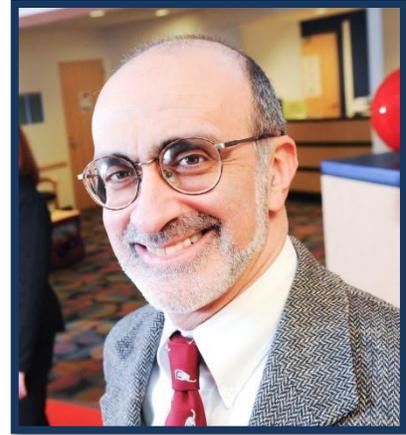


The [Division of Pediatric Endocrinology](#), directed by Perrin C. White, M.D., provides inpatient and outpatient clinical services to Children’s Medical Center and the broader community in the areas of general endocrinology, diabetes, and obesity. The Division’s catchment area extends north and east 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 (~10 clinical FTE), who conduct direct patient care and supervise a variety of other health professionals including nurse practitioners and advance practice nurses, certified diabetes educators, and endocrinology nurses. In 2020, the payer mix was 47% commercial, 50% Medicaid, and 3% 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 Dr. Soumya Adhikari
- Diabetes, directed by Dr. Abha Choudhary
- Obesity, the Center for Obesity and its Consequences in Health (COACH), directed by Dr. Olga Gupta

An additional multidisciplinary clinic, GENECIS, directed by Dr. Ximena Lopez, cares for children with gender dysphoria.

**Faculty**

The Division has 16 faculty members, 12 full-time and four part-time, as well as 5 fellows, all with varied interests in clinical and translational research. Advanced practice nurses, dieticians, medical assistants, social workers, and research coordinators provide additional support.

**Honors / Awards**

**Best Pediatric Specialists in Dallas, D Magazine**

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Soumya Adhikari</li> <li>• Abha Choudhary</li> <li>• Ellen Grishman</li> <li>• Olga Gupta</li> </ul> | <ul style="list-style-type: none"> <li>• Ximena Lopez</li> <li>• Grace Tannin</li> <li>• Perrin White</li> </ul> |
|---|--|

**Texas Super Doctors, Texas Monthly Magazine**

- Ernesto Fernandez
- Amanda Shaw (Texas Rising Star)

**Texas Top Doctors, Pediatric Endocrinology**

- Ernesto Fernandez

**Invited Lectures**

**Soumya Adhikari**

- JDRF TypeOneNation North Texas Summit. February, 2020. Irving, TX  
 “Diabetes Technology Update.”

## Conference Presentations

### PESTOLA (Pediatric Endocrinologists of Texas, Oklahoma, Louisiana, and Arkansas) Annual Meeting, Little Rock, AR, February 2020

Yousif M, Mootha S, Patni N.

*"Hypoglycemia Associated with Growth Hormone Deficiency in a Patient with Desbuquois Dysplasia Type 1"*

Patni N.

*"Lipodystrophy Syndromes"*

### Endocrine Society Meeting, Virtual, June 2020

Patni N, Fisher H, Scheuerle A.

*"Unusual Case of Short Stature and Poor Growth in Childhood"*

Patni N, Garg A.

*"Multiple Recurrent Lipomatoses With Thiazolidinedione Therapy In Familial Partial Lipodystrophy, Dunnigan Variety (FPLD2)"*

## Education and Training

The Division is committed to providing quality medical education for medical students, residents, and fellows. It has an active fellowship program and also provides inpatient and outpatient opportunities for residents and medical students.

### Medical Students

Pediatric Endocrinology faculty are active in providing didactic education to UT Southwestern Medical School students. The Division offers two electives for fourth-year pediatric clerkships that provide in-depth exposure and care to patients with diabetes and endocrinologic diseases.

### Residents

Faculty play a significant role in the education of the residents at Children's and UT Southwestern. As one of the largest endocrine and diabetes clinics in the country, the Division is able to offer residents a very broad experience.

The following education goals can be accomplished while rotating through the Division:

- The resident will become familiar with normal growth patterns in children, normal variants of growth, and be able to assess normal and abnormal patterns of pubertal development.
- The resident will be able to interpret endocrine function tests and to perform/recommend appropriate diagnostic/screening tests for common endocrine complaints or referrals including thyroid disorders, short stature, disorders of puberty, and newborn screening of endocrine disorders.
- The resident will become familiar with the management of both Type 1 and Type 2 diabetes through experience in the inpatient and outpatient clinics. This experience can also include management of diabetes in a camp setting.

## Fellows

The Pediatric Endocrinology Fellowship Program accepted its first extramural fellow in 1999 and has grown to accept up to two fellows per year. Approximately half of the Division's fellows come from the Department's Pediatric Residency Program.

The Fellowship Program emphasizes both broad and deep clinical training, as well as experience in clinical research, bench research, or both. Almost all of 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 Institute of Medicine.
- Opportunities to obtain clinical research training in our Department of Clinical Sciences, 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 endocrinology division was ranked #15 nationally by US News in 2020. Children's is licensed for more than 400 beds, has more than 50 pediatric specialty programs, and is the only pediatric hospital in the Southwest 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.

[Dr. Perrin White](#) has studied several genetic diseases of steroid hormone biosynthesis and metabolism, including the most common forms of congenital adrenal hyperplasia. He is currently the lead investigator on an [NIH-funded multicenter clinical trial](#) of an androgen biosynthesis inhibitor, abiraterone acetate, to ameliorate problems of androgen excess in prepubertal children with congenital adrenal hyperplasia. He is also the site lead investigator for several multicenter studies of type 1 diabetes. These include [TrialNet](#), for which UT Southwestern is one of 13 members of a consortium to conduct trials of disease-modifying treatments in type 1 diabetes; a 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 2500 children with diabetes and his work contributed to the development of a risk model for hospital admission with diabetic ketoacidosis which can apply an automated risk score to individual patients based on data discreetly available in the electronic record. He is also developing protocols and processes to introduce continuous glucose monitoring to the care of inpatients with diabetes.

[Dr. Ellen Grishman](#) is studying the relationship between blood glucose control, quality of life, bullying, and executive function in patients with type 1 diabetes. She is also examining the relationship between a blood biomarker and depressive symptoms in obese adolescents. She has collaborated on a multicenter effort to validate the Pediatric Quality of Life Inventory in children

with type 1 and type 2 diabetes, and she also collaborates on interventional trials of disease modifying therapy for type 1 diabetes.

The central goals of [Dr. Olga T. Gupta](#)'s research are to better understand the psychosocial mechanisms leading to poor adherence to diabetes self-management tasks in young individuals with type 1 diabetes mellitus, and to develop novel behavioral interventions that are safe and effective for this population. Her recent publications on this topic revealed a clinically and statistically significant change in HbA1c at 3 months for the adolescent participants who received a pet fish with instructions for pairing fish care with diabetes self-management tasks, compared with their peers in the control group (usual care). This work was featured on an [NIH podcast](#) and in [The New York Times Well Section](#). She also demonstrated that youth who actively care for at least one household pet were 2.5 times more likely to have good glycemic control compared to children who didn't care for a pet. She also demonstrated improvements in glycemic control and quality of life in young (pre-kindergarten) children with type 1 diabetes who attended a weekend camp session along with their families. She is also the local principal investigator for the [Pediatric Diabetes Consortium](#), a multi-center group of leading pediatric diabetes treatment centers in the United States whose long-term objective is to improve the care of children with diabetes through collecting outcomes data in a common data repository and coordinating clinical trials in children with type 2 diabetes.

[Dr. Ximena Lopez](#)'s studies focus on the long-term outcomes of mental and physical health of transgender adolescents that receive puberty suppression and cross-sex hormones before adulthood. She was also the local principal investigator for recent clinical trials on the efficacy and safety of [colesevelam](#) and [liraglutide](#), respectively, in the treatment of type 2 diabetes in adolescents.

[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 bases of lipid disorders in children, and the genotype-phenotype relationships in these patients. Patients with T1HLP are a challenge to treat. She recently completed a pilot randomized, open label, cross-over 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. She has also studied and published detailed clinical and metabolic parameters of children with familial partial lipodystrophy (FPLD-2) 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 has included 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 (GLPS) due to a different specific mutation in LMNA, and autosomal recessive Wiedemann-Rautenstrauch syndrome (WRS) or neonatal progeroid syndrome due to a novel locus involving the POL3RA gene, which encodes a subunit of the RNA polymerase III enzyme.

## Institution

### Clinical Activities

#### Inpatient

#### Services

The Division provides direct oversight to a dedicated endocrinology service, which is currently integrated as the “Blue-Endocrine” Pediatric Medicine team. In 2020 this service admitted 698 patients with diagnoses that included diabetes mellitus, panhypopituitarism, adrenal insufficiency, and diabetes insipidus, among other endocrine disorders.

The 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. There were 603 inpatient consultations in 2020, with a total of 3970 inpatient encounters resulting from inpatient admissions and consultations.

Recognizing the increasing demands of the inpatient consultation service, which now provides services at four different Dallas hospitals, the Division established separate inpatient and consultation services in July 2014, each with its own attending physician (except for the weekend and at night, 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 Legacy campus.

#### Outpatient Services

### Endocrine Clinic

Our endocrine clinic offers comprehensive evaluation and treatment of infants, children, and adolescents in all areas of pediatric endocrinology. Evaluation of hormonal disorders includes but is not limited to growth, puberty, sexual development, calcium, thyroid, and adrenal.

Our center is a major referral center for the [Texas Department of Health Newborn Screening Program congenital hypothyroidism](#), [congenital adrenal hyperplasia](#) and adrenoleukodystrophy.

### Diabetes Clinic

Accredited by the Joint Commission, our [diabetes clinic](#) provides a comprehensive bilingual education program for both Type 1 and Type 2 diabetes. We utilize a team approach which includes a variety of healthcare specialists to address the needs of this population.

### Center for Obesity and its Consequences in Health (COACH)

Our [COACH clinic](#) provides the only comprehensive program for childhood obesity in North Texas, with more than 600 referrals per year. A systematic approach is used to evaluate and treat these obese children, including detailed diet and exercise histories and recommendations for new regimens based on a child's health needs. We encourage prospective patients and families to discuss medical concerns with their primary care physicians. Referral to our clinics will be made or recommended by primary care physicians.

## Lipid Clinic

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

## GENder, Education and Care Interdisciplinary Support (GENECIS)

The [GENECIS Program](#) is the first and largest program in the southwest that provides multidisciplinary care to transgender children and adolescents. Providers in the area of psychology, psychiatry, social work, pediatric endocrinology, adolescent medicine, gynecology, ethics, and pastoral care work together to provide mental health, social, and medical support to meet the needs of transgender youth.

In 2020, the Division's attending physicians performed 12,441 outpatient and virtual visits and supervised ~6,500 visits by non-physician providers. The physician totals included 2,153 new patient visits and outpatient consultations. These figures were slightly impacted by the Covid-19 pandemic. The Division provides outpatient services at all three Children's locations on the following schedule, which includes attending physician clinic sessions only.

## Patient Statistics

Endocrinology Sessions per Week by Location and By Year:

	2017	2018	2019	2020
Clinic	Sessions Per Week	Sessions Per Week	Sessions Per Week	Sessions Per Week
Dallas Endocrinology and Diabetes	44	44	52.3	52
Legacy	18	18	20	24
Texas Health Dallas	4	4	4.6	3.8

## Current Grant Support

### Ellen Grishman

**Grantor:** Brain & Behavior Research Foundation/NARSAD

**Title of Project:** Adiponectin, Ceramides and Depressive Symptoms in Obese

**Role:** Principal Investigator

**Dates:** 01/2014 – 01/2020

### Olga Gupta

**Grantor:** University of Utah

**Title of Project:** Depleting Cerimides to Promote Beta Cell Survival and Regeneration

**Role:** Site Principal Investigator

**Dates:** 05/2019 – 04/2021

### Nivedita Patni

**Grantor:** Children's Clinical Research Advisory Committee, Children's Health<sup>SM</sup>

**Title of Project:** Genetic basis of severe hypertriglyceridemia in Children

**Role:** Principal Investigator

**Dates:** 08/2019 – 08/2021

## Perrin White

**Grantor:** NIH/NICHD

**Grant Number:** 1U01 HD083493 – 01 (White)

**Title of Project:** Abiraterone Acetate in Children with Classic 21-Hydroxylase Deficiency

**Description:** This grant supports a multicenter trial of an androgen biosynthesis inhibitor, abiraterone acetate, to ameliorate signs of androgen excess in children with congenital adrenal hyperplasia owing to 21-hydroxylase deficiency.

**Role:** Principal Investigator

**Dates:** 2015-2022

**Grantor:** NIH/NIDDK

**Grant Number:** 3UC4DK108612-01S1 (Damiano)

**Title of Project:** Final clinical studies for submission of a pre-market approval application to the FDA for a bionic pancreas that automates type 1 diabetes management

**Description:** This is a multicenter (16 centers) Phase 3 trial of an advanced sensor-enabled insulin pump.

**Role:** Site Principal Investigator

**Dates:** 2016-2020

**Grantor:** NIH/University of South Florida

**Grant Number:** U01DK106993, (Krischer)

**Title of Project:** Type 1 Diabetes TrialNet Coordination Center (TNCC)

**Description:** This grant will support multi-center trials of novel therapeutic interventions to prevent or treat Type 1 diabetes mellitus. Previously directly funded by the NIH, it is now a subcontract from USF; UT Southwestern is one of 13 clinical centers.

**Role:** Site Principal Investigator

**Dates:** 2020-2025

## Book Chapters

1. **Patni N**, Wilson D. Cerebrotendinous Xanthomatosis. (2020) Endotext  
[\[https://www.endotext.org/chapter/cerebrotendinous-xanthomatosis/\]](https://www.endotext.org/chapter/cerebrotendinous-xanthomatosis/). South Dartmouth (MA): MDText.com, Inc.;
2. **Patni N**, Wilson D. Lysosomal Acid Lipase Deficiency. (2020) Endotext  
[\[https://www.endotext.org/chapter/lysosomal-acid-lipase-deficiency/\]](https://www.endotext.org/chapter/lysosomal-acid-lipase-deficiency/). South Dartmouth (MA): MDText.com, Inc.;
3. **Patni N**, Ahmad Z, Wilson DP. Genetics and Dyslipidemia. (2020). Endotext.  
[\[https://www.endotext.org/chapter/genetics-and-dyslipidemia/\]](https://www.endotext.org/chapter/genetics-and-dyslipidemia/) Feb 11.South Dartmouth (MA): MDText.com, Inc.;
4. **White PC**. (2020) Disorders of the adrenal glands. In: Kliegman RM, Stanton BF, St Geme JW III, Schor NF, (Eds.) *Nelson Textbook of Pediatrics*, (21<sup>th</sup> ed., pp. 2954-2987) Philadelphia, PA: Elsevier.
5. **White PC**. (2020) Sexual development and identify. In: Goldman L, Schafer A, (Eds.) *Cecil Textbook of Medicine*, (26<sup>th</sup> ed., pp 1528-1537) Philadelphia, PA: Elsevier.

## Peer-Reviewed Publications

1. Fisher HG, **Patni N**, Scheuerle AE. [An additional case of Néstor-Guillermo progeria syndrome diagnosed in early childhood.](#) *Am J Med Genet A*. 2020 Oct;182(10):2399-2402. PMID:32783369
2. Kuper LE, Stewart S, Preston S, Lau M, **Lopez X**. [Body Dissatisfaction and Mental Health Outcomes of Youth on Gender-Affirming Hormone Therapy.](#) *Pediatrics*. 2020 Apr;145(4):. PMID:32220906
3. Mejia-Otero JD, **Adhikari S**, **White PC**. [Risk factors for hospitalization in youth with type 1 diabetes: Development and validation of a multivariable prediction model.](#) *Pediatr Diabetes*. 2020 Jul 31;():. PMID:32737942
4. **Patni N**, Hatab S, Xing C, Zhou Z, Quittner C, Garg A. [A novel autosomal recessive lipodystrophy syndrome due to homozygous \*LMNA\* variant.](#) *J Med Genet*. 2020 Jun;57(6):422-426. PMID:31857427
5. Shan B, Shao M, Zhang Q, Hepler C, Paschoal VA, Barnes SD, Vishvanath L, An YA, Jia L, Malladi VS, Strand DW, **Gupta OT**, Elmquist JK, Oh D, Gupta RK. [Perivascular mesenchymal cells control adipose-tissue macrophage accrual in obesity.](#) *Nat Metab*. 2020 Nov;2(11):1332-1349. PMID:33139957
6. Taylor O, Mejia-Otero JD, **Tannin GM**, Gordon K. [Topical triamcinolone induced Cushing syndrome: A case report.](#) *Pediatr Dermatol*. 2020 May;37(3):582-584. PMID:32212183