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This section features three articles from the 4th Diabetes Symposium held in conjunction with the ADA’s 77th Scientific Sessions in San Diego, CA, 9–13 June 2017.

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Icons shown below appear on the first page of an article if more information is available online.

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Supplementary Data  Companion Article
1890 Kv2.1 Clustering Contributes to Insulin Exocytosis and Rescues Human β-Cell Dysfunction

1901 Functional and Metabolomic Consequences of KATP Channel Inactivation in Human Islets

1914 GDF11 Attenuates Development of Type 2 Diabetes via Improvement of Islet β-Cell Function and Survival
H. Li, Y. Li, L. Xiang, J. Zhang, B. Zhu, L. Xiang, J. Dong, M. Liu, and G. Xiang

1928 Genetic Disruption of Adenosine Kinase in Mouse Pancreatic β-Cells Protects Against High-Fat Diet–Induced Glucose Intolerance
G. Navarro, Y. Abdolazami, Z. Zhao, H. Xu, S. Lee, N.A. Armstrong, and J.P. Annes

PATHOPHYSIOLOGY

1939 Renal and Vascular Effects of Urinary Acid Lowering in Normouricemic Patients With Uncomplicated Type 1 Diabetes
Y. Lytvyn, R. Har, A. Locke, V. Lai, D. Fong, A. Advani, B.A. Perkins, and D.Z.I. Cherney

1950 Identification of RUNX1 as a Mediator of Aberrant Retinal Angiogenesis

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1957 Metabolic Syndrome, Insulin Resistance, and Cognitive Dysfunction: Does Your Metabolic Profile Affect Your Brain?

1964 Heterogeneous Nuclear Ribonucleoprotein F Stimulates Birtuin-1 Gene Expression and Attenuates Nephropathy Progression in Diabetic Mice

1979 Impaired Glutamatergic Neurotransmission in the Ventromedial Hypothalamus May Contribute to Defective Counterregulation in Recurrently Hypoglycemic Rats

1990 A Single Bout of High-Intensity Interval Training Reduces Awareness of Subsequent Hypoglycemia in Patients With Type 1 Diabetes

1999 Empagliflozin and Kinetics of Renal Glucose Transport in Healthy Individuals and Individuals With Type 2 Diabetes

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2007 Neurturin and a GLP-1 Analogue Act Synergistically to Alleviate Diabetes in Zucker Diabetic Fatty Rats

GENETICS/GENOMES/PROTEOMICS/METABOLICOMICS

2019 A Low-Frequency Inactivating AKT2 Variant Enriched in the Finnish Population Is Associated With Fasting Insulin Levels and Type 2 Diabetes Risk
A. Manning, H.M. Highland, J. Gasser, X. Sim, T. Tukiainen, and P. Fontanillas, et al.

2033 UBAH3A Mediates Risk for Type 1 Diabetes Through Inhibition of T-Cell Receptor–Induced NF-κB Signaling
Y. Ge, T.K. Paisie, J.R.B. Newman, L.M. McIntyre, and P. Concannon

2044 Dominant ER Stress–Inducing WFS1 Mutations Underlie a Genetic Syndrome of Neonatal/Infancy-Onset Diabetes, Congenital Sensorineural Deafness, and Congenital Cataracts

2054 Familial Hypercholesterolemia and Type 2 Diabetes in the Old Order Amish

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On the cover: Fundus photograph of the right eye from a patient with proliferative diabetic retinopathy (surgeon’s view). There are flame-shaped and dot blot hemorrhages within the retina as well as microaneurysms. Note the presence of a fibrovascular membrane extending from the optic nerve nasally, superiorly, and inferiorly causing a tractional retinal detachment superonasal to the optic nerve. In addition, there are retinal striae within the macula due to traction from the fibrovascular membrane. This fibrovascular membrane was surgically removed and evaluated via transcriptional analysis. This image is included in the Supplemental Data of an article in this issue by Lam et al., “Identification of RUNX1 as a Mediator of Aberrant Retinal Angiogenesis” (p. 1950). Photograph courtesy of Leo A. Kim, Massachusetts Eye and Ear, Harvard Medical School, Boston, MA.