

UT Southwestern
Medical Center
Department of Pediatrics

Pediatric Endocrinology

2023 Annual Report

The Division of Pediatric Endocrinology at UT Southwestern Medical Center is dedicated to advancing the health and well-being of infants, children, and adolescents through exemplary clinical care, pioneering research in endocrinologic diseases, and comprehensive medical education that prepares future leaders in pediatric endocrinology.

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The [Division of Pediatric Endocrinology](#), directed by Perrin C. White, M.D., provides inpatient and outpatient clinical services to Children’s Medical Center Dallas and the broader community in the areas of general endocrinology, diabetes, and obesity. The Division’s catchment area extends north and east into Oklahoma, Louisiana and southwestern Arkansas, west to the Mid-Cities and occasionally into Fort Worth, and south as far as Houston. The faculty consists of 16 physicians, including 11 full-time equivalent practitioners who conduct direct patient care and supervise other health professionals (nurse practitioners, advanced practice nurses, endocrinology nurses, and certified diabetes educators). In 2023, the payer mix was 52% commercial, 46% Medicaid, and 2% other categories.









Perrin C. White, M.D.
Professor, Division Chief

The Division includes three broad service categories, each with its own Medical Director.

- General Endocrinology, including growth, thyroid, puberty, pituitary, and adrenal problems, directed by Soumya Adhikari, M.D.
- Diabetes, directed by Abha Choudhary, M.D.
- Obesity, including the Center for Obesity and its Consequences in Health (COACH), directed by Amanda Shaw, M.D.

Additionally, approximately a third of our outpatient encounters take place at the Children’s Health Plano campus, with 10%-15% of inpatient activities occurring there. Accordingly, we now have a Medical Director for the Plano campus, with the role currently filled by Dr. Choudhary.

Numbers at a Glance

 <p>Faculty: 16* New Faculty: 2* Promotions: 2* <i>U.S. News & World Report</i>: #14</p>	 <p>Clinical Fellows: 3* Clinical Sites: 3</p>	 <p>Inpatient Encounters: 3,404* Outpatient Encounters: 14,818*</p>
 <p>Research Funding Total* Grants: \$624,257 Contracts: N/A Total # Proposals Awarded: 2 Public Federal (# K Awards): N/A Public State of Texas: N/A Other: N/A Revenue from Active Clinical Trials as of 12/31/2023: \$3,778,981</p>	 <p>Active Clinical Trials: 11*</p>	 <p>Conferences/Lectures/Presentations: 15 Publications: 23* Citations: 1,662*</p>

*Sources: Orbit report of RHI032 Organizational Research Dashboard, UTSW Office of Research and Grants Support, Faculty Affairs, Education Alumni Affairs, Clinical Business Operations-invoice creation period for 2023, CVs

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Honors/Awards

Best Pediatric Specialists in Dallas, *D Magazine*

- Soumya Adhikari
- Abha Choudhary
- Ellen Grishman
- Melissa Ham
- Muniza Mogri
- Nivedita Patni
- Amanda Shaw
- Perrin C. White
- Ming Yang

Texas Super Doctors, *Texas Monthly*

- Ernesto Fernandez
- Amanda Shaw (Rising Star)

We also provide continued leadership in medical care protocols for the world's largest residential diabetes camp (Camp Sweeney, Whitesboro, Texas) for children with Type 1 diabetes

Top Conference Locations

Annual Conference PESTOLA (Pediatric Endocrine Society of Texas, Oklahoma, Louisiana, and Arkansas), Oklahoma City, February 2023

Annual Meeting of the Pediatric Endocrine Society, San Diego, May 2023

83rd Scientific Sessions of the American Diabetes Association, San Diego, June 2023

Education and Training

The Division of Pediatric Endocrinology is dedicated to excellence in medical education, offering comprehensive learning experiences for medical students, residents, and fellows at every stage of their training.

Medical Students

Our faculty in Pediatric Endocrinology provide structured didactic sessions for UT Southwestern medical students. For fourth-year students, we offer two specialized electives that provide in-depth exposure to the care of children with diabetes and a wide range of endocrinologic conditions.

Residents

[Residents at Children's Medical Center Dallas](#) and UT Southwestern benefit from hands-on experience in one of the nation's largest endocrine and diabetes clinics. Throughout their rotation in the Division of Pediatric Endocrinology, residents achieve key educational goals, including:

- **Understanding growth patterns:** Familiarization with normal growth trajectories and variants, alongside the ability to evaluate typical and atypical pubertal development.
- **Interpreting endocrine function tests:** Mastery in interpreting and recommending appropriate tests for common endocrine concerns, such as thyroid disorders, short stature, pubertal anomalies, and screening for congenital endocrine disorders.
- **Managing diabetes:** Comprehensive training in Type 1 and Type 2 diabetes management across inpatient and outpatient settings, as well as at specialized environments such as diabetes camp.

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Resident Elective Rotation

The Pediatric Endocrine elective is available to residents in any of the three years of their training. Primarily focused on outpatient care, the rotation can include inpatient experiences – such as rounds on endocrine floor patients and consultations – based on the resident’s interest and in coordination with the attending faculty.

In the outpatient clinic, residents work closely with a range of attending physicians, gaining exposure to the full spectrum of pediatric endocrine conditions. This includes individualized patient evaluations, collaborative management planning, and targeted learning materials for each case. Residents may choose to focus specifically on diabetes education and management, including advanced insulin pump therapy and care for newly diagnosed diabetes patients.

Unique Learning Opportunity: Camp Sweeney

During June and July, residents have the unique opportunity to rotate at Camp Sweeney, the world's largest residential camp for children with diabetes. A two-week rotation at the camp allows residents to manage and support the care of over 200 children with diabetes in a dynamic, immersive setting, fostering practical skills and a deepened understanding of diabetes management in a real-world context.

Fellows

The Pediatric Endocrinology Fellowship Program accepted its first extramural fellow in 1999 and now accepts two fellows per year. Approximately half of our fellows come from our Department's [Pediatric Residency Program](#), and in turn, approximately half of our faculty are graduates of our fellowship program.

The Fellowship Program emphasizes both broad and deep clinical training, as well as experience in clinical research, bench research, or both. Almost all the fellows have published their projects as one or more papers in peer-reviewed literature, and the majority of graduates take academic positions at UT Southwestern or other medical schools.

Our world-class institution provides fellows with:

- Opportunities to obtain basic science research training at an institution that is home to many world-renowned investigators, including [Nobel Laureates](#) and numerous distinguished faculty who are members of the American Academy of Arts and Sciences, the National Academy of Sciences, and the National Academy of Medicine.
- Opportunities to obtain clinical research training in our [School of Public Health](#), which has become the model for institutions across the nation.
- Opportunities to obtain clinical endocrinology training at [Children’s Medical Center Dallas](#), where growth and commitment to excellence place it as one of the nation’s top pediatric hospitals. Our Pediatric Endocrinology Division was ranked No. 14 nationally by *U.S. News & World Report* in 2023. Children’s is licensed for more than 470 beds, has more than 50 pediatric specialty and subspecialty programs, and is the only pediatric hospital in North Texas with a designated Level I Trauma Center.

Research Activities

Pediatric Endocrinology [faculty](#) are involved in both basic and clinical research. The Division of Pediatric Endocrinology works with laboratories in other departments and institutions, providing fellows an opportunity to expand their research interests and learning opportunities. Recent research includes:

- Development of a risk model to predict adverse events in children presenting with diabetic ketoacidosis (DKA) or hyperosmolar hyperglycemic state (HHS)
- Completion of a study elucidating the factors contributing to disparities in technology use in youth with diabetes

[Dr. Perrin C. White](#) has studied several genetic diseases of steroid hormone biosynthesis and metabolism, including the most common forms of congenital adrenal hyperplasia. He is the site Lead Investigator for several multicenter studies of

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Type 1 diabetes. These include [TrialNet](#), for which UT Southwestern is among 22 consortium members conducting trials of disease-modifying treatments in Type 1 diabetes; a recently concluded trial of a “[bionic pancreas](#)” advanced insulin pump; and a sponsored study of [teplizumab](#), a humanized anti-CD3 monoclonal antibody, to prolong the honeymoon in children with newly diagnosed Type 1 diabetes.

[Dr. Soumya Adhikari](#) aspires to leverage the electronic medical record to yield data-driven process changes and to better understand clinical outcomes. He maintains a robust database of clinical outcomes for more than 2,500 children with diabetes, and his work contributed to the development of a risk model for hospital admission with diabetic ketoacidosis that can apply an automated risk score to each patient based on data discreetly available in the electronic record. Dr. Adhikari is also developing protocols and processes to introduce continuous glucose monitoring to the care of inpatients with diabetes.

[Dr. Bethany Cartwright](#) is applying single-cell transcriptomic and cellular cloning techniques to adipose tissue obtained from pediatric patients. She is identifying and characterizing unique cellular subpopulations in adipose tissue, and correlating this with clinical data obtained from patients, to determine how these cell populations influence disease.

[Dr. Nivedita Patni](#)'s academic and clinical interests are pediatric endocrine and lipid disorders, including genetic dyslipidemias like Type 1 hyperlipoproteinemia (T1HLP), and rare lipodystrophy and progeria syndromes. She has studied the prevalence, clinical features, and various etiologies of extreme hypertriglyceridemia in children and is working on determining the genetic basis of lipid disorders in children and the genotype-phenotype relationships in these patients. Patients with T1HLP are a challenge to treat. Dr. Patni recently completed a pilot randomized, open label, crossover clinical trial of the gastric and pancreatic lipase inhibitor orlistat in these patients, obtaining promising results. She has described a novel syndrome of generalized lipodystrophy associated with pilocytic astrocytoma and a novel finding of juvenile-onset generalized lipodystrophy in two patients with a new mutation in the *lamin A (LMNA)* gene. Dr. Patni has also studied and published detailed clinical and metabolic parameters of children with familial partial lipodystrophy caused by *LMNA* mutations and continues her research work at the Center for Human Nutrition at UT Southwestern Medical Center to understand the natural history and physiology of rare lipodystrophy syndromes. Her other recent work includes a description of a novel autosomal recessive familial generalized lipodystrophy syndrome due to a homozygous *LMNA* variant, collaborative work identifying a novel generalized lipodystrophy-associated progeroid syndrome due to a different specific mutation in *LMNA*, and autosomal recessive Wiedemann-Rautenstrauch syndrome, or neonatal progeroid syndrome, due to a novel locus involving the *POL3RA* gene, which encodes a subunit of the RNA polymerase III enzyme.

Patient Care

The Pediatric Endocrinology Division provides comprehensive endocrinology services at Children's Health, delivering state-of-the-art diagnostics, treatment, and management for endocrine disorders including thyroid disease, growth concerns, diabetes, and other hormone-related conditions. Serving a diverse population of children from birth through age 18 across North Central Texas and neighboring regions, we are committed to meeting the unique needs of each patient and family.

Our specialized team includes board-certified pediatric endocrinologists, advanced practice nurses, certified diabetes care and education specialists (CDCESs), registered nurses, licensed dietitians, social workers, and pharmacists, ensuring a multidisciplinary approach to care.

Endocrine Clinic

Our Endocrine Clinic offers thorough evaluation and treatment for infants, children, and adolescents across the spectrum of pediatric endocrinology. We provide expert care for a range of hormonal disorders, including but not limited to conditions affecting growth, puberty, sexual development, calcium regulation, thyroid function, and adrenal health.

We are also a major referral center for the Texas Department of State Health Services' Newborn Screening Program, supporting early diagnosis and management of congenital hypothyroidism and congenital adrenal hyperplasia.

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Diabetes Clinic

Accredited by The Joint Commission, our Diabetes Clinic offers a bilingual education program for children who have Type 1 or Type 2 diabetes. We take a team-based approach, drawing on the expertise of a diverse group of health care specialists to address each child’s unique needs and support the whole family.

The clinic is aligned with the latest developments in Type 1 diabetes care, offering:

1. Family screening to help define a child’s risk of developing Type 1 diabetes
2. Innovative treatment and research aimed at delaying the onset of disease in eligible children

Center for Obesity and its Consequences in Health (COACH)

The COACH Clinic, led by Dr. Amanda Shaw, is North Texas’ only comprehensive program dedicated to childhood obesity, with more than 600 referrals each year. Our systematic approach includes detailed dietary and exercise assessments, followed by personalized recommendations that align with each child’s health goals and needs.

Clinical Activities

Inpatient Services

Our Division provides direct oversight to a dedicated endocrinology service, which is currently integrated as the “Blue-Endocrine” Pediatric Medicine team.

The Pediatric Endocrinology Division also provides inpatient consultative services to the entire hospital, including the intensive care units and the hematology-oncology, gastroenterology, pulmonary medicine, and cystic fibrosis services. The leading reasons for consultation are diabetes mellitus, secondary diabetes/hyperglycemia, diabetes insipidus, electrolyte abnormalities, hypoglycemia, and adrenal insufficiency.

Recognizing the increasing demands of the inpatient consultation service, which now provides services at four Dallas hospitals, the Division established separate inpatient and consultation services in July 2014, each with its own attending physician (except for weekends and nights, when a single on-call attending provides both services). The Division also added a third attending physician at the same time to be available for inpatient activities at the Children’s Health Plano campus.

Outpatient Services

Lipid Clinic

Our lipid clinic treats children with high levels of cholesterol or triglycerides (fats) in the blood.

Patient Statistics

Endocrinology Sessions Per Week by Location and Year:

	2019	2020	2021	2022	2023
Clinic	Sess/Wk	Sess/Wk	Sess/Wk	Sess/Wk	Sess/Wk
Dallas Endocrinology and Diabetes	52.3	52	74	74	51
Legacy	20	24	27	27.4	24
Texas Health Dallas	4.6	3.8	3.6	3.6	3

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Top Peer-Reviewed Publications, Abstracts, and Book Chapters

1. **Choudhary A, Adhikari S, White PC.** [Implementation of After-Hours Nurse Line in an Academic Pediatric Endocrinology Practice.](#) *Pediatric Diabetes* 2023 Sept 11;2023(1):2550101-2550109
2. Libman I, Bingley PJ, Becker D, Buckner JH, DiMeglio LA, Gitelman SE, Greenbaum C, Haller MJ, Ismail HM, Krischer J, Moore WV, Moran A, Muir AB, Raman V, Steck AK, Toledo FGS, Wentworth J, Wherrett D, **White P**, You L, Herold KC; Type 1 Diabetes TrialNet Study Group. [Hydroxychloroquine in Stage 1 Type 1 Diabetes.](#) *Diabetes Care.* 2023 Nov 1;46(11):2035-2043. PMID: 37708415
3. Miller WL, **White PC.** [History of Adrenal Research: From Ancient Anatomy to Contemporary Molecular Biology.](#) *Endocrine Reviews.* 2023 Jan 12;44(1):70-116. PMID: 35947694
4. Singh P, Grishman E, Naranjo D, Hynan LS, **White PC**, Gupta O. [Disparities in Diabetes Technology Use in Youth with Diabetes.](#) *Diabetes.* 2023 Jun 20;72 (Supplement_1): 1018–P
5. **White PC.** (2023). “Endocrine Hypertension.” In: Flynn JT, Ingelfinger JR, Brady TM (Eds), *Pediatric Hypertension* (5th ed., pp 549-571). Switzerland: Springer Cham.
6. **White PC.** (2023). “Steroid 11 β -hydroxylase deficiency and related disorders.” In: New MI (Ed), *Genetic Steroid Disorder* (2nd ed., pp 63-79). Academic Press
7. **Yousif M, Adhikari S, White PC.** [1151-P: Predicting Adverse Events in Patients with DKA or HHS.](#) *Diabetes.* 2023 Jun 20;72 (Supplement_1): 1151–P