

News Release

EMBARGOED UNTIL JUNE 3 at 10:30 AM CT

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American Diabetes Association to Highlight Groundbreaking Diabetes Developments During Pathways Symposium

Symposium Will Feature Research on Genomic Analysis and Glucose Monitoring Technologies

NEW ORLEANS, La. (June 3, 2022) – Today, findings from two studies funded by the [ADA Pathway to Stop Diabetes®](#) research program highlight innovative science and the latest diabetes developments on genomic profiling and glucose control. The symposium, 2022 Pathway to Stop Diabetes, will be presented at the 82nd Scientific Sessions held by the American Diabetes Association® (ADA) in New Orleans, LA.

Genomic Profiling & Type 2 Diabetes

The symposium will highlight findings from a new study, *Deciphering Longitudinal Cell Type-Specific Defects in Diabetes Pathogenesis*, evaluating how type 2 diabetes alters the composition and gene regulatory programs of each cell type in human pancreatic islets using genomic profiling.

In the study, researchers completed genomic profiling of approximately 250,000 cells from 18 people without diabetes, 13 people with prediabetes, and 17 people with type 2 diabetes, representing the largest single-cell genomic analysis, both in number of cells studied and number of people without diabetes, people with prediabetes, and people with type 2 diabetes. Findings showed that islets from people with type 2 diabetes contained significantly fewer insulin-producing beta cells.

“These findings help us to better understand what genes play a role in islet dysfunction, a major complication of type 2 diabetes. These insights will better inform therapeutic targets so that we can address insulin-producing beta cells of type 2 diabetic individuals,” said Michael L. Stitzel, Ph.D., associate professor at the Jackson Laboratory for Genomic Testing.

Novel Glucose Management

Findings were also presented from *Untethering Diabetes through Innovative Engineering* evaluating micro-electromechanical systems, microfluidics, and bio-sensing to achieve the goal of a painless, minimally invasive, low cost, calibration-free, insulin pump-compatible continuous glucose monitor. The author will present a proposed solution for the unmet need for a painless, low-cost, disposable patch that can be adopted by individuals with type 1 diabetes, type 2 diabetes, and prediabetes.

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“A major goal for diabetes management is to restore seamless glucose control, thus avoiding the dangerous side effects of hypo and hyperglycemia,” said Sumita Pennathur, Ph.D., professor in the Department of Mechanical Engineering at UC Santa Barbara.

Research presentation details:

- Michael L. Stitzel, Ph.D. will present his study, Deciphering Longitudinal Cell Type-Specific Defects in Diabetes Pathogenesis, during the symposium, 2022 Pathway to Stop Diabetes on Friday, June 3 from 10:10–10:20 a.m. CT.
- Sumita Pennathur, PhD will present her study Untethering Diabetes through Innovative Engineering, during the symposium, 2022 Pathway to Stop Diabetes on Friday, June 3 from 10:20–10:30 a.m. CT.

For more information, please contact the ADA Scientific Sessions media team onsite at the Ernest N. Morial Convention Center from June 3–7, by phone at 504-670-4902, or by email at SciSessionsPress@diabetes.org.

About the ADA’s Scientific Sessions

The ADA’s 82nd Scientific Sessions, the world’s largest scientific meeting focused on diabetes research, prevention, and care, will be a hybrid event held June 3–7, 2022 at the Ernest N. Morial Convention Center in New Orleans, LA. Leading physicians, scientists, and health care professionals from around the world will unveil cutting-edge research, treatment recommendations, and advances toward a cure for diabetes. We are eager to get back to safely participating in person and networking with colleagues while hearing the latest scientific advances and groundbreaking research presentations. Learn more and register at scientificsessions.diabetes.org and join the Scientific Sessions conversation on social media using #ADA2022.

About the American Diabetes Association

The American Diabetes Association (ADA) is the nation’s leading voluntary health organization fighting to bend the curve on the diabetes epidemic and help people living with diabetes thrive. For 81 years, the ADA has driven discovery and research to treat, manage, and prevent diabetes while working relentlessly for a cure. Through advocacy, program development, and education we aim to improve the quality of life for the over 133 million Americans living with diabetes or prediabetes. Diabetes has brought us together. What we do next will make us Connected for Life. To learn more or to get involved, visit us at diabetes.org or call 1-800-DIABETES (1-800-342-2383). Join the fight with us on Facebook ([American Diabetes Association](https://www.facebook.com/AmericanDiabetesAssociation)), Spanish Facebook



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