**Division Introduction**

The Division of Pediatric Emergency Medicine (PEM) is one of the largest divisions within the Department of Pediatrics at UT Southwestern. Over the past ten years, the division has grown from 9 PEM faculty to 24 PEM plus 7 general pediatricians. We continue to recruit additional faculty to meet increasing demand in the clinical service, research activities, and teaching. Planning for the new expansion at the Dallas Emergency Department continues, with the first phase of construction to be completed in September 2019, and all construction to be completed Fall of 2021. Our faculty have diverse clinical and research interests, including trauma, respiratory emergencies, neurologic emergencies, bedside ultrasound, infectious diseases, and quality improvement.

The division’s faculty and PEM fellows provide clinical service at Children’s Health Emergency Departments at Children’s Medical Center Dallas and Children’s Medical Center Plano. Children’s Health emergency services is the second busiest pediatric emergency service in the country. Our 2018 patient volume for both campuses was 174,461 patient visits (Dallas, 123,138 and Plano, 51,323). Historically, 40% of hospital admissions come through the ED.

The Dallas Campus emergency department is the primary pediatric emergency department for Dallas, serves as a major pediatric referral center for Dallas County and the surrounding region, and is the only American College of Surgeons verified Level I pediatric trauma center in North Texas. One of the major responsibilities of the Pediatric Emergency Medicine faculty at a Level I pediatric trauma center is providing trauma stabilization and resuscitation for serious and critical injuries. Division faculty also provide medical oversight and physician coordination for the Children’s Health transport team and Dallas County EMS system (BioTel).

The Plano campus emergency department is a free-standing community children’s hospital staffed with pediatric emergency medicine faculty, general pediatricians experienced in pediatric emergency medicine, and acute care advanced practice providers. Since 2017, the Plano campus has been designated a level 4 trauma center.

The Division of Pediatric Emergency Medicine has thrived and grown under the direction of Halim Hennes, M.D., M.S., Division Chief, who transitioned the role of Division Chief to Vincent J. Wang, M.D., M.H.A. in July of 2018. The PEM Division plays a vital role in providing attending physician support, supervising pediatric emergency medicine fellows, pediatric residents, emergency medicine residents, family medicine residents, and the advanced practice providers in the emergency departments at Children’s Medical Center Dallas and Plano campuses.

The division has an excellent research infrastructure with a full-time research coordinator, three research assistants, and two volunteer students. The research staff assist our faculty and fellows with IRB applications, patient enrollment, and maintain research materials. Our faculty are involved in several clinical research studies, designed to advance patient care and knowledge regarding status epilepticus, asthma and other respiratory diseases, brain injury, pain management, bedside ultrasound, prehospital care, and noninvasive monitoring. Currently the division faculty are participating in 4 multicenter, federally funded research projects.

The division has a well-established fellowship program that provides strong clinical, educational, and research training in pediatric emergency medicine and plays a crucial role in clinical teaching of pediatric residents. The fellowship training program participates in the National Residency Match Program. Effective July 1, 2018, we began accepting 4 fellows per year (up from 3 per year). The Division also provides the primary teaching faculty for medical students and other allied health professionals on the acute recognition, evaluation, and management of critically ill and traumatized children.
2018 Leadership Highlights

July 2018: Dr. Vincent J. Wang, M.D., M.H.A. began his role as Division Chief
July 2018: Dr. Halim Hennes, M.D., M.S. transitioned to Research Director
August 2018: Dr. Colin Goto, M.D. retired
2018: Pamela Okada, M.D. served as Medical Staff President, Children’s Health Plano
Faculty

The Division has 28 full-time and 3 part-time faculty members and 10 fellows, all with diverse research and administrative interests. Five faculty joined the Division in 2018, as introduced below:

**Jeannette Dodson, M.D.**
Instructor

- **B.A.** University of Michigan, Ann Arbor, MI, 2004
- **M.A.** University of Michigan, Ann Arbor, MI, 2006
- **M.D.** Wayne State University School of Medicine, Detroit, MI, 2012

**Postdoctoral Training**
- Residency, Pediatrics
  - UT Southwestern/Children’s, 2012-2015
- Fellowship, Pediatric Emergency Medicine
  - UT Southwestern, 2015-2018

**Interests**
Process improvement, new technologies

**Kymberly Gonzalez, M.D.**
Instructor

- **B.B.A.** Southern Methodist University, Tulsa, OK, 2008
- **M.D.** UT Southwestern, 2012

**Postdoctoral Training**
- Residency, Pediatrics
  - UT Southwestern/Children’s, 2012-2015
- Fellowship, Research
  - University of Pennsylvania/Robert Wood Johnson Clinical Scholars, 2015-2018

**Interests**
Serving the underserved

**Lori Pandya, M.D.**
Instructor

- **B.S.** Pennsylvania State University, University Park, PA, 2005
- **M.D.** Jefferson Medical College, Philadelphia, PA, 2009

**Postdoctoral Training**
- Residency, Pediatrics
  - Baylor College of Medicine, Houston, TX, 2009-2012
- Fellowship, Neonatal-Perinatal Medicine
  - Baylor College of Medicine, Houston, TX, 2012-2013
- Fellowship, Pediatric Emergency Medicine
  - UT Southwestern, 2015-2018

**Interests**
Disaster medicine, emergency medicine services
Vincent Wang, M.D., M.H.A.
Professor, Division Chief

B.A., cum laude
Boston University, Boston, MA, 1993

M.D.
Boston University, Boston, MA, 1993

M.H.A.
University of Southern California, School of Policy, Planning, and Development, Los Angeles, CA, 2010

Postdoctoral Training
Residency, Pediatrics
Children’s Hospital Los Angeles, Los Angeles, CA, 1993-1996
Fellowship, Pediatric Emergency Medicine
Boston Children’s Hospital, Boston, MA, 1996-1999

Interests
Asthma, bronchiolitis, dehydration, meningitis, meningococcemia, technology in the ED setting, efficiency in the ED setting

Sarah Williams, M.D., M.P.H.
Instructor

B.S., magna cum laude
Virginia Polytechnic and State University, Blacksburg, VA, 2008

M.P.H.
University of Virginia, Charlottesville, VA, 2015

M.D.
University of Virginia, Charlottesville, VA, 2015

Postdoctoral Training
Residency, Pediatrics
UT Southwestern/Children’s, 2015-2018

Interests
Disaster medicine

Honors / Awards

Faculty Promotions to Assistant Professor

- Rachel Long, D.O.
- Faisalmohemed Patel, M.B.B.S.
- Ngoc Van Horn, M.D.

Invited Lectures

Jo-Ann Nesiama

- Pediatric Grand Rounds, Department of Pediatrics, Children’s Health, Dallas, TX, October 2018
  - “Inter-Facility Transfers”

Sing-Yi Feng

- Medical Masterclass – Basic Sciences World Orchestra, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, UAE, March 2018
  - “Introduction to the Management of the Intoxicated Patient”
Conference Presentations

Pediatric Academic Societies Meeting, Toronto, Canada, May 2018

Dettori A, Young V, Pittman C, Zepeda M, Thomsen C, Danaher D, Macias C, Darnell Bowens C, Badawy M, Mittal V.

- “State-based Bronchiolitis QI Collaborative Benchmarking Data Improves Local Children’s Hospitals Long Term CXR Performance Metrics—A Children’s Hospitals Across Texas (CHAT) Collaborative Experience”

Dodson J, Hennes H, Badawy M, McElvania E.

- Poster, “Evaluating the Need for Blood Culture in Febrile Immunocompetent Children Presenting to the Emergency Department”

Guiner-da Silva A, Hennes H, Street M, Oke O.


Lerner B, Badawy M, Cushman J, Drendel A, Shah M, Gourlay D.

- Poster, “Evaluating Use of the Motor Component of the Glasgow Coma Score for Identifying Children Who Need the Resources of a Trauma Center”

Lerner B, Cushman J, Badawy M, Drendel A, Shah M, Gourlay D.

- Poster, “Using Provider Gestalt for the Field Triage of Injured Children”

Lerner B, Drendel A, Badawy M, Cushman J, Shah M, Gourlay D.

- Poster, “Accuracy of the American College of Surgeons Minimum Criteria for Full Trauma Team Activation for Children”


- Platform, “Practice Patterns and Outcomes of Children Infected with Verocytotoxin-producing Escherichia coli (VTEC) in Pediatric Emergency Departments in North America”

Mittal V, Badawy M, Zepeda M, Darnell Bowens C.

- Poster, “Shifting Trends in High Flow Nasal Cannula Use between PICU and Wards and Role of Non-Invasive and Invasive Ventilation: A Six-Year Tertiary Care Practice Analysis of Children Hospitalized with Bronchiolitis”

Pandya L, Nesiama J, Cooper M, Patel N, Fernandes N, Alletag M, Spear D, Leonard D.

- Platform, “Ultrasound-Guided Central Venous Assessment in Children: A Prospective Study Comparing the Femoral and Internal Jugular Veins”

Other Conferences

Knox C (Fellow), Feng S, Nesiama J, Baldovsky M, Yen, K, Mittal V.

- Poster, Senior Fellows Research Day, Pediatrics, UT Southwestern, Dallas, TX, May 2018 “Improving Success Rates of Lumbar Punctures Using Solid Surface Stabilization: A Randomized Controlled Trial”
Education and Training

The Division of Pediatric Emergency Medicine provides educational opportunities for medical students and residents, in addition to its fully accredited fellowship program. Our educational activities include didactic lectures covering core PEM curriculum, simulation labs for enhancing clinical and procedural skills, small group discussions, bedside teaching in the ED, and Pediatric Advanced Life Support (PALS).

The faculty educational activities also include educational seminars for other community physicians, advanced practice providers, EMS personnel, and other allied health professionals.

Medical Students

The Pediatric Emergency Medicine faculty and fellows are very active in providing didactic education to UT Southwestern medical students, as well as physicians locally and nationally.

The Division offers a third-year medical student shadowing rotation and a fourth-year medical student clerkship, that provides in-depth exposure to Pediatric Emergency Medicine through recognition, evaluation, and management of the acutely ill and injured child.

Residents

Major internal educational activities include didactic lectures for the Pediatric residents, as well as Family Medicine and Emergency Medicine residents. Training in the emergency department is often sought by residents from other pediatric training programs in Texas and Oklahoma.

The objectives of the course are to:

- Recognize, evaluate, and manage acutely ill and injured pediatric patients
- Master technical skills, including: venous access, venipuncture, lumbar puncture, laceration repair, splinting, and bladder catheterization
- Evaluate and manage common pediatric complaints and disease processes
- Acquire and maintain efficiency and prioritization required to care for multiple patients simultaneously
Requirements for this course include:

- Core competencies: common complaints, disease processes, and technical skills
- Monthly patient lists: chief complaint and diagnosis
- Noon and monthly emergency medicine conferences and Grand Rounds

Education opportunities include:

- Pediatric Emergency Medicine lectures at residents’ conferences
- Bedside teaching on the diverse patient population
- "Emergigrams"
- "Article of the Month"
- Participation at Pediatric Emergency Medicine Fellows’ Meetings

Fellows

The well-established Pediatric Emergency Medicine Fellowship Program accepts both pediatric- and emergency medicine-trained residents with an interest in furthering their careers in pediatric emergency medicine.

The program provides strong clinical training and includes a comprehensive research curriculum with didactic teaching that covers basic research concepts and statistics.

Division faculty have diverse research interests, offering the fellows a unique opportunity to select the appropriate mentor with interests that match theirs. An experienced Research Director is available to assist faculty and fellows with their research projects, and both the Fellowship Director and Associate Fellowship Director have Masters level education in research design.

Faculty and fellows play a major role in the education of pediatric residents, family medicine residents, general emergency medicine residents, and medical students. Recognizing the outstanding clinical training and opportunities to evaluate and manage a diverse population of acutely ill and injured children, fellows from other Pediatric Emergency Medicine Fellowship Programs often submit requests for elective rotations here.
Research Activities

PEM serves a diverse population with broad pediatric pathology and high acuity, providing an opportune environment for clinical research. Because of a rich clinical service and broad research interests, the Division has been routinely selected to participate in multicenter, national, and international level studies. The research team has a proven track record of success by becoming one of the top enrolling sites for numerous multi-center federally funded studies. In addition, our Division received recognitions at two multi-center NIH-funded investigator conferences for its continued dedication this past year.

The mission of the Division is to conduct state of the art clinical research, with an emphasis on improving the clinical care and outcome of the acutely ill or injured child. The pillars of the research program in the Division include trauma, EMS/pre-hospital management, pain management, clinical decision rules, respiratory care, and neurologic emergencies.

The research infrastructure includes a full-time dedicated research coordinator and lead research assistant (R.A.), two PRN R.A.s, and two volunteers. Research support is present in the Emergency Department 15 hours per day. In addition, we have had one medical student working as a volunteer research assistant this past year.

The Division has created a Research Council to review and oversee all PEM research. The council is led by Dr. Halim Hennes, the Research Director, and is composed of the Division Chief, Fellowship Director, Associate Fellowship Director, Research Coordinator, a member of the Emergency Medicine nursing management and nursing education staff, and select senior PEM faculty. The PEM Research Council’s purpose is to review and oversee all PEM research development and implementation. The council role is advisory to faculty interested in initiating research projects in the ED and guide the division research staff in prioritizing implementation.

Clinical Activities

Pediatric Emergency Medicine faculty and fellows provide emergency services at Children’s Health.

- Our 2018 patient volume for both campuses was 174,461 (Dallas, 123,138 and Plano, 51,323).
- In Dallas, 77,469 patients were evaluated in the main ED and 45,669 were evaluated in the Fast Track.
- In Dallas, our ED admission rate was 15%, with 7.4% these patients admitted to the pediatric intensive care unit, reflecting a relatively large number of acutely ill and injured children.
- In Plano, the main ED and Fast Track data are mixed.
- The overall ED admission rate was 8%, with 13% of these patients admitted to the pediatric intensive care unit in Plano.

Historically, 40% of hospital admissions come through the ED. The Dallas ED is the only Level 1 pediatric trauma center in North Texas, and second busiest pediatric emergency medicine clinical service in the country. We also provide emergency care for a variety of complex problems in children with special health care needs.

Two pediatric emergency medicine faculty, Drs. Sing-Yi Feng and Collin Goto, are also certified toxicologists. They manage a special Lead Poisoning Clinic at Children’s and provide toxicology consultation service at Children’s, Parkland Memorial Hospital, and Clements University Hospital. Dr. Collin Goto retired in August 2018.
The emergency department serves as the clinical laboratory for the division faculty, where more than a dozen investigative studies are ongoing and designed to answer critical questions that will improve the care provided to children in crisis. Study themes include: treatment of respiratory diseases, pain management and sedation, injury epidemiology, noninvasive monitoring, and brain injury research.

Telemedicine Program

The TeleER started in 2016 and has evolved over the past 12 months. We currently serve 12 hospital emergency departments and have two telemedicine stations; one in the Dallas ED and one in the Plano ED. The furthest outlying hospital is located 442 miles from Dallas. Drs. Halim Hennes, Mohamed Badawy, and Pamela Okada serve as the backup telemedicine consultants when the ED is busy and unable to respond. In 2018, we responded to 44 consults.

Patient Statistics

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<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td><strong>Dallas Main Emergency Department</strong></td>
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<tr>
<td>Annual Volume</td>
<td>70,260</td>
<td>72,757</td>
<td>77,469</td>
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<tr>
<td>Trauma (Patients meeting trauma criteria)</td>
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<td>835</td>
<td>797</td>
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<tr>
<td>Admissions</td>
<td>12,048</td>
<td>11,954</td>
<td>11,721</td>
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<td>Median time arrival to departure (minutes)</td>
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<td>258</td>
<td>196</td>
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<td><strong>Dallas Emergency Department Trauma Statistics</strong></td>
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<tr>
<td>Trauma stat activation</td>
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<tr>
<td>Trauma Alert activation</td>
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<td>Trauma consult</td>
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<td>Trauma admission</td>
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<td><strong>Plano Emergency Department</strong></td>
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<tr>
<td>Annual volume</td>
<td>46,553</td>
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<td>Admissions</td>
<td>3,647</td>
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<td>Median time arrival to departure (minutes)</td>
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<td>131</td>
<td>167</td>
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<td><strong>Dallas Fast Track</strong></td>
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<tr>
<td>Annual volume</td>
<td>54,909</td>
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<td>Median time arrival to departure (minutes)</td>
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Current Grant Support

Mohamed Badawy

**Grantor:** NICHD  
**Title of Project:** Validation of Decision Rules for CT Use in Children with Abdominal or Head Trauma  
**Role:** Co-principal Investigator  
**Dates:** 7/2016 – 06/2020

Pamela Okada

**Grantor:** NIH / National Institute of Neurological Disorders and Stroke  
**Title of Project:** Established Status Epilepticus Treatment Trial (ESETT)  
**Role:** Co-Investigator; Site Principal Investigator  
**Dates:** 09/2014 - 08/2019
Kenneth Yen

**Grantor:** Texas Higher Education Coordinating Board: Emergency and Trauma Care Education Partnership Program  
**Title of Project:** Pediatric Emergency Medicine Fellowship Expansion  
**Role:** Project Lead  
**Dates:** 5/2016 – 6/2020

**Journal Publications**


Book Chapters