

IN THIS ISSUE

2727 In This Issue of *Diabetes*

PERSPECTIVES IN DIABETES

2729 The Gastrointestinal Tract as an Integrator of Mechanical and Hormonal Response to Nutrient Ingestion
A. Vella and M. Camilleri

COMMENTARIES

2738 Area IV Knockout Reveals How Pdx1 Is Regulated in Postnatal β -Cell Development
A.R. Cox and J.A. Kushner

2741 Give GWAS a Chance
D. Meyre

METABOLISM

2743 Fatty Acid Metabolic Remodeling During Type 2 Diabetes Remission After Bariatric Surgery
T. Grenier-Larouche, A.-M. Carreau, A. Geloën, F. Frisch, L. Biertho, S. Marceau, S. Lebel, F.-S. Hould, D. Richard, A. Tcherno, and A.C. Carpentier

2756 Downregulation of Insulin Sensitivity After Oral Glucose Administration: Evidence for the Anti-Incretin Effect
S. Salinari, G. Mingrone, A. Bertuzzi, E. Previt, E. Capristo, and F. Rubino

2764 Opioid Receptor Activation Impairs Hypoglycemic Counterregulation in Humans
M. Carey, R. Gospin, A. Goyal, N. Tomuta, O. Sandu, A. Mbanya, E. Lontchi-Yimagou, R. Hulkower, H. Shamoon, I. Gabriely, and M. Hawkins

2774 Growth Differentiation Factor 15 Mediates Systemic Glucose Regulatory Action of T-Helper Type 2 Cytokines
S.E. Lee, S.G. Kang, M.J. Choi, S.-B. Jung, M.J. Ryu, H.K. Chung, J.Y. Chang, Y.K. Kim, J.H. Lee, K.S. Kim, H.J. Kim, H.K. Lee, H.-S. Yi, and M. Shong

2789 Hepatic GALE Regulates Whole-Body Glucose Homeostasis by Modulating *Tff3* Expression
Y. Zhu, S. Zhao, Y. Deng, R. Gordillo, A.L. Ghaben, M. Shao, F. Zhang, P. Xu, Y. Li, H. Cao, O. Zagnitko, D.A. Scott, R.K. Gupta, C. Xing, B.B. Zhang, H.V. Lin, and P.E. Scherer

2800 Hypoxia in Combination With Muscle Contraction Improves Insulin Action and Glucose Metabolism in Human Skeletal Muscle via the HIF-1 α Pathway
S.W. Görgens, T. Benninghoff, K. Eckardt, C. Springer, A. Chadt, A. Melior, J. Wefers, A. Cramer, J. Jensen, K.I. Birkeland, C.A. Drevon, H. Al-Hasani, and J. Eckel

SIGNAL TRANSDUCTION

2808 Endothelial SHIP2 Suppresses Nox2 NADPH Oxidase-Dependent Vascular Oxidative Stress, Endothelial Dysfunction, and Systemic Insulin Resistance
N.T. Watt, M.C. Gage, P.A. Patel, H. Viswambharan, P. Sukumar, S. Galloway, N.Y. Yuldasheva, H. Imrie, A.M.N. Walker, K.J. Griffin, N. Makava, A. Skromna, K. Bridge, D.J. Beech, S. Schurmans, S.B. Wheatcroft, M.T. Kearney, and R.M. Cubbon

OBESITY STUDIES

2822 *Tbx15* Defines a Glycolytic Subpopulation and White Adipocyte Heterogeneity
K.Y. Lee, R. Sharma, G. Gase, S. Ussar, Y. Li, L. Welch, D.E. Berryman, A. Kispert, M. Blüher, and C.R. Kahn

ISLET STUDIES

2830 Defining a Novel Role for the Pdx1 Transcription Factor in Islet β -Cell Maturation and Proliferation During Weaning
J.M. Spaeth, M. Gupte, M. Perelis, Y.-P. Yang, H. Cyphert, S. Guo, J.-H. Liu, M. Guo, J. Bass, M.A. Magnuson, C. Wright, and R. Stein

2840 Atrial Natriuretic Peptide Affects Stimulus-Secretion Coupling of Pancreatic β -Cells
S. Undank, J. Kaiser, J. Sikimic, M. Düfer, P. Krippeit-Drews, and G. Drews

2849 The Myokine Irisin Is Released in Response to Saturated Fatty Acids and Promotes Pancreatic β -Cell Survival and Insulin Secretion
A. Natalicchio, N. Marrano, G. Biondi, R. Spagnuolo, R. Labarbuta, I. Porreca, A. Cignarelli, M. Bugliani, P. Marchetti, S. Perrini, L. Laviola, and F. Giorgino

IMMUNOLOGY AND TRANSPLANTATION

2857 Pancreatic β -Cell-Derived IP-10/CXCL10 Isletokine Mediates Early Loss of Graft Function in Islet Cell Transplantation
G. Yoshimatsu, F. Kunnathodi, P.B. Saravanan, R. Shahbazov, C. Chang, C.M. Darden, S. Zurawski, G. Boyuk, M.A. Kanak, M.F. Levy, B. Naziruddin, and M.C. Lawrence

COMPLICATIONS

2868 Long-term Hyperglycemia Naturally Induces Dental Caries but Not Periodontal Disease in Type 1 and Type 2 Diabetic Rodents
Y. Nakahara, K. Ozaki, and T. Matsuura

Keep up with the latest information for *Diabetes* and other ADA titles via Facebook (@ADAJournals) and Twitter (@ADA_Journals).

All articles in *Diabetes* are available online at diabetes.org/diabetes, are available free to subscribers, or can be purchased as e-prints or reprints.

ADA's Diabetes Core Update podcast is available at diabetesjournals.org and through iTunes.

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



Free Article



Video



Podcast



Supplementary Data



Companion Article

PHARMACOLOGY AND THERAPEUTICS

- 2875** Inhibition of 12/15-Lipoxygenase Protects Against β -Cell Oxidative Stress and Glycemic Deterioration in Mouse Models of Type 1 Diabetes
M. Hernandez-Perez, G. Chopra, J. Fine, A.M. Conteh, R.M. Anderson, A.K. Linnemann, C. Benjamin, J.B. Nelson, K.S. Benninger, J.L. Nadler, D.J. Maloney, S.A. Tersey, and R.G. Mirmira

GENETICS/GENOMES/PROTEOMICS/METABOLICS

- 2888** An Expanded Genome-Wide Association Study of Type 2 Diabetes in Europeans
R.A. Scott, L.J. Scott, R. Mägi, L. Marullo, K.J. Gaulton, M. Kaakinen, N. Pervjakova, T.H. Pers, A.D. Johnson, J.D. Eicher, A.U. Jackson, T. Ferreira, Y. Lee, C. Ma, V. Steinthorsdottir, G. Thorleifsson, L. Qi, N.R. Van Zuydam, A. Mahajan, H. Chen, P. Almgren, B.F. Voight, H. Grallert, M. Müller-Nurasyid, J.S. Ried, N.W. Rayner, N. Robertson, L.C. Karssen, E.M. van Leeuwen, S.M. Willems, C. Fuchsberger, P. Kwan, T.M. Teslovich, P. Chanda, M. Li, Y. Lu, C. Dina, D. Thuillier, L. Yengo, L. Jiang, T. Sparso, H.A. Kestler, H. Chheda, L. Eisele, S. Gustafsson, M. Frånberg, R.J. Strawbridge, R. Benediktsson, A.B. Hreidarsson, A. Kong, G. Sigurðsson, N.D. Kerrison, J. Luan, L. Liang, T. Meitinger, M. Roden, B. Thorand, T. Esko, E. Mihailov, C. Fox, C.-T. Liu, D. Rybin, B. Isomaa, V. Lyssenko, T. Tuomi, D.J. Couper, J.S. Pankow, N. Grarup, C.T. Have, M.E. Jørgensen, T. Jørgensen, A. Linneberg, M.C. Cornelis, R.M. van Dam, D.J. Hunter, P. Kraft, Q. Sun, S. Edkins, K.R. Owen, J.R.B. Perry, A.R. Wood, E. Zeggini, J. Tajes-Fernandes, G.R. Abecasis, L.L. Bonnycastle, P.S. Chines, H.M. Stringham, H.A. Koistinen, L. Kinnunen, B. Sennblad, T.W. Mühleisen, M.M. Nöthen, S. Pechlivanis, D. Baldassarre, K. Gertow, S.E. Humphries, E. Tremoli, N. Klopp, J. Meyer, G. Steinbach, R. Wennauer, J.G. Eriksson, S. Männistö, L. Peltonen, E. Tikkanen, G. Charpentier, E. Eury, S. Lobbens, B. Gigante, K. Leander, O. McLeod, E.P. Bottinger, O. Gottesman, D. Ruderfer, M. Blüher, P. Kovacs, A. Tonjes, N.M. Maruthur, C. Scapoli, R. Erbel, K.-H. Jöckel, S. Moebus, U. de Faire, A. Hamsten, M. Stumvoll, P. Deloukas, P.J. Donnelly, T.M. Frayling, A.T. Hattersley, S. Ripatti, V. Salomaa, N.L. Pedersen, B.O. Boehm, R.N. Bergman, F.S. Collins, K.L. Mohlke, J. Tuomilehto, T. Hansen, O. Pedersen, I. Barroso, L. Lannfelt, E. Ingelsson, L. Lind, C.M. Lindgren, S. Cauchi, P. Froguel, R.J.F. Loos, B. Balkau, H. Boeing, P.W. Franks, A. Barricarte Gurrea, D. Palli, Y.T. van der Schouw, D. Altshuler, L.C. Groop, C. Langenberg, N.J. Wareham, E. Sijbrands, C.M. van Duijn, J.C. Florez, J.B. Meigs, E. Boerwinkle, C. Gieger, K. Strauch, A. Metspalu, A.D. Morris,

C.N.A. Palmer, F.B. Hu, U. Thorsteinsdottir, K. Stefansson, J. Dupuis, A.P. Morris, M. Boehnke, M.I. McCarthy, and I. Prokopenko, for the DIAbetes Genetics Replication And Meta-analysis (DIAGRAM) Consortium

- 2903** A Loss-of-Function Splice Acceptor Variant in *IGF2* Is Protective for Type 2 Diabetes
J.M. Mercader, R.G. Liao, A.D. Bell, Z. Dymek, K. Estrada, T. Tukiainen, A. Huerta-Chagoya, H. Moreno-Macias, K.A. Jablonski, R.L. Hanson, G.A. Walford, I. Moran, L. Chen, V. Agarwala, M.L. Ordoñez-Sánchez, R. Rodríguez-Guillen, M. Rodríguez-Torres, Y. Segura-Kato, H. García-Ortiz, F. Centeno-Cruz, F. Barajas-Olmos, L. Caulkins, S. Puppala, P. Fontanillas, A.L. Williams, S. Bonàs-Guarch, C. Hartl, S. Ripke, Diabetes Prevention Program Research Group, K. Tooley, J. Lane, C. Zerrweck, A. Martínez-Hernández, E.J. Córdova, E. Mendoza-Caamal, C. Contreras-Cubas, M.E. González-Villalpando, I. Cruz-Bautista, L. Muñoz-Hernández, D. Gómez-Velasco, U. Alvirde, B.E. Henderson, L.R. Wilkens, L. Le Marchand, O. Arellano-Campos, L. Riba, M. Harden, Broad Genomics Platform, S. Gabriel, T2D-GENES Consortium, H.E. Abboud, M.L. Cortes, C. Revilla-Monsalve, S. Islas-Andrade, X. Soberon, J.E. Curran, C.P. Jenkinson, R.A. DeFronzo, D.M. Lehman, C.L. Hanis, G.I. Bell, M. Boehnke, J. Blangero, R. Duggirala, R. Saxena, D. MacArthur, J. Ferrer, S.A. McCarroll, D. Torrents, W.C. Knowler, L.J. Baier, N. Burt, C. González-Villalpando, C.A. Haiman, C.A. Aguilar-Salinas, T. Tusié-Luna, J. Flannick, S.B.R. Jacobs, L. Orozco, D. Altshuler, and J.C. Florez, on behalf of the SIGMA T2D Genetics Consortium
- 2915** A Mendelian Randomization Study of Metabolite Profiles, Fasting Glucose, and Type 2 Diabetes
J. Liu, J.B. van Klinken, S. Semiz, K.W. van Dijk, A. Verhoeven, T. Hankemeier, A.C. Harms, E. Sijbrands, N.A. Sheehan, C.M. van Duijn, and A. Demirkan
- 2927** Haptoglobin 1-1 Genotype Modulates the Association of Glycemic Control With Hippocampal Volume in Elderly Individuals With Type 2 Diabetes
A. Livny, R. Ravona-Springer, A. Heymann, R. Priess, T. Kushnir, G. Tsarfaty, L. Rabinov, R. Moran, N. Tik, E. Moshier, I. Cooper, L. Greenbaum, J. Silverman, A. Levy, M. Sano, B.B. Bendlin, A.S. Buchman, and M. Schnaider-Beer

ISSUES AND EVENTS

- 2933** Issues and Events