UF Diabetes Institute

Working together for a diabetes-free world
The UF Diabetes Institute's mission is to see a world free of diabetes. A key step to achieving this goal is to better understand the disease's two major forms, Type 1 and Type 2.

This includes determining what causes diabetes, identifying a means to predict who will eventually develop it, finding ways to prevent and/or cure the disorder’s progression, and identifying methods capable of disease reversal.

To address these objectives, UFDI investigators lead basic science, translational and clinical research studies on both living subjects as well as tissue samples from organ donors to better characterize diabetes development, identify novel biomarkers and develop new potential therapies directed at key points in the roadmap that culminates in diabetes.

Other UFDI members address diabetes from a variety of social and/or behavioral perspectives including issues of family, self-identity, the benefits of diabetes education, and access to disease management technologies.

Investigators are also exploring factors such as food choices, economics, diabetes’ impact in veterinary medicine (dogs and cats), health care access, and more.

UFDI investigators have a reputation for conducting “bench-to-bedside” studies, seeking to improve the lives of those with the disease.

Indeed, UFDI efforts set an emphasis on community outreach, patient education and stakeholder engagement to positively affect diabetes management and care at each phase of life — childhood, adolescence, adulthood, and elder care.

From either a research or clinical care perspective, the Institute’s investigators are recognized nationally or internationally for excellence in their performance.
Leadership in international Type 1 diabetes research consortia focusing on Type 1 diabetes risk screening, innovative clinical studies, and clinical trials studying oral insulin, pancreas volume and other therapies.(TrialNet); environmental determinants of Type 1 diabetes in children (The TEDDY study).

Led the Network for Pancreatic Organ Donors with diabetes program (nPOD), which collects and distributes tissue samples from organ donors for research worldwide. This is but one of five programs hosted by the UFDI collecting organ donor tissues, with a combined annual budget of over $6 million.

Led by Dr. Kenneth Cusi, M.D., UF is a global leader in the studies of non-alcoholic fatty liver disease (NAFLD) and non-alcoholic steatohepatitis (NASH), conditions often associated with Type 2 diabetes.

UFDI investigators have expanded the organ donor research program repertoire to include Human Atlas of Neonatal Development & Early Life-Pancreas (HANDEL-P) and HANDEL-Immunity (HANDEL-I) programs determining normal pancreatic and immunologic development during the first 10 years of life. These studies will lead to a broader understanding of early-life conditions that may predispose children to Type 1 diabetes or other autoimmune diseases. UF researchers also provide leadership to the NIH-HIRN Human Pancreas Analysis Program (HPAP).
Research

At the UF Diabetes Institute, researchers are asking questions to advance knowledge and understanding of diabetes through collaboration. Widely considered to be among the top five in the nation, UF's Type 1 diabetes research program has proved that passion for discovery and clinical innovation leads to new research paradigms and improved patient care.

- UF is the No. 3 entity in the United States receiving National Institutes of Health funding for Type 1 diabetes.
- UF is the world's top recipient of research funding from JDRF.
- The Diabetes Institute is a founding Tissue Mapping Center for the National Institutes of Health’s Human BioMolecular Atlas Program (HuBMAP). By studying normal tissues from human donors, the aim is to develop 3D tissue maps of the lymphatic organ system that can be used for comparison in future disease-related studies.
- UF hosts one of the leading clinical translational research programs in the United States in Type 2 diabetes and nonalcoholic fatty liver disease.

Patient Care

The UF Diabetes Institute is a national leader in patient care. Through a comprehensive care network, the institute is well-positioned to tackle diabetes in both the inpatient and outpatient setting. Skilled physicians, diabetes educators, nurses and specialty providers collaborate to provide the best care possible for each patient.

- The UF Diabetes Institute hosts the second-largest regional endocrine, diabetes and metabolism program.
- The Diabetes Care Task Force was created to coordinate efforts and educate housestaff, faculty and other health care providers about inpatient diabetes care.
- In addition to caring for more than 1,000 pediatric diabetes patients, the UF Health Pediatric Endocrinology team offers unique regional services in all areas of endocrinology.
- The adult and pediatric outpatient populations are diverse in terms of socioeconomic status, with greater than 50% of these patients covered by public insurance programs.
Education

The UF Diabetes Institute is proud to be a leading education provider to patients, staff and clinicians involved in diabetes care.

- The UFDI provides a variety of educational offerings in the use of diabetes technology, including an introductory class on diabetes technology, insulin pump training (start and advanced), CGM training, and training on data transfer and interpretation. Patients and their family members have the option to participate in diabetes technology education in person, in a group setting, or via telehealth using Vidyo software. This was made possible through a grant from the Children’s Miracle Network.

- With six physicians in-training in the endocrinology fellowship program, UF is the second-largest adult endocrine training program in the state of Florida.

- The UF Diabetes Institute offers a Type 1 Diabetes Directed Research Course, which provides knowledge of major types of research methods used in Type 1 diabetes research, exposes students to Type 1 diabetes research labs and programs at UF and related career trajectories, and raises potential bioethical issues in Type 1 diabetes research.

Outreach

The UF Diabetes Institute is committed to improving the lives of those with diabetes.

- The Florida Diabetes Camp, directed by UF pediatric diabetes faculty, serves over 500 children with diabetes each year. Hundreds of scholarships have been provided for low-income families.

- The UFDI hosts a Student Ambassador program, which consists of a group of motivated, diverse students who are committed to supporting the Institute’s initiatives and community events.

- All for ONE! is a mentoring program that pairs college students with Type 1 diabetes with publicly insured teens from the outpatient practices at UF who also have Type 1 diabetes.

- The UF chapter of the College Diabetes Network is a student organization supported by the UF Diabetes Institute, which helps UF students with diabetes foster rich social connections.
UF Health researchers launched an effort to improve access to care for underserved children and adults living with Type 1 diabetes, an autoimmune disease that results in the destruction of insulin-producing cells in the pancreas. The 18-month pilot grant will support the work of Michael J. Haller, M.D., a professor and chief of pediatric endocrinology in the UF College of Medicine, part of UF Health, and Ashby Walker, Ph.D., the director of health equity initiatives at the UF Diabetes Institute, along with collaborators at Stanford.

The researchers will work with primary care physicians and patients who aren’t using an endocrinologist to determine what they need and the health care barriers that exist. Health care providers who treat Type 1 diabetes patients will receive virtual training and tele-education from the diabetes “hubs” at UF and Stanford. The physicians also will get real-time help with challenging medical decision-making issues from diabetes professionals as well as a diabetes care liaison assigned to their clinic and opportunities to enroll their patients in research projects and initiatives at the hubs.

With a home at the University of Florida, nPOD is working to put an end to Type 1 diabetes by studying the human pancreas and related organs and tissues and by trying to understand the early disease processes and to answer fundamental questions about the mechanisms that leads to the disease. nPOD works with Organ Procurement Organizations from across the United States to obtain human pancreas and related tissues from deceased organ donors who have made the decision to donate their organs for medical research.

nPOD accepts organs from donors who have Type 1 diabetes, have markers in their blood that make them susceptible to the disease, had a pancreas transplant due to diabetes, and more...including non-diabetic donors who help researchers compare their findings to healthy pancreatic tissue. nPOD currently has samples from over 400 organ donors, which are distributed free-of-charge to approved researchers worldwide. For a decade, nPOD has supported over 200 researchers and some 250 projects in 20 countries.
The TEDDY study - The Environmental Determinants of Diabetes in the Young - is looking for the causes of Type 1 diabetes. Research tells us that children who get diabetes have certain kinds of genes. Other children who have these genes are at higher risk for developing diabetes. However, not all children who have higher genetic risk get diabetes. We think that something happens that "triggers" or causes a child with higher risk genes to actually get diabetes.

It is the purpose of this study to try and find out what are the triggers that cause children to get diabetes. Six groups of research doctors from across the world are working together in this study. All of the centers are following children with higher risk genes. All of the centers are going to get the same information about the lives of the children in the study.

Type 1 Diabetes TrialNet is an NIH-sponsored clinical trials network of researchers dedicated to the study, prevention, and early treatment of Type 1 diabetes. Currently, there are 12 TrialNet locations in the U.S., including at the University of Florida, and over 50 affiliate sites. Since inception, Type 1 Diabetes TrialNet has screened over 100,000 people for disease risk.

Most cases of insulin-dependent diabetes are discovered only when symptoms appear. But through a sophisticated screening program offered at the University of Florida, individuals and family members can find out whether the chronic disorder is all but certain to develop in the future. The mission of TrialNet at the University of Florida is to 1) identify family members at risk, and 2) evaluate promising new therapies to prevent, slow or reverse the progression of the disease.

The All for ONE! program, led by Ashby Walker, Ph.D., pairs UF college students who have Type 1 Diabetes as mentors with teens who also have Type 1 diabetes and through outreach, networks, and education (O-N-E) this initiative aims to improve health outcomes for at-risk type one diabetes youth. The All for ONE program is one of the only known efforts in the U.S. to concurrently target two groups that face disparate outcomes in health – college students and adolescents with type one diabetes.
Support the UF Diabetes Institute

By supporting our Institute, you are helping ensure groundbreaking research, patient care, education and outreach initiatives will continue for generations to come.

Donate now at www.diabetes.ufl.edu