

Innovations in Diabetes & Endocrinology



*Rady Children's - A comprehensive system
focused solely on children and adolescents.*



PEOPLE Doctor chosen for pancreatic research fellowship



Sejal Kadakia, M.D., a clinical fellow in the Division of Endocrinology/Diabetes at Rady Children's Hospital-San Diego, has been awarded a newly created fellowship in pancreatic research.

The John G. Davies Endowed Fellowship in Pancreatic Research, which honors a prominent attorney, civic leader and former Rady Children's board chair who passed away, is a one-year joint fellowship program of Rady Children's and UC San Diego School of Medicine. Each year, a qualified candidate wishing to learn about this area of research will be awarded the fellowship.

During the fellowship, Dr. Kadakia will work towards advancing knowledge of pancreatic health and disease in both children and adults -- and sharing these findings -- with the goal of discovering better treatments.

Dr. Kadakia earned her medical degree at Virginia Commonwealth University in Richmond, Va., and completed her residency in pediatrics at the Children's Hospital of Orange County and University of California, Irvine joint program. Her research goals are to investigate the effects of obesity on the onset and clinical course of type 1 diabetes. In addition to her research, Dr. Kadakia is committed to providing medical care abroad and has joined medical aid trips in Costa Rica, Nicaragua, Honduras and Vietnam.

[Read about our fellowship programs.](#)



INNOVATIONS Research investigates obesity and type 1 diabetes link

Overweight and obesity, known risk factors for type 2 diabetes, also appear to increase the risk for type 1 diabetes (T1D). Just how obesity influences the development of T1D remains unclear. Researchers at the Pediatric Diabetes Research Center (PDRC), a joint center of Rady Children's and UC San Diego School of Medicine, are beginning to tackle this question.

Over the past 30 years, the incidence of T1D has increased markedly, a trend that coincides with the increase in overweight/obesity. Numerous epidemiological studies have found that the prevalence of obesity in T1D has increased faster than in the general population; children in the U.S. with T1D are also more likely to be overweight than children without the disease.



innovation
belongs in every moment

[Wenxian Fu, Ph.D.](#), an assistant professor in the UC San Diego Department of Pediatrics, is working with Rady Children's endocrinologist [Michael Gottschalk, M.D., Ph.D.](#), a clinical professor in the UC San Diego Department of Pediatrics, and Rady Children's endocrinologist Sejal Kadakia, M.D., to examine the relationship between obesity and the autoimmune response that occurs in T1D. They will start by collecting and analyzing information from patients who have been diagnosed with T1D or have a high risk of developing the disease to define the correlations between overweight/obesity and the parameters for T1D diagnosis (e.g., autoantibodies, HbA1c and HLA haplotypes). The team will also use animal models to dissect the underlying mechanisms of obesity-associated insulin sensitivity and beta cell function in T1D.

The findings from this research will not only gain novel insights into the pathogenesis of T1D patients with elevated body weight, but provide important therapeutic implications as well.

[Learn more about the Pediatric Diabetes Research Center.](#)



PROGRAMS

Program helps children transition to insulin pumps



The Division's Insulin Pump Program, coordinated by Diabetes Nurse Educators Kimberly McNamara, RN, CDE, and Karen Haddad, NP, CDE, helps children transition from multiple daily insulin injections to insulin pump therapy.

Currently, 42 percent of the Division's type 1 diabetes patients use insulin pumps, and 40 to 60 children of all ages have successfully transitioned to pump therapy each year since the program's inception more than a decade ago.

The pump process starts with an assessment of the child and family for pump readiness. The endocrinologist or nurse practitioner, registered dietitian, social worker and nurse educator determine whether the family is ready to transition to insulin pump therapy.

Once the assessment is complete, the family must attend the Introduction to Insulin Pump Therapy class, which addresses the basic concepts of insulin pump therapy and important safety guidelines. Specific pump training and saline starts are provided by the pump manufacturer.

Finally, the child and family attend a two-hour insulin start appointment with a nurse educator (pump nurse). Following this appointment, the nurse educator provides follow-up for several weeks or months, making adjustments to pump settings as needed. Families are also encouraged to attend the Advanced Pump Class, a group class offered quarterly.



RECOGNITION

Diabetes Program recognized by ADA for education, support

The Division's Diabetes Program is an American Diabetes Association (ADA) Recognized Education Program. As such, it must fully implement and maintain the National Standards for Diabetes Self-Management Education (DSME) and Support for patients with diabetes.



The National Standards for DSME are designed to define quality DSME and support and to assist diabetes educators in providing evidence-based education and self-management support. The standards fall into 10 areas: internal structure; external input; access; program coordination; instructional staff; curriculum; individualization; ongoing support; patient progress; and quality improvement.

Currently, all of the Division's patients with new-onset diabetes receive a one-hour diabetes self-management visit at their two-week visit. Additionally, certified diabetes educators and nurses provide 18 or more scheduled education visits a week for children with type 1 and type 2 diabetes.

[Learn more about the National Standards for Diabetes Self-Management Education and Support.](#)



Read more at [RCHSD.org](#)