

IN THIS ISSUE817 In This Issue of *Diabetes***PERSPECTIVES IN DIABETES**

819 Human β -Cell Proliferation and Intracellular Signaling Part 2: Still Driving in the Dark Without a Road Map
E. Bernal-Mizrachi, R.N. Kulkarni, D.K. Scott, F. Mauvais-Jarvis, A.F. Stewart, and A. Garcia-Ocaña

COMMENTARIES

832 Insulin Resistance Compensation: Not Just a Matter of β -Cells?
E. Montanya

835 New Insight Into Early Events in Type 1 Diabetes: Role for Islet Stem Cell Exosomes
M.L. Lukic, N. Pejnovic, and A. Lukic

838 When the Skeleton Is Controlling Pancreatic β -Cell Mass During Development and After
T. Bouckennooghe and B. Lefebvre

841 Remodeling of Nutrient Homeostasis by Unfolded Protein Response
T. Takamura

844 Wolfram Syndrome iPS Cells: The First Human Cell Model of Endoplasmic Reticulum Disease
F. Urano

847 Adipose Triglyceride Lipase and G_0/G_1 Switch Gene 2: Approaching Proof of Concept
T.S. Nielsen and N. Møller

METABOLISM

850 A_{2B} Adenosine Receptors Prevent Insulin Resistance by Inhibiting Adipose Tissue Inflammation via Maintaining Alternative Macrophage Activation
B. Csóka, B. Koscsó, G. Törő, E. Kókai, L. Virág, Z.H. Németh, P. Pacher, P. Bai, and G. Haskó

867 Adipocyte Spliced Form of X-Box-Binding Protein 1 Promotes Adiponectin Multimerization and Systemic Glucose Homeostasis
H. Sha, L. Yang, M. Liu, S. Xia, Y. Liu, F. Liu, S. Kersten, and L. Qi

880 Metformin Lowers Plasma Triglycerides by Promoting VLDL-Triglyceride Clearance by Brown Adipose Tissue in Mice
J.J. Geerling, M.R. Boon, G.C. van der Zon, S.A.A. van den Berg, A.M. van den Hoek, M. Lombès, H.M.G. Princen, L.M. Havekes, P.C.N. Rensen, and B. Guigas

892 Insulin Signals Through the Dorsal Vagal Complex to Regulate Energy Balance

B.M. Filippi, A. Bassiri, M.A. Abraham, F.A. Duca, J.T.Y. Yue, and T.K.T. Lam

900 FABP4 Attenuates PPAR γ and Adipogenesis and Is Inversely Correlated With PPAR γ in Adipose Tissues

T. Garin-Shkolnik, A. Rudich, G.S. Hotamisligil, and M. Rubinstein

912 Insulin Regulates the Unfolded Protein Response in Human Adipose Tissue

G. Boden, P. Cheung, S. Salehi, C. Homko, C. Loveland-Jones, S. Jayarajan, T.P. Stein, K.J. Williams, M.-L. Liu, C.A. Barrero, and S. Merali

923 β -Cell Dysfunction Due to Increased ER Stress in a Stem Cell Model of Wolfram Syndrome

L. Shang, H. Hua, K. Foo, H. Martinez, K. Watanabe, M. Zimmer, D.J. Kahler, M. Freeby, W. Chung, C. LeDuc, R. Goland, R.L. Leibel, and D. Egli

934 Targeted Disruption of G_0/G_1 Switch Gene 2 Enhances Adipose Lipolysis, Alters Hepatic Energy Balance, and Alleviates High-Fat Diet-Induced Liver Steatosis

X. Zhang, X. Xie, B.L. Heckmann, A.M. Saarinen, T.A. Czyzyk, and J. Liu

947 Hepatic Overexpression of ATP Synthase β Subunit Activates PI3K/Akt Pathway to Ameliorate Hyperglycemia of Diabetic Mice

C. Wang, Z. Chen, S. Li, Y. Zhang, S. Jia, J. Li, Y. Chi, Y. Miao, Y. Guan, and J. Yang

SIGNAL TRANSDUCTION

960 Long-Term IKK2/NF- κ B Signaling in Pancreatic β -Cells Induces Immune-Mediated Diabetes

H.H. Salem, B. Trojanowski, K. Fiedler, H.J. Maier, R. Schirmbeck, M. Wagner, B.O. Boehm, T. Wirth, and B. Baumann

OBESITY STUDIES

976 Effect of Plasma Uric Acid on Antioxidant Capacity, Oxidative Stress, and Insulin Sensitivity in Obese Subjects

E. Fabbrini, M. Serafini, I. Colic Baric, S.L. Hazen, and S. Klein

ISLET STUDIES

982 Epidermal Growth Factor Receptor Signaling Promotes Pancreatic β -Cell Proliferation in Response to Nutrient Excess in Rats Through mTOR and FOXM1

B. Zarrouki, I. Benterki, G. Fontès, M.-L. Peyot, O. Seda, M. Prentki, and V. Poutout

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 print subscribers, or can be purchased as e-prints or reprints.

Icons shown below indicate more information is available online.



Free Article



Slide Set



Podcast



Supplementary Data



Companion Article

- 994** Insulin Resistance Alters Islet Morphology in Nondiabetic Humans

T. Mezza, G. Muscogiuri, G.P. Sorice, G. Clemente, J. Hu, A. Pontecorvi, J.J. Holst, A. Giaccari, and R.N. Kulkarni

- 1008** Exosomes Released by Islet-Derived Mesenchymal Stem Cells Trigger Autoimmune Responses in NOD Mice

M.J. Rahman, D. Regn, R. Bashratyan, and Y.D. Dai

- 1021** Osteocalcin Promotes β -Cell Proliferation During Development and Adulthood Through Gprc6a

J. Wei, T. Hanna, N. Suda, G. Karsenty, and P. Ducy

IMMUNOLOGY AND TRANSPLANTATION

- 1032** Deficiency in Type I Interferon Signaling Prevents the Early Interferon-Induced Gene Signature in Pancreatic Islets but Not Type 1 Diabetes in NOD Mice

H.S. Quah, S. Miranda-Hernandez, A. Khoo, A. Harding, S. Fynch, L. Elkerbout, T.C. Brodnicki, A.G. Baxter, T.W.H. Kay, H.E. Thomas, and K.L. Graham

PATHOPHYSIOLOGY

- 1041** Early Onset of Diabetes in the Proband Is the Major Determinant of Risk in HLA DR3-DQ2/DR4-DQ8 Siblings

K.M. Gillespie, R.J. Aitken, I. Wilson, A.J.K. Williams, and P.J. Bingley

- 1048** The Mammalian INDY Homolog Is Induced by CREB in a Rat Model of Type 2 Diabetes

F. Neuschäfer-Rube, S. Lieske, M. Kuna, J. Henkel, R.J. Perry, D.M. Erion, D. Pesta, D.M. Willmes, S. Brachs, C. von Loeffelholz, A. Tolkachov, M. Schupp, A. Pathe-Neuschäfer-Rube, A.F.H. Pfeiffer, G.I. Shulman, G.P. Püschel, and A.L. Birkenfeld

- 1058** Interactions Among Glucose Delivery, Transport, and Phosphorylation That Underlie Skeletal Muscle Insulin Resistance in Obesity and Type 2 Diabetes: Studies With Dynamic PET Imaging

B.H. Goodpaster, A. Bertoldo, J.M. Ng, K. Azuma, R.R. Pencek, C. Kelley, J.C. Price, C. Cobelli, and D.E. Kelley

- 1069** Duodenal-jejunal Bypass and Jejunectomy Improve Insulin Sensitivity in Goto-Kakizaki Diabetic Rats Without Changes in Incretins or Insulin Secretion

S. Salinari, C.W. le Roux, A. Bertuzzi, F. Rubino, and G. Mingrone

- 1079** Defining the Role of GLP-1 in the Enteroinsular Axis in Type 2 Diabetes Using DPP-4 Inhibition and GLP-1 Receptor Blockade

B.A. Auling, A. Bedorf, G. Kutscherauer, J. de Heer, J.J. Holst, B. Göke, and J. Schirra

- 1093** Body Fat Partitioning Does Not Explain the Interethnic Variation in Insulin Sensitivity Among Asian Ethnicity: The Singapore Adults Metabolism Study

C.M. Khoo, M.K.-S. Leow, S.A. Sadananthan, R. Lim, K. Venkataraman, E.Y.H. Khoo, S.S. Velan, Y.T. Ong, R. Kambadur, C. McFarlane, P.D. Gluckman, Y.S. Lee, Y.S. Chong, and E.S. Tai

COMPLICATIONS

- 1103** Sustained Inflammasome Activity in Macrophages Impairs Wound Healing in Type 2 Diabetic Humans and Mice

R.E. Mirza, M.M. Fang, E.M. Weinheimer-Haus, W.J. Ennis, and T.J. Koh

- 1115** Circulating Inflammatory Markers and the Risk of Vascular Complications and Mortality in People With Type 2 Diabetes and Cardiovascular Disease or Risk Factors: The ADVANCE Study

G. Lowe, M. Woodward, G. Hillis, A. Rumley, Q. Li, S. Harrap, M. Marre, P. Hamet, A. Patel, N. Poulter, and J. Chalmers

- 1124** Heat Shock Prevents Insulin Resistance-Induced Vascular Complications by Augmenting Angiotensin-(1-7) Signaling

P.A. Karpe and K. Tikoo

- 1140** Role of Synaptic Plasticity and EphA5-EphrinA5 Interaction Within the Ventromedial Hypothalamus in Response to Recurrent Hypoglycemia

B. Szepietowska, T.L. Horvath, and R.S. Sherwin

- 1148** Pronounced Reduction of Cutaneous Langerhans Cell Density in Recently Diagnosed Type 2 Diabetes

A. Strom, J. Brüggemann, I. Ziegler, K. Jeruschke, J. Weiss, H. Al-Hasani, M. Roden, and D. Ziegler, for the GDS Group

GENETICS/GENOMES/PROTEOMICS/METABOLOMICS

- 1154** Expression of Phosphofructokinase in Skeletal Muscle is Influenced by Genetic Variation and Associated With Insulin Sensitivity

S. Keildson, J. Fadista, C. Ladenvall, Å.K. Hedman, T. Elgzyri, K.S. Small, E. Grundberg, A.C. Nica, D. Glass, J.B. Richards, A. Barrett, J. Nisbet, H.-F. Zheng, T. Rönn, K. Ström, K.-F. Eriksson, I. Prokopenko, MAGIC Consortium, DIAGRAM Consortium, MuTHER Consortium, T.D. Spector, E.T. Dermizakis, P. Deloukas, M.I. McCarthy, J. Rung, L. Groop, P.W. Franks, C.M. Lindgren, and O. Hansson

ISSUES AND EVENTS

- 1166** Issues and Events