

PERSPECTIVES IN DIABETES

- 1599** The Heating Microenvironment: Intercellular Cross Talk Within Thermogenic Adipose Tissue
A.J. Knights, J. Wu, and Y.-H. Tseng

COMMENTARIES

- 1605** A New FGF21 Analog for the Treatment of Fatty Liver Disease
M. Kleinert and T.D. Müller
- 1608** Smarter Modeling to Enable a Smarter Insulin
S.I. Taylor and R.D. DiMarchi

METABOLISM

- 1611** The Effects of B1344, a Novel Fibroblast Growth Factor 21 Analog, on Nonalcoholic Steatohepatitis in Nonhuman Primates
A. Cui, J. Li, S. Ji, F. Ma, G. Wang, Y. Xue, Z. Liu, J. Gao, J. Han, P. Tai, T. Wang, J. Chen, X. Ma, and Y. Li
- 1624** Lactation Versus Formula Feeding: Insulin, Glucose, and Fatty Acid Metabolism During the Postpartum Period
M.A. Ramos-Roman, M.M. Syed-Abdul, B. Adams-Huet, B.M. Casey, and E.J. Parks
- 1636** Reciprocity Between Skeletal Muscle AMPK Deletion and Insulin Action in Diet-Induced Obese Mice
L. Lantier, A.S. Williams, I.M. Williams, A. Guerin, D.P. Bracy, M. Goelzer, M. Foretz, B. Viollet, C.C. Hughey, and D.H. Wasserman
- 1650** Antioxidant Effects of N-Acetylcysteine Prevent Programmed Metabolic Disease in Mice
M.J. Charron, L. Williams, Y. Seki, X.Q. Du, B. Chaurasia, A. Saghatelian, S.A. Summers, E.B. Katz, P.M. Vuguin, and S.E. Reznik

OBESITY STUDIES

- 1662** Excessive Glucocorticoids During Pregnancy Impair Fetal Brown Fat Development and Predispose Offspring to Metabolic Dysfunctions
Y.-T. Chen, Y. Hu, Q.-Y. Yang, J.S. Son, X.-D. Liu, J.M. de Avila, M.-J. Zhu, and M. Du

- 1675** Exercise-Induced Increases in Insulin Sensitivity After Bariatric Surgery Are Mediated By Muscle Extracellular Matrix Remodeling
W.S. Dantas, H. Roschel, I.H. Murai, S. Gil, G. Davuluri, C.L. Axelrod, S. Ghosh, S.S. Newman, H. Zhang, S.K. Shinjo, W. das Neves, C. Merege-Filho, W.R. Teodoro, V.L. Capellozzi, R.M. Pereira, F.B. Benatti, A.L. de Sá-Pinto, R. de Cleve, M.A. Santo, J.P. Kirwan, and B. Gualano

ISLET STUDIES

- 1692** Dextran Sulfate Protects Pancreatic β -Cells, Reduces Autoimmunity, and Ameliorates Type 1 Diabetes
G. Lu, F. Rausell-Palamos, J. Zhang, Z. Zheng, T. Zhang, S. Valle, C. Rosselot, C. Berrouet, P. Conde, M.P. Spindler, J.G. Graham, D. Homann, and A. Garcia-Ocaña
- 1708** m⁶A mRNA Methylation Controls Functional Maturation in Neonatal Murine β -Cells
Y. Wang, J. Sun, Z. Lin, W. Zhang, S. Wang, W. Wang, Q. Wang, and G. Ning
- 1723** Unbiased Profiling of the Human Proinsulin Biosynthetic Interaction Network Reveals a Role for Peroxiredoxin 4 in Proinsulin Folding
D.T. Tran, A. Pottekat, S.A. Mir, S. Loguercio, I. Jang, A.R. Campos, K.M. Scully, R. Lahmy, M. Liu, P. Arvan, W.E. Balch, R.J. Kaufman, and P. Itkin-Ansari

IMMUNOLOGY AND TRANSPLANTATION

- 1735** Low-Dose Interleukin-2 Combined With Rapamycin Led to an Expansion of CD4⁺CD25⁺FOXP3⁺ Regulatory T Cells and Prolonged Human Islet Allograft Survival in Humanized Mice
M. Hu, W.J. Hawthorne, L. Nicholson, H. Burns, Y.W. Qian, D. Liuwantara, E. Jimenez Vera, Y.V. Chew, L. Williams, S. Yi, K. Keung, D. Watson, N. Rogers, S.I. Alexander, and P.J. O'Connell
- 1749** NKG2D Signaling Within the Pancreatic Islets Reduces NOD Diabetes and Increases Protective Central Memory CD8⁺ T-Cell Numbers
A.P. Trembath, K.L. Krausz, N. Sharma, I.C. Gerling, C.E. Mathews, and M.A. Markiewicz

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Companion Article

- 1763** Failed Genetic Protection: Type 1 Diabetes in the Presence of *HLA-DQB1*06:02*
K.M. Simmons, A.M. Mitchell, A.A. Alkanani, K.A. McDaniel, E.E. Baschal, T. Armstrong, L. Pyle, L. Yu, and A.W. Michels

PATHOPHYSIOLOGY

- 1770** Brain Function Differences in Children With Type 1 Diabetes: A Functional MRI Study of Working Memory
L.C. Foland-Ross, G. Tong, N. Murras, A. Cato, T. Aye, M. Tansey, N.H. White, S.A. Weinzimer, K. Englert, H. Shen, P.K. Mazaika, and A.L. Reiss, for the Diabetes Research in Children Network (DirecNet)

COMPLICATIONS

- 1779** Endothelial Overexpression of Metallothionein Prevents Diabetes-Induced Impairment in Ischemia Angiogenesis Through Preservation of HIF-1 α /SDF-1/VEGF Signaling in Endothelial Progenitor Cells
K. Wang, X. Dai, J. He, X. Yan, C. Yang, X. Fan, S. Sun, J. Chen, J. Xu, Z. Deng, J. Fan, X. Yuan, H. Liu, E.C. Carlson, F. Shen, K.A. Wintergerst, D.J. Conklin, P.N. Epstein, C. Lu, and Y. Tan
- 1793** PPAR γ Deacetylation Confers the Antiatherogenic Effect and Improves Endothelial Function in Diabetes Treatment
L. Liu, L. Fan, M. Chan, M.J. Kraakman, J. Yang, Y. Fan, N. Aaron, Q. Wan, M.A. Carrillo-Sepulveda, A.R. Tall, I. Tabas, D. Accili, and L. Qiang
- 1804** Determinants of Treatment Response in Painful Diabetic Peripheral Neuropathy: A Combined Deep Sensory Phenotyping and Multimodal Brain MRI Study
I.D. Wilkinson, K. Teh, F. Heiberg-Gibbons, M. Awadh, A. Kelsall, P. Shillo, G. Sloan, S. Tesfaye, and D. Selvarajah

PHARMACOLOGY AND THERAPEUTICS

- 1815** Connecting Rodent and Human Pharmacokinetic Models for the Design and Translation of Glucose-Responsive Insulin
J.F. Yang, X. Gong, N.A. Bakh, K. Carr, N.F.B. Phillips, F. Ismail-Beigi, M.A. Weiss, and M.S. Strano

- 1827** Slowed Metabolic Decline After 1 Year of Oral Insulin Treatment Among Individuals at High Risk for Type 1 Diabetes in the Diabetes Prevention Trial–Type 1 (DPT-1) and TrialNet Oral Insulin Prevention Trials
J.M. Sosenko, J.S. Skyler, K.C. Herold, D.A. Schatz, M.J. Haller, A. Pugliese, M. Cleves, S. Geyer, L.E. Rafkin, D. Matheson, and J.P. Palmer, for the Type 1 Diabetes TrialNet Study Group

GENETICS/GENOMES/PROTEOMICS/METABOLOMICS

- 1833** Longitudinal Analysis of Serum Cytokine Levels and Gut Microbial Abundance Links IL-17/IL-22 With *Clostridia* and Insulin Sensitivity in Humans
X. Zhou, J.S. Johnson, D. Spakowicz, W. Zhou, Y. Zhou, E. Sodergren, M. Snyder, and G.M. Weinstock
- 1843** Circulating Protein Signatures and Causal Candidates for Type 2 Diabetes
V. Gudmundsdottir, S.B. Zaghlool, V. Emilsson, T. Aspelund, M. Ilkov, E.F. Gudmundsson, S.M. Jonsson, N.R. Zilhão, J.R. Lamb, K. Suhre, L.L. Jennings, and V. Gudnason

ERRATA

- 1854** Erratum. TFAM Enhances Fat Oxidation and Attenuates High-Fat Diet-Induced Insulin Resistance in Skeletal Muscle. *Diabetes* 2019;68:1552–1564
J.-H. Koh, M.L. Johnson, S. Dasari, N.K. LeBrasseur, I. Vuckovic, G.C. Henderson, S.A. Cooper, S. Manjunatha, G.N. Rueggsegger, G.I. Shulman, I.R. Lanza, and K.S. Nair
- 1855** Erratum. Diabetic Nephropathy Alters the Distribution of Circulating Angiogenic MicroRNAs Among Extracellular Vesicles, HDL, and Ago-2. *Diabetes* 2019;68:2287–2300
B.W. Florijn, J.M.G.J. Duijs, J.H. Levels, G.M. Dallinga-Thie, Y. Wang, A.N. Boing, Y. Yuana, W. Stam, R.W.A.L. Limpens, Y.W. Au, R. Nieuwland, T.J. Rabelink, M.E.J. Reinders, A.J. van Zonneveld, and R. Bijkerk

ISSUES AND EVENTS

- 1856** Issues and Events