude*, 1994; University of Louisville School of Medicine, KY, M.D., 1998, UT Southwestern, M.S.C.S., *with distinction*, 2008

Post-doctoral training: University of Tennessee at Memphis, Resident, Pediatrics, 1998-2001; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 2001-2004



Archana Dhar, M.D.

Assistant Professor

Clinical expertise: Pediatric critical care; use of online, noninvasive, intravascular monitoring in continuous renal replacement therapies

Research expertise: Effects of CVVH and ICP monitoring on outcomes following acute liver failure

Education: B.J. Medical College, Gujarat University, India, M.B.B.S., 1993

Post-doctoral training: Gujarat University/Civil Hospital, Ahmedabad, Gujarat, India, Resident, Pediatrics, 1993-1995; University of Oklahoma Health Science Center, Tulsa, Resident, Pediatrics, 1999-2002; University of Tennessee Health Science Center, Memphis, Fellow, Pediatric Critical Care Medicine, 2002-2003 and 2005-2008

Leslie Garner, M.D.

Assistant Professor

Clinical expertise: Pediatric critical care

Research expertise: Macrophage function

Education: Vanderbilt University, Nashville, TN, B.A., summa cum laude, 1992; UT Southwestern, M.D., 1996

Post-doctoral training: UT Southwestern/Children's, Intern, Pediatrics, 1996-1997; Resident, Pediatrics, 1997-1999; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 2000-2003



Steven Kernie, M.D.

Associate Professor, Pediatrics and Developmental Biology

Clinical expertise: Pediatric critical care

Research expertise: Hippocampal development, neural stem cells in traumatic brain injury, injury-induced neurogenesis in the brain

Education: Stanford University, Stanford, CA, B.A., 1988; University of Washington School of Medicine, Seattle, M.D., 1992

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1992-1995; Chief Resident, Pediatrics, 1995-1996; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 1996-1999; Fellow, Developmental Neurobiology, 1997-1999



Joshua Koch, M.D.

Assistant Professor

Clinical expertise: Neurocritical care

Research expertise: Neurocognitive outcomes in children after congenital heart surgery, investigation and improvement of intensive care neurologic monitoring

Education: Trinity University, San Antonio, TX, B.S., 1997; University of Kansas School of Medicine, Wichita, M.D., 2001

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2001-2004; Chief Resident, Pediatrics, 2004-2005; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 2005-2008



Ruth Levitz, Ph.D.

Instructor

Research expertise: Biotechnology, drug discovery, neurogenic inflammatory amplification, signal transduction

Education: Hebrew University, Jerusalem, Israel, B.Sc., 1972; M.Sc., 1974; Tel Aviv University, Israel, Ph.D., Biochemistry, 1986

Post-doctoral training: Tel Aviv University, Israel, Fellow, Biological Chemistry, 1986-1989; Public Health Research Institute (PHRI), Newark, NJ, Fellow, Biomedical Studies, 1990-1995



Fiona H. Levy, M.D.

Associate Professor

Vice President of Quality, Children's

Clinical expertise: General and cardiac ICU care

Research expertise: Quality improvement, patient safety

Education: Wellesley College, MA, B.A., 1983; New York Medical College, Valhalla, M.D., 1987; Washington University, St. Louis, MO, M.B.A., 2001

Post-doctoral training: SUNY Health Center, Syracuse, Resident, Pediatrics, 1987-1990; Children's Hospital and Medical Center, Seattle, WA, Fellow, Pediatric Critical Care Medicine, 1990-1993





Peter M. Lockett, M.D.

Professor

Clinical expertise: Acute lung injury, mechanical ventilation

Research expertise: Pulmonary outcomes in neuromuscular disease, clinical trials in pediatric critical care

Education: University of Kentucky, Lexington, B.G.S., 1975; University of Kentucky College of Medicine, Lexington, M.D., 1978

Post-doctoral training: University of Kentucky, Lexington, Resident, Pediatrics, 1978-1981; Columbia University College of Physicians and Surgeons, New York, NY, Fellow, Pediatric Pulmonary Medicine, 1981-1984; Fellow, Cellular Physiology, 1984-1987



T. Raju Meyappan, M.D.

Assistant Professor

Clinical expertise: Pulmonary ventilation, congenital heart disease, single ventricle physiology, extracorporeal support

Research expertise: Effects of cardiopulmonary bypass, use and role of technology in medical practice

Education: Lafayette College, Easton, PA, A.B., 1994; Georgetown University, Washington, DC, M.S., 1995; SUNY Downstate Medical Center College of Medicine, Brooklyn, M.D., 1999

Post-doctoral training: Schneider Children's Hospital, Miami, FL, Resident, Pediatrics, 1999-2002; Fellow, Pediatric Critical Care Medicine, 2002-2005; Fellow, Pediatric Cardiac Critical Care, 2005-2006



Darryl Miles, M.D.

Assistant Professor

Clinical expertise: Traumatic brain injury, neural protection strategies

Research expertise: MRI imaging biomarkers of neuronal injury, neural stem cells

Education: San Jose State University, CA, B.S., 1993; University of California San Francisco School of Medicine, M.D., 1997

Post-doctoral training: University of California San Francisco, Resident, Pediatrics, 1997-2000; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 2002-2005



Susan Morris, M.D.

Assistant Professor

Clinical expertise: Pediatric critical care medicine, transport, sedation

Research expertise: Medical simulation

Education: Louisiana Tech University, Ruston, B.S., 1999; Louisiana State University Health Sciences Center, Shreveport, M.D., 2003

Post-doctoral training: Emory University School of Medicine, Atlanta, GA, Resident, Pediatrics, 2003-2006; Emory University School of Medicine/Children's Healthcare of Atlanta at Egleston, Fellow, Pediatric Critical Care Medicine, 2006-2009



Frances Morriss, M.D.

Professor, Anesthesiology and Pain Management and Pediatrics

Clinical expertise: Anesthesia for cardiac patients for non cardiac surgery, care of the chronically ill ventilator dependent infant, anesthesia for liver transplant

Education: Stanford University, Palo Alto, CA, B.A., 1966; UT Southwestern, M.D., 1970

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1970-1973; UT Southwestern, Resident, Anesthesiology, 1973-1974; Children's Hospital of Philadelphia, Fellow, Pediatric Anesthesia and Intensive Care, 1975

Raymond Nkwantabisa, M.D.

Assistant Professor

Clinical expertise: Pediatric critical care

Education: University Medical School of Pecs, Hungary, M.D., *cum laude*, 1996

Post-doctoral training: Brookdale University Hospital and Medical Center, Brooklyn, NY, Resident, Pediatrics, 2000-2002; Chief Resident, Pediatrics, 2002-2003; Case Western Reserve University/Rainbow Babies & Children's Hospital, Cleveland, OH, Fellow, Pediatric Critical Care Medicine, 2003-2006



Julio Pérez Fontán, M.D.

Professor, Vice Chairman

Joel B. Steinberg, M.D. Chair in Pediatrics

Clinical expertise: Pediatric critical, pediatric cardiac critical care

Research expertise: Airway smooth muscle, autonomic nervous system, neurogenic inflammation

Education: University De Santiago De Compostela, Spain, M.D., 1977

Post-doctoral training: Universidad Autonoma de Barcelona, Spain, Resident, Pediatrics, 1978-1981; University of California San Francisco, Fellow, Pediatric Critical Care Medicine, 1981-1984; Cardiovascular Research Institute, University of California San Francisco, Fellow, 1982-1984, Associate 1984-1985



Lakshmi Raman, M.D.

Assistant Professor

Clinical expertise: Pediatric critical care

Research expertise: Chronic hypoxia and hippocampal injury, hypothermia in traumatic brain injury

Education: Madras Medical College, University of Madras, India, M.B.B.S., 1989

Post-doctoral training: Royal College of Physicians, London, Diploma in Child Health, 1993; Royal College of Physicians, London, MRCP, Pediatrics, 1994; SUNY Downstate Medical Center, Brooklyn, Resident, Pediatrics, 1997-2000; Chief Resident, 2000-2001; University of Minnesota, Minneapolis, Fellow, Pediatric Critical Care, 2001-2004



Margaret Schwarz, M.D.

Associate Professor

Clinical expertise: Pediatric and cardiac critical care

Research expertise: Pulmonary morphogenesis and vascularization, endothelial-monocyte activating polypeptide II, 5 1 integrin / FN / VEGFR interactions, pancreatic tumor growth

Education: University of Missouri, Kansas City, 1986, B.A., University of Missouri Six-Year Medical School, Kansas City, 1987

Post-doctoral training: Children's Hospital, Columbus, OH, Resident, Pediatrics, 1987-1990; Children's Hospital of Pittsburgh, PA, Pediatric Critical Care Fellowship, 1990-1993





Maeve Sheehan, M.D.

Associate Professor

Clinical expertise: Multi-system organ failure, pediatric stabilization, triage and transport

Education: University College Dublin, School of Medicine, Ireland, M.D., 1993; Diploma in Child Health, 1995

Post-doctoral training: St. Vincent's Hospital, Dublin, Ireland, Resident, Medicine and Surgery, 1993-1994; The Children's Hospital, Dublin, Ireland, Resident, Pediatrics, 1994-1995; The National Maternity Hospital, Dublin, Ireland, Resident, Neonatology, 1995; The Cleveland Clinic Foundation, OH, Resident, Pediatric and Adolescent Medicine, 1996-1999; Cincinnati Children's Hospital, OH, Fellow, Pediatric Critical Care/Clinical and Research, 1999-2002



Paul W. Sheeran, M.D.

Assistant Professor, Anesthesiology and Pain Management and Pediatrics

Clinical expertise: Anesthesiology and pain management

Research expertise: Methods for prevention of withdrawal from sedatives and analgesia in the Pediatric ICU

Education: Whitman College, Walla Walla, WA, B.A., *cum laude*, 1987; University of Washington School of Medicine, Seattle, M.D., 1991

Post-doctoral training: Harbor UCLA Medical Center, Torrance, CA, Resident, Pediatrics, 1994-1997; UT Southwestern, Resident, Anesthesia, 1998-2000; Fellow, Pediatric Critical Care Medicine, 1995-1997; Chief Fellow, Pediatric Intensive Care, 1997-1998; Children's Hospital of Philadelphia, PA, Fellow, Pediatric Anesthesia, 2000-2001



James Thomas, M.D.

Associate Professor, Pediatrics and Molecular Biology

Clinical expertise: Pediatric critical care, immunology

Research expertise: Innate immune response to infection, innate immune signaling and autoimmunity, innate immunity and myocardial dysfunction

Education: Princeton University, NJ, A.B., *magna cum laude*, 1981; Stanford University School of Medicine, CA, M.D., *with research honors*, 1989

Post-doctoral training: Children's Hospital of Los Angeles, CA, Resident, Pediatrics 1989-1992; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 1992-1995



Marita T. Thompson, M.D.

Associate Professor

Clinical expertise: Extracorporeal membrane oxygenation, pediatric trauma

Research expertise: Extracorporeal membrane oxygenation, quality improvement

Education: University of California at Los Angeles, B.S., 1983; University of Illinois College of Medicine, Chicago, M.D., 1989

Post-doctoral training: Harbor UCLA Medical Center, Torrance, CA, Resident, Pediatrics, 1989-1992; UT Southwestern, Fellow, Pediatric Critical Care Medicine, 1993-1996

Joshua Wolovits, M.D.

Assistant Professor

Clinical expertise: Cardiac critical care, quality-care initiatives in the ICU**Research expertise:** Cerebral hemodynamics and neuro-protection in congenital heart disease, sedation strategies in the cardiac patient, strategies to prevent shunt thrombosis in the single ventricle patient**Education:** UT Austin, B.A., 1998; UT Southwestern, M.D., 2002**Post-doctoral training:** UT Southwestern/Children's, Intern, Pediatrics, 2002-2003; Resident, Pediatrics, 2003-2005; University of California San Francisco, Fellow, Critical Care, 2005-2008; UT Southwestern, Fellow, Cardiac Critical Care Medicine, 2008-2009

Post-doctoral Fellows and Clinical/Research Staff

Fellows (Research Interests)

3rd Year

Ashraf M. Resheidat, M.D.

- Immune responses to hyaluronic acid in lung injury

Christopher S. Todd, M.D.

- Pulmonary vascular development
- Role of EMAP II in integrin signaling

2nd Year

Patrick Hairston, M.D.

- Effect of chronic hypoxia on glial development

Janet Hume, M.D.

- Myocardial function and inflammatory response in community-acquired MRSA sepsis – role of caspases 1, 3, and 8

Kyle Lieppman, M.D.

- Hippocampal neurogenesis after traumatic brain injury

Anne Mahan, M.D.

- Role of alpha-5-beta-1 in pneumocyte differentiation

1st Year

Lane Lanier, M.D.

- Mechanisms of antiphospholipid antibody interaction with endothelial cells to cause thrombosis

Humberto Liriano-Fanduiz, M.D.

- IRAK-1 and IRAK-2 deletions and its disruption in Toll/IL-1 signaling

Shai Manzuri, M.D.

- Regulation of nutrient homeostasis under conditions of inflammation and critical illness

Elizabeth Persad, M.D.

- Role of alpha 5 integrin in lung repair/fibrogenesis after acute lung injury

Hariprem Rajasekhar, M.D.

- Initial lumen formation in vasculogenesis

Research Staff

Munira Abbas, B.S., M.H.A./M.B.A.
Research Study Coordinator

Dr. Deborah Carlson's Lab

Jeremy Affolter, M.D.
Post-doctoral Researcher
Jeong Sim Hue, Ph.D.
Post-doctoral Researcher
Janet Hume, M.D., Ph.D.
Post-doctoral Trainee Clinician

Dr. Steve Kernie's Lab

Jennifer Gilley, B.S.
Graduate Student
Wei Li, M.A., Ph.D.
Post-doctoral Researcher
Kyle Lieppman, M.D.
Post-doctoral Researcher
Shereen Mohideen
Co-mentor
Jamie Wright
Research Intern
Cui-Ping Yang, Ph.D.
Post-doctoral Researcher
Tzong-Shiue Yu, B.S.
Graduate Student
Gui Zhang
Research Assistant II

Dr. Lakshmi Raman's Lab

Xiangmei Kong, M.S.
Research Assistant I

Dr. Margaret Schwarz's Lab

Mara Afanador, M.D.
Post-Doctoral Researcher
Katherine Bennett, M.D.
Post-Doctoral Researcher
Anne Mahan, M.D.
Post-Doctoral Researcher
Christopher Todd, M.D.
Post-Doctoral Researcher

Dr. James Thomas's Lab

Michelle Jennings
Research Assistant II
Ken-Meng Lin, Ph.D.
Senior Research Scientist
May Tsen, M.D.
Senior Research Associate

Research Activities

The number and diversity of research activities within the division continues to grow. Faculty members are engaged in bench, translational and clinical research projects. There are multiple areas of investigation that the division is proud to highlight.

The long term goals of Dr. Leticia Castillo's laboratory are focused on defining the regulatory mechanisms of nutrient homeostasis under conditions of inflammation and critical illness, and how these processes affect nutrient requirements for nutritional balance and function maintenance. Attention is focused on translational studies on:

- Amino acid homeostasis and utilization during enteral or parenteral routes of administration provided to critically ill children.
 - Parenteral and enteral sulfur amino acid requirements to maintain methylation function and glutathione synthesis rates.
- Protein and energy interactions under conditions of inflammation and insulin resistance.
- The impact of current critical care practices providing continuous light and feedings on circadian clock mechanisms and insulin resistance in critically ill children. For this purpose, we use stable isotopic mass spectrometric and imaging techniques.

The over-arching theme of Dr. Deborah Carlson's work is to characterize the inflammasome mediating the inflammatory response in the heart following thermal injury and thermal injury complicated with sepsis. She is currently examining the mechanism of caspase-1 activation, identifying the inflammasome and its components within the heart and within the myocyte specifically. She proposes that NOD-like receptors (NLR's) create a platform for regulation of the IL-1 family members through caspase-1, suggesting a role in both innate and adaptive immunity for the inflammasome. Her work is currently determining if NLR's are essential in mediating the inflammatory response in the heart in response to thermal injury and thermal injury complicated with sepsis, suggesting that inflammasomes are differentially expressed in the heart, responding to a tier like system where upregulation of at least two components is required to assemble functional inflammasomes. This model suggests a concept of tissue inflammation privilege, and may provide insight into the response of the heart to stress. The results of this project are aimed at targeting specific mechanisms of IL-1 member induced cardiac dysfunction in the heart, and in specific cell types, such as the myocyte after injury, to allow the use in clinical practices of established therapies such as estrogen regulation, caspase 1 inhibition and cardiac P2X7 inhibitors more selectively to allow directed cytokine regulation.

Dr. Cindy Darnell focuses her research on the delineation and improvement of the effectiveness and mitigation of the undesirable effects of the sedative and analgesic medications commonly used in the care of patients in the intensive care unit. In keeping with this focus of study, she has been engaged in a prospective observational trial: the occurrence of withdrawal in critically ill children exposed to simultaneous fentanyl and midazolam infusions, a retrospective data review of dexmedetomidine use in the PICU, a retrospective review of the use of clonidine for dexmedetomidine withdrawal and a phase I trial to evaluate the pharmacokinetics and sedative effects of low dose ketamine.

Dr. Archana Dhar is the Principal Investigator (PI) of an IRB-approved retrospective study comparing the clinical characteristics of children admitted to the pediatric intensive care unit with seasonal influenza versus novel influenza H1N1. She also serves as Sub-PI for a national study sponsored by the Department of Health and Human Services: Novel Influenza A (H1N1) Surveillance Registry, and is involved in an IRB-approved study titled "Outcomes for liver transplantation for acute liver failure in children, specifically use of CVVHD, ICP monitors, plasma exchange: The Dallas experience."

The laboratory of Dr. Steve Kernie, which includes new faculty member, Dr. Lakshmi Raman, continues to investigate how the developing brain responds to devastating injuries due to trauma or lack of oxygen. One area of focus is the very common clinical practice of administering pure oxygen to patients following brain injury. Researchers demonstrated that this practice can actually be harmful because it depletes vital precursor cells that ultimately form needed insulation or myelin around nerve cell projections. They found that mice exposed to these high levels of oxygen clinically developed an illness much like cerebral palsy that persisted long after the original brain injury occurred. This published work was accompanied by a press release in July 2008 that resulted in national attention from both the scientific and lay communities. Another area of interest centers on how brain stem cells become activated by injuries and then function to replace neighboring cells which are vulnerable to injury. This activation allows a very specific part of the brain, the hippocampus, to partially recover its important functions in learning and memory formation. Problems with learning and memory are among the most damaging sequelae following brain injuries due to trauma or lack of oxygen. These findings now allow researchers to begin investigating drugs that might be able to enhance this process of self-recovery.

Dr. Joshua Koch serves as the site primary investigator for the multi-center trial, Therapeutic Hypothermia After Pediatric Cardiac Arrest (THAPCA). This trial is funded by the National Heart, Lung, and Blood Institute and began enrollment on September 1, 2009. He is also primary investigator for the project, Prospective Analysis of Regional Cerebral Perfusion Using Head Ultrasound and Multi-Source-Detector Near Infrared Spectroscopy (NIRS) Imaging.

Dr. Peter Lockett's current research interests include clinical trials in pediatric critical care. In 2002 he was an initial organizing member of the Pediatric Acute Lung Injury and Sepsis Investigators (PALISI) clinical trials group. This group recently completed a collaboration with members of the Acute Respiratory Distress Syndrome Network (ARDSnet) as part of the NIH Roadmap contract mechanism entitled "Reengineering Clinical Research in Critical Care." This project involved the development, validation and distribution to naive sites of a computer-based decision support tool for glucose control in adult and pediatric ICUs. An application to the NIH for a large multi-center trial of glucose control in critically ill children is pending. Dr. Lockett is a co-investigator and the site PI for this project.

Dr. Darryl Miles has continued his work to understand the pathophysiology unique to childhood brain injury and to investigate the mechanisms of traumatic brain injury and neural self-repair. It is his desire to contribute to the development of novel therapeutic strategies, ultimately improving the neuro-cognitive outcome of pediatric acquired brain injury. His work using transgenic mouse models has demonstrated that immature neuronal and glial progenitors are selectively vulnerable to various insults such as traumatic brain injury (TBI) and hypoxic-ischemic encephalopathy and contribute to the neural remodeling response. In the transition from basic science to clinical investigation, he is a contributing member of the Brain and Nerve Injury Center (BNIC) and is the CMC site principal investigator on a NIH funded study to investigate how genetic polymorphism affect long-term developmental outcome in children after moderate and severe TBI. Dr. Miles is currently analyzing MRI and CT findings in children with moderate to severe TBI to identify patterns of injury and their relationship to neuro-cognitive outcome. This analysis hopefully will serve as a basis for future studies in children, using advanced neuro-imaging techniques to elucidate the brain's acute and remodeling response to TBI.



During lung formation, alterations in vessel growth contribute to dysfunctional lung development. The research of Dr. Margaret Schwarz focuses on the contributions that the vasculature brings to functional lung development. In order to better examine this concept, focus has been placed on the individual vessel types as well as their ability to influence the distal lung cells to exchange oxygen. Researchers specifically look at the influence that known vascular growth factors have on other cell types that have typically not been determined to be responsive to vascular growth factors. Within this context they have developed specific models that examine whether immature cells that are capable of becoming

oxygen-exchanging cells are able to make this morphogenic change when exposed to vascular-specific growth factors. Their endpoint is to identify whether morphogenesis of these immature cells is impacted. Identifying those factors that have multi-cellular targets will greatly expand the understanding of lung development, leading to new therapeutic targets to treat disease processes that result in abnormal lung development.

Dr. James Thomas focuses his work on the investigation of how the host senses and responds to injury and infection on a molecular level. Advances stemming from research in *Drosophila* (fruit flies) development and the Human Genome Project uncovered a highly conserved family of mammalian proteins – the toll-like receptors (TLRs) – that detect microbial invasion and tissue injury and trigger local and systemic responses to contain the insult. These receptors communicate with the cell's interior, using signaling proteins common to all the TLRs as well as the interleukin-1 family of receptors. He has worked to genetically inactivate two critical intracellular signaling proteins – IRAK1 and IRAK2 – and is studying their function in the innate and adaptive immune response, including the development of systemic lupus erythematosus (SLE) in humans and the acute inflammatory response to infection in murine and in vitro models.

Dr. Marita Thompson works with division members, Steve Kernie, Darryl Miles, Josh Koch and Lakshmi Raman as well as with Dr. Pam Okada from Emergency Medicine, in research focused on brain injury. This group participates with three NIH multi-center hypothermia trials investigating the neurologic effect of lowering core body temperature in children with 1) traumatic brain injury (Cool Kids Trial), 2) cardiac arrest (THAPCA) or 3) neonates placed on ECMO for hypoxic respiratory failure. In addition, Dr. Marita Thompson has led efforts to develop and populate databases for ICU patients that have needed extracorporeal support of ECLS or CRRT.

Clinical Activities

The 2008-2009 academic year was one of continued productivity and enhanced clinical care for the Division of Critical Care Medicine, with admissions remaining over 3,000 for the year. The division, in collaboration with the Division of Cardiology and the Heart Center, provides state-of-the-art cardiovascular critical care services for children with congenital heart disease as well as other cardiac diseases. There were 700 additional admissions of complex cardiac disease to the Cardiovascular Intensive Care Unit for this academic year. As a leading provider of critical care services, the division does not measure or define the success of efforts by patient volume or bed number, but rather by the specialization of care that is offered and the quality outcomes of patients.

Senior members of the division, Drs. Marita Thompson and Maeve Sheehan, respectively, provide physician leadership for the ECMO program and the Children's transport program and Access Center, two integral patient care services that differentiate critical care medicine within the regional market. Under their leadership there was not only stability in the number of patients, but an improved survival rate for patients receiving ECMO support and an increased number of transports for critically ill children. Under the leadership of Dr. Steve Kernie, senior faculty member and Medical Director of the Perot Family Center for Brain and Nerve Injuries, the division has seen improvement and standardization of the clinical practice and long-term follow-up for children with brain injuries. The Perot Center has been instrumental to the support of clinical trials in the area of neuroprotection. Under the leadership of Dr. Fiona Levy, a senior member of the division and Vice President for Quality at Children's, the critical care division has refined performance improvement efforts as evidenced by widespread participation of the division faculty in various quality improvement projects. Dr. Cindy Darnell's efforts on organ procurement education have been decisive to improve the lives of chronically ill children through awareness and education on the potential of organ donation. Dr. Susan Morris has taken a leadership role on critical care education through simulation scenarios at our state-of-the-art simulation center. Dr. Leslie Garner has provided exemplary service as the division leader for both residency and medical student education during PICU rotations. Dr. James Thomas continues to contribute in the area of international medicine.

Presentations/Teaching Activities

Divisional teaching activities for residents, fellows and medical students take place during the care of critically ill children and with specific didactic curriculums that foster intellectual exchange and the life-long habit to question and learn. The principal teaching platform is daily rounds; however, admissions, resuscitations and major interventions all provide hands-on learning opportunities. This bedside teaching is complemented by didactic sessions specifically tailored for the level of training of residents and fellows. Critical care practice is based on team effort, and teaching activities are focused on the education and participation of team members, including nursing and respiratory therapy colleagues. At weekly division conferences, clinical cases,



review of quality standard practices and divisional performance is assessed. Additionally, monthly division research conferences allow review of research works and evaluation of fellows' progress toward completion of research projects. A weekly critical care curriculum for fellows ensures that trainees at all levels develop the foundational knowledge necessary for the practice of high-quality clinical care.

Leticia Castillo, M.D.

- "Insulin Resistance in the Critically Ill Child," Annual Congress, Army University, Veracruz, Mexico, July 2009
- "Splanchnic Amino Acid Metabolism in Critical Care and Its Impact on Amino Acid Requirements," Grand Rounds, Texas Children's Hospital, Houston, October 2009

Deborah L. Carlson, Ph.D.

- "Caspase-1 Mediated Cardiac Dysfunction and Inflammatory Alterations Associated with Burn Trauma" and "IRAK 2 Inducibility and Its Role in TNF Secretion and Survival during Sepsis," 6th Congress of the International Federation of Shock Societies, 31st Annual Conference on Shock, Cologne, Germany, October 2008
- "MMP Expression in Children with Inflammatory Cardiomyopathy," "Cardiac Response and Molecular Mechanisms of Cardiac Dysfunction as Related to Age" and "MMP-9 Mediated Alterations in Inflammation and Cardiac Dysfunction Associated with Burn Trauma," 7th Congress of the International Federation of Shock Societies, 32nd Annual Conference on Shock, San Antonio, TX, June 2009

Cindy Darnell, M.D., M.S.C.S.

- "Donation After Cardiac Death," Pediatric Neurology Journal Club, Children's, October 2008
- "Donation After Cardiac Death," Pediatric Cardiology Journal Club, Children's, October 2008
- "Organ Donation: Are We Pushing the Limits?," 10th Annual Making a World of Difference Pediatric Critical Care Conference, Children's, April 2009
- "Organ Donation in a Pediatric Hospital," Southwest Transplant Alliance, Dallas, TX, April 2009
- "Organ and Tissue Donation in the Cardiac ICU," Cardiac ICU Nurse Lecture Series, Children's, August 2009

Joshua Koch, M.D.

- "Neurocognitive Outcomes After Congenital Heart Surgery," The 41st Kenneth C. Haltalin in Pediatrics for the Practitioner Annual Seminar, Dallas, TX, April 2009

Fiona H. Levy, M.D.

- "Establishing Informatics Programs to Optimize an Electronic Health Record Design," National Association of Children's Hospitals and Related Institutions (NACHRI) 2009 Creating Connections Conference, Nashville, TN, March 2009

Peter M. Luckett, M.D.

- "Soluble Triggering Receptor Expressed in Myeloid Cells-1 (sTREM-1) in Bronchoalveolar Lavage Fluid (BALF) of Mice Following Respiratory Syncytial Virus (RSV), Mycoplasma Pneumoniae, and Streptococcus Pneumoniae Infection," American Thoracic Society Annual Meeting, San Diego, CA, May 2009

Susan Morris, M.D.

- "Advanced Management of Asthma," 12th Annual Pediatric Respiratory Care Seminar, Children's, October 2009

Margaret Schwarz, M.D.

- "Determining the role of Vascular Regulators in Lung Development," Pediatric Intensive Care Fellows Research Conference, UT Southwestern, September 2008
- "EMAP II Modulates Distal Alveolar Cell Differentiation," Faculty Research Conference, UT Southwestern, December 2008
- "EMAP II Mediates Alveolar Cell Endothelial-Mesenchymal Transition," Neonatal Research Conference, UT Southwestern, January 2009
- "Lung Development: Vessel Rule and EMAP II Mediation," Visiting Professor, Indiana Center for Vascular Biology and Medicine, Indianapolis, June 2009

Maeve Sheehan, M.D.

- “Initial Management of Pediatric Head Injury,” Texas EMS Conference, Fort Worth, November 2008
- “Ethical Decision-Making in Disasters,” Ethics Forum, Children’s, September 2009

Paul W. Sheeran, M.D.

- “Perioperative Hyponatremic Encephalopathy in Children,” Department of Anesthesia Grand Rounds, University of Iowa, Iowa City, March 2009

Major Administrative or Leadership Responsibilities**Leticia Castillo, M.D.**

- Director, Pediatric Critical Care Medicine
- Member, National Advisory Board on Medical Rehabilitation Research (NABMRR), Eunice Shriver National Institute of Child Health and Human Development (NICHD), National Institutes of Health
- Permanent Member, Surgery Anesthesia and Trauma (SAT) Scientific Review Group, National Institutes of Health
- Ad hoc Reviewer, Biomedical Imaging Technology Scientific Review Group, National Institutes of Health
- Ad hoc Reviewer, Clinical Studies and Training Scientific Review Group, National Heart, Lung, and Blood Institute
- Ad hoc Reviewer, Integrative Nutrition and Metabolic Processes Scientific Review Group, National Institutes of Health
- Ad hoc Peer Reviewer, *American Journal of Physiology* (Endocrinology and Metabolism), *Critical Care Medicine*, *Pediatric Critical Care Medicine*, *New England Journal of Medicine*, *American Journal of Clinical Nutrition*, *Journal of Nutrition*

Deborah L. Carlson, Ph.D.

- Member, Shock Society Presidential Committee for Honors
- Member, International Shock Society Presidential Committee for Publications
- Member UTSW IACUC

Cindy Darnell, M.D.

- Co-chair, Transplant Review Committee, Children’s
- Hospital Physician Liaison for Organ Donation, Children’s

Archana Dhar, M.D.

- Associate Director, Pediatric Critical Care Fellowship

Leslie Garner, M.D.

- Course Director, MSIV PICU Acute Care Rotation, Children’s
- Liason, Resident Education in the PICU, Children’s
- Chair, Critical Care Services EPIC User Group, Children’s

Steven Kernie, M.D.

- Medical Director, Perot Family Center for Brain and Nerve Injuries
- Director, Pediatric Critical Care Fellowship Program
- Ad hoc Reviewer, National Science Foundation, Faculty Early Career Development Program
- Ad Hoc Reviewer, Sigma Delta Epsilon/Graduate Women in Science Fellowship
- Ad Hoc Reviewer, Department of Defense, Traumatic Brain Injury Research Program
- Ad Hoc Reviewer, Children’s Clinical Research Advisory Committee
- Member, The New Jersey Commission on Spinal Cord Research
- Member, NIH, NINDS, guest member, Neurogenetics and Neuroimaging, MDCN-K, Neurogenesis and Cell Fate, MDCN and Molecular Neurogenetics

Joshua Koch, M.D.

- Assistant Medical Director, Cardiovascular Intensive Care Unit, Children’s
- Co-Chair, CPR Committee, Children’s

Fiona H. Levy, M.D.

- Vice President, Quality, Children's
- Interim Director, Division of Pediatric Critical Care Medicine (through November 2009)
- Director of Access and Inpatient Services, Children's
- Member, Council on Child Health Quality, National Association of Children's Hospitals and Related Institutions
- Member, Quality and Safety Leaders Steering Committee, Child Health Corporation of America
- Member, Children's Hospitals Advancing Patient Safety (CHAPS) Council, Child Health Corporation of America
- Member, National Quality Forum Technical Advisory Panel
- Member, Pediatric Quality Indicator Advisory Group, a Collaboration with Texas Healthcare Information Collection for the Center for Health Statistics, Texas Department of State Health Services
- Ad Hoc Member, Dallas/Fort Worth Hospital Council Data Initiative Executive Committee

Peter M. Lockett, M.D.

- Member, American Thoracic Society (ATS) Membership Committee
- Member, ATS Pediatric Assembly Program Committee
- Member, "Strengthening the Pillars," ATS Journals/Publications Task Force
- Medical Director, Respiratory Care Department, Children's
- Member, American Thoracic Society Nominating Committee

T. Raju Meyappan, M.D.

- Core Member, ECMO Team, Children's

Darryl Miles, M.D.

- BSI Clinical Leader Medical/Trauma ICU, Children's

Frances Morriss, M.D.

- Chair, Pharmacy and Therapeutics Committee, Children's

Julio Pérez Fontán, M.D.

- Vice Chairman, Department of Pediatrics, UT Southwestern
- Executive Vice President of Medical Affairs, Children's
- Associate Dean for Pediatric Services and Program Development, UT Southwestern
- Interim Director, Division of Pediatric Respiratory Medicine, UT Southwestern
- Chairman, CTSA Pilot Grant Program
- Co-Chair, Chair of Radiology Search Committee
- Associate Director, T32 Training Grant
- Chairman, Anesthesiologist for Children Board of Directors

Margaret Schwarz, M.D.

- Member, NHLBI Respiratory Integrative Biology and Translational Research Study Section

Maeve Sheehan, M.D.

- Medical Director, Transport and Access Services, Children's
- Resident Mentor, UT Southwestern, Department of Pediatrics
- Physician Lead, The Crystal Charity Ball "Signature Project," Children's
- Medical Director, PICU Nurse Practitioner Practice, Children's
- Co-chair, Emergency Medicine Committee, Texas Pediatrics Society
- Member, Pediatrics Committee, Governor's EMS and Trauma Advisory Council

Paul W. Sheeran, M.D.

- Medical Director of Sedation Program, Children's
- Medical Director of PICC Service, Children's
- Chairman, Difficult Airway Committee, Children's

James Thomas, M.D.

- Co-chair, Institutional Ethics Committee, Children's

Marita T. Thompson, M.D.

- Medical Director, ECMO, Children's
- Co-medical Director, Continuous Renal Replacement Therapy (CRRT), Children's
- Medical Director, Trauma/Neurosurgical ICU, Children's
- Member, Institutional Review Board (IRB)
- Core Interviewer for Intern Applicants
- Co-organizer, 2008 South Eastern ECMO (SEECMO) Conference Hosted by Children's

Joshua Wolovits, M.D.

- Physician Leader, Heart Center BSI Committee
- Physician Champion, CICU NACHRI CA-BSI

Awards and Honors

Peter M. Lockett, M.D.

- Who's Who in America
- Consumers' Research Council Guide to America's Top Pediatricians
- American Lung Association Breath of Life Leadership Award

Margaret Schwarz, M.D.

- 2009, Society of Pediatric Research

Maeve Sheehan, M.D.

- President Elect, Medical and Dental Staff 2010, Children's
- America's Top Pediatricians, Consumers' Research Council of America



Halim Hennes, M.D., M.S.
Director, Pediatric Emergency Medicine

The emergency department at Children's Medical Center is the only Level 1 pediatric trauma center in Texas, and one of the busiest pediatric emergency medicine clinical services in the country. The Division of Pediatric Emergency Medicine has 19 faculty and nine fellows dedicated to advancing the care of acutely ill and injured children through clinical service, education and research.

The division had a very successful recruiting season in 2009, adding six outstanding new faculty who graduated from Rochester, Children's National Medical Center, The Medical College of Wisconsin, the University of Eastern Virginia and UT Southwestern.

Division faculty have diverse research and administrative interests, offering the pediatric emergency medicine fellows a unique opportunity to select the appropriate mentor with interests that matches theirs. In addition, faculty and fellows, play a major role in the education of pediatric residents, family medicine residents, adult emergency

medicine residents, and medical students. Training in the emergency department is often sought by residents from other pediatric training programs in Texas and Oklahoma. Recognizing the outstanding clinical training, and opportunities to see a diverse population of acutely ill and injured children, fellows from other pediatric emergency medicine fellowship programs often submit requests for elective rotations here.

In 2009, Dr. Beatrix Bansal, Assistant Professor, assumed the responsibility of Associate Medical Director for Legacy when Dr. Britton Devillier, Assistant Professor, chose to pursue additional formal education in medical management. Once he completes his degree, he will assume responsibility for compliance training and billing practice within the division.

The well-established, clinically strong pediatric emergency medicine fellowship program recruits three fellows per year. In 2009 the fellowship program incorporated a new comprehensive research curriculum with didactic teaching that covers basic research concept and statistics. In addition, the division recruited a full-time, experienced research coordinator to assist the faculty and fellows with their research projects.

Faculty

Halim Hennes, M.D., M.S., Professor of Pediatrics and Surgery, is the Director of Pediatric Emergency Medicine at UT Southwestern and Medical Director of Emergency Services at Children's. His clinical expertise is in the areas of pediatric traumatic brain injury, pain management and sedation; his current research centers on pre-hospital pediatric pain management and education of pre-hospital providers. Dr. Hennes received his medical degree from Ain Shams University, Cairo, Egypt, in 1973 and his M.S. in biostatistics from the Medical College of Wisconsin, Milwaukee, in 1992. After completing his post-graduate training in Egypt, he moved to the United Kingdom for additional training before coming to the United States. He completed his general pediatric training at Children's Hospital of Wisconsin, Milwaukee, in 1986 before joining the faculty at the Medical College of Wisconsin as a Pediatric Emergency Medicine physician from 1986 to 2008. In 2002, Dr. Hennes completed a fellowship in Emergency Medical Services and currently serves as the Academic Pediatric Societies liaison to the Emergency Medical Services for Children (EMSC). He also served on numerous regional, national and international committees. The Business Journal named him one of the Best Pediatric Emergency Medicine doctors in America in 2007.



Mohamed Badawy, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, head trauma, asthma

Research expertise: Traumatic brain injury

Education: University of Alexandria, Egypt, M.D. with honors, 1991

Post-doctoral training: University of Alexandria Hospitals, Egypt, House Staff, 1992-1993; Intern, General Surgery, 1993; New York Medical College, Manhattan, Resident, Pediatrics, 1996-1999; University of Rochester, NY, Fellow; Pediatric Emergency Medicine, 1999-2002



M. Douglas Baker, M.D.

Professor

Director of Medical Services at UT Southwestern

Children's Sarah M. and Charles E. Seay Distinguished Chair in Pediatric Medicine

Clinical expertise: Pediatric emergency care, fever management in infants and children

Research expertise: Fever management in infants and children

Education: Franklin and Marshall College, Lancaster, PA, B.A., 1974; Temple University School of Medicine, Philadelphia, PA, M.D., 1978; Yale University, New Haven, CT, Master of Arts, *privatum*, 1999

Post-doctoral training: Geisinger Medical Center, Danville, PA, Intern, Pediatrics, 1978-1979; Children's Hospital National Medical Center, Washington, DC, Resident, Pediatrics, 1979-1981; Chief Resident in Pediatrics, 1981-1982; Milton S. Hershey Medical Center, Hershey, PA, Fellow, Newborn Critical Care Medicine, 1982-1983; Children's Hospital Boston, MA, Fellow, Pediatric Emergency Medicine, 1983-1984



Beatrix Bansal, M.D.

Assistant Professor

Associate Director of Emergency Department, Children's Legacy

Clinical expertise: Pediatric emergency care

Education: Santa Clara University, CA, B.S., 1989; University of Hawaii, Honolulu, M.D., 1994

Post-doctoral training: UT Southwestern/Children's, Resident, 1994-1997; UT Southwestern, Fellow, Pediatric Emergency Medicine, 1997-2000



Sara L. Beers, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, status asthmaticus and child maltreatment syndrome

Education: University of New Mexico, Albuquerque, B.S., 1995; University of New Mexico School of Medicine, Albuquerque, M.D., 2001

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2001-2004; UT Southwestern, Fellow, Pediatric Emergency Medicine, 2004-2007



Britton M. Devillier, M.D., M.P.H.

Assistant Professor

Clinical expertise: Pediatric emergency care

Education: Oral Roberts University, Tulsa, OK, B.S., 1985; Tulane University School of Medicine and School of Public Health and Tropical Medicine, New Orleans, LA, M.D., 1989

Post-doctoral training: Baylor College of Medicine, Waco, TX, Resident, Pediatrics, 1989-1992; Texas Children's Hospital, Houston, Fellow, Pediatric Emergency Medicine, 1992-1994

Philip Ewing, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, acute management of diabetic ketoacidosis

Research expertise: Management of diabetic ketoacidosis

Education: Davidson College, Davidson, NC, B.S., 1996; Virginia Commonwealth University, Medical College of Virginia Campus, Richmond, M.D., 2002

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2002-2005; UT Southwestern, Fellow, Pediatric Emergency Medicine, 2005-2008



Sing-Yi Feng, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, toxicology

Research expertise: Pediatric toxicology

Education: Pennsylvania State University, University Park, B.S., 1996; Jefferson Medical College, Philadelphia, PA, M.D., 1998

Post-doctoral training: Lutheran General Children's Hospital, Chicago, IL, Resident, Pediatrics, 1998-2001; Chief Resident, Pediatrics, 2001-2002; UT Southwestern, Fellow, Pediatric Emergency Medicine, 2002-2005; Fellow, Medical Toxicology, 2005-2007



Collin S. Goto, M.D.

Associate Professor

Clinical expertise: Pediatric emergency care, toxicology

Research expertise: Pediatric toxicology

Education: University of Hawaii, Honolulu, B.A., 1986; University of Hawaii, John A. Burns School of Medicine, Honolulu, M.D., 1990

Post-doctoral training: John A. Burns School of Medicine/Kapiolani Medical Center for Women and Children, Honolulu, HA, Resident, Pediatrics, 1990-1993; UT Southwestern, Fellow, Pediatric Emergency Medicine, 1993-1996; Fellow, Medical Toxicology, 1998-1999



Craig J. Huang, M.D.

Assistant Professor

Associate Director, Transport Services

Associate Director, Pediatric Emergency Medicine Fellowship Program

Clinical expertise: Pediatric emergency care, apparent life-threatening events, the use of technology in pediatric emergency care, trauma and burns

Research expertise: Pediatric trauma

Education: Rice University, Houston, TX, B.A., 1992; UT Medical Branch at Galveston, M.D., 1996

Post-doctoral training: Virginia Commonwealth University, Medical College of Virginia Hospitals, Richmond, Resident, Pediatrics, 1996-1999; Eastern Virginia Medical School, Children's Hospital of The King's Daughters, Norfolk, Fellow, Pediatric Emergency Medicine, 1999-2002



Two pediatric emergency medicine faculty also are board-certified toxicologists and were the first to describe a new substance abuse epidemic among adolescents—snorting heroin mixed with Tylenol® PM, a combination known as "cheese."



Audra L. McCreight, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, pediatric ultrasound

Research expertise: Applications of ultrasound technology

Education: Austin College, Sherman, TX, B.A., 1997; UT Southwestern, M.D., 2001

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2001-2004; UT Southwestern, Fellow, Pediatric Emergency Medicine, 2004-2007



Julia A. McDonald, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, international health

Education: Texas Christian University, Fort Worth, B.S., 1989; UT Health Science Center at San Antonio, M.D., 1993

Post-doctoral training: University of Louisville, KY, Resident, Pediatrics, 1993-1997; Fellow, Pediatric Emergency Medicine, 1997-2000



Jo-Ann Nesiama, M.D., M.S.

Assistant Professor

Clinical expertise: Pediatric emergency care, head trauma

Research expertise: Pre-hospital pediatric trauma care

Education: University of Benin, Benin-City, Nigeria, M.B.B.S., 1989; Graduate School of Biomedical Sciences, Milwaukee, WI, M.S., 2008

Post-doctoral training: Driscoll Children's Hospital, Corpus Christi, TX, Resident, Pediatrics, 1998-2001; Chief Resident, Pediatrics, 2001-2002; Medical College of Wisconsin, Milwaukee, Fellow, Pediatric Emergency Medicine, 2005-2008



Pamela J. Okada, M.D.

Associate Professor

Division Research Director

Clinical expertise: Pediatric emergency care, traumatic brain injury

Research expertise: Pediatric trauma outcomes, traumatic brain injury, neurologic emergencies

Education: University of California, Los Angeles, B.S., 1985; Tulane University School of Medicine, New Orleans, LA, M.D., 1990

Post-doctoral training: Harbor-UCLA Medical Center, Torrance, CA, Resident, Pediatrics, 1991-1993; Fellow, Pediatric Emergency Medicine, 1993-1994; UT Southwestern, Fellow, Pediatric Emergency Medicine, 1994-1996



Kalpesh Patel, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, pediatric sedation, clinical applications for emerging medical technology

Research expertise: Pediatric sedation

Education: Southern Methodist University, Dallas, TX, B.S., 1994; UT Health Science Center at San Antonio, M.D., 1998

Post-doctoral training: UT Medical Branch at Galveston, Resident, Pediatrics, 1998-2001; Emory University, Atlanta, GA, Fellow, Pediatric Emergency Medicine, 2005-2008

Susan M. Scott, M.D.

Associate Professor

Director, Pediatric Emergency Medicine Fellowship Program

Clinical expertise: Pediatric emergency care, injury prevention

Education: Louisiana Tech University, Ruston, B.S., 1978; Louisiana State University School of Medicine, Shreveport, M.D., 1982

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1983-1985; UT Southwestern, Fellow, Pediatric Emergency Medicine, 1992-1995



Jessica Sharry Williams, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care

Research expertise: Post traumatic stress disorder

Education: Bucknell University, Lewisburg, PA, B.A., 1999; UT Health Science Center at San Antonio, M.D., 2003

Post-doctoral training: UT Medical Branch at Galveston, Resident, Pediatrics, 2003-2006; Eastern Virginia Medical School, Norfolk, Fellow, Pediatric Emergency Medicine, 2006-2009



Geetanjali Srivastava, M.D., M.P.H.

Assistant Professor

Clinical expertise: Pediatric emergency care, life-threatening infections

Research expertise: Evaluation and management of meningitis

Education: Bryn Mawr College, PA, B.A., *cum laude*, 1993; UT Houston, M.D., 1998; M.P.H., 1998

Post-doctoral training: University of Chicago/Comer Children's Hospital, IL, Resident, Pediatrics, 1998-2001; Children's National Medical Center, Washington, DC, Fellow, Pediatric Emergency Medicine, 2006-2009



Maria Stephan, M.D.

Associate Professor

Clinical expertise: Pediatric emergency care, toxicology

Education: University of Cincinnati, OH, B.S., *magna cum laude*, 1977; University of Cincinnati College of Medicine, OH, M.D., 1981

Post-doctoral training: Children's Hospital Medical Center, Cincinnati, OH, Resident, Pediatrics, 1981-1984; Fellow, Ambulatory/Pediatric Emergency Medicine, 1984-1986



Mercedes Uribe, M.D.

Assistant Professor

Clinical expertise: Pediatric emergency care, trauma

Research expertise: Resuscitation, pain and sedation management

Education: "Tupac Amaru" Peruvian National Police School, Barrios Altos, Lima, Peru, B.S., 1989; Universidad de Montemorelos, School of Medicine, Nuevo Leon, Mexico, M.D., 1998

Post-doctoral training: Weill Medical College of Cornell University/Lincoln Medical Center, Bronx, NY, Resident, Pediatrics, 2003-2006; UT Southwestern, Fellow, Pediatric Emergency Medicine, 2006-2009





Robert A. Wiebe, M.D.

Professor

Clinical expertise: Pediatric emergency care

Research expertise: Emergency systems organization, office practice emergency preparation, injury prevention and pre-hospital care

Education: San Francisco State University, CA, B.A, *cum laude*, 1963; Tulane University School of Medicine, New Orleans, LA, M.D., 1967

Post-doctoral training: Tripler General Hospital, Honolulu, HI, Resident, Pediatrics, 1968-1970

Post-doctoral Fellows (Research Interests)

3rd Year

Geetha Devdas, M.D.

- Injury prevention

Neil Evans, M.D.

- Toxicology

Catherine Moore, M.D.

- Respiratory infection

2nd Year

Adriana Rodriguez, M.D.

- Resuscitation

Dennis Tanner, M.D.

- Toxicology

Atim Uya, M.D.

- Ultrasound

1st Year

Jendi Haug, M.D.

- Use of Simulation lab in medical education

Mark Tabarrok, M.D.

- Patient safety

Irma Ugalde, M.D.

- Utilization of new diagnostic tests and identifying children with septic arthritis

A strong three-year Emergency Medicine fellowship program, with three fellows per year, prepares for academic careers in PEM.

Research Activities

The Emergency Department serves a diverse population with broad pediatric pathology and high acuity providing an ideal environment for clinical research. The division has 19 faculty with diverse clinical and academic interests and a full-time research coordinator dedicated to assisting faculty and fellows with their research activities. Because of a rich clinical service and research interest, the division has been selected to participate in three national research network multicenter trials. Dr. Pam Okada is the site investigator on these three studies. In addition, the division is leading a multicenter study on prehospital pain management with Dr. Halim Hennes as the principle investigator. The study is funded through August 2010 by Emergency Medical Services for Children.

Recognizing the importance of training the fellows in research and other scholarly activities, the division provides start up funds to support meaningful research by the fellows. In 2009, the division had \$300,487 in extramural federal funding and \$123,738 in industry supported research.

There are several areas of research interests among division faculty:

Diabetic ketoacidosis

- Normal saline versus balanced salt solution as the initial bolus fluid in pediatric diabetic ketoacidosis

Pediatric asthma care

- The initiation of chronic asthma care regimens in the pediatric emergency department
- Pediatric Texas Emergency Department Asthma Surveillance Project

Pediatric ultrasound

- Therapy for outpatient management of community acquired methicillin resistant staphylococcus and effect of ultrasound management on outcome

Neurologic emergencies

- Therapeutic moderate hypothermia for the treatment of severe pediatric traumatic brain injuries; NINDS subcontract comparing the effects of moderate hypothermia on mortality after severe traumatic brain injury
- The use of lorazepam for the treatment of pediatric status epilepticus: a randomized double blinded trial of lorazepam and diazepam; NICHD subcontract comparing the treatment effects of lorazepam and diazepam in pediatric status epilepticus

Pre-hospital pain management

- A multicenter study to evaluate the effect of an educational pediatric pain management program for emergency medical technicians and paramedics; HRSA funded grant to develop and validate an educational module for pre-hospital providers on pediatric pain assessment and management

Sedation and pain control

Medical toxicology

Trauma and injury prevention

- Family presence during pediatric trauma team activation: measuring the effects of a multidisciplinary approach to patient/family-centered care; HRSA subcontract evaluating the effect of family presence in the care of the pediatric trauma patient
- Pediatric trampoline injuries: a prospective observational study evaluating the risk factors and injuries associated with pediatric trampoline use
- Parental characteristics and pediatric emergency department usage

Clinical Activities

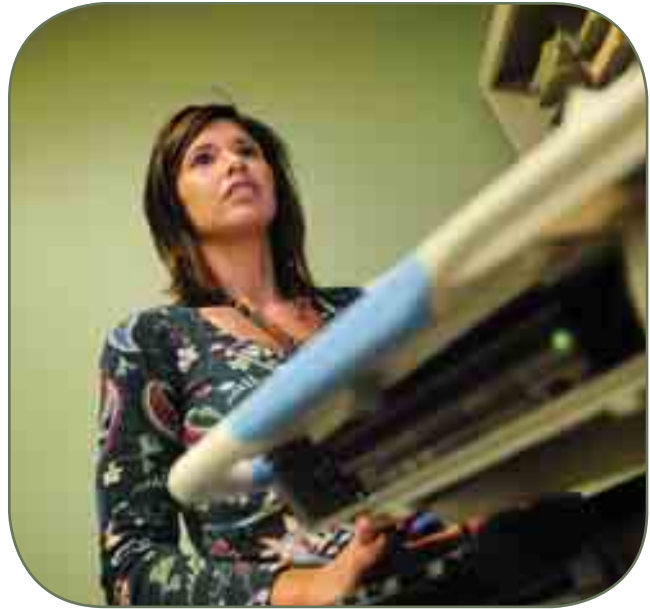
The division of Pediatric Emergency Medicine (PEM) provides the clinical resources for staffing emergency services at the Children's Dallas and Legacy campuses. Nineteen faculty provide 24/7 double coverage and triple coverage during peak hours at the Dallas campus. In addition, the faculty provide limited clinical coverage 8-12 hours/day at the Legacy campus. Adult emergency medicine physicians from the adult emergency medicine department at UT Southwestern, and two contracted pediatricians with extensive emergency medicine experience, participate in providing clinical services at Dallas. The clinical service is also augmented by nine PEM fellows and six mid-level providers. While recruitment efforts continue, the Legacy campus PEM clinical service is predominantly covered by contracted physicians 24/7 with an additional clinical support provided by the PEM division faculty.



The Emergency Department (ED) is an ACS certified level I pediatric trauma center and provides trauma stabilization and resuscitation for serious and critical injuries arriving by ambulance. There are two board certified pediatric emergency medicine toxicologist who manage a special lead clinic at Children's and provide toxicology consultation service to Children's and Parkland.

Over 116,700 patients were cared for during the last academic year at three clinical service areas. The majority of these patients (60,611) were evaluated in the ED. The remaining patients had lower acuity and were evaluated in First Care and the Referral Care Clinic, which provide urgent care resources to meet the needs of the private practicing pediatricians in the Metroplex. Most ED patients are seriously ill or injured, or with complex special health care needs, and received specialty care and consultation from the sub-specialists providing services at Children's Medical Center. Approximately 25% of the patients evaluated in the ED are admitted to the hospital. Aside from the care provided to acutely ill and injured children, faculty perform many procedural sedations for fracture reductions, laceration repair, and incision and drainage of abscesses. As a tertiary care pediatric facility, the ED received many transfers from other hospitals' emergency departments.

Despite an increase of 15% in patient volume, from 101,480 in 2008 to 116,709 in 2009, the division continued to improve key performance measures. The overall mean length of stay decreased by 10.37% in 2009 compared to 2008, and the number of patients that left without being seen decreased by 11%. In addition, the door-to-provider time decreased by 22% from 149 minutes in 2008 to 115 minutes in 2009. Furthermore, the ED patient satisfaction scores in 2009 improved by 11% from 2008 scores.



In 2009, the area experienced two flu epidemics, which were managed effectively by creating an alternate care site (ACS), in collaboration with the hospital administration, medical staff, and infectious control, where care for approximately 8,000 children was provided. The ACS, staffed by members of the medical staff, ED physicians, nurse practitioners, and physician assistants, provided an excellent service to these patients while allowing the emergency department to focus on acutely ill and injured children. In preparation for the winter season the emergency department and inpatient services developed a plan to improve continuity of care for admitted patients when bed availability is limited (a boarder process). The process started late in December, and the exact impact on admitted patients length of stay, patient, parents, and physician satisfaction is to be determined.

Presentations/Teaching Activities

The Emergency Medicine faculty and fellows are very active in providing didactic education internally to UT Southwestern residents and medical students, and physicians locally and nationally. Major internal educational activities include didactic lectures to the Pediatric, Family Medicine, and Emergency Medicine residents. The faculty are also involved in teaching pediatric advanced life support (PALS) and advanced trauma life support (ATLS), and operating the simulation lab. Dr. Julia McDonald is heavily involved with international health, traveling to Haiti and the Dominican Republic to teach Pediatric Emergency Medicine to physicians. She often invites other Emergency Medicine physicians and residents/medical students to travel with her.

Halim Hennes, M.D., M.S.

- “Implementing the IOM Recommendation in Prehospital Care Emergency Medical Service for Children,” Annual Stake Holders Meeting, Silver Spring, MD, March 2009
- “Show Me the Money - Improving Your Odds for Securing Grant Funding in Prehospital Research,” Pediatric Academic Scarcities, Baltimore, MD, May 2009
- “Research in Pediatric Emergency Medicine,” Texas Pediatric Society Annual Meeting, Plano, TX, September 2009

Philip Ewing, M.D.

- “Pediatric Diabetes: Ready for a New High?,” Pediatric Emergency Services Network, St. Paul University Hospital, Dallas, TX September 2009

Sing-Yi Feng, M.D.

- “Unborn Children with Drug Exposure,” Texas Substance Abuse Prevention and Coalition Conference, Family Issues and Dynamics in Addiction: From Conception to Teen Years, Plano, TX, February 2009
- “Children: The Industry’s New Marketing Target,” American College of Medical Toxicology: Drugs of Abuse Course, San Juan, Puerto Rico, March 2009
- “Development of Pediatric Emergency Medicine in the United States,” Emergency Medicine Residency Conference, National Cheung Kung University Medical College, Tainan, Taiwan, December 2009

Audra L. McCreight, M.D.

- “Focused Assessment with Sonography for Trauma in the Pediatric Patient,” Texas Emergency Medical Services Annual Meeting, Dallas, TX, November 2009

Robert A. Wiebe, M.D.

- “PEM Tricks of the Trade,” Annual PEM Fellow’s Conference, Washington University, St. Louis, MO, March 2009
- “Sorting out Apparent Life-Threatening Events” and “Breaking Clinical Paradigms that Result in Delays in Care,” American College of Emergency Physicians Annual Pediatric Emergency Medicine Symposium, Boston, MA, April 2009
- “Research in EMSC” and “Facilitator, Fellow’s Research,” Texas Pediatric Society Annual Meeting, Plano, TX, September 2009
- “Making Sense of Cardiac Emergencies in Children,” “The Moving Target: Management of Fever in Children,” “Kids With Special Health Care Needs: Trouble Shooting High-Tech Gear” and “Visual Diagnosis in Children: Troubleshooting High-Tech Gear,” 25th Annual Conference on Pediatric Emergencies, Aruba Dutch Caribbean, Symposia Medicus, October 2009

Major Administrative or Leadership Responsibilities

Halim Hennes, M.D., M.S.

- Director, Division of Pediatric Emergency Medicine
- Medical Director of Emergency Services, Children’s
- Member, Board of Directors, Dallas Physicians for Children
- Member, Committee on Pediatric Emergency Medicine, Texas Pediatric Society
- Member, NACHRI quality improvement committee steering committee
- Member, NACHRI pediatric pain management in the emergency department planning group.
- Member, Annual Stakeholders Meeting Planning Committee, Emergency Medical Services for Children’s Medical Center Dallas, Washington DC, March 2009

Children’s Medical Center Dallas is the only level-1 pediatric trauma center in Texas and a major regional referral center for acutely ill or injured children.

Beatrix Bansal, M.D.

- Board Member and Volunteer, Frisco Kids Clinic, 2008-2010

Craig J. Huang, M.D.

- Section Editor, ENT Section, PEMsoft, Pediatric Emergency Medicine Clinical Decision Support Software and Multi-media Medical Reference, Version: v2.7
- Member, All-Hazards Disaster Training Core Competencies Task Force, American College of Emergency Physicians, June/September 2009
- Editor and Major Contributor, PEMPix (<http://www.aap.org/moc/pempix>), A Web-Based Pediatric Emergency Medicine Clinical Image Library Sponsored by the Section of Emergency Medicine, American Academy of Pediatrics
- Member, Editorial Board (PREP E-Med) Pediatrics Review and Education Program-Emergency Medicine, American Academy of Pediatrics
- Media Editor, PREP E-Med, American Academy of Pediatrics

Robert A. Wiebe, M.D.

- Chair, Committee on Continuing Medical Education, American Academy of Pediatrics
- Chair, Sub-board Pediatric Emergency Medicine, American Board of Pediatrics
- Member, Committee on Pediatric Emergency Medicine, Texas Pediatric Society

Awards and Honors

Robert A. Wiebe, M.D.

- Pioneer Award, Tennessee Emergency Medical Services for Children Foundation



Perrin White, M.D.
Director, Pediatric Endocrinology

The Division of Pediatric Endocrinology undertakes teaching, research and clinical care of patients with diabetes, obesity and endocrine disorders that affect growth, pubertal development or the function of the endocrine glands, such as the thyroid and adrenals. It is one of the largest such divisions in the country and is the only major program caring for children with diabetes in the Dallas metropolitan area. Because the division cares for such a large number of children with these disorders, within a very large catchment area (a 100- to 150-mile radius in most directions), it is in a unique position to provide fellowship training and conduct clinical research.

The division was created 15 years ago and has grown from a minimum of three faculty members to 11 full-time and three part-time faculty members, three of whom have M.D., Ph.D. degrees. Eight faculty members have active research programs that have received competitive funding.

The fellowship program accepted its first extramural fellow in 1999 and has grown to accept two fellows per year, all of whom have been fully American-trained. Approximately half of the fellows come from the medical school's own pediatric residency program. The fellowship program emphasizes both broad and deep clinical training as well as experience in clinical research, bench research or both. All of the fellows have published their fellowship projects as one or more papers in peer-reviewed literature, and the majority of division graduates take academic positions at UT Southwestern or other medical schools.

Teaching is a top priority, and several fellows and faculty members have won local teaching awards from medical students or residents. A high value is placed on community service and many faculty members volunteer at two local diabetes camps run by the division. In addition, two Endocrinology faculty members serve as medical directors for the camps.

The only major program caring for children with diabetes in the Dallas metropolitan area.

Faculty

Perrin C. White, M.D., Professor, was the first to hold the Audrey Newman Rapoport Distinguished Chair in Pediatric Endocrinology. He was recruited to UT Southwestern as Director of the Pediatric Endocrinology program in 1994 from Cornell University Medical College in New York, where he was Professor of Pediatrics. Dr. White's clinical interests are in pediatric endocrinology. He has conducted research on several genetic diseases of steroid hormone biosynthesis and metabolism including diseases affecting blood pressure, functional analysis of large G-protein coupled receptors and most recently, gene expression in white blood cells in children with either Type 1 or Type 2 diabetes mellitus. Dr. White received his A.B. *magna cum laude*, from Harvard College, Cambridge, Massachusetts, in 1972, and his M.D. from Harvard Medical School, Boston, Massachusetts, in 1976. He held residencies in pediatrics at Johns Hopkins Hospital, Baltimore, Maryland, from 1976 to 1978 and at New York Hospital from 1980 to 1981, and he held a research fellowship in developmental molecular biology at Rockefeller University, New York, from 1978 to 1980. He has received a number of awards and honors, including the Ernst Oppenheimer Award of the Endocrine Society and the Mead-Johnson Award of the Society for Pediatric Research. He has served on numerous advisory committees for the National Institutes of Health and on several editorial boards.



Soumya Adhikari, M.D.

Assistant Professor, Pediatrics and Pharmacology

Clinical expertise: Pediatric endocrinology

Research expertise: Preservation of beta cell function in Type 1 diabetes

Education: University of Florida, Gainesville, B.S., 1996; University of Miami School of Medicine, FL, M.D., 2001

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2001-2004; UT Southwestern, Fellow, Pediatric Endocrinology, 2004-2007



Kamal Bharucha, M.D., Ph.D.

Assistant Professor, Pediatrics and Pharmacology

Clinical expertise: Pediatric endocrinology

Research expertise: Drosophila (fruit flies) as a model organism for metabolic diseases and regulation of energy homeostasis

Education: Brooklyn College, City University of New York, NY, B.A., *summa cum laude*, 1987; University of California-Berkeley, Ph.D., 1992; Yale University School of Medicine, New Haven, CT, M.D., 1998

Post-doctoral training: Johns Hopkins Hospital, Baltimore, MD, Resident, Pediatrics, 1998-2001; University of California-Los Angeles, Fellow, Pediatric Endocrinology, 2002-2006; Howard Hughes Medical Institute, University of California, Los Angeles, Fellow, Endocrinology Research, 2003-2006; Clinical Fellow, 2006-2007



Bryan A. Dickson, M.D.

Associate Professor

Clinical expertise: Pediatric endocrinology, particularly endocrine disorders in neuro-oncology patients, hypothalamic obesity and iatrogenic adrenal insufficiency

Education: UT Arlington, B.S., 1980; UT Health Science Center at San Antonio, M.D., 1984

Post-doctoral training: UT Health Science Center at San Antonio/Bexar County Hospital, Resident, Pediatrics, 1984-1987; UT Health Science Center at San Antonio, Fellow, Pediatric Endocrinology, 1987-1988; Children's Hospital Medical Center, Cincinnati, OH, Fellow, Pediatric Endocrinology, 1988-1990



Ernesto Fernandez, M.D.

Clinical Assistant Professor

Clinical expertise: Diabetes

Education: UT Austin, B.A., 1984; UT Southwestern, M.D., 1988

Post-doctoral training: UT Southwestern, Resident, Pediatrics, 1988-1991



Ellen K. Grishman, M.D.

Assistant Professor

Clinical expertise: Pediatric endocrinology

Research expertise: Gene expression in leukocytes in Type 1 and Type 2 diabetes

Education: Washington University, St. Louis, MO, B.A., 1996; Creighton University School of Medicine, Omaha, NE, M.D., 2000; UT Southwestern, Clinical Research Scholar, Clinical Sciences, 2008-2011

Post-doctoral training: University Hospitals of Cleveland/Rainbow Babies and Children's Hospital, OH, Resident, Pediatrics, 2000-2003; UT Southwestern, Fellow, Pediatric Endocrinology, 2003-2006

Melissa R. Ham, M.D.

Assistant Professor

Clinical expertise: Pediatric endocrinology

Education: University of South Carolina, Columbia, B.S., *magna cum laude*, 1992; University of South Carolina School of Medicine, Columbia, M.D., 1996

Post-doctoral training: University of South Carolina School of Medicine/Richland Memorial Hospital, Columbia, Resident, Pediatrics, 1996-1999; UT Southwestern, Fellow, Pediatric Endocrinology, 1999-2002



Michele R. Hutchison, M.D., Ph.D.

Assistant Professor

Clinical expertise: Pediatric endocrinology, particularly obesity and growth disorders

Research expertise: Development of the mammalian growth plate

Education: Wellesley College, MA, *cum laude*, B.A., 1988; UT Southwestern, M.D., Ph.D., 1999

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1999-2002; UT Southwestern, Fellow, Pediatric Endocrinology, 2002-2004



Bassil M. Kublaoui, M.D.

Assistant Professor, Pediatrics and Internal Medicine

Clinical expertise: Pediatric and adult endocrinology, obesity

Research expertise: Understanding the mechanism of hypothalamic obesity due to Sim1 and Oxytocin deficiency, identification of novel genes causing human obesity, utilization of hemoglobin A1c to screen for Type 2 diabetes

Education: Rutgers University, New Brunswick, NJ, B.A., 1990; Boston University School of Medicine, MA, M.D., 1997

Post-doctoral training: Harvard Combined Medicine-Pediatrics Program, Cambridge, MA, Resident, Pediatrics/Internal Medicine, 1997-2001; UT Southwestern, Fellow, Pediatric/Adult Endocrinology, 2001-2005



D. Randy McMillan, Ph.D.

Assistant Professor

Research expertise: Role of large G protein-coupled receptors in development, role of hexose-6-phosphate dehydrogenase in muscle function

Education: Angelo State University, San Angelo, TX, M.S., 1979; Texas Tech University School of Medicine, Lubbock, Ph.D., 1991



Sudha L. Mootha, M.D.

Clinical Assistant Professor

Clinical expertise: Pediatric endocrinology

Education: Baylor University, Waco, TX, B.A., *summa cum laude*, 1987; UT Medical Branch at Galveston, M.D., 1991

Post-doctoral training: Case Western University/Rainbow Babies and Children's Hospital, Cleveland, OH, Intern, Pediatrics, 1991-1992; University of California San Francisco, Resident, Pediatrics, 1992-1994; Fellow, Pediatric Endocrinology, 1994-1996; UT Health Science Center at Houston, Fellow, Pediatric Endocrinology, 1996-1998





Jon D. Oden, M.D.

Assistant Professor

Clinical expertise: Pediatric endocrinology, insulin resistance, obesity

Education: Texas Tech University, Lubbock, B.S., *magna cum laude*, 1993; Texas Tech University Health Sciences Center, Lubbock, M.D., 1997

Post-doctoral training: Texas Tech University Health Sciences Center, Lubbock, Resident, Pediatrics, 1997-2000; Duke University Medical Center, Durham, NC, Fellow, Pediatric Endocrinology, 2000-2003; Post-doctoral Research Fellow, Pediatric Endocrinology, 2003-2004



Kathryn Sumpter, M.D.

Assistant Professor

Clinical expertise: Pediatric endocrinology

Research expertise: Immunomodulation of Type 1 diabetes

Education: Rice University, Houston, TX, B.A., *summa cum laude*, 1997; UT Southwestern, M.D., 2003

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2003-2006; UT Southwestern, Fellow, Pediatric Endocrinology, 2006-2009



Grace M. Tannin, M.D.

Associate Professor

Clinical expertise: Pediatric endocrinology

Education: Washington University, St. Louis, MO, A.B., 1981; Washington University Medical School, St. Louis, MO, M.D., 1985

Post-doctoral training: Columbia-Presbyterian Medical Center, New York, NY, Resident, Pediatrics, 1985-1988; New York Hospital/Cornell University Medical Center, Fellow, Pediatric Endocrinology, 1988-1991; Center for Inherited Disorders of Energy Metabolism, Case Western Reserve University, Cleveland, OH, Fellow, Pediatric Metabolism, 1991-1993; Metabolism Training Program, Fellow, Molecular Biology of Fatty Acid Oxidation, 1993-1997



Y.C. Annie Wang, M.D.

Clinical Assistant Professor

Clinical expertise: Pediatric endocrinology

Research expertise: Behavioral interventions in type 1 diabetes patients

Education: Hendrix College, Conway, AR, B.A., 1995; University of Arkansas for Medical Sciences, College of Medicine, Little Rock, M.D., 1999

Post-doctoral training: Wake Forest University Baptist Medical Center, Winston-Salem, NC, Resident, Pediatrics, 1999-2002; Chief Resident, Pediatrics, 2002-2003; UT Southwestern, Fellow, Pediatric Endocrinology, 2004-2007

Post-doctoral Fellows and Clinical/Research Staff

Fellows (Research Interests)

Completed June 2009

Kathryn Sumpter, M.D.

- Interleukin-1 β as a therapeutic target in new onset type 1 diabetes

Nicole Barnes, M.D.

- Natural history of type 2 diabetes in children

3rd Year

Micah Olson, M.D.

- Vitamin D deficiency and type 2 diabetes in children

Ryan Stewart, M.D.

- Drosophila (fruit flies) as a model for lipodystrophy

2nd Year

Alejandro de la Torre

- The role of p53 in modulating insulin action

Susan Hsieh

- Actions of IGF-1 (insulin-like growth factor 1) at the growth plate

1st Year

Hillary Lockemer

Shona Rabon

Clinical/Research Staff

Viren Amin

Research Technician II, Eugene McDermott Center

Michelle Castro

Research Technician II

Kelli Higgins

Research Associate

Suprabha Pulipparacharuvil

Research Scientist

Vidya Rai

Research Assistant II, Eugene McDermott Center

Daniela Rogoff, M.D., Ph.D.

Research Scientist

Kristen Tolson

Student Research Assistant, Eugene McDermott Center

Alaina Watson

Research Technician II



Research Activities

Research within the division is grouped into several main themes. Research on Type 1 diabetes includes studies of gene expression in peripheral blood cells (which includes cells mediating immune responses) conducted by Dr. Ellen Kaizer Grishman, who has found that signs of inflammation are very prominent in these cells around the time when children are diagnosed. Supported by the Juvenile Diabetes Research Foundation, she and Dr. Perrin White are following up these results in test tube studies to see what factors in serum — such as glucose-modified proteins — are responsible for triggering this inflammation. Additionally, Drs. Soumya Adhikari and Kathryn Sumpter have conducted a pilot study of a powerful anti-inflammatory agent — anakinra — in children with new-onset Type 1 diabetes to see if it might be safely used to prolong the honeymoon period in which some insulin secretion remains. Additional studies are planned with a more powerful related agent.

Several faculty members are conducting research on obesity and Type 2 diabetes. Dr. Kamal Bharucha is trying to identify genes influencing fat storage and metabolism in Drosophila (fruit flies). Supported by the National Institutes of Health, Dr. Bassil Kublaoui is studying mice with a mutant gene that was first identified as being defective in a patient with severe early-onset obesity. This gene encodes a transcription factor — Sim1 — that affects gene expression within appetite control centers in the brain. Dr. Jon Oden, who directs

the Center for Obesity and Its Consequences to Health (COACH) clinic, is studying obese teenagers to see if the way in which they regulate growth hormone secretion affects how resistant they are to the normal effects of insulin. Additionally, he and Drs. Kublaoui and White are comparing different methods of screening obese children for Type 2 diabetes, with the ultimate aim of better targeting evaluation and treatment of such children to those who are most likely to have this disease. Dr. Randy McMillan and Dr. White are studying mice missing an enzyme important for glucose metabolism — hexose-6-phosphate dehydrogenase — to see how this enzyme influences the ability of liver and muscle to absorb or release glucose in response to insulin, as well as other aspects of muscle function.

Finally, Dr. Michele Hutchison conducts industry-sponsored clinical research on the therapy of short stature with the growth hormone and insulin-like growth factor-1, and NIH-supported basic research on how bones grow at specialized zones of cartilage termed growth plates.

Clinical Activities

The Division of Pediatric Endocrinology continues to grow rapidly to meet the rising demands of the community. Since 2002, the division has more than doubled in size to meet the increase in clinical volume from 5,000 visits per year to almost 13,000 visits expected in 2009. The division comprises 13 full- and part-time faculty members this year who provide comprehensive care for children with endocrine disorders, obesity and diabetes.

The Endocrinology Center has strived to be a leader in the ambulatory setting, as demonstrated by being the first clinic in the hospital to pilot and implement the EPIC electronic medical records system.

The Endocrinology Center provides 10 half-day clinic sessions per week for patients, including approximately 1,600 new patient consultations yearly. The Diabetes Program provides a comprehensive bilingual education program for both Type 1 and Type 2 diabetes and is one of only four pediatric programs in Texas certified by the American Diabetes Association. The diabetes program was also the first pediatric program in the country to receive disease-specific certification from the Joint Commission. The COACH clinic continues to provide the only comprehensive program for childhood obesity in North Texas, with more than 600 referrals per year. Expansion of the clinic to the Children's Legacy campus provides approximately 1,100 visits per year in this fast-growing area of North Texas.

The development of clinical research studies and interventional trials has increased significantly in the division over the past year and provides an opportunity to incorporate leading-edge technology into the care of the patient population.

The endocrinology inpatient service provides care for more than 600 patients admitted to the service yearly, including 260 patients with new onset diabetes. In addition, the Endocrinology inpatient service will provide approximately 300 consultations to other services during the same time period.



Presentations/Teaching Activities

Kamal Bharucha, M.D., Ph.D.

- Endocrine Pharmacology Lecturer, 2nd Year Medical Students, 2008-present

Melissa R. Ham, M.D.

- "Endocrinology for Acute Care Pediatric Nurse Practitioners," Acute Care Pediatric Nurse Practitioner Program, UT Arlington, April, 2009

Jon D. Oden, M.D.

- "Type 2 Diabetes in Youth: Current Perspectives," Texas Pediatric Society Annual Meeting, Dallas, September 2009

Major Administrative or Leadership Responsibilities

Perrin C. White, M.D.

- Director, Division of Pediatric Endocrinology
- Director, Pediatric Endocrinology Fellowship Program

Soumya Adhikari, M.D.

- Director, Pediatrics Medical Student Clerkship

Kamal Bharucha, M.D., Ph.D.

- Member, Pediatric Endocrinology Scholarship Oversight Committee, American Board of Pediatrics
- Research Mentor, Ryan Stewart, M.D., Pediatric Endocrinology Fellow

Bryan A. Dickson, M.D.

- Medical Director, Endocrinology Center, Children's
- Physician Co-director, Ambulatory and Network Services, Children's
- Chairman, HER/HIM Committee (Electronic Health Record/Health Information)
- Member, Executive Board, Southwestern Diabetic Foundation
- Member, Medical Board, Southwestern Diabetic Foundation

Ernesto Fernandez, M.D.

- Camp Director, Camp Sweeney (Diabetes Camp for Children), Gainesville, Texas
- President, Physicians for Children Foundation
- Board Member, Juvenile Diabetes Foundation
- Board Member, Southwestern Diabetic Foundation

Ellen K. Grishman, M.D.

- Academic Mentor, Hillary Lockemer, M.D., Pediatric Endocrinology Fellow
- Member, Pediatric Endocrinology Scholarship Oversight Committee, American Board of Pediatrics

Melissa R. Ham, M.D.

- Associate Director, Pediatric Endocrinology Fellowship Program

Michele R. Hutchison, M.D., Ph.D.

- Research Mentor, Micah Olson, M.D., Pediatric Endocrinology Fellow
- Research Mentor, Nicole Barnes, M.D., Pediatric Endocrinology Fellow

Jon Oden, M.D.

- Clinical Director, COACH Clinic, Children's
- Medical Director, Camp Sweeney (Diabetes Camp for Children), Gainesville, TX

Grace M. Tannin, M.D.

- Medical Director, Camp New Horizons (American Diabetes Association camp)
- Member, Dallas ADA Advisory Board
- Member, ADA National Camp Workgroup

Awards and Honors

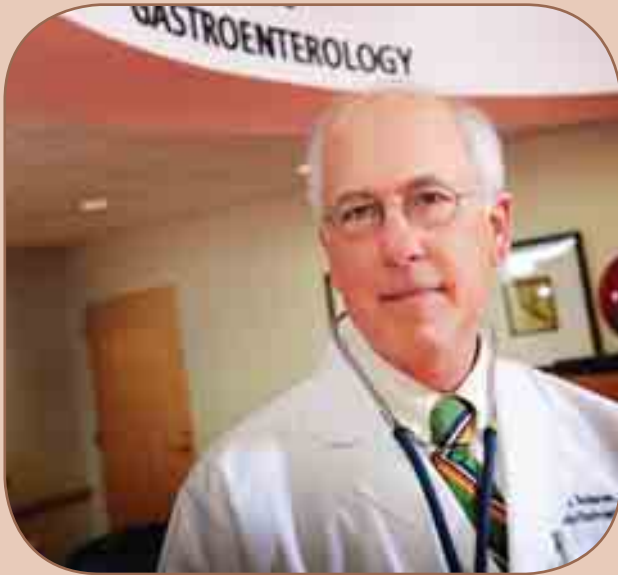
Kamal Bharucha, M.D., Ph.D.

- 2009 President's Research Council Distinguished Young Researcher Award
- K-08 Physician Scientist Career Award

Ellen K. Grishman, M.D.

- Clinical Research Scholar, Department of Clinical Sciences, UT Southwestern, 2008-2011

Inpatient care provided for more than 600 patients, including 260 with new onset diabetes.



John Andersen, M.D.
Director, Pediatric Gastroenterology

As the major program in North Texas caring for children with gastrointestinal disorders, the Division of Gastroenterology at UT Southwestern provides patient-centered, family-focused care to an ever expanding population. This nationally recognized division includes distinguished individuals focusing on diverse areas of Gastroenterology, including molecular biology of cholestatic liver disease, neurogastroenterology, chronic viral hepatitis, inflammatory bowel disease, therapeutic endoscopy, and intestinal rehabilitation and transplantation of liver and intestine.

The recruitment of Dr. Meghana Sathe and the departure of Dr. Naveen Mittal kept the number of full-time physician faculty members at ten, and there are four full-time nurse practitioners. A vibrant, expanding full-service outreach program for consultative general Gastroenterology was established under Dr. Michael Russo's leadership at Children's Legacy. In the upcoming year, the youthful division will add a full-time psychologist, at least two more gastroenterologists, and a fifth nurse practitioner.

Consequently, there will be an expansion of programs in neurogastroenterology and intestinal rehabilitation and creation of a program focusing on several aspects of nutritional disorders.

Six gastroenterology fellows train in basic research areas throughout UT Southwestern, including hepatobiliary transport physiology, metabolic liver disease, the molecular pathobiology of steatohepatitis, and basic transplant immunobiology. In addition, physician and nursing members of the division provide leadership on multiple committees throughout the medical center.

Faculty

John M. Andersen, M.D., Professor, is the Director of Pediatric Gastroenterology at UT Southwestern. In addition to general Pediatric Gastroenterology, his clinical specialties and areas of research are cyclic vomiting syndrome, inflammatory bowel disease and eosinophilic esophagitis. Dr. Anderson graduated from Austin College, Sherman, Texas, with a B.A. in 1966. In 1970, he received his medical degree from the University of Pennsylvania School of Medicine in Philadelphia, where he interned from 1970 to 1971. He completed his residency in Pediatrics at Children's in 1975 and a fellowship in Gastroenterology and Lipid Metabolism at UT Southwestern in 1978.

Bradley A. Barth, M.D.

Assistant Professor

Director, Gastroenterology Endoscopy Unit, Children's

Clinical expertise: Therapeutic endoscopy in children including ERCP, balloon enteroscopy, treatment of acute and chronic gastrointestinal bleeding, management of esophageal strictures and capsule endoscopy

Education: UT Austin, TX, B.A., 1993; UT School of Public Health, Houston, M.P.H., 1995; UT Health Science Center at San Antonio, M.D., 1998

Post-doctoral training: Tufts-New England Medical Center/Floating Hospital for Children, Boston, MA, Resident, Pediatrics, 1998-2001; Harvard University, Boston, MA, Fellow, Pediatric Gastroenterology, Hepatology and Nutrition, 2001-2004





Nandini Channabasappa, M.D.

Assistant Professor

Clinical expertise: Intestinal failure and rehabilitation, therapeutic endoscopy

Education: Vanderbilt University, Nashville, TN, B.S., 1993; University of the West Indies, St. Augustine, Trinidad, M.B.B.S., 2000

Post-doctoral training: Henry Ford Hospital, Detroit, MI, Intern, Pediatrics, 2002; Wayne State University/Children's Hospital of Michigan, Detroit, Resident, Pediatrics, 2002-2005; UT Southwestern, Fellow, Pediatric Gastroenterology, 2005-2008



Andrew P. Feranchak, M.D.

Associate Professor

Clinical expertise: Pediatric gastroenterology

Research expertise: Cholestatic liver disease, cystic fibrosis, hepatobiliary transport, mechanisms of bile formation, purinergic regulation of biliary secretion

Education: University of Notre Dame, IN, B.S., 1988; University of Pittsburgh School of Medicine, PA, M.D., 1992

Post-doctoral training: University of Pittsburgh Medical Center/Children's Hospital of Pittsburgh, PA, Resident, Pediatrics, 1992-1995; University of Colorado Health Sciences Center, Denver, Fellow, Pediatric Gastroenterology, Hepatology and Nutrition, 1995-1998; Research Fellow, 1998-1999



Naveen Mittal, M.D.

Associate Professor

Director, Hepatology and Transplantation

Director, Intestinal Rehabilitation and Transplantation

Clinical expertise: Liver disease, liver transplantation, intestinal failure, intestinal transplantation

Education: University College of Medical Sciences, New Delhi, India, M.B.B.S., 1984; Maula Azad Medical College and Associated Hospitals, New Delhi, India, M.D., 1988

Post-doctoral training: Safdarjung Hospital, New Delhi, India, Intern, 1984; Resident, Pediatrics and Surgery, 1985; Maulana Azad Medical College and Associated Hospitals, New Delhi, India, Resident, Pediatrics, 1986-1988; South Cleveland Hospital, Middlesbrough, U.K., Senior House Officer, Pediatrics, 1989-1990; Bristol Royal Hospital, U.K., Fellow, Gastroenterology, 1990-1991; Hahnemann University Hospital, Philadelphia, PA, Resident, Pediatrics, 1992-1993; University of Chicago Hospital, IL, Fellow, Pediatric Gastroenterology, Hepatology and Nutrition, 1994-1996



Ashish Patel, M.D.

Assistant Professor

Clinical expertise: Pediatric gastroenterology, inflammatory bowel disease

Research expertise: Inflammatory bowel disease

Education: Emory University, Atlanta, GA, B.S., 1995; Texas A&M University Health Sciences Center, College of Medicine, College Station, M.D., 2000

Post-doctoral training: Scott & White Hospital, Temple, TX, Resident, Pediatrics, 2000-2003; UT Southwestern, Fellow, Pediatric Gastroenterology, 2003-2006

Norberto Rodriguez-Baez, M.D.

Associate Professor

Director, Gastroenterology Fellowship

Clinical expertise: Pediatric gastroenterology, liver disease, liver transplantation, hepatitis C

Research expertise: Liver failure, hepatitis B, hepatitis C

Education: University of Puerto Rico, Cayey, B.S., 1990; University of Puerto Rico-School of Medicine, San Juan, M.D., 1994

Post-doctoral training: University of Puerto Rico-School of Medicine, San Juan, Intern, Pediatrics, 1994-1995; Resident, Pediatrics, 1995-1997; Stanford University School of Medicine, Palo Alto, CA, Fellow, Pediatric Gastroenterology, Hepatology and Nutrition, 1998-2001



Michael A. Russo, M.D.

Assistant Professor

Director, Pediatric Gastroenterology, Children's Legacy

Clinical expertise: Eosinophilic esophagitis, inflammatory bowel disease, intestinal polyps

Education: University of South Alabama, Mobile, B.S., 1994; University of South Alabama College of Medicine, Mobile, M.D., 1998

Post-doctoral training: University of Arkansas for Medical Sciences, Little Rock, Resident, 1999-2001; UT Southwestern, Fellow, Gastroenterology and Nutrition, 2001-2004; Clinical and Research Fellow, 2001-2002



Rinarani M. Sanghavi, M.D.

Assistant Professor

Director, Pediatric Neurogastroenterology

Clinical expertise: Pediatric motility disorders, neurogastroenterology

Education: Jaihind College, Mumbai, India, H.S.C. 1994; Seth G.S. Medical College, University of Mumbai, India, M.B.B.S., 1998

Post-doctoral training: Seth G.S. Medical College, Bombay, India, Intern, Pediatrics, 1999, SUNY, Downstate Medical Center, Brooklyn, Resident, Pediatrics, 2001-2004; UT Southwestern, Fellow, Gastroenterology, Hepatology and Nutrition, 2004-2007; UT Southwestern, Clinical and Research Fellow, 2005-2006



Meghana Sathe, M.D.

Assistant Professor

Clinical expertise: Pediatric gastroenterology, nutrition

Research expertise: Cystic Fibrosis, nutrition

Education: Wellesley College, MA, B.A., 1999; University of Miami, Miller School of Medicine, FL, M.D., 2003

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2003-2006; UT Southwestern, Fellow, Pediatric Endocrinology & Nutrition, 2006-2009



Gaith M. Semrin, M.D.

Assistant Professor

Clinical expertise: Pediatric gastroenterology, inflammatory bowel disease

Research expertise: Inflammatory bowel disease

Education: University of Jordan, Amman, Faculty of Medicine, M.B.B.S., 1995

Post-doctoral training: Al-Basheer Hospital, Ministry of Health, Amman, Jordan, Intern, 1995-1996; New England Medical Center/Floating Hospital for Children at Tufts, Boston, MA, Resident, Pediatrics, 1998-2000; Fellow, Pediatric Gastroenterology, 2001; Harvard Medical School, Boston, MA, Fellow, Gastroenterology and Nutrition, 2001-2004



Post-doctoral Fellows and Clinical/Research Staff

Fellows (Research Interests)

Completed June 2009

Michele Alkalay, M.D.

- Role of dendritic cells in development of steatohepatitis

Meghana Sathe, M.D.

- Regulation of bile formation

3rd Year

Michael Dougherty, D.O.

- Regulation of bile formation

Charina Ramirez, M.D.

- Niemann-Pick type C

2nd Year

Amal Aqul

- Cholesterol transport metabolism in Niemann-Pick type C and Wolman disease

Edaire Cheng

- Eosinophilis esophagitis and gastroesophageal reflux disease

1st Year

Isabel Rojas

- Itching in cholestasis

Lillienne Yoon

- Transitioning adolescents with IBD to adult care

- COMMD proteins in IBD

Research Staff

Amal Dutta, M.B.B.S., Ph.D.

Post-doctoral Researcher

Sharon Judy, RNC

Research Coordinator

Charles Kresge

Research Associate

Shirley Montanye, RN, CCRC

Research Coordinator

Kangmee Woo

Post-doctoral Researcher



Research Activities

Funded gastroenterology research spans a wide range of important areas in both basic science and clinical investigation. Hepatology, both basic and clinical, comprises the most active area of investigation. Dr. Andrew Feranchak is recognized internationally for his innovative approaches to elucidating the basic mechanisms regulating biliary secretion and mechanisms of bile formation using in vitro models employing well characterized hepatocyte and cholangiocyte cell lines. More specifically his laboratory is investigating the regulatory role of purinergic signaling in biliary secretion and bile formation. Dr. Feranchak's research is pivotal, since it is very likely that therapeutic interventions for cholestatic liver disease await a basic understanding of the basic mechanisms of bile flow.

Dr. Norberto Rodriguez-Baez is the principle investigator at our site for a national, multicenter, NIH-supported study examining the causes for fulminant hepatic failure in children. Dr. Rodriguez-Baez's second group of studies involves treatment of chronic hepatitis B and C.

The second general area of active clinical research involves inflammation in the GI tract. Dr. Ashish Patel is leader of nutritional management algorithm development for the Trailblazer Collaborative for pediatric Inflammatory Bowel Disease. Dr. John Andersen is investigating new treatments for eosinophilic esophagitis.

Clinical Activities

The nationally recognized clinical programs of the Division of Gastroenterology, Hepatology and Nutrition are housed at Children's Medical Center Dallas with satellite activity at Children's Legacy. In the patient-centered, family-oriented environment, ten Gastroenterology physicians, five Gastroenterology nurse practitioners, two physician assistants, and a child psychologist embedded in the gastroenterology program, provide multidisciplinary, comprehensive state-of-the-art care for children with virtually any gastrointestinal or liver problem.

The team also includes six dedicated outpatient Gastroenterology nurse coordinators supported by four medical assistants, four nurses plus two medical assistants staffing the gastroenterology laboratory. There are two full-time dietitians, a child life worker, social workers, a pharmacist, and an enterostomal therapist/nurse educator. In addition there are six Gastroenterology fellows.

Over 14,500 clinical services were delivered in five main venues:

• Sixteen-bed inpatient unit dedicated to Gastroenterology and liver, including transplantation	700
• Inpatient consultations	684
• New outpatient facilities at Children's Dallas with 15 exam rooms and infusion area	7,176
• Outpatient center at Children's Legacy	3,574
• Gastroenterology laboratory procedures	2,421

The division also provides services through several special programs including the:

- **Neurogastroenterology** program for the evaluation and management of children with a wide range of disorders including abdominal pain, abnormal motility, vomiting and constipation.
- **Hepatology** program which is producing internationally recognized research and clinical studies in viral hepatitis treatment and acute liver failure, and a basic liver transplant program that ranks among the busiest in the United States with results second to none.
- **Intestinal Rehabilitation** program, which is one of the largest in the country and the only program of this type in the Southwest.
- **Southwestern Center for Pediatric Inflammatory Bowel Disease (IBD)**, which is the only center in the Southwest providing comprehensive care for children with IBD.
- **Therapeutic Endoscopy** program, which is one of fewer than 10 programs in the United States performing specialized, cutting-edge endoscopic procedures, including endoscopic retrograde cholangiopancreatography in children of all ages.
- **Gastroenterology physician who is on call** daily to take calls from physicians.

Presentations/Teaching Activities

The Gastroenterology division is actively involved in the teaching of medical students, residents and fellows. The main venue for resident and student education is a rotation in the inpatient unit, where two to three first-year residents, a senior resident, and medical students participate in a four-week rotation. Teaching is provided through direct patient care, bedside teaching, small-group discussions and didactic conferences. Electives are also offered in the Gastroenterology outpatient clinic for medical students, residents and visiting students/residents from other academic institutions.

The fellowship program, overseen by the Accreditation Council for Graduate Medical Education, currently has six fellows. The majority of fellowship education is through didactic conference and active participation in the inpatient, outpatient, and consulting services as well as the performance of procedures. Fellows also are actively involved in scholarly activities and research throughout their three years of training. The Division has created an elective in nutrition with collaboration of the dietitians at Children's. This elective is offered to pediatric residents as well as to pediatric and adult Gastroenterology fellows.

Dr. Norberto Rodriguez-Baez is the fellowship program director as well as the education coordinator in the Division of Gastroenterology. Responsibilities include planning, execution, and evaluation of all inpatient and outpatient rotations, didactic activities, development of curricular activities, and assessment methods for medical students, pediatric residents, and fellows. Mrs. Erica McPhail is the administrative coordinator for the fellowship program and its educational activities.

Bradley A. Barth, M.D.

- "Endoscopic Management of Complex Esophageal Strictures" and "Faculty for Endoscopic Application of Endoclips," NASPGHAN/ASGE Hands on Therapeutic Pediatric Endoscopy Course, Oak Brook, IL, October 2009
- "Faculty for Hands-on Single Balloon Enteroscopy Station," "Meet the Professor - Endoscopic Research," "Transnasal Endoscopy to Place Antroduodenal Motility Catheters in Pediatric Patients," "Single Balloon Enteroscopy in Children: Initial Experience at a Large Pediatric Center," "Argon Plasma Coagulation in the Treatment of a Child with Severe Radiation Induced Hemorrhagic Gastritis" and "Therapeutic ERCP in the Management of Bile Leaks After Traumatic Liver Injury in Children," NASPGHAN Annual Meeting, Washington, DC, November 2009

Nandini Channabasappa, M.D.

- Pediatric Gastroenterology Core Curriculum Lecture to NP Students, UT Arlington, TX, April 2009

Andrew P. Feranchak, M.D.

- "Cystic Fibrosis Liver Disease: Lessons from the Bench," NASGHAN Pediatric Symposium, American Association for the Study of Liver Diseases (AASLD) Annual Meeting, San Francisco, CA, October 2008
- "Pathophysiology and Risk Factors for Advanced CF Liver Disease," AASLD Clinical Symposium "Cystic Fibrosis Liver Disease in the 21st Century," Chicago, IL, May 2009
- "Cystic Fibrosis Liver Disease: CFTR and the Liver," NIH NIDDK-sponsored Cystic Fibrosis Liver Disease Clinical Research Workshop, Bethesda, MD, June 2009

Ashish Patel, M.D.

- "Genetics in Inflammatory Bowel Disease," 2nd Annual Update in Diagnosis and Management of Inflammatory Bowel Disease, Irving, TX, February 2009
- "Inflammatory Bowel Disease, Diagnosis and Treatment for the Primary Practitioner," 41st Annual Kenneth C. Haltalin Pediatrics for the Practitioner, UT Southwestern, April 2009
- "Recurrent Abdominal Pain in Children," BAPS Pramukh Swami Hospital, Surat, India, December 2009

Norberto Rodriguez-Baez, M.D.

- “Children With HCV Infection Show High Sustained Virologic Response Rates On Peginterferon Alfa-2B Plus Ribavirin Treatment,” Wirth S, Ribes-Koninckx C, Bortolotti F, Zancan L, Jara P, Shelton M, Nanda Kerkar, Galoppo C, **Rodriguez-Baez N**, Mirta Ciocca M, Lachaux A, Lacaille F, Lang T, Kullmer U, Dietrich Huber W, Gonzalez T, Pollack P, Alonso E, Broue P, Ramakrishna J, Neigut D, Del Valle-Segarra A, Hunter B, Brass C, Noviello S, Sniukiene V, Harvey J, and Albrecht J, 59th Annual Meeting of the American Association for the Study of Liver Diseases, San Francisco, CA, November 2008 (poster presentation)
- “Percutaneous Endoscopic Gastrostomy in Children: A Comparison of Clinical Experience,” Sathe M, Ali S, Dougherty M, **Rodriguez-Baez N**, North American Society for Pediatric Gastroenterology, Hepatology and Nutrition Annual Meeting, San Diego, CA, November 2008 (poster presentation)
- “Alagille’s Syndrome and Liver Transplantation,” Annual Meeting for Families with Alagille Syndrome, Dallas, TX, March 2009
- “Experiences as a Latino in Medicine,” Latino Medical Student Association, Southwest Region Conference, UT Southwestern, April 2009
- “An Analysis of Viral Testing in Non-APAP Pediatric Acute Liver Failure (PALF),” Schwarz K, Dell-Olio D, Lobritto S, Lopez M, **Rodriguez-Baez N**, Yazigi N, Belle S, Lawlor S, Zhang S, Squires R, Digestive Disease Week and the 110th AGA Institute Annual Meeting, Chicago, IL, May 2009 (poster presentation)

Rinarani M. Sanghavi, M.D.

- “Refractory Constipation in Children,” NASPGHAN-CDHNF, San Diego, CA, October 2008

Major Administrative or Leadership Responsibilities**John M. Andersen, M.D.**

- Director, Division of Pediatric Gastroenterology
- Ad Hoc Reviewer, Pediatric Nephrology
- Ad Hoc Reviewer, Journal Pediatric Gastroenterology and Nutrition

Bradley A. Barth, M.D.

- Director, Endoscopy Lab, Children’s
- Member, Endoscopy Procedures Committee, NASPGHAN
- Ad Hoc Reviewer, Gastrointestinal Endoscopy
- Contributor and Editor, NASPGHAN Endoscopy Challenge, www.naspgghan.org (Challenge #1, May 2009)
- Assisted in authoring NASPGHAN Training Guidelines for Endoscopy and Procedures and Pancreatic Disease

Andrew P. Feranchak, M.D.

- Coordinator, Pediatric GI Research Conference, Children’s, UT Southwestern
- Member, Cystic Fibrosis Foundation Professional Education Committee
- Member, Abstract Selection Committee, American Association for the Study of Liver Diseases
- Member, Abstract Selection Committee, American Gastroenterological Association
- Member, Training Committee, NASPGHAN
- Director, National First-year Pediatric Gastroenterology Fellows Conference, NASPGHAN
- Member, Fellow’s Basic and Clinical Research Award Selection Committee, Society of Pediatric Research
- Moderator and Faculty Member, First and Second-year Pediatric Gastroenterology Fellow’s Conference, NASPGHAN

Naveen K. Mittal, M.D.

- Director, Pediatric Hepatology & Liver Transplantation, Intestinal Transplantation, UT Southwestern/Children’s
- Journal Reviewer, Pediatric Transplantation
- Journal Reviewer, Journal of Pediatric Gastroenterology and Nutrition

Ashish Patel, M.D.

- Member, Medical Advisory Committee, North Texas Chapter, Crohn's and Colitis Foundation of America
- Counselor and Medical Liaison, Camp Oasis (a camp for children with inflammatory bowel disease)
- Core Interviewer, Pediatric Residency Program, UT Southwestern
- Ad Hoc Reviewer, Pediatric Infectious Disease Journal
- Ad Hoc Reviewer, Practical Gastroenterology

Norberto Rodriguez-Baez, M.D.

- Director, Pediatric Fellowship Program, Gastroenterology and Nutrition
- Core Interviewer, Pediatric Residency Program
- Reviewer, Pediatric Infectious Diseases Journal
- Reviewer, Journal of Pediatrics
- Member, Humanitarian Mission to Honduras Team
- Chair, International Committee, North American Society for Pediatric Gastroenterology, Hepatology and Nutrition
- Member, Organizing Committee, LASPGHAN Conference at the NASPGHAN Annual Meeting

Michael A. Russo, M.D.

- Dallas Metroplex Medical Liaison, Hands of Hope (an eosinophilic esophagitis support group)

Rina Sanghavi, M.D.

- Member, Advocacy Council, North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition
- Member, Professional Development Committee, North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition
- Member, Webpage Taskforce, North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition

Gaith Semrin, M.D.

- Member, Core Ranking Group for Pediatric Residency Program

Awards and Honors

John M. Andersen, M.D.

- Best Doctors in America
- America's Top Gastroenterologists, Consumer's Research Council of America

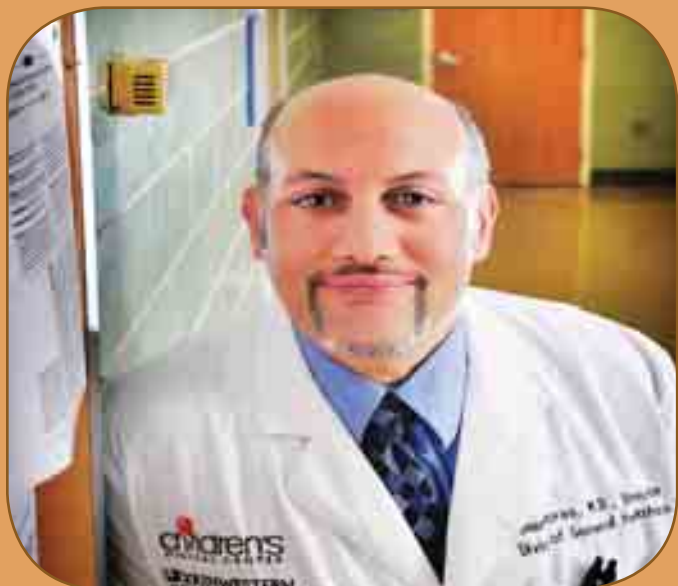
Andrew P. Feranchak, M.D.

- America's Top Pediatricians, Pediatric Gastroenterology, Consumer's Research Council of America
- America's Top Doctors, Castle Connolly
- Best Doctors in America

Naveen K. Mittal, M.D.

- Best Doctors in America





Glenn Flores, M.D., F.A.A.P.
Director, General Pediatrics

The mission of the Division of General Pediatrics is to improve the health and well-being of children through excellence in clinical care, teaching, research, and advocacy. The division has recognized national leadership in research, health policy, and advocacy regarding racial and ethnic disparities in child health, and in improving access to and quality of care for underserved populations of children.

In 2009, Division faculty supervised the care of over 10,000 patients seen by CMC pediatric residents in the Resident Continuity Clinic. Our Attending Physicians also cared for over 6,000 hospitalized children on the inpatient teaching services, while providing outstanding teaching to pediatric residents and UTSW medical students. There were 1,604 visits to the Foster Care Clinic, 1,024 visits to the REACH Clinic, 363 visits to the Medical Student Clinic (supervised by General Pediatrics Attending Physicians), and 122 visits to the International Adoption Medicine Service. The

Adolescent Young Adult Service experienced 1,999 visits in 2009. The division also initiated the Pediatric Diagnostic and Consultation Clinic.

Since the last Annual Report, division faculty published 16 articles and book chapters, including articles in *Pediatrics*, the *American Journal of Preventive Medicine*, *Academic Pediatrics*, the *Journal of Asthma*, the *Journal of the American Dental Association*, and *Pediatric Pulmonology*. Our two Academic General Pediatrics fellows presented abstracts at the 2009 Pediatric Academic Societies meetings, including a platform presentation in the prestigious AAP Presidential Plenary session.

Division faculty garnered numerous honors and awards, including invited written testimony for the United States Congress, appointment to an Institute of Medicine committee, election as the Chair of the Research Committee of the Academic Pediatric Association, membership on the Diversity Task Force for the Society for Adolescent Medicine, co-founding and co-chairing the Family-Centered Care Special Interest Group of the Academic Pediatric Association, the Millie and Richard Brock Award for Distinguished Contributions to Pediatrics, the Physician Award from the Dallas Business Journal Healthcare Heroes, membership on the Texas Department State Health Services MedCares (Medical Child Abuse Referral and Evaluation Services) Advisory Committee, recognition as a Texas Super Doctor by Texas Monthly, appointment as the UTSW Associate Dean of Student Affairs, the UT Southwestern Socrates Award (Clinical Teaching Award), UT Southwestern Teaching Awards in Clinical Medicine (for two faculty) from the Classes of 2011 and 2012, and appointment as the Associate Program Director of the Pediatric Residency Program at Children's Medical Center Dallas.

Faculty

Glenn Flores, M.D., F.A.A.P., Professor of Pediatrics and Public Health and the Judith and Charles Ginsburg Chair in Pediatrics, is the Director of the Division of General Pediatrics and the Director of the Academic General Pediatrics Fellowship Program. Dr. Flores graduated with honors from Harvard College, Cambridge, Massachusetts, in 1984, and received his medical degree from the University of California, San Francisco, in 1989. After performing his residency in pediatrics at New York Hospital/ Cornell Medical Center from 1989 to 1992 he was a RWJ Clinical Scholar at Yale University from 1993 to 1995. He is on the editorial board of the *Journal of Health Care for the Poor and Underserved*, and previously served on the editorial

board of *Academic Pediatrics*. He is Chair of the Research Committee of the Academic Pediatric Association and a member of the National Advisory Committee of the Robert Wood Johnson Amos Medical Faculty Development Program, the Committee on Pediatric Research the American Academy of Pediatrics, and the Institute of Medicine Committee on Pediatric Health and Health Care Quality Measures. He was a member of the Expert Panel for the Department of Health and Human Services Health Care Language Services Implementation Guide, recently provided a Congressional Research Briefing, and he has testified in the United States Senate on Latino health and the Hispanic Health Improvement Act, and provided invited written testimony on health disparities for the U.S. House of Representatives' Ways and Means Committee. Dr. Flores was an invited speaker at the National Summit on America's Children convened by Speaker of the House Nancy Pelosi. He is a member of the Frew Advisory Committee for the Texas Health and Human Services Commission. He has served as a consultant and national advisory committee member for the American Medical Association, National Hispanic Medical Association, Centers for Disease Control and Prevention, the U.S. Surgeon General, and the Sesame Street Workshop. He received the 2006 American Academy of Pediatrics Outstanding Achievement Award in the Application of Epidemiologic Information to Child Health Advocacy and the 2008 Millie and Richard Brock Award for Distinguished Contributions to Pediatrics. He has published 111 articles and book chapters on a variety of topics in such journals as *JAMA*, the *New England Journal of Medicine*, *Pediatrics*, and the *Lancet*, including many papers that address uninsured children and racial/ethnic and linguistic disparities in children's health and healthcare.



Rebeca Alvarez-Piantini, M.D.

Assistant Professor

Clinical/research expertise: Child abuse, Munchausen by proxy

Education: Southwestern Adventist College, Keene, TX, B.S., 1985; Loma Linda University School of Medicine, CA, M.D., 1989

Post-doctoral training: Loma Linda University Medical Center, CA, Resident, Pediatrics, 1992



Amy Barton, M.D.

Assistant Professor

Clinical expertise: General pediatrics

Education: University of Northern Iowa, Cedar Falls, B.A., 1996; University of Oklahoma College of Medicine, Oklahoma City, M.D., 2000

Post-doctoral training: University of Oklahoma Health Sciences Center/Children's Hospital of Oklahoma, Oklahoma City, Resident, Pediatrics, 2000-2003



Jane Brotanek, M.D., M.P.H.

Assistant Professor

Clinical/research expertise: Latino child health, racial/ethnic disparities, cultural competency, iron-deficiency anemia, prolonged bottle-feeding in toddlers, early nutritional practices

Education: Yale College, New Haven, CT, B.A., 1994; New York University School of Medicine, New York, M.D., 1998; University of Rochester, NY, M.P.H., 2004

Post-doctoral training: New York University School of Medicine/St. Vincent's Medical Center, Staten Island, Resident, Pediatrics, 1998-2001; University of Rochester, NY, Fellow, General Academic Pediatrics, 2001-2004

Laura Brumley, M.D.

Assistant Professor

Clinical expertise: Adolescent medicine, child maltreatment

Education: Hendrix College, Conway, AR, B.A., 2000; UT Health Science Center at Houston, M.D., 2004

Post-doctoral training: UT Southwestern/Children's, Intern and Resident, Pediatrics, 2004-2006; Children's Hospital and Research Center, Oakland, CA, Resident, Pediatrics, 2006-2007



Matthew J. Cox, M.D.

Assistant Professor

Clinical/research expertise: Physical abuse, sexual child abuse, neglect, inpatient general pediatrics

Education: Texas A&M University, College Station, B.S., 1993; UT Medical School at Houston, M.D., 1998

Post-doctoral training: Vanderbilt University Medical Center, Nashville, TN, Resident, Pediatrics, 1998-2001; Chief Resident, 2001-2002; Children's Hospital of Philadelphia, PA, Fellow, Child Abuse and Neglect, 2002-2004



Ami Dharia, M.D.

Assistant Professor

Clinical expertise: General pediatrics

Education: Illinois Institute of Technology, Chicago, B.S., 1999; UT Southwestern, M.D., 2003

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2003-2006; Chief Resident, 2006-2007



Susan Dibs, M.D.

Clinical Assistant Professor

Clinical expertise: International adoption medicine

Education: University of California, Los Angeles, B.S., 1981; University of Pittsburgh, PA, M.S., 1985; Mount Sinai School of Medicine, New York, NY, Ph.D., 1987; Case Western Reserve University, Cleveland, OH, M.D., 1991

Post-doctoral training: Children's Hospital of Philadelphia, PA, Resident, Pediatrics, 1992-1994; Fellow, Pediatric Emergency Medicine, 1994-1997



Vanthaya N. Gan, M.D.

Professor

Clinical expertise: General pediatrics, dermatology, asthma

Education: Mahidol University, Bangkok, Thailand, B.S., 1971; Mahidol University, Ramathibodi Hospital, Bangkok, Thailand, M.D., 1973

Post-doctoral training: Ramathibodi Hospital, Rotating Intern, Pediatrics, 1973-1974; UT Southwestern/Children's, Resident, 1974-1977; UT Southwestern, Fellow, Ambulatory Pediatrics, 1977-1979



Lauren Gore, M.D.

Assistant Professor

Clinical expertise: General pediatrics

Education: Texas A&M University, College Station, B.S., 2000; UT Health Science Center at Houston, M.D., 2004

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2004-2007; Chief Resident, Pediatrics, 2007-2008





Julie A. Hayes, M.D.

Assistant Professor

Clinical expertise: General pediatrics

Education: Emory University, Atlanta, GA, B.S., 2000; Tulane University, New Orleans, LA, M.D., 2004

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2004-2007



Patricia J. Hicks, M.D.

Associate Professor

Clinical expertise: General pediatrics, complex care

Education: Indiana University, Bloomington, B.S., 1979; Indiana University School of Medicine, Bloomington, M.D., 1984

Post-doctoral training: Vanderbilt University Medical Center, Nashville, TN, Resident, Pediatrics, 1984-1987



Shelby Joseph, M.D.

Assistant Professor

Clinical expertise: General pediatrics

Education: Creighton University, Omaha, NE, B.A., cum laude, 2001; Rush University, Chicago, IL, M.D., 2005

Post-doctoral training: Rush University Medical Center, Chicago, IL, Resident, Pediatrics, 2006-2008; Chief Resident, 2008-2009



Nancy R. Kelly, M.D., M.P.H.

Associate Professor

Clinical/research expertise: General pediatrics, anticipatory guidance, injury and poison prevention, resident education in continuity clinic

Education: Texas A&M University, College Station, B.S., 1983, UT Medical Branch at Galveston, M.D., 1987; UT Health Science Center at Houston, M.P.H., 1994

Post-doctoral training: University of Arkansas for Medical Sciences, Little Rock, Resident, Pediatrics, 1987-1990; Chief Resident, Pediatrics, 1990-1991; Baylor College of Medicine, Houston, TX, Fellow, Academic General Pediatrics, 1991-1994



Karen Y. Latour, M.D.

Assistant Professor

Clinical/research expertise: General pediatrics, health care and access to health care of underserved children

Education: Louisiana State University, Baton Rouge, B.S., 2000; UT Medical Branch at Galveston, M.D., 2005

Post-doctoral training: Louisiana State Health Science Center, New Orleans, Resident, Pediatrics, 2005-2008; Chief Resident, Pediatrics, 2008-2009

May Lau, M.D., M.P.H.

Assistant Professor

Clinical/research expertise: Adolescent general and sexual health issues, racial/ethnic health disparities

Education: Cornell University, New York, NY, B.A., 1992; Albany Medical College, NY, M.D., 1998; UT Health Science Center at Houston, M.P.H., 2004

Post-doctoral training: Albany Medical College, NY, Intern and Resident, 1998-2001; Baylor College of Medicine/Texas Children's Hospital, Houston, Fellow, Adolescent Medicine, 2001-2004; Maternal and Child Health Bureau, Health Resources and Services Administration, Fellow, Leadership Education in Adolescent Health, 2001-2004



Michael Lee, M.D.

Assistant Professor

Clinical expertise: General pediatrics

Education: Baylor University, Waco, TX, 1987-1991, UT Southwestern, M.D., 1995

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1995-1998



Karen E. S. Meador, M.D., M.B.A.

Assistant Professor

Clinical expertise: General pediatrics

Education: Rice University, Houston, TX, B.A., 1993; UT Health Science Center at Houston, M.D., 1997; The Wharton School, University of Pennsylvania, Philadelphia, M.B.A., 2002

Post-doctoral training: UT Health Science Center at San Antonio, Resident, Pediatrics, 1997-2000



Angela P. Mihalic, M.D.

Associate Professor

Clinical/research expertise: General pediatrics, medical student and resident education

Education: UT Austin College of Pharmacy, B.S., 1990; UT Southwestern, M.D., 1995

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1995-1998; PAS/APA Educational Scholars Program, 2006-2009



Vineeta Mittal, M.D.

Assistant Professor

Clinical/research expertise: General pediatrics, family-centered care

Education: St. Xavier's College, Bombay University, India, H.S.C., 1988; Bombay University, India, M.D., 1994

Post-doctoral training: Bombay University, India, Resident, Pediatrics, 1994-1997; Canberra Clinical School, University of Sydney, Australia, Fellow, Neonatology, 1998-2000; Royal College of Pediatrics and Child Health, London, England, International Pediatric Training Scheme, 2001-2002; Brown Medical School, Hasbro Children's Hospital, Providence, RI, Resident, Pediatrics, 2003-2005





Anu N. Partap, M.D., M.P.H.

Assistant Professor

Clinical/research expertise: General pediatrics, child abuse and neglect

Education: University of Missouri, Kansas City, B.A., 1992; University of Missouri-Kansas School of Medicine, M.D., 1995; Arizona Graduate Program in Public Health, Tucson, M.P.H., 2001

Post-doctoral training: Maricopa Medical Center/Phoenix Children’s Hospital, Resident, Pediatrics, 1995-1997; Chief Resident, Pediatrics, 1997-1998; Maricopa Medical Center, Fellow, HRSA Faculty Development, 1998-2000



Rashmi Shetgiri, M.D., M.S.H.S.

Instructor

Clinical/research expertise: General pediatrics, Latino child health, youth violence prevention, Latino child health, racial/ethnic health disparities

Education: Drew University, Madison, NJ, B.A., 2000; University of Medicine and Dentistry of New Jersey – New Jersey Medical School, Newark, M.D., 2003; University of California School of Public Health, Los Angeles, M.S.H.S., 2008

Post-doctoral training: University of California, Los Angeles, Resident, Pediatrics, Community Health & Advocacy Training Program, 2003-2006; University of California, Los Angeles, Fellow, Robert Wood Johnson Clinical Scholars Program, 2006-2009



Joel B. Steinberg, M.D.

Professor

Master, Fashena College at UT Southwestern

Clinical expertise: General pediatric consultation

Education: Tulane University, New Orleans, LA, B.S., 1956; Tulane University School of Medicine, New Orleans, LA, M.D., 1959

Post-doctoral training: Parkland Memorial Hospital, Dallas, TX, Rotating Intern, 1959-1960; Tulane University School of Medicine, Charity Hospital of Louisiana, Resident, Pediatrics, 1960-1962, Chief Resident, Pediatrics, 1962



Jennifer Walsh, M.D.

Assistant Professor, Pediatrics and Internal Medicine

Clinical expertise: Adolescent and young adult care

Education: Princeton University, NJ, A.A., 1998; UT Health Science Center at Houston, M.D., 2003

Post-doctoral training: University of North Carolina Hospitals, Chapel Hill, Resident, Internal Medicine and Pediatrics, 1999-2003

Post-doctoral Fellows and Clinical/Research Staff

Fellows (Research Interests)

2nd Year

Suzanne Roper Dakil, M.D.

- Child abuse and neglect, socio-demographic and geographic characteristics of children with abusive head trauma, development of tools to identify families at risk and guide prevention efforts

Christina Sakai, M.D.

- Kinship foster care, healthcare transition in foster care youth

Clinical/Research Staff

Hua Lin, Ph.D.

Biostatistical Consultant III

Christina Bridon

Senior Program Coordinator

Research Activities

General Pediatrics research activities encompass a wide variety of domains, including pediatric health services, health policy, access to healthcare, quality of care, patient safety, racial/ethnic disparities, language issues in healthcare, cultural competency, asthma, obesity, oral health, poverty and its impact on child health, pediatric workforce diversity, qualitative research, prevention of youth violence, teen dating, prevention of teen pregnancy, use of poison control centers, family-centered care, educational interventions for residents and medical students, and transitional care for adolescents and young adults.

Clinical Activities

The Division of General Pediatrics provides both inpatient and outpatient care at Children's. Division faculty staff both the inpatient teaching service and provide outpatient care and consultation in eight specialized clinics.

Staffed by physicians who have special interest and training in adolescent and sports medicine, the Adolescent Young Adult (AYA) Clinic provides primary and specialty care services for patients 11 to 21 years old and welcomes referrals from community physicians and healthcare clinics. Through healthcare delivery, education and research, the AYA Clinic seeks to improve adolescent health. There were 1,999 visits in 2009 to the AYA Clinic.

One of only a few dozen in the United States, the International Adoption Medicine Program offers comprehensive medical care and advice to assist internationally adopted children, their parents and the community doctors who care for them, including medical evaluations before adoption, initial health screenings and follow-up care for children with special physical, developmental and social-emotional needs. There were 122 visits in 2009 to the International Adoption Medicine Clinic.



The REACH Program provides outpatient medical evaluations for child abuse diagnosis, prevention and treatment, and inpatient and emergency department consultations in cases of suspected child abuse. Medical follow-up, networking with a variety of state and local agencies and social services are offered through the REACH Program. Supported by physicians, pediatric nurse practitioners see children in the Foster Care Clinic, where they provide placement exams, pre-adoption physical and developmental screenings, and primary care medical services for children in foster care in Dallas County. There were 1,033 visits in 2009 to the REACH Clinic.

The Foster Care Clinic provides placement exams, medical homes, and pre-adoption physicals for children from infancy to 19 years old living in out-of-home placement due to child abuse and neglect. The Foster Care Clinic had almost 1,600 visits in 2009. Drs. Anu Partap and Christina Sakai, and PNPs Sandra Arthur and Mary Pat Glazier work closely with foster parents, foster agencies, CPS, court systems, and the REACH Team to optimize each child's health, healthcare, safety, and well-being.

Pediatric residents receive training in primary ambulatory continuous care in the Resident Continuity Clinic, providing comprehensive care to both well and chronically ill children. The clinic also is the center for many clinical research studies. This state-of-the-art clinic includes technologies that maximize the educational experience for residents and improve care for patients. There were 10,354 visits in 2009 to the Resident Continuity Clinic. The Acute Care Clinic (First Care) evaluates acute nonemergency patients. Physicians supervise pediatric residents and support educational objectives through patient care, informal lectures and teaching conferences. The Pediatric Diagnostic and Consultation Clinic is available for referral of patients by primary-care physicians and specialists. Division faculty conduct comprehensive evaluations and diagnoses of patients and make recommendations for treatment and referrals back to primary-care physicians.

The Medical Student Teaching Clinic evaluates selected acute, nonemergency patients while providing outstanding supervised learning experiences for medical students rotating through the outpatient component of their pediatric clerkship. It is staffed both by division faculty and volunteer faculty pediatricians from the community. There were 739 visits in 2009 to the Medical Student Teaching Clinic.

Presentations and Teaching Activities

Glenn Flores, M.D., F.A.A.P

- “Preventing Pediatric Asthma Hospitalizations and Eliminating Racial/Ethnic Disparities in Pediatric Asthma,” 2008 Annual Meeting of the Asthma Coalition of Texas, Dallas, September 2008
- “A Randomized Controlled Trial of the Effectiveness of Parent Mentors in Improving Asthma Outcomes in Minority Children,” American Public Health Association Annual Meeting, San Diego, CA, October 2008
- “Lost in Translation: Language Barriers, Interpreters, Communication, and Quality in Children’s Health Care,” Pediatric Grand Rounds, New York University School of Medicine, New York, NY, November 2008
- “Devising, Implementing, and Evaluating Successful Interventions to Eliminate Racial/Ethnic Disparities in Children’s Health and Healthcare: Tips, Pitfalls, and a Research Agenda,” Starting Early: A Life Course Perspective on Child Health Disparities: Developing a Research Action Agenda, Washington, DC, November 2008
- “Lost In Translation: Language Barriers, Communication, Interpreters, and Quality in Children’s Health Care,” Interdepartmental Grand Rounds, Paul L. Foster School of Medicine at Texas Tech University Health Sciences Center, El Paso, March 2009
- “Racial and Ethnic Disparities in Children’s Health and Healthcare: How We Can Level the Playing Field,” A.C. and Hilda Freeman Silverman Memorial Lectureship, Department of Pediatrics, State University of New York Upstate Medical University College of Medicine, Syracuse, April 2009
- “Maximum Impact: Translating Pediatric Research into Policy,” State-of-the-Art Plenary, Pediatric Academic Societies’ Meeting, Baltimore, MD, May 2009
- “Racial and Ethnic Disparities in Children’s Health and Healthcare: How We Can Level the Playing Field,” Special Lecture, Center for Reducing Health Disparities, Case Western Reserve University School of Medicine, Cleveland, OH, July 2009
- “Lost in Translation: Language Barriers, Interpreters, Communication, and Quality in Health Care,” Combined Pediatrics, Internal Medicine, and Medicine-Pediatrics Grand Rounds, MetroHealth Medical Center, Cleveland, OH, October 2009
- “Successfully Reaching and Insuring Diverse Communities of Uninsured Children: An Evidence-Based Approach,” National Children’s Health Insurance Summit: Strategies for Increasing Enrollment and Retention, Centers for Medicare & Medicaid Services (CMS), Chicago, IL, November 2009

Matthew J. Cox, M.D.

- “Sexual Molestation of Children: The Pediatrician’s Role,” Grand Rounds, Medical City Children’s Hospital, Dallas, TX, September 2008
- “Evaluation of Child Abuse: A Pediatrician’s Perspective,” American Translators Association National Conference, Orlando, FL, November 2008
- “Breaking the Cycle of Abuse: Identifying Child Abuse in the ED,” Crystal Charity Ball Emergency Services

Network, Baylor Medical Center, Dallas, TX, March 2009

- “Mimickers of Child Abuse,” Collin County Children’s Advocacy Center Training Institute, Plano, TX, March 2009
- “Code Blue Ribbon: Early Identification and Prevention of Child Physical Abuse,” Trauma Grand Rounds, Children’s, April 2009
- “Abusive Head Trauma: The Evidence and the Arguments” and “When Did It Happen Doctor: Clinical Manifestations of Abusive Injuries,” 21st Crimes Against Children Conference, Dallas, TX, August 2009
- “Abusive Head Trauma” and “Clinical Manifestations of Abusive Injuries,” West Virginia Crimes Against Children Conference, Charleston, October 2009

May Lau, M.D.

- “Racial and Ethnic Disparities in Medical and Oral Health Status, Access to Care and Use of Services in U.S. Adolescents” and “The Primary Language Spoken at Home and Healthcare Disparities in U.S. Adolescents,” Third National Leadership Summit on Eliminating Racial and Ethnic Disparities in Health, National Harbor, MD, February 2009 (poster presentations)
- “Racial and Ethnic Disparities in Medical and Oral Health Status, Access to Care and Use of Services in U.S. Adolescents,” Pediatric Academic Societies, Baltimore, MD, May 2009 (poster presentation)
- “Primary Language Spoken at Home and Disparities in Medical/Oral Health, Access to Care, and Use of Services in U.S.,” Culture, Ethnicity, and Healthcare Special Interest Group, Pediatric Academic Societies, Baltimore, MD, May 2009
- “Racial and Ethnic Disparities in Medical and Oral Health Status, Access to Care and Use of Services in U.S. Adolescents” and “The Primary Language Spoken at Home and Healthcare Disparities in U.S. Adolescents,” AcademyHealth Annual Research Meeting, Chicago, IL, June 2009 (poster presentations)

Angela Mihalic, M.D.

- “Teaching the Teachers How to Teach: Creating or Enhancing a “Residents as Teachers” Workshop at Your Institution,” Peer-reviewed Invited Workshop, AAMC Annual Meeting, San Antonio, TX, November 2008
- “The Match Game: Insights on Effective Advising,” Peer-reviewed Invited Workshop, COMSEP/APPD Combined Meeting, Baltimore, MD, April, 2009

Vineeta Mittal, M.D.

- “Incorporating Best Practices in Conducting Family-centered Rounds: Teaching the Trainee a Standardized Approach to FCRs,” Pediatric Academic Societies’ Meeting, Baltimore, MD, May 2009
- “Keeping Children with Dehydration Out of Hospitals: Parents and Physicians Perspectives on How Pediatric Dehydration Hospitalizations Can Be Prevented,” Society of Hospitalist Medicine Annual Meeting, Tampa, FL, July 2009 (poster presentation)
- “Do Family-centered Rounds (FCRs) Enhance Residents’ Clinical and Educational Experiences and Improve Patient Outcomes? A Qualitative Study,” Society of Hospitalist Medicine Annual Meeting, Tampa, FL, July 2009

Major Administrative and Leadership Responsibilities

Glenn Flores, M.D., F.A.A.P.

- Director, Division of General Pediatrics, UT Southwestern
- Founder and Director, Academic General Pediatrics Fellowship UT Southwestern
- Study section member, Children’s Clinical Research Advisory Committee
- Member, Ambulatory Service Project Steering Committee, Children’s
- Member, Demand Management Project Team, Children’s
- Member, Community Health Research Initiative (CHRI) Steering Committee, UT Southwestern Clinical and Translational Sciences Award (CTSA)
- Member, Search Committee, Chief of General Internal Medicine, UT Southwestern
- Member, President’s Task Force for Faculty Diversity

- Member, President's Health Policy/Health Services Research Task Force
- Member, Project Advisory Committee, Program for the Development and Evaluation of Model Community Health Initiatives in Dallas (DMCHID)
- Study Section Member, North Central Texas CTSI Pilot Grant Award Program Committee
- Member, Diversity Committee, Children's Hospital of Wisconsin
- Member, Dallas County Child Death and Infant Mortality Review
- Appointed Member, Frew Advisory Committee, Texas Health and Human Services Commission
- Appointed Member, Health Disparities and Hispanics Leadership Summit, sponsored by the National Hispanic Medical Association and the U.S. Department of Health and Human Services Office of Minority Health (nominated by the Texas Health and Human Services Commission)
- Member, Board of Directors, *Avance Dallas*
- Abstract Reviewer, Pediatric Academic Societies Meetings
- Member, Scholars Network and Steering Committee, Robert Wood Johnson Foundation's National Program, *Hablamos Juntos: Improving Patient-Provider Communication for Latinos*
- Member, National Advisory Committee, Robert Wood Johnson Harold Amos (Minority) Medical Faculty Development Program
- Member, Committee on Pediatric Research, American Academy of Pediatrics
- Member, Advisory Group, Academic Pediatric Association New Century Scholars Program (for under-represented minority pediatric residents)
- Member, Executive Committee, Academic Pediatric Association (APA) Research Committee
- Member, National Advisory Committee, First Focus
- Member, National Advisory Committee, Immunization Initiative Advisory Council, Migrant Clinicians Network
- Mentor, Robert Wood Johnson Foundation New Connections Speed Mentoring Session, Washington, DC
- Member, National Advisory Committee on Identifying Innovative Programs for Improving Children's Healthcare in California, National Initiative for Children's Healthcare Quality (NICHQ)
- Appointed Co-Chair and Co-Moderator, NIDDK Conference on Diabetes and Obesity Disparities in Healthcare Conference, National Institutes of Health, Bethesda, MD
- Senior Investigator and Mentor, Robert Wood Johnson Foundation Network for Multicultural Research on Health and Health Care
- Elected Chair, Research Committee, Academic Pediatric Association
- Member, Agency for Healthcare Research and Quality National Advisory Committee Subcommittee on Children's Healthcare Quality Measures for Medicaid and CHIP Programs
- Member, Institute of Medicine/National Research Council Committee on Pediatric Health and Health Care Quality Measures

Amy Barton, M.D.

- Secretary of the Board, National Center for Missing and Exploited Children Texas Regional Office, Austin

Matthew Cox, M.D.

- Medical Director, Referral and Evaluation of At-Risk Children (REACH) Program, Children's
- Member, Texas Department State Health Services, MedCares (Medical Child Abuse Referral and Evaluation Services) Advisory Committee
- Member, Texas Department of Health and Human Services, Committee of Center of Pediatric Excellence for Child Abuse
- Medical Director, Sexual Assault Forensic Examination (SAFE) Team, Children's Dallas and Legacy
- Member and Co-chair, Children's, Child Abuse Prevention Committee
- Faculty Mentor, UT Southwestern Medical School Colleges, Sprague College
- Interim Medical Director, Foster Care Clinic, Children's
- Member, Dallas Children's Advocacy Center Multidisciplinary Committee
- Medical Director, Collin County Children's Advocacy Center SANE Program
- Member, Clinical Competence Committee (Pediatrics Residency Mentor Program) UT Southwestern

Vanthaya N. Gan, M.D.

- Director, Medical Student Clinic
- Associate Director, Pediatric Clerkship
- Course Director, Pediatric Preceptorship: Pre-clinical Student
- Course Director, Pediatric Preceptorship: Clinical Student
- Program Co-Director, Subspecialty Ambulatory Senior Rotation: Clinical Resident
- Faculty Advisors/Sponsor, Pediatric Interest Group
- Mentor, Medical Student College
- Member, Section on Internal Child Health, American Academy of Pediatrics
- Member, Asthma: Single Standard of Care Committee
- Member, Dallas Asthma Consortium
- Member, Advisory Committee, Texas Pediatric Precept Program
- Member, Pharmacy Therapeutics Committee, Children's
- Member, ID Committee, Texas Pediatrics
- Faculty Preceptor, Pediatric Resident Continuity Clinic, Children's

Lauren Gore, M.D.

- Associate Program Director, Pediatric Residency Program, UT Southwestern

Shelby Joseph, M.D.

- District VI Resident Liaison, CATCH

Nancy R. Kelly, M.D., M.P.H.

- Director, Continuity Clinic Program for UTSW Pediatric Residents
- Medical Director, Crystal Charity Ball Continuity of Care Clinic
- Abstract Reviewer, Pediatric Academic Societies
- Manuscript Reviewer, Pediatrics, Academic Pediatrics, and Clinical Pediatrics Journals

May Lau, M.D.

- Member, AAP Adolescent Health Partnership Project's CME subcommittee
- Member, Diversity Task Force, Society for Adolescent Medicine

Michael Lee, M.D.

- Director, First Care Rotation

Angela Mihalic, M.D.

- Associate Dean for Student Affairs, UT Southwestern
- Treasurer, Pediatric Society of Greater Dallas
- Course Director, Department of Pediatrics Resident as Teacher Workshop
- Program Director, International Medical Exchange Program with the University of Paris Descartes
- Course Director, Public Policy and Healthcare Financing Elective
- Course Director, International Service Learning Elective

Vineeta Mittal, M.D.

- Member of Family-Centered Care Subcommittee of Society of Hospitalist Medicine (SOHM)
- Co-Founder/Co-Chair of Family-Centered Care Special Interest Group (SIG), Academic Pediatric Association (APA)
- Member, Family-Partnership Workgroup, Children's
- Member, Pediatric Residency Recruitment Committee, UT Southwestern
- Member, Pediatric Clerkship Advisory Committee, UT Southwestern
- Reviewer of PAS Workshops for Academic Pediatric Association
- Member, Research Sub-committee, Society of Hospitalist Medicine

Awards and Honors

Glenn Flores, M.D., F.A.A.P.

- Platform Presentation, American Academy of Pediatrics Presidential Plenary Session, Pediatric Academic Societies Meeting, Honolulu, HI
- Invited written testimony, U.S. House of Representatives Committee on Ways and Means, Subcommittee on Health, hearing on: Addressing Disparities in Health and Healthcare: Issues for Reform
- Millie and Richard Brock Award for Distinguished Contributions to Pediatrics
- A.C. and Hilda Freeman Silverman Memorial Lectureship, State University of New York, Upstate Medical University College of Medicine, Syracuse
- Appointed to Institute of Medicine/National Research Council Committee on Pediatric Health and Health Care Quality Measures

Matthew Cox, M.D.

- Lt. Bill Walsh Award recipient for outstanding work in the area of child protection, Dallas Children's Advocacy Center
- Distinguished Human Services Professional Award, Community Council of Greater Dallas
- Physician Award, Dallas Business Journal Healthcare Heroes

Vanthaya N. Gan, M.D.

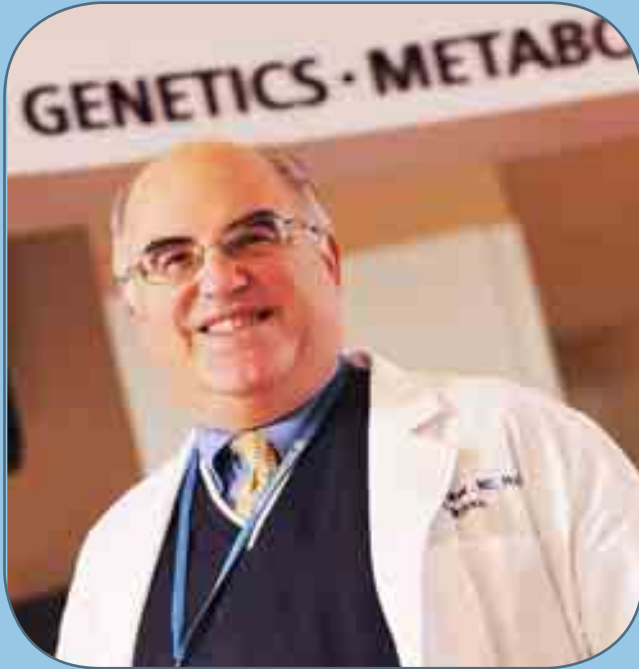
- Texas Super Doctors, *Texas Monthly*
- Guide to America's Top Pediatricians

Angelia Mihalic, M.D.

- UT Southwestern Socrates Award, Clinical Teaching Award Voted by Classes of 2008 and 2009
- UT Southwestern Commencement Faculty Marshal, Elected by Class of 2009
- UT Southwestern Teaching Award, Clinical Medicine, Class of 2012

Vineeta Mittal, M.D.

- UT Southwestern Clinical Teaching Award, 3rd Year Medical Students Class



Lewis Waber, M.D., Ph.D.

Director, Pediatric Genetics & Metabolism

The Division of Pediatric Genetics and Metabolism is a major resource for clinical genetics in North Texas, with clinics at Children's that are unique in the region. The division was the first clinic to accept referrals from the Texas Department of Health's newborn screening program for biochemical disorders, and is the largest clinic specializing in the diagnosis and treatment of children with inborn errors of metabolism in North Texas. Referrals are received from all of the other children's hospitals in the Dallas/Fort Worth Metroplex as well as from more distant areas. Faculty and staff operate the only multispecialty clinic for patients with Down syndrome in the region and have special interests in the diagnosis and management of a variety of other genetic conditions such as Marfan syndrome, osteogenesis imperfecta and other disorders of skeletal development. The division also provides clinical services for the major clinical laboratories at UT Southwestern that deal with genetic conditions including the molecular diagnosis, cytogenetics and metabolic disease laboratories.

The division is a vital part of UT Southwestern's programs for training medical students, residents, fellows and allied health professionals. Faculty play a major teaching role in the first year of the medical school program and train third-year medical students as part of their pediatric rotation. They also play an important part in the Pediatrics and Medical Genetics residency programs.

Dr. Ralph DeBerardinis continues to expand the division's research efforts in areas including cellular regulation of metabolism in normal cells and in cancer and in the diagnosis and treatment of pediatric metabolic diseases. He operates a basic science laboratory at UT Southwestern, coordinates the newborn screening referral service at Children's, and attends on the in-patient Pediatric Genetics and Metabolism service.

Faculty

Lewis J. Waber, M.D., Ph.D., Associate Professor, is the Director of the Pediatric Genetics program at UT Southwestern and also is appointed to the Eugene McDermott Center for Growth and Development. Dr. Waber specializes in pediatric genetics, biochemical genetics, inherited metabolism disease and newborn screening. His research interests focus on the management of pediatric patients with inborn errors of metabolism and studies in genetic disorders of fatty-acid metabolism. Dr. Waber graduated from Franklin and Marshall College, Lancaster, Pennsylvania, with an A.B. in chemistry in 1970. He received his medical degree and a Ph.D. in Biochemistry from Case Western Reserve University School of Medicine, Cleveland, Ohio, in 1977. After performing his residency in pediatrics at Johns Hopkins Hospital, Baltimore, Maryland, from 1977 to 1980, he held a fellowship in genetics at Johns Hopkins from 1980 to 1982.

Mary Esther Carlin, M.D.

Clinical Associate Professor

Clinical expertise: Pediatric genetics, development, dysmorphology, Down syndrome

Education: Barry (College) University, Miami Shores, FL, B.S., 1966; University of Miami School of Medicine, FL, M.D., 1970

Post-doctoral training: UT Southwestern/Children's, Intern and Resident, Pediatrics 1970-1972; University of Miami Affiliated Hospital, FL, Resident, Neurology, 1972-1973; University of Miami School of Medicine, Mailman Center for Child Development, FL, Fellow, Child Development in Clinical Genetics, 1974-1977





Ralph DeBerardinis, M.D., Ph.D.

Assistant Professor of Pediatrics and Genetics

Sowell Family Scholar in Medical Research

Eugene McDermott Center for Human Growth and Development

Research expertise: Growth factor-stimulated signal transduction pathways, pediatric inborn errors of metabolism, metabolism and tumor cell growth

Education: St. Joseph's University, Philadelphia, B.S., 1992; University of Pennsylvania, Philadelphia, Ph.D., 1998; M.D., 2000

Post-doctoral training: The Children's Hospital of Philadelphia, PA, Resident, Pediatrics and Medical Genetics combined program, 2000-2005; Fellow, Biochemical Genetics, 2006-2007

Clinical/Research Staff

Martha Barton, LMSW

Social Worker, Metabolic Clinic

Gail Brookshire, M.S., CGC

Senior Genetic Counselor

Debbie Clark, LMSW-ACP

Social Worker, Down Syndrome Clinic

Katie Green, M.S., RD, LD

Nutritionist

Juan Jasso, M.D.

Resident

Donnice Michel, M.S., CGC

Genetic Counselor

Christine Quinn, M.S., CCC-SLP

Speech Therapy

Joanna Spahis, M.S.N., RN

Advance Practice Nurse

Jessica Sudderth

Research Assistant I

Chendong Yang

Research Scientist

Research Activities

The DeBerardinis laboratory is interested in understanding the metabolic activities that support cell growth and proliferation in normal cells and in cancer. In order to produce daughter cells, which occur with each round of the cell cycle, cells need to double their biomass (proteins, lipids and nucleic acids). This is a tremendous challenge requiring energy, building blocks and the coordination of a large number of metabolic pathways. Dr. Ralph DeBerardinis is exploring the idea that these metabolic activities are orchestrated by growth factor-stimulated signal transduction pathway, which direct cells to take up abundant nutrients and allocate them into the proper metabolic pathways. He wants to understand how signal transduction impacts metabolic fluxes during physiologic states of cell proliferation (e.g., embryogenesis, wound healing, activation of the immune system) and during pathological states (e.g., cancer). To do this, the DeBerardinis lab uses a combination of techniques in molecular biology, cell biology and biochemistry, coupled with metabolic flux analysis using mass spectrometry and nuclear magnetic resonance, and animal models of metabolism and cancer. Current projects include developing imaging probes to identify abnormal metabolic activities in tumor and in children with metabolic diseases.



Clinical Activities

The division's clinical activities at Children's are focused in three areas. Faculty and staff in the Down syndrome clinic have more than fifty collective years of experience in caring for children with Down syndrome and provide comprehensive treatment for children and their families including medical management, genetic counseling, physical, speech and motor development evaluation and recommendations, psychosocial support, screening and referral for behavioral and psychiatric problems and referral to community agencies for educational intervention or therapies. Children with conditions involving birth defects, developmental delay or mental retardation, metabolic disorders or known or suspected genetic disorders receive evaluation and testing in the Genetics Clinic. Chromosomal metabolic and DNA analysis for diagnosis of genetic disease is provided, as well as psychosocial assessment, nutritional evaluation and counseling and comprehensive case management with referral to medical specialists, community resources and support groups. Family history analysis and genetic counseling to discuss reproductive options also are available.



The Metabolic Disease Service provides evaluation and testing for children with known or suspected inborn errors of metabolism as well as education about specific inborn errors of metabolism. Blood, urine, enzyme and DNA analyses for diagnosis are performed for diagnosis and treatment, and nutritional evaluation and counseling and psychosocial assessment and counseling are provided.

The Metabolic Disease Service also functions as a major referral center for the Texas Newborn Screening Program. This state-wide program seeks to identify newborn babies with any of 29 different treatable diseases, many of which are genetic/metabolic in nature. A large fraction of the 405,000 babies born in Texas each year are evaluated at Children's Medical Center. When a baby in North Texas is found to have a metabolic abnormality on the newborn screen, the family is referred to our team for definitive diagnosis, treatment, and long-term care if necessary. Through the Texas Newborn Screening Program, more than 75 children with metabolic diseases are identified each year, and the coordinated care of these children by the Metabolic Disease Service at Children's significantly improves their development and survival.

Presentations/Teaching Activities

Division faculty are involved in the training of UT Southwestern's first-year medical students, specifically in the biochemistry, genetics and embryology courses. Dr. Waber is the Director of the embryology course and Co-director of the genetics course. As part of their pediatric rotation, third-year medical students rotate through the outpatient clinics and are provided with a case conference. The division manages a Medical Genetics residency training program and is an important part of the Pediatrics residency program.

Lewis J. Waber, M.D., Ph.D.

- "The Texas Newborn Screening Program," 41st Annual Kenneth C. Haltalin Pediatrics for the Practitioner Seminar, Dallas, TX, April, 2009
- Course Director and Lecturer, Medical Embryology (first-year medical students)
- Co-course Director and Lecturer, Medical Genetics (first-year medical students)
- Lecturer, Medical Biochemistry (first-year medical students)

Ralph DeBerardinis, M.D., Ph.D.

- “The Texas Newborn Screening Program,” 41st Annual Kenneth C. Haltalin Pediatrics for the Practitioner Seminar, Children’s, April, 2009
- “Tumor Metabolism: What Should We Look for and How Can We See It?” American Association for Cancer Research Annual Meeting, Denver, CO, April 2009
- “Signal Transduction and the Metabolism of Tumor Cell Growth: How Do the Rich Keep Getting Richer?” American Aging Association Annual Meeting, Scottsdale, AZ, May 2009
- “The Versatility of Glutamine in Tumor Cell Growth and Survival,” 5th International Conference on Tumor Cell Metabolism, Louisville, KY, September 2009
- “Can We Exploit Tumor Metabolism to Find and Fight Cancer? An Old Question with New Legs,” GlaxoSmithKline, Upper Providence, PA, November 2009
- “Tumor Metabolism in the 21st Century: New Opportunities for Imaging and Therapy in Cancer,” Pediatrics Grand Rounds, UT Southwestern, November 2009
- Member of the Genetics and Development Graduate Group, mentoring two Ph.D. students
- Lecturer, “Metabolism and Cancer,” Molecular Mechanisms in Cancer Biology, Genetics and Development Graduate Group, UT Southwestern

Major Administrative or Leadership Responsibilities

Lewis J. Waber, M.D., Ph.D.

- Director, Division of Pediatric Genetics and Metabolism
- Director, Genetics Residency Program
- Consultant, Newborn Screening Program, Texas Department of Health



George R. Buchanan, M.D.
Director, Pediatric Hematology-Oncology

During the 2008-2009 academic year there were 28 full-time faculty members in the Division of Hematology-Oncology striving to fulfill its mission of leadership in patient care, education, research and advocacy involving blood disorders and childhood malignancies. The division is nationally distinguished for its design and conduct of NIH-funded multi-center clinical trials involving childhood cancer, sickle cell disease and hemorrhagic disorders. As the major program of its kind in North Texas and one of the 10 largest in the United States, the division provides care in the Center for Cancer and Blood Disorders (CCBD) at Children's to hundreds of patients with uncommon and complex disorders, and also offers outreach that includes educational and consultative resources for primary and referring physicians in the region. The program has grown considerably in nearly all areas during the past decade and has expanded its patient numbers despite competitive and managed care pressures.

In 2009 Children's Medical Center's Oncology Program was ranked No.17 in the United States by U.S. News and World Report, the highest ranking of any medical subspecialty program at Children's. More than \$15 million in community philanthropic support has been garnered during the past two years in recognition of the program's reputation. In addition, more than \$3 million in research grants from NIH and other peer-reviewed funding agencies was awarded to Hematology-Oncology investigators. A number of faculty members received awards during the 2008-2009 academic year and other forms of national recognition for their outstanding work. Areas of anticipated growth in the very near future include stem cell transplantation, neuroblastoma, sickle cell disease, hematologic disorders and basic research in cancer. The division's ultimate goal is to become among the top five to 10 programs of its type in the world.

During 2008-2009, a substantial expansion of the clinical facilities for the CCBD was continued. In December 2007, the program's outpatient activities moved to the third floor of the Bright Building, across the street from the main hospital facility. This renovated space more than doubled the size of the previous clinic, greatly enhancing patient comfort and privacy. A major development during 2009 was the move to a new 24-bed inpatient Hematology-Oncology facility at Children's on the sixth floor of the new Tower D. With substantial advice from a Family Council of patients' parents, the unit was designed to optimize comfort for patients and families. It includes 12 beds specifically designed for stem cell transplantation. The CCBD also will have five additional beds on the sixth floor of adjacent Tower C.

A major area of growth during 2009 was the Hematopoietic Stem Cell (Bone Marrow) Transplantation Program under the leadership of newly appointed Director, Dr. Andrew Koh. Dr. Koh joined the UT Southwestern faculty in July 2009 following his recruitment from the Dana Farber Cancer Institute and Harvard Medical School in Boston. Dr. Koh has distinguished himself as an outstanding clinician, teacher and scientist, and has brought to Dallas unbridled enthusiasm and energy. His recruitment has spearheaded successful fundraising, completion of the new 12-bed transplant unit within the 24-bed Tower D6 Hematology-Oncology Unit, and a new model for inpatient coverage of children receiving transplantation by a cadre of experienced advanced practice nurses. Dr. Koh has successfully engineered new managed care contracts and is exploring collaborative arrangements with other pediatric oncology centers in the South and Southwest to establish Children's as a referral center for patients in need of transplantation. Plans are to recruit three or four additional clinical and laboratory transplant specialists during 2010 and early 2011.

An additional development during 2009 was the successful recruitment of Dr. Amy Pass from Baylor and Texas Children's Hospital to establish a clinical and translational research program in neuroblastoma. Dr. Pass, who already leads a national experimental neuroblastoma protocol in the Children's Oncology Group, brings with her excellent connections with the national neuroblastoma research community. Her work is being supported by Wipe Out Kids' Cancer, one of the Center for Cancer and Blood Disorders' outstanding local fundraising organizations.

As 2009 ended, construction plans were finalized for an entirely new CCBD outpatient facility that will encompass nearly 50,000 square feet, including a state-of-the-art infusion suite/day hospital, pharmacy, procedure/recovery area, laboratory, and 18 examination rooms.

Another expansion project of importance to Hematology-Oncology is Children's new facility at Legacy in Plano. Hematology-Oncology began to conduct outpatient activities in its ambulatory Pavilion in May 2008. During 2009, selected inpatients with cancer and hematologic problems were admitted for diagnosis and management to allow for children in the northern sector of the metropolitan area to be provided locally with all necessary diagnostic and treatment services. To support the growth of the Legacy Hematology-Oncology program, two additional faculty members, Drs. Alexander Gozman and Carmen Ballestas, were recruited during 2009, bringing to four the number of full-time faculty physicians who divide their clinical activities between the Dallas and Legacy campuses. These additional faculty and support staff will assure the success of this project, one of the first of its kind in the United States to provide complex hematologic and cancer care in a suburban facility tightly linked to a world-class academic "mother ship."

In addition to the growth of the clinical facilities, laboratory space at UT Southwestern has been appreciably expanded and modernized to assure the continued growth of basic and translational research conducted by the Hematology-Oncology faculty.

As 2009 came to a close, Dr. George Buchanan, Division Director, announced his plans to step down from his leadership position during the next year. However, Dr. Buchanan will remain actively engaged in teaching, mentoring, consultative care, and clinical research despite turning over the program's major administrative responsibilities to a new leader. Dr. George Lister, Department of Pediatrics Chair, has assembled a search committee to begin the process of identifying a new Division Director.

Faculty

George R. Buchanan, M.D.

Professor and Division Director, is the Medical Director for the CCBD, Director of the Barrett Family Center for Pediatric Oncology at UT Southwestern and Director of the Southwestern Comprehensive Sickle Cell Center. Dr. Buchanan holds the Children's Cancer Fund Distinguished Chair in Pediatric Oncology and Hematology and is nationally known for his expertise in sickle hemoglobinopathies, hemorrhagic disorders and general hematology. Research interests include sickle cell disease, immune thrombocytopenia and other bleeding disorders. He serves as research advisor and mentor to medical students, residents, fellows and junior faculty engaged in or planning careers in academic pediatric hematology-oncology. Dr. Buchanan graduated with honors from Drake University, Des Moines, Iowa, in 1966 and earned his medical degree at the University of Chicago in 1970. He performed his residency in pediatrics at Children's Memorial Hospital in Chicago from 1970 to 1973 and was then a fellow in hematology at Children's Hospital and in pediatric oncology at Dana-Farber Cancer Institute in Boston. He received Teaching Excellence Awards on numerous occasions from students, residents, and fellows at UT Southwestern. Dr. Buchanan has been repeatedly recognized as one of the "Best Doctors in America." He served as President of the American Society of Pediatric Hematology-Oncology and on the Executive Committee of the American Society of Hematology. In 2007 he received the Distinguished Career Award from the American Society of Pediatric Hematology-Oncology, and in 2008 was the recipient of the Mentor Award in Clinical Research from the American Society of Hematology.

James F. Amatruda, M.D., Ph.D.

Assistant Professor, Pediatrics, Molecular Biology and Internal Medicine

Clinical/research expertise: Germ cell tumors, molecular basis of Ewing's sarcoma, zebrafish genetic models of cancer

Education: Harvard University, Cambridge, MA, A.B., 1986; Washington University, St. Louis, MO, M.D., 1993; Washington University, Ph.D., Cell Biology and Physiology, 1993

Post-doctoral training: Brigham and Women's Hospital, Boston, MA, Resident, Internal Medicine, 1994-1996; Dana-Farber/Partners Cancer Care, Boston, MA, Fellow, Hematology-Oncology, 1997-1999; Children's Hospital Boston, MA, Fellow, Laboratory of Leonard Zon, M.D., 1999-2004



Kristine W. Appel, M.D.

Assistant Professor

Clinical/research expertise: General pediatric hematology and oncology

Education: UT Austin, B.A., 1990; UT Southwestern, M.D., 1994

Post-doctoral training: University of Colorado School of Medicine/The Children's Hospital, Denver, Resident, Pediatrics, 1994-1997; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 1998-2001



Victor M. Aquino, M.D.

Associate Professor

Clinical/research expertise: General oncology, stem cell transplantation, Phase I therapies, and febrile neutropenia in pediatric cancer patients

Education: CUNY Medical School at City College, New York, B.S., 1987; SUNY Health Science Center at Syracuse, M.D., 1989

Post-doctoral training: SUNY Health Science Center at Syracuse, Resident, Pediatrics, 1989-1992; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 1992-1995; Fellow, Bone Marrow Transplant, 1994-1995; Fred Hutchinson Cancer Center at Seattle, WA, Fellow, Bone Marrow Transplant, 1996



Carmen Ballestas, M.D.

Assistant Professor

Clinical/research expertise: General pediatric hematology-oncology

Education: Universidad del Norte, Barranquilla, Colombia, M.D., 1999

Post-doctoral training: Texas Tech Health Science Center, Amarillo, Resident, Pediatrics, 2003-2006; University of Alabama at Birmingham, Fellow, Pediatric Hematology-Oncology, 2006-2009



Robert O. Bash, M.D.

Associate Professor

Director, Palliative Care

Clinical/research expertise: Palliative care, end-of-life care, including hospice and bereavement

Education: Indiana University, Bloomington, B.S., 1982; M.D., 1986

Post-doctoral training: James Whitcomb Riley Hospital for Children, Indianapolis, IN, Resident, Pediatrics, 1986-1989; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 1989-1992; Research Fellow, Pediatric Hematology-Oncology, 1992-1993.





Daniel C. Bowers, M.D.

Associate Professor

Director, Neuro-oncology and After the Cancer Experience

Clinical/research expertise: Brain tumors, long-term follow-up of childhood cancer survivors

Education: Texas A&M University, College Station, B.S., 1989; UT Southwestern, M.D., 1993

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1993-1996; Johns Hopkins University School of Medicine, Baltimore, MD, Fellow, Pediatric Oncology, 1996-1999; Johns Hopkins University, Fellow, Epidemiology, 1998



J. Scott Cameron, M.D., Ph.D.

Assistant Professor, Pediatrics and Molecular Biology

Clinical/research expertise: Genetic control of cell lineages, programmed cell death

Education: Johns Hopkins University, Baltimore, MD, B.A., 1983; SUNY at Stony Brook, Ph.D., 1988; Harvard University, Boston, MA, M.D., 1992

Post-doctoral training: Children's Hospital Boston, MA, Resident, Pediatrics, 1992-1994; Dana-Farber Cancer Institute/Children's Hospital Boston, MA, Fellow, Pediatrics, 1995-1998; Howard Hughes Medical Institute, Massachusetts Institute of Technology, Cambridge, MA, Fellow, Biology, 1996-2001



MaryEllen Cavalier, M.D.

Assistant Professor

Clinical/research expertise: General pediatric hematology and oncology, sickle cell disease

Education: Valparaiso University, IN, B.S., 1995; Indiana University, Bloomington, M.D., 1999

Post-doctoral training: Indiana University, Bloomington, Resident, Pediatrics, 1999-2003; Fellow, Pediatric Hematology-Oncology, 2003-2005



Jennifer A. Cox, M.D.

Assistant Professor

Clinical/research expertise: Immunodeficiency, clinical stem cell transplantation and transplantation for non-oncologic diseases

Education: Mississippi State University, Starkville, B.S., 1993; University of Mississippi School of Medicine, Jackson, M.D., 1997

Post-doctoral training: University of Mississippi School of Medicine, Jackson, Resident, Pediatrics, 1997-2001; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2001-2005; University of Minnesota, Minneapolis, MN, Fellow, Blood and Marrow Transplant, 2005



Shelley E. Crary, M.D., M.S.C.S.

Assistant Professor

Clinical/research expertise: Hemophilia and thrombosis, vascular complications of splenectomy, hereditary spherocytosis and other non-malignant hematologic disorders

Education: Washington University, St. Louis, MO, B.A., 1996; Tulane University, New Orleans, LA, M.D., 2000; UT Southwestern, M.S.C.S., 2009

Post-doctoral training: Vanderbilt University, Nashville, TN, Resident, Pediatrics, 2000-2003; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2003-2006

Alexander Gozman, M.D.

Assistant Professor

Clinical/research expertise: General pediatric hematology-oncology

Education: Brown University, Providence, RI, B.S. and B.A., 1998; Brown Medical School, Providence, RI, M.D., 2002

Post-doctoral training: Children's Hospital of Philadelphia, PA, Resident, Pediatrics, 2002-2005; Weill Cornell Medical College/Memorial Sloan-Kettering Cancer Center, New York City, NY, Fellow, Pediatric Hematology-Oncology; 2005-2009



Paul Harker-Murray, M.D., Ph.D.

Assistant Professor

Clinical/research expertise: General pediatric oncology, hematopoietic cell transplantation, new agents and Phase I clinical trials, pediatric lymphoma

Education: University of Michigan, Ann Arbor, B.S., 1993; Mayo Medical School, Mayo Clinic and Foundation, Rochester, MN, Ph.D., M.D., 2001

Post-doctoral training: University of Minnesota, Minneapolis, Resident, Pediatrics, 2001-2004; Fellow, Pediatric Hematology-Oncology, Pediatric Blood and Marrow Transplantation, 2004-2007



Janna M. Journeycake, M.D., M.S.C.S.

Assistant Professor

Director, Hemophilia and Thrombosis Program

Clinical/research expertise: Hemophilia and thrombosis, thrombotic and hemorrhagic disorders during childhood, catheter-related thrombosis

Education: Rhodes College, Memphis, TN, B.S., 1991; University of Oklahoma Health Sciences Center, Tulsa, M.D., 1996; UT Southwestern, M.S.C.S., 2008

Post-doctoral training: University of Oklahoma College of Medicine, Tulsa, Resident, Pediatrics, 1996-1999; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 1999-2002



Laura Klesse, M.D., Ph.D.

Assistant Professor

Clinical/research expertise: Neurofibromatosis, optic gliomas, tumorigenesis, general pediatric oncology

Education: University of Notre Dame, IN, B.S., 1992; UT Southwestern, Ph.D., M.D., 2001

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2005-2007; UT Southwestern, Fellow, Hematology-Oncology, 2005-2008



Andrew Koh, M.D.

Assistant Professor, Pediatrics, Microbiology and the Simmons Cancer Center
Director, Pediatric Hematopoietic Stem Cell Transplantation Program

Clinical/research expertise: Stem cell transplantation, infectious diseases in the immunocompromised host, Candida albicans pathogenesis, Pseudomonas aeruginosa pathogenesis, host pathogen interactions

Education: Harvard College, Cambridge, MA, A.B., 1988; Oxford University, Pembroke College, England, B.A., 1990; Harvard Medical School, Boston, MA, M.D., 1996

Post-doctoral training: Children's Hospital, Boston, MA, Resident, Pediatrics, 1996-1999; Chief Resident, Pediatrics, 1999-2000; Fellow, Pediatric Infectious Disease; Children's Hospital and Dana Farber Cancer Institute, Boston, MA, Fellow, Hematology-Oncology, 2001-2004





Patrick J. Leavey, M.D.

Associate Professor

Clinical Director, Center for Cancer and Blood Disorders

Director, Pediatric Hematology-Oncology Fellowship Program

Clinical/research expertise: Bone and soft tissue tumors, fellowship training

Education: The Royal College of Surgeons, Dublin, Ireland, M.D., 1986

Post-doctoral training: St. Lawrence's Hospital, Dublin, Intern, Adult Medicine and Surgery, 1986-1987; St. Vincent's Hospital, Dublin, Resident, Internal Medicine, 1987-1989; Our Lady's Hospital for Sick Children, Dublin, Resident, Pediatrics, 1989-1990; Princess Margaret Hospital for Children, Perth, Western Australia, Resident, Pediatrics, 1990-1992; University of Colorado Health Science Center, Denver, Fellow, Pediatric Hematology-Oncology, 1992-1996; Bonfils Blood Center, Denver, CO, Fellow, Pediatric Hematology-Oncology, 1995-1996; The Children's Hospital, Denver, CO, Resident, Pediatrics, 1996-1998



Timothy McCavit, M.D.

Assistant Professor

Clinical/research expertise: Sickle cell disease, pediatric hematology-oncology, health services, outcomes research in sickle cell disease

Education: Texas Tech University, Lubbock, B.S., *magna cum laude*, 1998; UT Southwestern, M.D., 2002; UT Southwestern, Clinical Research Scholar, Clinical Sciences, 2009-2012

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2002-2005; Chief Resident, Pediatrics, 2005-2006; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2006-2009



Cindy E. Neunert, M.D.

Assistant Professor

Clinical/research expertise: Hemophilia and thrombosis, immune thrombocytopenia and other platelet disorders

Education: College of William and Mary, Williamsburg, VA, B.S., 1997; Eastern Virginia Medical School, Norfolk, M.D., 2001; UT Southwestern, Clinical Research Scholar, Clinical Sciences, 2007-2010

Post-doctoral training: Eastern Virginia Medical School, Norfolk, Resident, Pediatrics, 2001-2004; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2004-2007



Amy Kun Pass, M.D.

Assistant Professor

Clinical/research expertise: Clinical trial development for neuroblastoma, development of novel therapies for relapsed neuroblastoma and other pediatric cancers

Education: University of Pennsylvania, College of Arts & Sciences, Philadelphia, B.A., *cum laude*, 1996; University of Tennessee, College of Medicine, Memphis, M.D., 2002

Post-doctoral training: Cincinnati Children's Hospital Medical Center, OH, Resident, Pediatrics, 2002-2005; Baylor College of Medicine/Texas Children's Hospital, Houston, Fellow, Pediatric Hematology-Oncology, 2005-2008

Matthew H. Porteus, M.D. Ph.D.

Assistant Professor, Pediatrics and Biochemistry

Clinical/research expertise: Novel approaches to gene therapy for children with genetic diseases, in vitro manipulation of hematopoietic stem cells, regulation of DNA damage repair

Education: Harvard University, Cambridge, MA, A.B., 1986; Stanford University Neurosciences Program, Stanford, CA, Ph.D., 1994; Stanford University School of Medicine, Stanford, CA, M.D., 1994

Post-doctoral training: Children's Hospital Boston, MA, Resident, Pediatrics, 1994-1996; Dana-Farber Cancer Institute/Children's Hospital Boston, MA, Fellow, Pediatric Hematology-Oncology, 1996-1999; California Institute of Technology, Pasadena, Fellow, 1999-2003



Charles T. Quinn, M.D., M.S.C.S.

Associate Professor

Director, Sickle Cell Disease and Thalassemia Program

Clinical/research expertise: General pediatric hematology, hemoglobinopathies, morbidity, mortality and long-term outcome of sickle cell disease and thalassemia, novel causes of sickle cell pain

Education: Texas Christian University, Fort Worth, B.S., 1990; UT Southwestern, M.D., 1994; UT Southwestern, M.S.C.S., 2008

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 1994-1997; Chief Resident, Pediatrics, 1997-1998; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 1998-2001



Zora R. Rogers, M.D.

Associate Professor

Director, Bone Marrow Failure and General Hematology Program

Clinical/research expertise: Bone marrow failure, general pediatric hematology, sickle cell disease, use of ameliorative therapies in sickle cell disease - hydroxyurea, transfusion, and stem cell transplantation

Education: University of California, Berkeley, B.A. *with honors*, 1978; University of California, San Diego, M.D., 1983

Post-doctoral training: University of Southern California Medical Center, Los Angeles County, Resident, Pediatrics, 1983-1986; Research Fellow, Pediatric Hematology-Oncology, 1986-1987; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 1987-1990



Tamra L. Slone, M.D.

Assistant Professor

Clinical/research expertise: Childhood leukemia, complications of treatment of acute lymphoblastic leukemia

Education: Auburn University, AL, B.S., 1997; University of Alabama at Birmingham School of Medicine, M.D., 2001; UT Southwestern, Clinical Research Scholar, Clinical Sciences, 2007-2010

Post-doctoral training: University of Alabama Birmingham School of Medicine, Resident, Pediatrics, 2001-2004; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2004-2007; Chief Fellow, Pediatric Hematology-Oncology, 2007-2008





Martha Stegner, M.D.

Assistant Professor

Clinical/research expertise: Clinical oncology, adolescents and young adults with cancer, prevention of invasive fungal infections in children being treated for cancer

Education: Rice University, Houston, TX, B.A., cum laude, 1999; UT Southwestern, M.D., 2003

Post-doctoral training: UT Southwestern/Children’s, Resident, Pediatrics, 2003-2006; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2006-2009



Cristina Tarango, M.D.

Instructor

Clinical/research expertise: Benign hematology, bone marrow failure syndromes, thrombosis and hemastasis, vascular biology, the antiphospholipid antibody syndrome

Education: UT El Paso, B.A., 1996; Stanford University School of Medicine, CA, M.D., 2003

Post-doctoral training: Yale-New Haven Hospital, CT, Resident, Pediatrics, 2003-2006; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2006-2009



Jonathan E. Wickiser, M.D.

Assistant Professor

Outpatient Clinical Director

Clinical/research expertise: General pediatric hematology and oncology

Education: Southern Methodist University, Dallas, TX, B.A., B.B.A., 1995; Texas Tech University, Lubbock, M.D., 1999.

Post-doctoral training: University of Virginia, Charlottesville, Resident, Pediatrics, 1999-2002, Chief Resident, 2002-2003; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 2003-2006



Naomi J. Winick, M.D.

Professor

Low Foundation Professorship in Pediatric Neuro-Oncology

Clinical/research expertise: Leukemia, clinical trials in childhood acute lymphoblastic leukemia

Education: Indiana University, Bloomington, B.A., 1974; Northwestern University, Chicago, IL, M.D., 1978

Post-doctoral training: Babies Hospital, New York, NY, Resident, Pediatrics, 1978-1981; Memorial Sloan-Kettering Hospital, New York, NY, Fellow, Pediatric Hematology-Oncology, 1981-1983; UT Southwestern, Fellow, Pediatric Hematology-Oncology, 1983-1984

Post-doctoral Fellows and Clinical/Research Staff

Fellows (Research Interests)

3rd Year

Mark E. Hatley, M.D., Ph.D.

- Signaling in cancer cells

Timothy L. McCavit, M.D.

- Sickle cell disease

Martha M. Stegner, M.D.

- Molecular neuro-oncology

Cristina Tarango, M.D.

- Vascular biology

2nd Year

Amanda B. Blair, M.D.

- Transfusional iron overload in children with cancer

Puja Gupta, M.D.

- Molecular alterations in angiogenesis

Chinni Pokala, M.D.

- Epidemiology and pathophysiology of invasive fungal infection in children with cancer

1st Year

Carrye Cost, M.D.

- Molecular diagnostic characterization of viral infections in febrile children with cancer

Amy Fowler, M.D.

- Thiopurine metabolism and toxicity in children with leukemia

Nicholas Fustino, M.D.

- Molecular biology of germ cell tumors using zebrafish models



Incoming Fellows

Clinical/Research Staff

Raven Cooksey, M.D.

- Late metabolic complications of childhood brain tumor survivors

Scott Furlan, M.D.

- Molecular immunology

Carrie Laborde, M.D.

- Thrombosis in cancer patients

Ellen Plummer, M.D.

- Pediatric oncology

The staff at UT Southwestern and Children's who support Hematology-Oncology clinical care and research number more than 150, and a close working relationship exists between the UT Southwestern faculty and staff and the Children's employees who assure the provision of high-quality care to children with cancer and hematologic disease and participate in the program's education and research missions.

The Pediatrics team members at UT Southwestern who support the Hematology-Oncology research infrastructure are Contracts Specialist AnnMarie Fillmore, Administrative Associates Laura Clarke and Patricia Ellisor and Senior Administrative Assistants Leann Bryan, Kay Stewart and Michael Winemiller. The laboratory research of Drs. Matthew Porteus, Scott Cameron and James Amatruda is supported by 28 students, trainees and research staff.



The division's clinical research infrastructure is based primarily at Children's. Thirteen clinical research associates and three research nurses, managed by Leah Adix and Jennifer Evans, handle research protocol formatting, data analysis, consent form design, IRB and HIPAA regulatory oversight, sample acquisition, data collection and analysis. This team works closely with counterparts in the Clinical Research Department at Children's and with UT Southwestern's Cancer Center and Institutional Review Board.

Advanced practice nurses and nurse clinicians play a major role in the clinical and research programs. These programs include two advanced-practice nurses in sickle cell disease, two in stem cell transplantation, one in neuro-oncology, two in late effects/cancer survivorship, one in hemophilia/thrombosis and four in general oncology. Three nurses function exclusively in research, enrolling and monitoring patients with cancer and hematologic disease in diverse investigative protocols.

Other Children's support staff include clinic and inpatient nurses, registration personnel, medical assistants, social workers, pharmacists, nutritionists, child life associates, an interpreter, a child life assistant, a cancer registrar, a telephone receptionist, a new-patient coordinator, an outreach manager and personnel in collaborating departments such as pastoral care and physical therapy. Kaye Schmidt, Senior Director, provides administrative leadership in the CCB, working closely with Drs. George Buchanan, Patrick Leavey, and Jon Wickiser to assure the efficient, effective and safe operation of all clinical activities. Barbara Obert, Operations Director, and Margaret Blackmon, Nursing Director, are also on the CCB leadership team.

Research Activities

Oncology

Each Hematology-Oncology faculty physician participates in joint clinical research projects, particularly involving the Children's Oncology Group (COG), in which Dr. Naomi Winick is the center's Principal Investigator. All faculty members in the division are members of COG, an NIH-funded multi-institutional consortium of cancer research centers.

In addition to clinical research in COG, the division conducts a number of in-house therapeutic studies for children with cancer, including innovative research programs in acute lymphoblastic leukemia (ALL) and Phase I and II trials for patients with advanced malignancies of various types. Other institutional research studies focus on genetic alterations in cancer, late effects in cancer survivors, and supportive care of children with cancer.

Hematology

Numerous clinical studies involving hematology patients (sickle cell disease, hereditary spherocytosis, thrombosis, immune thrombocytopenia (ITP)) also are being carried out by faculty and fellows; many are multi-center trials supported by the NIH. The program was funded by the NHLBI as one of 10 comprehensive sickle cell centers to participate in a clinical trials consortium, and Children's is currently one of a select group of children's hospitals nationally involved in a Sickle Cell Disease Basic and Translational Research Program initiated in April 2008. The division also is a member of the NHLBI-supported Transfusion Medicine-Hemostasis Clinical Trials Network, in which several of its faculty are involved in studies involving platelet transfusion dosing, ITP management, and hemophilia treatment. In addition to these multi-center studies, more than a dozen local investigator-initiated research projects in hematology were completed during 2009 or are currently in progress.

Laboratory Research

Laboratory research in the division is conducted by four outstanding physician-scientists – Drs. Scott Cameron, Matthew Porteus, Andrew Koh, and James Amatruda. Drs. Cameron and Porteus trained with Nobel Prize winners at MIT and the California Institute of Technology respectively before coming to Dallas in 2001 and 2003 respectively, and are emerging national leaders in their research areas — programmed cell death and gene targeting. Dr. Amatruda trained in zebrafish genetics with the world's expert at Harvard and has established a robust investigative program in this area at UT Southwestern. All four scientists have received local awards and are principal investigators on prestigious R01 grants from the NIH for recognition of their outstanding accomplishments and future potential. The presence of these four bench scientists on the Hematology-Oncology faculty has greatly enhanced the division's visibility both locally and nationally. Efforts are under way to recruit additional physician-scientists to the faculty during the coming year.

Clinical Research

The clinical research program in Hematology-Oncology has grown substantially during the past several years. The outstanding clinical research infrastructure within the division – with separate components serving oncology and hematology – currently consists of 13 clinical research associates and three research nurses. All of these positions are based at Children’s in Dallas, and most are funded through peer-reviewed NIH grants supporting patient-oriented investigation in childhood cancer, sickle cell disease and hemostasis-thrombosis. Biweekly research meetings — Research in Children’s Oncology (RICO) and Research in Children’s Hematology (RICH) — at which faculty and fellows informally present their research hypotheses and results are highly successful, attracting faculty, fellows and Hematology-Oncology clinical research support staff.

Further evidence of the robust clinical research environment within the program is the fact that six hematology-oncology faculty members have been among the 20 to 25 NIH KL2 grant-supported Clinical Research Scholars at UT Southwestern, while two other Clinical Scholars who are formally appointed in other divisions have focused their research on pediatric sickle cell disease, with Dr. George Buchanan as their mentor. For seven consecutive years, fellows or junior faculty have been selected to attend the American Society of Hematology’s prestigious Clinical Research Training Institute (CRTI).

The Hematology-Oncology Division is nationally distinguished for its design and conduct of NIH-funded multi-center clinical trials involving childhood cancer, sickle cell disease and hemorrhagic disorders.

Research Funding

Three of the division’s faculty have active laboratory research programs in molecular biology and biochemistry, receiving peer-reviewed grant support. Total research support for UT Southwestern faculty members in Hematology-Oncology during the 2009 academic year amounts to more than \$3.4 million, primarily grants from National Cancer Institute (NCI) or NHLBI. In addition to the NIH-supporting agencies, funding from other organizations includes the Maternal and Child Health Bureau of the Health Resources and Services Administration, the Centers for Disease Control and Prevention, the Children’s Cancer Fund, Wipe Out Kids’ Cancer, the American Society of Clinical Oncology, the Amon G. Carter Foundation and the Lance Armstrong Foundation. Of note during 2009, three faculty members were Principal Investigators of R01 grants, one received a K23 award and three were supported in part by an institutional KL2 award as part of UT Southwestern’s NIH-supported North and Central Texas Clinical and Translational Research Initiative. These are in addition to the numerous other grants and contracts from the NIH held by divisional faculty members.

Long-range Research Program Goal

The division’s overall program objective — to establish at UT Southwestern and Children’s one of the finest pediatric Hematology-Oncology programs in the world — remains unchanged. To achieve this goal, the division must first maintain its large and diverse patient base by creative and outreach marketing strategies, including successful development and growth of the Legacy program. Second, the division plans to recruit additional faculty to strengthen existing clinical and laboratory research and to explore new investigative areas. To maintain and advance the program’s excellence, the recent receipt of NCI designation by UT Southwestern’s Simmons Comprehensive Cancer Center, with concomitant expansion of its clinical and investigative programs in clinical and basic oncology research, will allow for enhanced collaborations and further growth of the critical mass of investigators on the campus with whom pediatric faculty and fellows will interact.

At the divisional level, special attention is currently focused on recruiting several additional faculty whose major interests lie in the areas of hematopoietic stem cell transplantation, molecular oncology, cancer immunology, stem cell biology, and vascular biology.

Clinical Activities

The CCBD has one of the Department of Pediatrics' largest subspecialty programs at Children's. Twenty-five to thirty-five inpatients with cancer and hematologic disorders are usually under direct care in a dedicated 24-bed unit and on other floors throughout the hospital. The attending physicians participate in teaching medical students and residents in addition to coordinating patient care and providing consultations. Various faculty members supervise one of three inpatient services (hematology, stem cell transplantation or oncology) during their rotations, which are two weeks in length throughout the year.

Hematology-Oncology carries out approximately 1,000 formal inpatient and outpatient consultations each year, providing diagnostic evaluations of children with anemia, bleeding disorders, and other hematologic disorders.

There are more than 250 new patients with cancer each year, with more than 400 cancer patients receiving active treatment at a given time. Approximately 1,000 additional patients have completed their treatment and are followed and monitored in the nationally-acclaimed "After the Cancer Experience" program. Unfortunately, 40 young cancer patients lost their fight during 2009, reflecting the fact that cancer remains the most common cause of death due to illness during childhood. A ten-year patient statistic summary is provided as an Appendix.

Outpatient clinic visits, the number of hospitalizations and hospital days have increased 10 to 30 percent during the past three years.

Fifty to seventy-five patients are seen daily in outpatient clinic, staffed by three or four full-time faculty members and several fellows. Many of these children receive bone marrow aspiration, lumbar puncture, and intravenous drug treatments or blood products as part of their regular outpatient management. During

2009 there were more than 15,000 outpatient hematology-oncology visits to Children's outpatient facilities in Dallas and at Legacy. In terms of patient numbers, Hematology-Oncology has for years been Children's largest or second largest outpatient clinical program. Outpatient statistics are included in the Appendix.

The clinical service in the outpatient arena is structured around teams of physicians, nurses, social workers and research staff serving patients with hemophilia and thrombosis, sickle cell disease, general hematology, oncology, bone tumors, stem cell transplantation, long-term cancer follow-up (After the Cancer Experience, or ACE) and brain tumors. Each team meets regularly to discuss patient care issues, protocols, research and administrative activities. Patients are also discussed at weekly multidisciplinary departmental conferences to allow for all relevant staff members to be aware of major patient problems and to contribute to team decisions. New leukemia, solid tumor and complex follow-up cases are discussed at a weekly Tumor Board meeting. Cases involving brain tumors are discussed each week at a Neuro-oncology Tumor Board meeting.

Hematopoietic Stem Cell Transplantation Program

A key feature of the hematology-oncology program is the hematopoietic stem cell transplantation program. Twelve of the 24 beds on the D6 inpatient Hematology-Oncology floor constitute the marrow transplant unit. These rooms contain high-efficiency particulate air filters and unidirectional air flow to reduce infection risk. More than 250 autologous and allogeneic marrow, peripheral blood stem cell or umbilical cord blood transplants have been performed since the program's inception in 1992, including 30 during 2009. A national search for a new stem cell transplant program director was successfully completed during 2009 with the appointment of Dr. Andrew Koh.

Outreach

Outreach activities have been spearheaded by Dr. George Buchanan and Cristy Ecton, the Outreach Program Manager. Ms. Ecton is responsible for the division's public relations, marketing, and physician-relations efforts. She also serves as a liaison to fundraising and support groups and monitors relationships with referring physicians. Formal outreach clinics conducted by division members have included sickle cell clinics in Tyler, Texas, three times a year.

Presentations/Teaching Activities

The faculty in the Division of Hematology-Oncology have made a major commitment to teaching medical students, residents, fellows, primary care and referring physicians, and other healthcare professionals. Teaching is done through one-on-one interactions, small groups, seminars and formal lectures in a variety of settings. The division's Education Coordinator, Dr. Jennifer Cox, is responsible for developing and monitoring teaching programs for medical students and residents.

Dr. Patrick Leavey, the Director of the Hematology-Oncology Fellowship Program, oversees the entire array of educational activities for the fellows. Fifty-five individuals have successfully completed the Hematology-Oncology Fellowship Program, initiated in 1984, with eleven currently enrolled. Continued development of this program, with the aim of training future national leaders in pediatric hematology-oncology, is a high priority for the division. The training program is accredited by the Accreditation Council for Graduate Medical Education (ACGME) and has been supported financially by Children's, the Children's Cancer Fund, Wipe Out Kids' Cancer, St. Baldrick's Foundation, the American Society of Clinical Oncology, Amgen and an NIH T32 institutional training grant. A renewal application was submitted in September 2009. The fellowship program has developed a Web site, an informative venue for prospective applicants as well as others, that describes resources, facilities, patient populations, faculty research areas and program goals and accomplishments.



Teaching conferences are held several times each week, including informal research meetings in hematology and oncology, Pediatric Hematology-Oncology Grand Rounds, the Oncology Tumor Board, the Neuro-oncology Tumor Board, Hematology Case Conference, Journal Club and team meetings of each of the disease-oriented sub-programs within the division. Numerous Hematology-Oncology faculty members are recipients of teaching awards. For the past twelve years the division has offered an annual Continuing Medical Education course each October for the past 12 years at UT Southwestern aimed at primary care physicians. Between 50 and 70 attendees regularly participate providing uniformly positive reviews.

George Buchanan, M.D.

- "Immune Thrombocytopenic Purpura During Childhood: What the Pediatrician Needs to Know," Akron Children's Hospital, OH, October 2008
- "Prevention of Complications in Sickle Cell Disease: "Dr. No" Becomes "Dr. Why Not?," Memorial Hospital, Ft. Lauderdale, FL, February, 2009
- "Office Evaluation of Children with Suspected Bleeding Disorders" and "Practical Approach to Anemia During Childhood," Phoenix Children's Hospital, AZ, March 2009
- "Sickle Cell Disease and Its Complications: Myths and Dogma," American College of Emergency Medicine Physicians, Boston, MA, April 2009
- "Being Keen On The Spleen: The Spleen, Splenomegaly and Post-Splenectomy Complications," Cook's Children's Hospital, Fort Worth, TX, August 2009
- "Recent Developments in Diagnosis and Management of Sickle Cell Disease," "Immune Thrombocytopenic Purpura During Childhood: What's New and What's Not," "Childhood Anemia: A Practical Diagnostic Approach" and "Diagnosis and Management of Iron Deficiency During Infancy and Childhood," Upstate Medical Center, Syracuse, NY, November 2009
- "Career Development" and "Academic Promotion and Tenure," 51st Annual Meeting, American Society of Hematology, New Orleans, LA, December 2009

James Amatruda, M.D., Ph.D.

- “Germ Cells in Development and Disease,” Pediatrics Grand Rounds, UT Southwestern, October 2008.
- “Modeling Cancer in the Zebrafish,” Greehey Cancer Center Research Institute, San Antonio, TX, February 2009
- “Stem Cell and Developmental Pathways in Germ Cell Tumors,” Developmental Origins of Cancer, University of Minnesota, MN, February 2009
- “Modeling Cancer in the Zebrafish,” Department of Biology, Texas A&M University, College Station, TX, February 2009
- “Germ Cells in Development and Disease,” Department of Developmental and Molecular Biology, Albert Einstein College of Medicine, New York, NY, April 2009
- “Zebrafish Cancer and Immunity Models,” International Conference on Zebrafish Genetics and Development, Spoleto, Italy, July 2009
- “Translating Basic Science of Germ Cell Biology to Improve Patient Outcomes,” Children’s Oncology Group, Fall 2008 Meeting, Denver, CO, December 2009
- “The BMP Pathway in Germ Cell Tumorigenesis,” 3rd Strategic Conference of Zebrafish Investigators, Monterey, CA, December 2009

Daniel Bowers, M.D.

- “Pediatric Cancer Survivorship,” Parent and Sibling Support Day, Center for Cancer and Blood Disorders, Children’s, April 2009
- “Optic Pathway Gliomas – A Challenging Tumor for Pediatric Oncologists,” The Carol F. Zimmerman, MD Continuing Medical Education Seminar in Neuro-Ophthalmology, UT Southwestern, October 2009
- “Low-Grade Gliomas,” Children’s Mercy Hospital Visiting Professor Lecture, University of Missouri, Kansas City, MO, December 2009

Scott Cameron, M.D., Ph.D.

- “Discovery of Developmental Pathways Altered in Hematopoietic Disease,” 1st Greehey Children’s Cancer Research Institute Symposium, “Genetics and Biology of Childhood Cancer,” UT Health Science Center, San Antonio, TX, February 2009

Shelley Crary, M.D., M.S.C.S.

- “Hematologic Consequences of Infection,” Practical Pediatric Hematology-Oncology Seminar, Plano, TX, October 2009

Paul Harker-Murray, M.D., Ph.D.

- “Saving the Cord: Practical and Ethical Dilemmas in Cord Blood Banking,” 41st Kenneth C. Haltalin Pediatrics for the Practitioner Annual Seminar, UT Southwestern, April 2009
- “Pediatric Cancer - an Overview,” The Southwest Center for Pediatric Environmental Health and Lake Country AHEC Conference on Children’s Environmental Health, Paris, TX, September 2009

Janna Journeycake, M.D., M.S.C.S.

- “Childhood Thrombosis,” American Society of Pediatric Hematology-Oncology Board Review Course, Dallas, TX, February 2009
- “The Impact of Catheter-Related Thrombosis in High Risk Patients,” Pediatric Grand Rounds, St. Jude Research Hospital, Memphis, TN, March 2009
- “Catheter-related Thrombosis in High Risk Patients,” Hematology and Coagulation Conference, Texas Children’s Hospital, Houston, TX, May 2009
- “Practical Pediatric Hematology: Thrombosis and Thrombophilia 101,” Pediatric Grand Rounds, Oklahoma University Health Science Center, Tulsa, OK, September, 2009

Laura Klesse, M.D., Ph.D.

- “Clinical Trials for Neurofibromatosis,” Texas Neurofibromatosis Education Day, San Antonio, TX, June 2009

Patrick Leavey, M.D.

- “Bone Sarcoma and Non-rhabdomyosarcoma STS,” Hematology Oncology Fellowship Conference, Internal Medicine, UT Southwestern, January 2009

- “Practical Tools for Program Improvement, Program improvement – What Is It and Why Do I Have To Do It?” ASPHO Workshop - Fellowship Program Improvement Presentations: Mentoring and Scholarly Activity, San Diego, CA, May 2009
- “New Approaches to Relapsed Ewing Sarcoma: Advances in the Diagnosis and Management of Ewing Sarcoma,” 3rd Semi-Annual Musculoskeletal Tumor Symposium, Cincinnati Children’s Hospital Medical Center, OH, October 2009
- “Recurrent Ewing Sarcoma,” Pediatric Hematology-Oncology Grand Rounds, UT Southwestern, October 2009

Cindy Neunert, M.D.

- “Hemophilia: Back to the Basics,” Hemophilia Education Day, Texas Central Hemophilia Chapter, Dallas, TX, November 2008
- “Immune Thrombocytopenic Purpura: Clinical Aspects and Management,” American Society of Pediatric Hematology Oncology Annual Meeting, San Diego, CA, April 2009
- “Assessing Patient-Related Outcomes in Immune Thrombocytopenia,” 3rd Intercontinental Cooperative ITP Study Group Expert Meeting on Consensus and Development of Strategies in ITP, Basel, Switzerland, September 2009
- “Update on the Intercontinental ITP Study Group Registry II,” Intercontinental Cooperative ITP Study Group Annual Breakfast Meeting: American Society of Hematology Annual Meeting, New Orleans, LA, December 2009
- “17 Year Old with Hemolytic Anemic,” Pediatric Grand Rounds, CPC Conference, Children’s, December 2009

Matthew Porteus, M.D., Ph.D.

- “Using Homologous Recombination and Zinc Finger Nucleases to Manipulate the Mammalian Genome,” Institute for Developmental and Molecular Biology, UT Austin, September 2008
- “Curing Sickle Cell Disease,” Pediatric Hematology/Oncology Grand Rounds, UT Southwestern, April, 2009
- “Developing Homologous Recombination for Gene Therapy,” Department of Pathology, University of Pennsylvania, Philadelphia, PA, April 2009
- “New Approaches to Gene Therapy,” Keystone Conference on Immunodeficiencies, Beijing, China, May 2009
- “Developing Homologous Recombination for Gene Therapy,” Symposia on Targeting Approaches in Gene Therapy, University of California, Los Angeles, CA, June 2009
- “Developing Homologous Recombination for Gene Therapy,” Symposia on Genome Engineering, University of Washington, Seattle, WA, June 2009
- “Stem Cells and Gene Therapy for Genetic Diseases,” Career Day, Highland Park High School, Dallas, TX, October 2009

Charles T. Quinn, M.D., M.S.C.S.

- “Improving Survival and Predicting Outcomes in Children with Sickle Cell Disease,” Cincinnati Children’s Hospital Medical Center, OH, May 2009
- “Quality of Care for Children and Adults with Sickle Cell Disease,” “Prediction of Adverse Outcomes in Children with Sickle Cell Disease” and “Developing a Research Hypothesis and Proposal,” Third Annual Sickle Cell and Thalassemia Course, Guy’s and St. Thomas’, London, United Kingdom, October 2009

Zora Rogers, M.D.

- “Hematologic Clues to Pediatric Systemic Disease,” Pediatric Grand Rounds, Hillcrest Baptist Hospital, Waco, TX, September 2008
- “Curbside Consults,” CME Course Director and Speaker, Practical Pediatric Hematology-Oncology, UT Southwestern, October 2008
- “Sickle Cell Trait: New Insights into Pathophysiology and Clinical Consequences,” Poor Cousins of Beta Thalassemia Trait Symposium, 22nd Annual Meeting, American Society of Pediatric Hematology Oncology, San Diego, CA, April 2009
- “Medical Consequences of Sickle Cell Trait,” Pediatrics Grand Rounds, UT Southwestern, April 2009

Cristina Tarango, M.D.

- “eNOS Antagonism by Antiphospholipid Antibodies,” Alliance of Five Annual Meeting, Toronto, Canada, September 2008
- “Molecular Basis and Clinical Implications of the Antiphospholipid Syndrome,” Pediatric Hematology/Oncology Grand Rounds, UT Southwestern, June 2009
- “Antiphospholipid Antibodies Promote Leukocyte-Endothelial Cell Adhesion by Antagonizing Endothelial NO Synthase Via beta-2GPI and ApoER2,” 51st Annual Meeting, American Society of Hematology, New Orleans, LA, December 2009 (poster presentation)

Naomi Winick, M.D.

- “New and Emerging Therapies for Pediatric Patients,” Texas Forum on Blood Cancers, Dallas, TX, February, 2009

Major Administrative or Leadership Responsibilities

George Buchanan, M.D.

- Director, Division of Pediatric Hematology-Oncology
- Medical Director, Center for Cancer and Blood Disorders
- Director, Southwestern Comprehensive Sickle Cell Center
- Chair, Protocol Review Committee, Sickle Cell Disease Clinical Research Network, NHLBI
- Member, Medical Advisory Board, ITP Foundation, Darien, CT
- Member, Scientific Advisory Committee, St. Baldrick’s Foundation
- Member, Executive Committee, Global Sickle Cell Disease Research Network
- Co-chair, Sickle Cell Disease Guidelines Panel, NHLBI
- Member, Sickle Cell Disease Quality Indicators Expert Panel, Boston University
- Member, External Advisory Committee, Texas Department of State Health Services, Texas Newborn Screening Program Performance Measures Project
- Chair, Institutional Review Board #2
- Member, Dean’s Advisory Committee on Clinical Research
- Member, Cancer Center Clinical Executive Committee
- Member, Editorial Board, Pediatrics in Review, American Academy of Pediatrics
- Review Course Director, American Society of Pediatric Hematology/Oncology
- Co-chair, Education Session: Junior Faculty Development, American Society of Pediatric Hematology/Oncology
- Member, K12/CTSA Clinical Scholar Program Selection Committee, UT Southwestern
- Member, Clinical Program Development Committee, UT Southwestern
- Member, Legacy Planning Committee, Children’s
- Chair and Executive Committee Member, Nominating Committee, American Society of Hematology
- Associate Editor, Pediatric Blood and Cancer

James F. Amatruda, M.D., Ph.D.

- Chair, Germ Cell Tumor Biology Sub-Committee, Children’s Oncology Group

Victor Aquino, M.D.

- Member, Advisory Committee, Texas Cord Blood Bank
- Member, Pediatric Blood and Marrow Transplant Consortium Supportive Care Committee, Pediatric Blood and Marrow Transplant Consortium
- Member, Committee for Eradicating Nosocomial Catheter-Associated Blood Stream Infections, National Association of Children’s Hospitals and Related Institutions (NACHRI)
- Member, Protocol Development Subcommittee of the Developmental Therapeutics Subcommittee, Children’s Oncology Group
- Member, Developmental Therapeutics Scientific Committee, Children’s Oncology Group

Robert Bash, M.D.

- Medical Director, Pediatric Palliative Care Program, Children's
- Founding Member, Texas Pediatric Palliative Care Consortium
- Chair, Research Subcommittee, Texas Pediatric Palliative Care Consortium
- Course Co-Director, Clinical Research Ethics Seminar, Center for Biostatistics and Clinical Science, UT Southwestern

Daniel Bowers, M.D.

- Medical Director, After the Cancer Experience (ACE), Children's

Scott Cameron, M.D., Ph.D.

- Co-chair, Cancer and Development Scientific Program, Simmons Comprehensive Cancer Center, UT Southwestern
- Chair, Scholarship Oversight Committee for Second Year and Later Fellows, Division of Pediatric Hematology-Oncology, UT Southwestern

Jennifer Cox, M.D.

- Chairman, CCBD EPIC Implementation Task Force
- Education Coordinator, Division of Pediatric Hematology-Oncology Division/CCBD

Janna Journeycake, M.D., M.S.C.S.

- Co-chair, Pediatric Subgroup for the Transfusion Medicine-Hemostasis Network of the National Heart, Lung and Blood Institute
- Co-chair, Scientific Subcommittee on Perinatal Hemostasis, International Society of Thrombosis and Haemostasis
- Co-chair, Anticoagulation Task Force to Implement Joint Commissions New Patient Safety Guidelines-3E, CCBD
- Director, Hemophilia and Thrombosis Program, CCBD
- Elected Corresponding Secretary of Medical/Dental Staff, Children's
- Member, Scientific Subcommittee on Hemostasis, American Society of Hematology
- Chair, Platelet/ITP Subgroup and Alliance of Five Steering Committee
- Member, Medical Executive Committee, Children's

Patrick Leavey, M.D.

- Clinical Director, Center for Cancer and Blood Disorders, Children's
- Director, Pediatric Hematology-Oncology Fellowship Program
- Chair, Fellowship Program Directors Committee, American Society of Pediatric, Hematology/Oncology
- Director, Pediatric Intern Recruitment, Children's
- Director, Comprehensive Orthopedic Oncology Clinic, Children's

Cindy E. Neunert, M.D.

- Planning Committee Member, Harvesters Reaching the Nations Women and Children's Health Care Center, Yei, South Sudan

Matthew Porteus, M.D., Ph.D.

- Abstract Reviewer, SPR Annual Meeting, Best Abstract Basic Science for Fellows
- Organizer, Education Symposia for Annual Meeting of the ASGCT on "Progress Towards Using ES/iPS Cells for Regenerative Medicine"

Charles T. Quinn, M.D., M.S.C.S.

- DSMB Chair, Protocol SN-SC-02-01, Hope Pharmaceuticals
- Director, Sickle Cell Disease and Thalassemia Program, Children's
- Medical Director, Camp Jubilee
- Member, Editorial Board, Pediatric Blood and Cancer

Zora Rogers, M.D.

- Liaison Member, Committee on Communication, American Society of Hematology
- Member, Nominating Committee, American Academy of Pediatrics, Hematology-Oncology Section
- Member, Nominating Committee, American Society of Pediatric Hematology-Oncology
- Member, Program Committee, Abstract Reviewer, American Society of Pediatric Hematology-Oncology

- ASH Representative to Planning Committee for CDC's National Conference on Blood Disorders in Public Health, American Society of Hematology
- Chair, Credentials Committee, Children's
- Chair, Medical Advisory Committee, Children's
- Member, Medical Executive Committee, Children's
- Member, Disruptive Physician Committee, Children's

Tamra Slone, M.D.

- Medical Director, Camp Esperanza (oncology camp), Children's
- Physician Liaison, 19th Annual Scott Storm Retreat, Hematology-Oncology Nursing Conference
- Member, American Society of Hematology Lymphoid Neoplasms Committee
- Oral Session Moderator and Abstract Reviewer, 49th Annual Meeting of the American Society of Hematology

Jonathan Wickiser, M.D.

- Outpatient Clinical Director, Center for Cancer and Blood Disorders, Children's
- Vice Chair, Program Services, and Member of the Board of Directors, Make-A-Wish Foundation of North Texas

Naomi Winick, M.D.

- Member, Children's Oncology Group ALL Executive Committee
- Chair, Outcomes Subcommittee for Acute Lymphoblastic Leukemia, Children's Oncology Group
- Member, Constitutional Review Committee, Children's Oncology Group

Awards and Honors

George Buchanan, M.D.

- America's Top Doctors, 9th Edition

James Amatruda, M.D., Ph.D.

- 2009 Outstanding Pre-clinical Teacher, 1st-year Medical School Class, UT Southwestern

Shelley Crary, M.D., M.S.C.S.

- Clinical Research Scholar, Department of Clinical Sciences, UT Southwestern, 2006-2009

Timothy McCavit, M.D.

- Clinical Research Scholar, Department of Clinical Sciences, UT Southwestern, 2009-2012

Cindy Neunert, M.D.

- Clinical Research Scholar, Department of Clinical Sciences, UT Southwestern, 2007-2010

Tamra Slone, M.D.

- Clinical Research Scholar, Department of Clinical Sciences, UT Southwestern, 2007-2010

Cristina Tarango, M.D.

Physician Scientist Training Program, UT Southwestern

The Center for Cancer and Blood Disorders at Children's is a nationally known center of excellence in sickle cell disease, hemostasis-thrombosis, hereditary spherocytosis, Diamond Blackfan anemia, and the study of Phase 1 experimental drugs in children with cancer.

HEMATOLOGY-ONCOLOGY PATIENT STATISTICS

New Patients	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Leukemia										
ALL	28	37	34	45	31	49	38	53	58	48
AML	8	9	8	8	9	3	9	10	13	8
Other	1	1	2	4	2	1	9	4	4	4
Lymphoma										
Hodgkin's	4	7	4	10	4	9	6	5	13	5
Non-Hodgkin's	10	11	6	13	12	8	16	6	15	8
Solid Tumor										
Central Nervous System	56	54	57	61	61	70	74	70	84	99
Wilms/Other Kidney	12	8	2	14	16	9	8	11	12	9
Hepatoblastoma/other liver	2	4	1	8	1	4	4	4	2	3
Osteosarcoma	1	7	0	4	9	8	8	5	6	6
Ewing's sarcoma	2	1	2	3	5	2	7	6	4	3
Rhabdomyosarcoma	5	4	2	7	5	4	2	3	4	7
Other soft tissue tumors	4	3	6	3	8	4	4	3	4	6
Neuroblastoma	5	9	11	12	12	10	9	4	12	11
Retinoblastoma	2	3	9	7	5	2	3	7	7	7
Other malignant tumors	7	9	12	4	8	8	7	11	6	12
Germ cell tumors	4	6	2	4	5	2	3	8	7	12
Histiocytosis	10	5	8	9	4	16	13	14	10	9
Miscellaneous (borderline)	13	11	6	5	5	6	9	6	11	6
Myeloproliferative disorders					7	2				5
Total	174	189	172	221	209	217	229	236	278	268
Neurofibromatosis			18	23	21	25	20	49	48	38
Sickle Cell Disease										
Sickle cell anemia	30	33	30	45	39	35	38	47	48	34
Sickle C disease	11	12	14	17	13	19	18	30	17	30
Sickle beta plus thalassemia	4	9	6	8	0	7	2	1	4	5
Sickle beta zero thalassemia	1	1	0	0	1	3	1	1	1	0
Other hemoglobinopathies	4	5	3	2	8	0	3	3	1	4
Total	50	60	53	72	61	64	62	82	71	73
Coagulation Disorders										
Hemophilia A	9	12	14	15	11	13	12	6	17	15
Hemophilia B	0	0	3	2	4	2	3	0	2	1
Von Willebrand Disease	11	8	11	4	7	10	6	6	5	14
Thrombosis				6	36	47	46	75	55	60
Other Disorders	3	13	23	37	15	3	3	5	5	4
Total	23	33	51	64	73	75	70	92	84	94
Other Hematologic Disorders*	202	258	259	218	217	256	277	362	476	443
Misc. Patient Evaluations	133	129	136	149	157	189	184	177	259	200
Total New Patients	582	669	689	747	738	826	842	998	1,216	1,116

*Neutropenia, idiopathic thrombocytopenic purpura, miscellaneous anemias, etc.

HEMATOLOGY-ONCOLOGY PATIENT STATISTICS

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Active Patients										
ACE - Peds					269	289	303	377	359	386
ACE -Young Adult					171	101	131	150	155	156
Sickle cell disease	597	589	597	613	632	626	669	639	659	682
Hemophilia & related inherited coagulopathies	155	168	226	157	158	155	157	235	255	263
Misc. hematologic disorders							@500	569	863	840
Chronic erythrocyte transfusions	35		33	56	50	49	54	70	72	83
Chronic apheresis			10		10		6	9	10	5
Stem Cell Transplants										
Autologous	5	4	7	4	7	10	6	9	9	4
Allogeneic	6	13	12	5	10	6	11	16	18	18
Total	11	17	19	9	17	16	17	25	27	22
Outpatient Unit Visits - Dallas										
Oncology	7,821	7,351	7,116	7,497	7,571	7,681	7,619	6,533	6,905	6,493
Neuro-oncology								1,232	1,942	1,902
BMT	458	496	581	484	623	566	519	867	876	788
ACE -Young Adult	320	299	309	293	300	337	337	337	342	391
Sickle cell disease	1,439	1,053	1,143	1,236	1,459	1,301	1,167	1,243	1,354	1,802
Hemophilia & related coagulopathies	555	445	493	486	583	553	475	471	452	560
Other hematology	1,294	1,741	1,791	1,931	1,794	1,813	1,994	2,219	2,966	2,783
Total	11,857	11,385	11,433	11,927	12,300	12,251	12,111	12,931	14,837	14,719
Hospitalizations - Dallas										
Oncology Patients	1,019	1,096	1,036	1,118	1,239	1,133	1,045	1,010	1,120	
Hematology Patients	350	363	439	432	450	387	346	421	442	
Total	1,369	1,459	1,475	1,550	1,689	1,520	1,391	1,431	1,562	
Total Hospital Days - Dallas										
Oncology Patients	4,844	5,666	4,988	5,152	5,808	6,242	7,492	6,745	7,903	
Hematology Patients	1,093	1,141	1,453	1,485	1,305	1,141	1,165	1,795	2,031	
Total	5,937	6,807	6,441	6,637	7,113	7,383	8,657	8,540	9,934	
Outpatient Unit Visits - Legacy										
Oncology									202	543
Neuro-oncology									58	107
BMT										10
ACE -Young Adult									14	29
Sickle cell disease									9	67
Hemophilia & related inherited coagulopathies									24	50
Hematology									184	401
Total									481	2,619
Hospitalizations - Legacy										
Oncology Patients										31
Hematology Patients										11
Total										42
Total Hospital Days - Legacy										
Oncology Patients										237
Hematology Patients										13
Total										250



Nationally the field of hospital medicine is relatively young, with the introduction of the term “hospitalist” in 1996 by Wachter and Goldman in a *New England Journal of Medicine* article. Over the past decade, the number of hospitalists, and hospitals using hospitalists, has grown rapidly making it one of the fastest growing specialties in pediatrics.

The Pediatric Hospital Medicine program at Children’s Medical Center has shown similar growth. Originating in 2002 as a single service line with five UT Southwestern pediatric faculty members, the program has grown to twenty-six faculty members, covering up to eight service lines at Children’s Medical Center Dallas and Children’s Medical Center at Legacy. It is among the largest and clinically busiest in the nation.

The group focuses on four particular areas: patient care, medical education, clinical research, and advocacy.

Faculty

M. Douglas Baker, M.D., Professor of Pediatrics at UT Southwestern, is Director of Medical Services at UT Southwestern and Children’s. He holds the Sara M. and Charles E. Seay Distinguished Chair in Pediatric Medicine. Dr. Baker earned his medical degree from Temple University School of Medicine in Philadelphia, PA, and completed his residency in pediatrics at Children’s National Medical Center in Washington, DC. He completed residency training in newborn intensive care medicine at the Milton S. Hershey Medical Center in Hershey, PA, and in pediatric emergency medicine at Children’s Hospital Boston, MA. Board certified in both pediatrics and pediatric emergency medicine, Dr. Baker has chaired numerous national committees within the American Academy of Pediatrics and the Ambulatory Pediatric Association. He also is a member of the Society for Pediatric Research and the American Pediatric Society. Dr. Baker has been instrumental in developing pediatric emergency services at Johns Hopkins Hospital in Baltimore, The Children’s Hospital of Philadelphia, Yale-New Haven Children’s Hospital in Connecticut, and at Children’s. He has a distinguished record of clinical research accomplishment in topics related to pediatric emergency medicine. Dr. Baker serves as a national consultant for training programs in pediatric emergency medicine, and is a nationally recognized expert in the areas of evaluation and management of fever in infants, and in pediatric emergency medicine systems administration.





Christina C. Bourland, M.D.

Assistant Professor

Clinical expertise: In-patient medicine

Education: University of the South, Sewanee, TN, B.A., 1999; University of Alabama School of Medicine, Birmingham, AL, M.D., 2003

Post-doctoral training: UT Southwestern/Children's, Intern and Resident, 2003-2006



Clifford N. Chen, M.D.

Assistant Professor

Clinical expertise: In-patient medicine

Education: Baylor University, Waco, TX, B.A., 1998; UT Southwestern, M.D., 2003

Post-doctoral training: UT Health Science Center at Houston, TX, Resident, Pediatrics, 2003-2006



Kenneth Chen, M.D.

Instructor

Clinical expertise: In-patient medicine

Education: John Hopkins University, Baltimore, MD, B.S.E., 2002; UT Southwestern, M.D., 2006

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2006-2009



Laura Davidson Harn, M.D.

Assistant Professor

Clinical expertise: In-patient medicine

Education: UT Austin, B.A., Plan II Honors Program, 1996; UT Southwestern, M.D., 2002

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2002-2005



Vijay Kalidindi, M.D.

Associate Professor

Clinical Director, Hospitalist Services

Clinical expertise: Inpatient medicine

Education: Osmania University, Medical College, Hyderabad, India, M.B.B.S., 1981

Post-doctoral training: Wayne State University/Children's Hospital of Michigan, Detroit, Resident, Pediatrics, 1989-1992; Fellow, Pediatric Cardiology, 1992-1995



Benjamin C. Lee, M.D.

Assistant Professor

Clinical expertise: Inpatient medicine

Education: Johns Hopkins University, Baltimore, MD, B.S., 1997; Temple University School of Medicine, Philadelphia, PA, M.D., 2001

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2001-2004

Eron S. Linver, M.D.

Assistant Professor

Clinical expertise: Inpatient medicine

Education: University of Florida, Gainesville, B.S., 1994; University of Miami School of Medicine, FL, M.D., 2000

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2000-2003



Jessica Lynn Lloyd, M.D.

Assistant Professor

Clinical expertise: Inpatient medicine, pediatric critical care

Education: Louisiana State University, Shreveport, B.S., *magna cum laude*, 1981; Louisiana State University Health Sciences Center School of Medicine, Shreveport, M.D., 1985

Post-doctoral training: Louisiana State University Health Sciences Center, Shreveport, Resident, Pediatrics, 1985-1988; University of Florida Health Sciences Center, Jacksonville, and Louisiana State University Health Sciences Center, Shreveport, Fellow, Pediatric Critical Care Medicine, 1988-1991



Shai Manzuri, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Universidad de Maimonides, Buenos Aires, Argentina, M.D., 2001

Post-doctoral training: Beth Israel Medical Center/Long Island College Hospital, NY, Resident, Pediatrics, 2005-2008



Adrienne McMillan, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: University of Florida, Gainesville, B.S., 2002; Medical College of Georgia, Augusta, M.D., 2006

Post-doctoral training: University of Florida Health Science Center, Jacksonville, Resident, Pediatrics, 2006-2009



Amit Mehta, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Vanderbilt University, Nashville, TN, B.S., 2001; University of Oklahoma College of Medicine, Oklahoma City, M.D. 2005

Post-doctoral training: University of Tennessee Health Science Center, Memphis, Resident, Pediatrics, 2005-2008



Kimberly D. Mulson, M.D.

Assistant Professor

Clinical expertise: Inpatient medicine

Education: Old Dominion University, Norfolk, VA, B.S., 1992; University of Houston-Clear Lake, TX, M.S., 1998; St. George's University School of Medicine, Grenada, West Indies, M.D., 2004

Post-doctoral training: University of South Florida, Tampa, FL, Residency, Pediatrics, 2004-2007





Gayle Murray, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Geneva College, Beaver Falls, PA, B.S., magna cum laude, 2001; SUNY Upstate Medical University, Syracuse, M.D., 2005

Post-doctoral training: Wake Forest Baptist Medical Center, Winston Salem, NC, Resident, Pediatrics, 2005-2008



Roxana Narat, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Rice University, Houston, TX, B.A., cum laude, 2002; UT Medical Branch at Galveston, M.D., 2006

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2006-2009



Phuong T. Nguyen, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Tulane University/Newcomb College, New Orleans, LA, B.S., 2001; Louisiana State University Health Sciences Center, Shreveport, LA, M.D., 2006

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2006-2009



Anna Seong-Hee Pak, M.D., F.A.A.P.

Assistant Professor

Clinical expertise: Inpatient medicine

Education: University of Virginia, Charlottesville, B.A., 1996; MCP Hahnemann School of Medicine, Philadelphia, PA, M.D., 2002

Post-doctoral training: North Shore University Hospital, Manhasset, NY, Resident, Pediatrics, 2002-2004; University of Virginia, Charlottesville, Resident, Pediatrics, 2004-2005



Reina M. Patel, D.O.

Assistant Professor

Clinical expertise: In-patient medicine, asthma, family-centered rounds

Education: Houston Baptist University, TX, B.S., 1999; University of North Texas Health Sciences Center, Texas College of Osteopathic Medicine, Fort Worth, D.O., 2003

Post-doctoral training: UT Health Science Center at Houston, Resident, Pediatrics, 2003-2006

Stephen Pishko, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: University of Notre Dame, IN, B.S., 2001; UT Southwestern, M.D., 2005

Post-doctoral training: University of Tennessee Health Science Center/LeBonheur Children's Medical Center, Memphis, Intern and Resident, Pediatrics, 2005-2008



Stephanie Porter, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Texas A&M University, College Station, B.S., 1995; UT Health Science Center at Houston, M.D., 1999

Post-doctoral training: Scott & White Hospital, Temple, TX, Resident, Pediatrics, 1999-2002



Yolande Pengetnze, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: University of Yaoundé I, Cameroon, M.D., 1998; Georgetown University, Washington, DC, M.S., 2005

Post-doctoral training: Maimonides Medical Center, Brooklyn, NY, Resident, Pediatrics, 2005-2008



Luis Seguias, M.D.

Assistant Professor

Clinical expertise: Inpatient medicine

Education: Universidad Central de Venezuela, Los Chaguaramos, Caracas, M.D., 1989

Post-doctoral training: Universidad Central de Venezuela, Los Chaguaramos, Caracas, Resident, Pediatrics, 1990-1993; Hospital de Ninos, San Bernardino, Venezuela, Fellow, Pediatric Nephrology, 1994; Albert Einstein College of Medicine, New York, NY, Fellow, Pediatric Nephrology, 1994-1996; Resident, Pediatrics, 1996-1997; University of Miami-Jackson Memorial Hospital, FL, Fellow, Pediatric Nephrology, 1997-1998



Karthik Srinivasan, M.D.

Assistant Professor

Clinical expertise: In-patient medicine, orthopedic Infections

Research expertise: Orthopedic Infections

Education: Massachusetts Institute of Technology, Cambridge, MA, B.S. 1999; UT Southwestern, M.D., 2003

Post-doctoral training: Rainbow & Babies Children's Hospital, Cleveland, OH, Resident, Pediatrics, 2003-2006





Shirley Tetteh, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: University of Ghana, Legon, B.Sc., 1999; University of Ghana Medical School, Korle-Bu, M.B., Ch.B., 2003; Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, M.P.H., 2005

Post-doctoral training: Goryeb Children's Hospital/Atlantic Health, Morristown, NJ, Resident, Pediatrics, 2006-2009



Bharath Thankavel, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Baylor University, Waco, TX, B.S. 1998; St. George's University, Grenada, West Indies, M.D., 2004

Post-doctoral training: University of South Florida St. Petersburg, FL, Resident, Pediatrics, 2004-2007



Kathleen Vandiver, M.D.

Instructor

Clinical expertise: Inpatient medicine

Education: Texas A&M University, College Station, B.S., 2000; UT Southwestern, M.D., 2006

Post-doctoral training: UT Southwestern/Children's, Resident, Pediatrics, 2006-2009



Jennifer Walsh, M.D.

Assistant Professor, Pediatrics and Internal Medicine

Clinical/research expertise: In-patient medicine, adolescent medicine

Education: Princeton University, NJ, A.A., 1998; UT Health Science Center at Houston, TX, M.D., 2003

Post-doctoral training: University of North Carolina Hospitals, Chapel Hill, NC, Resident, Internal Medicine and Pediatrics, 1999-2003

Patient Care

As the largest tertiary medical center for pediatric patients in North Texas, Children's draws patients from North and East Texas, Southern Oklahoma and Northern Louisiana who are admitted to the general pediatrics floor. There are two types of services staffed during the year at the Dallas campus. The first relies on 24-hour, 7 days a week, on-site attending coverage. The second resembles a prototypical teaching service with several levels of learners, from third-year medical students to third-year pediatric residents. In 2008, Children's Legacy opened in the suburb of Plano, Texas, and the 24/7 on-site attending model is utilized there. Since patient census varies seasonally, the number of hospitalist services change throughout the year. There are five hospitalist services (three at Dallas and two at Legacy) and one teaching service during the summer months. During the peak winter months, which represents coverage of over 100 patients beds a day, there are up to seven hospitalist services (five at Dallas and two at Legacy) and one teaching service.

Faculty encounter a wide range of medical conditions with varying complexity and provide the highest quality of care for patients through evidence-based practice and family-centered care. An asthma care unit was implemented in 2009, and future plans include developing a unit for the medically complex child.

Medical Education

In addition to their clinical duties, Hospitalist Medicine faculty members actively participate in the educational programs of UT Southwestern and Children's. All hospitalists hold faculty appointments at UT Southwestern Medical School and are expected to create novel educational opportunities for our students and residents. Faculty teach residents from UT Southwestern's categorical residency program, family practice interns from local programs (John Peter Smith, Baylor Garland, Charlton Methodist and UTSW), and third year medical students from UT Southwestern Medical School and trainees from outside programs doing elective rotations. Hospitalist faculty participate in nursing education as well. A hospitalist elective for third-year pediatric residents, for which there has been good interest, was recently started.

Research Activities

Hospitalist Medicine faculty members develop one or more areas of expertise related to their clinical interests and have engaged in a number of research endeavors, some collaborative with other disciplines. Faculty members have partnered with colleagues in Orthopedics to standardize the approach to management of bone and joint infections, with the purpose of reducing morbidity and length of in-patient stays. One hospitalist in-patient service has also served as the primary site of implementation of family-centered rounds, an innovative approach that prospectively and directly incorporates parents and patients into the discussion of their medical issues and the formulation of management plans.

Some of the faculty research interests include quality initiatives, bone infections, electronic medical record, information technology and evidence based practice. Hospitalists accomplishments include publications and presentations at national meetings.

Advocacy

Hospitalists participate in a number of hospital committees in order to improve both the efficiency of the hospital and the care of patients. Hospitalist faculty have a presence in regional and national organizations such as Texas Medical Association, Texas Pediatric Society, American Academy of Pediatrics and Society of Hospitalist Medicine where they advocate for the health of our children.

