



Bibliography

Glucagon ELISA - 10ul
10-1281-01

2014-2023

Glucagon 10 µl (10-1281-01)

Animal Model: Mouse 2023

1. Medak, K. D., Jeromson, S., Bellucci, A., Arbeau, M., & Wright, D. C. (2023). Amylin receptor agonism enhances the effects of liraglutide in protecting against the acute metabolic side effects of olanzapine. *IScience*, 108628. <https://doi.org/10.1016/J.ISCI.2023.108628>
2. Daskova, N., Heczkova, M., Modos, I., Hradecky, J., Hudcovic, T., Kuzma, M., Pelantova, H., Buskova, I., Sticova, E., Funda, D., Golias, J., Drabonova, B., Jarkovska, J., Kralova, M., Cibulkova, I., Gojda, J., & Cahova, M. (2023). Protective Effect of Vegan Microbiota on Liver Steatosis Is Conveyed by Dietary Fiber: Implications for Fecal Microbiota Transfer Therapy. *Nutrients*, 15(2), 454. <https://doi.org/10.3390/NU15020454/S1>
3. Wang, Z., Cui, S., Zhang, T., Wang, W., Li, J., Chen, Y. Q., & Zhu, S. long. (2023). Akkermansia muciniphila supplementation improves glucose tolerance in intestinal Ffar4 knockout mice during the daily light to dark transition. *MSystems*. <https://doi.org/10.1128/MSYSTEMS.00573-23>
4. Yabe, S. G., Fukuda, S., Nishida, J., Takeda, F., & Okochi, H. (2023). The functional maturity of grafted human pluripotent stem cell derived-islets (hSC-Islets) evaluated by the glycemic set point during blood glucose normalizing process in diabetic mice. *Helix*, 0(0), e19972. <https://doi.org/10.1016/J.HELIYON.2023.E19972>
5. Xu, J., Cui, L., Wang, J., Zheng, S., Zhang, H., Ke, S., Cao, X., Shi, Y., Li, J., Zen, K., Vidal-Puig, A., Zhang, C.-Y., Li, L., & Jiang, X. (2023). Cold-activated brown fat-derived extracellular vesicle-miR-378a-3p stimulates hepatic gluconeogenesis in male mice. *Nature Communications* 2023 14:1, 14(1), 1–19. <https://doi.org/10.1038/s41467-023-41160-6>
6. Xing, C., Tang, M., Yang, J., Wang, S., Xu, Q., Feng, W., Mu, Y., Li, F., & Zijian Zhao, A. (2023). Eicosapentaenoic acid metabolites promotes the trans-differentiation of pancreatic α cells to β cells. *Biochemical Pharmacology*, 216, 115775. <https://doi.org/10.1016/J.BCP.2023.115775>
7. Hiyoshi, N., Enomoto, T., Uefune, F., Kato, Y., Wu, Y., Araki, K., Sakano, D., Shiraki, N., & Kume, S. (2023). A specific plasma amino acid profile in the Insulin2 Q104del Kuma mice at the diabetic state and reversal from hyperglycemia. *Biochemical and Biophysical Research Communications*.

<https://doi.org/10.1016/J.BBRC.2023.08.064>

8. Esser, N., Mongovin, S. M., Mundinger, T. O., Barrow, B. M., & Zraika, S. (2023). Neprilysin deficiency reduces hepatic gluconeogenesis in high fat-fed mice. *Peptides*, 168, 171076. <https://doi.org/10.1016/J.PEPTIDES.2023.171076>
9. Gonzalez-Rellan, M. J., Fernández, U., Parracho, T., Novoa, E., Fondevila, M. F., da Silva Lima, N., Ramos, L., Rodríguez, A., Serrano-Maciá, M., Perez-Mejias, G., Chantada-Vazquez, P., Riobello, C., Veyrat-Durebex, C., Tovar, S., Coppari, R., Woodhoo, A., Schwaninger, M., Prevot, V., Delgado, T. C., ... Nogueiras, R. (2023). Neddylation of phosphoenolpyruvate carboxykinase 1 controls glucose metabolism. *Cell Metabolism*. <https://doi.org/10.1016/J.CMET.2023.07.003>
10. Tu, L., Bean, J. C., He, Y., Liu, H., Yu, M., Liu, H., Zhang, N., Yin, N., Han, J., Scarcelli, N. A., Conde, K. M., Wang, M., Li, Y., Feng, B., Gao, P., Cai, Z.-L., Fukuda, M., Xue, M., Tong, Q., ... Xu, Y. (2023). Anoctamin 4 channel currents activate glucose-inhibited neurons in the mouse ventromedial hypothalamus during hypoglycemia. *The Journal of Clinical Investigation*. <https://doi.org/10.1172/JCI163391>
11. Panzer, J. K., & Caicedo, A. (2023). Protocol to generate and utilize pancreatic tissue slices to study endocrine and exocrine physiology *in situ* from mouse and human tissue. *STAR Protocols*, 4(3), 102399. <https://doi.org/10.1016/J.XPRO.2023.102399>
12. Chen, W., Cui, W., Wu, J., Zheng, W., Sun, X., Zhang, J., Shang, H., Yuan, Y., Li, X., Wang, J., Hu, X., Chen, L., Zeng, F., Xiao, R.-P., & Zhang, X. (2023). Blocking IL-6 signaling improves glucose tolerance via SLC39A5-mediated suppression of glucagon secretion. *Metabolism*, 155641. <https://doi.org/10.1016/J.METABOL.2023.155641>
13. Max-Harry, I. M., Hashmi, W. J., List, B. P., Kantake, N., Corbin, K. L., Toribio, R. E., Nunemaker, C. S., & Rosol, T. J. (2023). The Nuclear Localization Sequence and C-Terminus of Parathyroid Hormone-Related Protein Regulate Normal Pancreatic Islet Development and Function. *General and Comparative Endocrinology*, 114309. <https://doi.org/10.1016/J.YGCEN.2023.114309>
14. Medak, K. D. (2023). Novel Co-Treatment Strategies to Attenuate Acute Olanzapine-Induced Metabolic Dysfunction [University of Guelph]. <https://atrium.lib.uoguelph.ca/xmlui/handle/10214/27529>
15. Lubaczeuski, C., Bozadjieva-Kramer, N., Louzada, R. A., Gittes, G. K., Leibowitz, G., & Bernal-Mizrachi, E. (2023). Time dependent effects of endogenous hyperglucagonemia on glucose homeostasis and hepatic glucagon action.

JCI Insight. <https://doi.org/10.1172/JCI.INSIGHT.162255>

16. Deguchi-Horiuchi, H., Suzuki, S., Lee, E. Y., Miki, T., Yamanaka, N., Manabe, I., Tanaka, T., & Yokote, K. (2023). Pancreatic β -cell glutaminase 2 maintains glucose homeostasis under the condition of hyperglycaemia. *Scientific Reports* 2023 13:1, 13(1), 1–9. <https://doi.org/10.1038/s41598-023-34336-z>
17. McNeilly, A. D., Gallagher, J. R., Evans, M. L., de Galan, B. E., Pedersen-Bjergaard, U., Thorens, B., Dinkova-Kostova, A. T., Huang, J.-T., Ashford, M. L. J., & McCrimmon, R. J. (2023). Chronic hyperglycaemia increases the vulnerability of the hippocampus to oxidative damage induced during post-hypoglycaemic hyperglycaemia in a mouse model of chemically induced type 1 diabetes. *Diabetologia* 2023, 1–13. <https://doi.org/10.1007/S00125-023-05907-6>
18. Benam, K. D., Khoshamadi, H., Åm, M. K., Stavdahl, Ø., Gros, S., & Fougnier, A. L. (2023). Identifiable prediction animal model for the bi-hormonal intraperitoneal artificial pancreas. *Journal of Process Control*, 121, 13–29. <https://doi.org/10.1016/J.JPROCONT.2022.11.008>
19. Fujino, M., Morito, N., Hayashi, T., Ojima, M., Ishibashi, S., Kuno, A., Koshiba, S., Yamagata, K., & Takahashi, S. (2023). Transcription factor c-Maf deletion improves streptozotocin-induced diabetic nephropathy by directly regulating Sglt2 and Glut2. *JCI Insight*. <https://doi.org/10.1172/JCI.INSIGHT.163306>
20. Jiang, H., Zheng, S., Qian, Y., Zhou, Y., Dai, H., Liang, Y., Gao, R., Lv, H., Zhang, J., Bian, W., Yang, T., & Fu, Q. (2023). Restored UBE2C expression in islets promotes β -cell regeneration in mice by ubiquitinating PER1. <https://doi.org/10.21203/rs.3.rs-2483130/v1>
21. Liu, Y., Yang, Y., Xu, C., Liu, J., Chen, J., Li, G., Huang, B., Pan, Y., Zhang, Y., Wei, Q., Pandol, S. J., Zhang, F., Li, L., & Jin, L. (2023). Circular RNA circGlis3 protects against islet β -cell dysfunction and apoptosis in obesity. *Nature Communications* 2023 14:1, 14(1), 1–19. <https://doi.org/10.1038/s41467-023-35998-z>
22. Al-Abdulla, R., Ferrero, H., Boronat-Belda, T., Soriano, S., Quesada, I., & Alonso-Magdalena, P. (2023). Exploring the Effects of Metabolism-Disrupting Chemicals on Pancreatic α -Cell Viability, Gene Expression and Function: A Screening Testing Approach. *International Journal of Molecular Sciences* 2023, Vol. 24, Page 1044, 24(2), 1044. <https://doi.org/10.3390/IJMS24021044>

23. Viloria, K., Nasteska, D., Ast, J., Hasib, A., Cuozzo, F., Briant, L. J., Hewison, M., & Hodson, D. J. (2023). GC-globulin/vitamin D-binding protein is required for pancreatic α cell adaptation to metabolic stress. <https://diabetesjournals.org/diabetes/article/72/2/275/147957/GC-Globulin-Vitamin-D-Binding-Protein-Is-Required>

2022

24. Holter, M. M., Phuong, D. J., Lee, I., Saikia, M., Weikert, L., Fountain, S., Anderson, E. T., Fu, Q., Zhang, S., Sloop, K. W., & Cummings, B. P. (2022). 14-3-3-zeta mediates GLP-1 receptor agonist action to alter α cell proglucagon processing. *Science Advances*, 8(29), 3773. <https://doi.org/10.1126/SCIAADV.ABN3773>
25. Peters, E. C., Luke, , Tyler, S. , Marx, J., Ngu, E., Vasileva, A., Zappia, I., Powell, W. H., Duca, F. A., & Stern, J. H. (2022). Metabolic and physical function are improved with lifelong 15% calorie restriction in aging male mice. *Biogerontology* 2022, 1–15. <https://doi.org/10.1007/S10522-022-09996-5>
26. Galsgaard, K. D., Elmelund, E., Johansen, C. D., Bomholt, A. B., Kizilkaya, H. S., Ceutz, F., Hunt, J. E., Kissow, H., Winther-Sørensen, M., Sørensen, C. M., Kruse, T., Lau, J. F., Rosenkilde, M. M., Ørskov, C., Christoffersen, C., Holst, J. J., & Wever Albrechtsen, N. J. (2022). Glucagon receptor antagonism impairs and glucagon receptor agonism enhances triglycerides metabolism in mice. *Molecular Metabolism*, 101639. <https://doi.org/10.1016/J.MOLMET.2022.101639>
27. Mckie, G. L. (2022). The Effects of Environmental and Pharmacological Perturbations on Whole-Body and Adipose Tissue Metabolism in Mice Housed at Thermoneutrality. <http://atrium.lib.uoguelph.ca/xmlui/handle/10214/27126>
28. Mj, B., & Thorens, B. (2022). GLUT2 expression by glial brillary acidic protein-positive tanycytes is required for promoting feeding-response to fasting. <https://doi.org/10.21203/rs.3.rs-1642610/v1>
29. Griess, K., Rieck, M., Müller, N., Karsai, G., Hartwig, S., Pellagra, A., Hardt, R., Schlegel, C., Kuboth, J., Uhlemeyer, C., Trenkamp, S., Jeruschke, K., Weiss, J., Peifer-Weiss, L., Xu, W., Cames, S., Yi, X., Cnop, M., Beller, M., ... Belgardt, B. F. (2022). Sphingolipid subtypes differentially control proinsulin processing and systemic glucose homeostasis. *Nature Cell Biology* 2022, 1–10. <https://doi.org/10.1038/s41556-022-01027-2>
30. Mao, Y., Schoenborn, J., Wang, Z., Chen, X., Matson, K., Mohan, R., Zhang, S., Tang, X., Arunagiri, A., Arvan, P., & Tang, X. (2022). Transgenic overexpression

of microRNA-30d in pancreatic beta-cells progressively regulates beta-cell function and identity. *Scientific Reports* 2022;12:1, 12(1), 1–12.
<https://doi.org/10.1038/s41598-022-16174-7>

31. Elmelund, E., Galsgaard, K. D., Johansen, C. D., Trammell, S. A. J., Bomholt, A. B., Winther-Sørensen, M., Hunt, J. E., Sørensen, C. M., Kruse, T., Lau, J. F., Grevengoed, T. J., Holst, J. J., & Wever Albrechtsen, N. J. (2022). Opposing effects of chronic glucagon receptor agonism and antagonism on amino acids, hepatic gene expression, and alpha cells. *IScience*, 105296.
<https://doi.org/10.1016/J.ISCI.2022.105296>
32. Gingerich, M. A., Liu, X., Chai, B., Pearson, G. L., Vincent, M. P., Stromer, T., Zhu, J., Sidarala, V., Renberg, A., Sahu, D., Klionsky, D. J., Schnell, S., & Soleimanpour, S. A. (2022). An intrinsically disordered protein region encoded by the human disease gene CLEC16A regulates mitophagy.
<https://doi.org/10.1080/15548627.2022.2080383>
33. Merino, B., Casanueva-Álvarez, E., Quesada, I., González-Casimiro, C. M., Fernández-Díaz, C. M., Postigo-Casado, T., Leissring, M. A., Kaestner, K. H., Perdomo, G., & Cázar-Castellano, I. (2022). Insulin-degrading enzyme ablation in mouse pancreatic alpha cells triggers cell proliferation, hyperplasia and glucagon secretion dysregulation. *Diabetologia* 2022, 1–15.
<https://doi.org/10.1007/S00125-022-05729-Y>
34. Hubbard, B. T., LaMoia, T. E., Goedeke, L., Gaspar, R. C., Galsgaard, K. D., Kahn, M., Mason, G. F., & Shulman, G. I. (2022). Q-Flux: A method to assess hepatic mitochondrial succinate dehydrogenase, methylmalonyl-CoA mutase, and glutaminase fluxes in vivo. *Cell Metabolism*.
<https://doi.org/10.1016/J.CMET.2022.11.011>
35. Strembitska, A., Labouèbe, G., Picard, A., Berney, X. P., Tarussio, D., Jan, M., & Thorens, B. (2022). Lipid biosynthesis enzyme Agpat5 in AgRP-neurons is required for insulin-induced hypoglycemia sensing and glucagon secretion. *Nature Communications* 2022;13:1, 13(1), 1–15. <https://doi.org/10.1038/s41467-022-33484-6>
36. Radlinger, B., Ress, C., Folie, S., Salzmann, K., Lechuga, A., Weiss, B., Salvenmoser, W., Graber, M., Hirsch, J., Hofeld, J., Kremser, C., Moser, P., Staudacher, G., Jelenik, T., Roden, M., Tilg, H., Kaser, S., Kaser@i, S., & At, -Med Ac. (2022). Empagliflozin protects mice against diet-induced obesity, insulin resistance and hepatic steatosis. *Diabetologia* 2022, 1–14.
<https://doi.org/10.1007/S00125-022-05851-X>

37. Shamshoum, H., Medak, K. D., McKie, G. L., Hahn, M. K., & Wright, D. C. (2022). Fasting or the short-term consumption of a ketogenic diet protects against antipsychotic-induced hyperglycemia in mice. *The Journal of Physiology*. <https://doi.org/10.1113/JP282922>
38. Teigen, I. A., Åm, M. K., Carlsen, S. M., & Christiansen, S. C. (2022). Pharmacokinetics of Glucagon after Intravenous, Intraperitoneal and Subcutaneous Administration in a Pig Model. *Basic & Clinical Pharmacology & Toxicology*. <https://doi.org/10.1111/BCPT.13731>
39. Min, J., Ma, F., Seyran, B., Pellegrini, M., Greeff, O., Moncada, S., & Tudzarova, S. (2022). β -cell-specific deletion of PFKFB3 restores cell fitness competition and physiological replication under diabetogenic stress. *Communications Biology* 2022 5:1, 5(1), 1–13. <https://doi.org/10.1038/s42003-022-03209-y>
40. Liu, J., Kasai, S., Tatara, Y., Yamazaki, H., Mimura, J., Mizuno, S., Sugiyama, F., Takahashi, S., Sato, T., Ozaki, T., Tanji, K., Wakabayashi, K., Maeda, H., Mizukami, H., Shinkai, Y., Kumagai, Y., Tomita, H., & Itoh, K. (2022). Inducible Systemic Gcn1 Deletion in Mice Leads to Transient Body Weight Loss upon Tamoxifen Treatment Associated with Decrease of Fat and Liver Glycogen Storage. *International Journal of Molecular Sciences* 2022, Vol. 23, Page 3201, 23(6), 3201. <https://doi.org/10.3390/IJMS23063201>
41. Veprik, A., Denwood, G., Liu, D., Bany Bakar, R., Morfin, V., McHugh, K., Tebeka, N. N., Vetterli, L., Yonova-Doing, E., Gribble, F., Reimann, F., Hoehn, K. L., Hemsley, P. A., Ahnfelt-Rønne, J., Rorsman, P., Zhang, Q., de Wet, H., & Cantley, J. (2022). Acetyl-CoA-carboxylase 1 (ACC1) plays a critical role in glucagon secretion. *Communications Biology* 2022 5:1, 5(1), 1–13. <https://doi.org/10.1038/s42003-022-03170-w>
42. Nagahisa, T., Yamaguchi, S., Kosugi, S., Homma, K., Miyashita, K., Irie, J., Yoshino, J., & Itoh, H. (2022). Intestinal epithelial NAD⁺ biosynthesis regulates GLP-1 production and postprandial glucose metabolism in mice. *Endocrinology*. <https://doi.org/10.1210/ENDOCR/BQAC023>
43. Pfeiffer, A., Brunetti, A., Ueno, S., Seino, Y., Hidaka, S., Maekawa, R., Takano, Y., Yamamoto, M., Hori, M., Yokota, K., Masuda, A., Himeno, T., Tsunekawa, S., Kamiya, H., Nakamura, J., Kuwata, H., Fujisawa, H., Shibata, M., Takayanagi, T., ... Suzuki, A. (2022). High Protein Diet Feeding Aggravates Hyperaminoacidemia in Mice Deficient in Proglucagon-Derived Peptides. *Nutrients* 2022, Vol. 14, Page 975, 14(5), 975. <https://doi.org/10.3390/NU14050975>

44. McKie, G. L., Medak, K. D., Shamshoum, H., & Wright, D. C. (2022). Topical application of the pharmacological cold mimetic menthol stimulates brown adipose tissue thermogenesis through a TRPM8, UCP1, and norepinephrine dependent mechanism in mice housed at thermoneutrality. *The FASEB Journal*, 36(3), e22205. <https://doi.org/10.1096/FJ.202101905RR>
45. Papazoglou, I., Lee, J.-H., Cui, Z., Li, C., Fulgenzi, G., Bahn, Y. J., Staniszewska-Goraczniak, H. M., Piñol, R. A., Hogue, I. B., Enquist, L. W., Krashes, M. J., & Rane, S. G. (2022). A distinct hypothalamus-to- β cell circuit modulates insulin secretion. *Cell Metabolism*, 34(2), 285-298.e7. <https://doi.org/10.1016/J.CMET.2021.12.020>
46. Abels, M., Riva, M., Shcherbina, L., Fischer, A.-H. T., Banke, E., Degerman, E., Lindqvist, A., & Wierup, N. (2022). Overexpressed beta cell CART increases insulin secretion in mouse models of insulin resistance and diabetes. *Peptides*, 170747. <https://doi.org/10.1016/J.PEPTIDES.2022.170747>

2021

47. Ansarullah, Jain, C., Far, F. F., Homberg, S., Wißmiller, K., von Hahn, F. G., Raducanu, A., Schirge, S., Sterr, M., Bilekova, S., Siehler, J., Wiener, J., Oppenländer, L., Morshedi, A., Bastidas-Ponce, A., Collden, G., Irmler, M., Beckers, J., Feuchtinger, A., ... Lickert, H. (2021). Inceptor counteracts insulin signalling in β -cells to control glycaemia. *Nature*, 590(7845). <https://doi.org/10.1038/s41586-021-03225-8>
48. Cruz, A. M., Partridge, K. M., Malekizadeh, Y., Vlachaki Walker, J. M., Weightman Potter, P. G., Pye, K. R., Shaw, S. J., Ellacott, K. L. J., & Beall, C. (2021). Brain Permeable AMP-Activated Protein Kinase Activator R481 Raises Glycaemia by Autonomic Nervous System Activation and Amplifies the Counterregulatory Response to Hypoglycaemia in Rats. *Frontiers in Endocrinology*, 12, 1. <https://doi.org/10.3389/FENDO.2021.697445/FULL>
49. Chhabra, N. F., Amend, A., Bastidas-Ponce, A., Sabrautzki, S., Tarquis-Medina, M., Sachs, S., Rubey, M., Lorenz-Depiereux, B., Feuchtinger, A., Bakhti, M., Lickert, H., Przemeck, G. K. H., & Hrabě de Angelis, M. (2021). A point mutation in the Pdia6 gene results in loss of pancreatic β -cell identity causing overt diabetes. *Molecular Metabolism*, 54, 101334. <https://doi.org/10.1016/J.MOLMET.2021.101334>
50. Marx, T. (2021). METABOLIC ADAPTATIONS TO AEROBIC EXERCISE TRAINING IN AGING MICE [University of Arizona]. <https://repository.arizona.edu/handle/10150/661615?show=full>

51. Shankar, K., Takemi, S., Gupta, D., Varshney, S., Mani, B. K., Osborne-Lawrence, S., Metzger, N. P., Richard, C. P., Berglund, E. D., & Zigman, J. M. (2021). Ghrelin cell-expressed insulin receptors mediate meal- and obesity-induced declines in plasma ghrelin. *JCI Insight*. <https://doi.org/10.1172/JCI.INSIGHT.146983>
52. Bozadjieva-Kramer, N., Ross, R. A., Johnson, D. Q., Fenselau, H., Haggerty, D. L., Atwood, B., Lowell, B., & Flak, J. N. (2021). The Role of Mediobasal Hypothalamic PACAP in the Control of Body Weight and Metabolism. *Endocrinology*, 162(4), 1–15. <https://doi.org/10.1210/ENDOCR/BQAB012>
53. Lynn, M. A., Eden, G., Ryan, F. J., Bensalem, J., Wang, X., Blake, S. J., Choo, J. M., Chern, Y. T., Sribnaia, A., James, J., Benson, S. C., Sandeman, L., Xie, J., Hassiotis, S., Sun, E. W., Martin, A. M., Keller, M. D., Keating, D. J., Sargeant, T. J., ... Lynn, D. J. (2021). The composition of the gut microbiota following early-life antibiotic exposure affects host health and longevity in later life. *Cell Reports*, 36(8), 109564. <https://doi.org/10.1016/J.CELREP.2021.109564>
54. Fushimi, Y., Obata, A., Sanada, J., Nogami, Y., Ikeda, T., Yamasaki, Y., Obata, Y., Shimoda, M., Nakanishi, S., Mune, T., Kaku, K., & Kaneto, H. (2021). Early combination therapy of empagliflozin and linagliptin exerts beneficial effects on pancreatic β cells in diabetic db/db mice. *Scientific Reports* 2021 11:1, 11(1), 1–13. <https://doi.org/10.1038/s41598-021-94896-w>
55. Rohrbach, A., Caron, E., Dali, R., Brunner, M., Pasquettaz, R., Kolotuev, I., Santoni, F., Thorens, B., & Langlet, F. (2021). Ablation of glucokinase-expressing tanycytes impacts energy balance and increases adiposity in mice. *Molecular Metabolism*, 101311. <https://doi.org/10.1016/J.MOLMET.2021.101311>
56. Murakami, T., Fujimoto, H., Hamamatsu, K., Yamauchi, Y., Kodama, Y., Fujita, N., Fujikura, J., Shimizu, Y., Nakamoto, Y., Kimura, H., Saji, H., & Inagaki, N. (2021). Distinctive detection of insulinoma using [^{18}F]FB(ePEG12)12-exendin-4 PET/CT. *Scientific Reports* 2021 11:1, 11(1), 1–12. <https://doi.org/10.1038/s41598-021-94595-6>
57. Wada, E., Kobayashi, M., Kohno, D., Kikuchi, O., Suga, T., Matsui, S., Yokota-Hashimoto, H., Honzawa, N., Ikeuchi, Y., Tsuneoka, H., Hirano, T., Obinata, H., Sasaki, T., & Kitamura, T. (2021). Disordered branched chain amino acid catabolism in pancreatic islets is associated with postprandial hypersecretion of glucagon in diabetic mice. *The Journal of Nutritional Biochemistry*, 108811. <https://doi.org/10.1016/j.jnutbio.2021.108811>

58. Rahim, M., Hasenour, C. M., Bednarski, T. K., Hughey, C. C., Wasserman, D. H., & Young, J. D. (2021). Multitissue ²H/¹³C flux analysis reveals reciprocal upregulation of renal gluconeogenesis in hepatic PEPCK-C-knockout mice. *JCI Insight*, 6(12). <https://doi.org/10.1172/jci.insight.149278>
59. Barella, L. F., Rossi, M., Pydi, S. P., Meister, J., Jain, S., Cui, Y., Gavrilova, O., Fulgenzi, G., Tessarollo, L., & Wess, J. (2021). β -Arrestin-1 is required for adaptive β -cell mass expansion during obesity. *Nature Communications*, 12(1), 3385. <https://doi.org/10.1038/s41467-021-23656-1>
60. Stagg, D. B., Gillingham, J. R., Nelson, A. B., Lengfeld, J. E., André d'Avignon, D., Puchalska, P., & Crawford, P. A. (2021). Diminished ketone interconversion, hepatic TCA cycle flux, and glucose production in D- β -hydroxybutyrate dehydrogenase hepatocyte-deficient mice. *Molecular Metabolism*, 101269. <https://doi.org/10.1016/j.molmet.2021.101269>
61. Borgmann, D., Ciglieri, E., Biglari, N., Brandt, C., Cremer, A. L., Backes, H., Tittgemeyer, M., Wunderlich, F. T., Brüning, J. C., & Fenselau, H. (2021). Gut-brain communication by distinct sensory neurons differently controls feeding and glucose metabolism. *Cell Metabolism*. <https://doi.org/10.1016/j.cmet.2021.05.002>
62. Gupta, D., Patterson, A. M., Osborne-Lawrence, S., Bookout, A. L., Varshney, S., Shankar, K., Singh, O., Metzger, N. P., Richard, C. P., Wyler, S. C., Elmquist, J. K., & Zigman, J. M. (2021). Journal Pre-proof Disrupting the ghrelin-growth hormone axis limits ghrelin's orexigenic but not glucoregulatory actions. <https://doi.org/10.1016/j.molmet.2021.101258>
63. Kjeldsen, S. A. S., Hansen, L. H., Esser, N., Mongovin, S., Winther-Sørensen, M., Galsgaard, K. D., Hunt, J. E., Kissow, H., Ceutz, F. R., Terzic, D., Mark, P. D., Plomgaard, P., Goetze, J. P., Goossens, G. H., Blaak, E. E., Deacon, C. F., Rosenkilde, M. M., Zraika, S., Holst, J. J., & Wewer Albrechtsen, N. J. (2021). Neprilysin Inhibition Increases Glucagon Levels in Humans and Mice with Potential Effects on Amino Acid Metabolism. *Journal of the Endocrine Society*. <https://doi.org/10.1210/jendso/bvab084>
64. Dos, M., Guilherme, S., Thu, V., Nguyen, T., Reinhardt, C., & Endres, K. (2021). microorganisms Impact of Gut Microbiome Manipulation in 5xFAD Mice on Alzheimer's Disease-Like Pathology. <https://doi.org/10.3390/microorganisms9040815>
65. Pradhan, G., Wu, C.-S., Villarreal, D., Lee, J. H., Han, H. W., Gaharwar, A., Tian, Y., Fu, W., Guo, S., Smith, R. G., Sun, Y., Villarreal, D. ;, Lee, J. H. ;, Han, H. W. ;, Street, E., Moghetti, P., & Chiarelli, F. (2021). Molecular Sciences β Cell GHS-R

Regulates Insulin Secretion and Sensitivity. *J. Mol. Sci.*, 22.
<https://doi.org/10.3390/ijms22083950>

66. Takatani, T., Shirakawa, J., Shibue, K., Gupta, M. K., Kim, H., Lu, S., Hu, J., White, M. F., Kennedy, R. T., & Kulkarni, R. N. (2021). Insulin receptor substrate 1 (IRS1), but not IRS2, plays a dominant role in regulating pancreatic alpha cell function in mice. *Journal of Biological Chemistry*, 100646.
<https://doi.org/10.1016/j.jbc.2021.100646>
67. Chae, H., Augustin, R., Gatineau, E., Mayoux, E., Bensellam, M., Antoine, N., Khattab, F., Lai, B.-K., Brusa, D., Stierstorfer, B., Klein, H., Singh, B., Ruiz, L., Pieper, M., Mark, M., Herrera, P. L., Gribble, F. M., Reimann, F., Wojtusciszyn, A., ... Gilon, P. (2021). SGLT2 is not expressed in pancreatic a-and b-cells, and its inhibition does not directly affect glucagon and insulin secretion in rodents and humans. *Original Article MOLECULAR METABOLISM*, 42, 101071.
<https://doi.org/10.1016/j.molmet.2020.101071>
68. Zalucha, E. M. (2021). The Role of GLP-1 in the Regulation of Metabolism and Immune Responses [University of Michigan].
<https://deepblue.lib.umich.edu/handle/2027.42/169674>

2019

69. Singer, R. A., Arnes, L., Cui, Y., Wang, J., Gao, Y., Guney, M. A., Burnum-Johnson, K. E., Rabadian, R., Ansong, C., Orr, G., & Sussel, L. (2019). The Long Noncoding RNA Paupar Modulates PAX6 Regulatory Activities to Promote Alpha Cell Development and Function. *Cell Metabolism*, 30(6), 1091-1106.e8.
<https://doi.org/10.1016/J.CMET.2019.09.013>
70. Grevengoed, T. J., Trammell, S. A. J., McKinney, M. K., Petersen, N., Cardone, R. L., SvenningSEN, J. S., Ogasawara, D., Nexøe-Larsen, C. C., Knop, F. K., Schwartz, T. W., Kibbey, R. G., Cravatt, B. F., & Gillum, M. P. (2019). N-acyl taurines are endogenous lipid messengers that improve glucose homeostasis. *Proceedings of the National Academy of Sciences of the United States of America*, 116(49), 24770–24778.
<https://doi.org/10.1073/pnas.1916288116>
71. Jensen, C. H., Kosmina, R., Rydén, M., Baun, C., Hvidsten, S., Andersen, M. S., Christensen, L. L., Gastaldelli, A., Marraccini, P., Arner, P., Jørgensen, C. D., Laborda, J., Holst, J. J., & Andersen, D. C. (2019). The imprinted gene Delta like non-canonical notch ligand 1 (Dlk1) associates with obesity and triggers insulin resistance through inhibition of skeletal muscle glucose uptake. *EBioMedicine*, 46, 368–380. <https://doi.org/10.1016/j.ebiom.2019.07.070>

72. Liu, W., Mao, Y., Schoenborn, J., Wang, Z., Tang, G., & Tang, X. (2019). Whole blueberry protects pancreatic beta-cells in diet-induced obese mouse. *Nutrition and Metabolism*, 16(1), 34. <https://doi.org/10.1186/s12986-019-0363-6>

2017

73. Wewer Albrechtsen, N. J., Kuhre, R. E., Hornburg, D., Jensen, C. Z., Hornum, M., Dirksen, C., Svane, M., Gasbjerg, L. S., Jørgensen, N. B., Gabe, M. N., Balk-Møller, E., Albrechtsen, R., Winther-Sørensen, M., Galsgaard, K. D., Meissner, F., Jorsal, T., Lund, A., Vilsbøll, T., Eliassen, R., ... Holst, J. J. (2017). Circulating Glucagon 1-61 Regulates Blood Glucose by Increasing Insulin Secretion and Hepatic Glucose Production. *Cell Reports*, 21(6), 1452–1460. <https://doi.org/10.1016/j.celrep.2017.10.034>

Animal Model: Rat 2023

74. Pedersen, K., Andersen, H., Fledelius, C., Holst, J. J., Hjuler, S. T., & Kuhre, R. E. (2023). Standard procedures for blood withdrawal in conscious male rats induce stress and profoundly affect glucose tolerance and secretion of glucoregulatory hormones. <https://doi.org/10.1016/j.molmet.2023.101689>

2022

75. Sohrabipour, S., Sharifi, M. R., Sharifi, M., Talebi, A., & Soltani, N. (2022). Combination Therapy with GABA and MgSO₄ Improves Insulin Sensitivity in Type 2 Diabetic Rat. *International Journal of Endocrinology*, 2022, 1–11. <https://doi.org/10.1155/2022/2144615>
76. Nedoboy, P. E., & Farnham, M. M.-J. (2022). Still Excited, but Less Aroused—The Effects of Nutritional Ketosis on Epinephrine Response and Hypothalamic Orexin Neuron Activation Following Recurrent Hypoglycemia in Diabetic Rats. *Metabolites* 2023, Vol. 13, Page 42, 13(1), 42. <https://doi.org/10.3390/METABO13010042>
77. Liu, Z., Zhang, L., Qian, C., Zhou, Y., Yu, Q., Yuan, J., Lv, Y., Zhang, L., Chang, X., Li, Y., & Liu, Y. (2022). Recurrent hypoglycemia increases hepatic gluconeogenesis without affecting glycogen metabolism or systemic lipolysis in rat. *Metabolism*, 136, 155310. <https://doi.org/10.1016/J.METABOL.2022.155310>

2021

78. Cabrera, O., Ficorilli, J., Shaw, J., Echeverri, F., Schwede, F., Chepurny, O. G., Leech, C. A., & Holz, G. G. (2021). Intra-islet glucagon confers β -cell glucose competence for first-phase insulin secretion and favors GLP-1R stimulation by exogenous glucagon. *Journal of Biological Chemistry*, 101484. <https://doi.org/10.1016/J.JBC.2021.101484>
79. Kotikalapudi, N., Sampath, S. J. P., Sukesh Narayan, S., Ramesh R, B., Nemani, H., Mungamuri, S. K., & Venkatesan, V. (2021). The promise(s) of mesenchymal stem cell therapy in averting preclinical diabetes: lessons from in vivo and in vitro model systems. *Scientific Reports* 2021 11:1, 11(1), 1–18. <https://doi.org/10.1038/s41598-021-96121-0>

80. Kotikalapudi Nagasuryaprasad, Samuel Joshua Pragasam, Sukesh Narayan Sinha, Ramesh R. Bhonde, Nemani Harishanker, Sathish Kumar Mungamuri, & Vijayalakshmi Venkatesan. (2021). The promise(s) of Mesenchymal Stem Cell Therapy in averting Preclinical Diabetes-Lessons from in vivo and in vitro model systems, Biomonitoring View project.
<https://www.researchgate.net/publication/349138579>
81. Diedrichsen, R. G., Harloff-Helleberg, S., Werner, U., Besenius, M., Leberer, E., Kristensen, M., & Nielsen, H. M. (2021). Revealing the importance of carrier-cargo association in delivery of insulin and lipidated insulin. *Journal of Controlled Release*. <https://doi.org/10.1016/J.JCONREL.2021.07.030>
82. DuVall, M. A., Coulter, C. E., Gosey, J. L., Herrera, M. J., Hill, C., Jariwala, R. R., Maisano, L. E., Moldovan, L. A., Morrison, C. D., Nwabueze, N. V., Sikaffy, H. X., & McDougal, D. H. (2021). Leptin treatment prevents impaired hypoglycemic counterregulation induced by exposure to severe caloric restriction or exposure to recurrent hypoglycemia. *Autonomic Neuroscience*, 102853. <https://doi.org/10.1016/J.AUTNEU.2021.102853>
83. Wang, Z., Gurlo, T., Matveyenko, A. V., Elashoff, D., Wang, P., Rosenberger, M., Junge, J. A., Stevens, R. C., White, K. L., Fraser, S. E., & Butler, P. C. (2021). Live-cell imaging of glucose-induced metabolic coupling of β and α cell metabolism in health and type 2 diabetes. *Communications Biology*, 4(1), 594. <https://doi.org/10.1038/s42003-021-02113-1>
84. Alkhalefah, A., Dunn, W., Allwood, J. W., Parry, K. L., Houghton, F., Ashton, N., & Glazier, J. (2021). Maternal intermittent fasting during pregnancy induces fetal growth restriction and downregulated placental system A amino acid transport in the rat. *Clinical Science*. <https://doi.org/10.1042/CS20210137>
85. Acosta-Montalvo, A., Saponaro, C., Kerr-Conte, J., Prehn, J. H. M., Pattou, F., & Bonner, C. (2020). Proglucagon-Derived Peptides Expression and Secretion in Rat Insulinoma INS-1 Cells. *Frontiers in Cell and Developmental Biology*, 8, 590763. <https://doi.org/10.3389/FCELL.2020.590763>

Animal Models: Rat or Mouse 2020

1. Åm, M. K., Dirnena-Fusini, I., Fougner, A. L., Carlsen, S. M., & Christiansen, S. C. (2020). Intraperitoneal and subcutaneous glucagon delivery in anaesthetized pigs: effects on circulating glucagon and glucose levels. *Scientific Reports*, 10(1), 13735. <https://doi.org/10.1038/s41598-020-70813-5>
2. Burrage, L. C., Madan, S., Li, X., Ali, S., Mohammad, M. A., Stroup, B. M., Jiang, M.-M., Cela, R., Bertin, T., Dai, J., Guffey, D., Finegold, M., Nagamani, S., Minard, C. G., Marini, J., Masand, P., Schady, D., Shneider, B. L., Leung, D. H., ... Lee, B. (2020). Chronic liver disease and impaired hepatic glycogen metabolism in argininosuccinate lyase deficiency. *JCI Insight*. <https://doi.org/10.1172/jci.insight.132342>
3. Chhabra, N. F., Amarie, O. V., Wu, M., Amend, A.-L., Rubey, M., Gradinger, D., Irmler, M., Beckers, J., Rathkolb, B., Wolf, E., Feuchtinger, A., Huypens, P., Teperino, R., Rozman, J., Przemeck, G. K. H., & Hrabě de Angelis, M. (2020). PAX6 mutation alters circadian rhythm and β cell function in mice without affecting glucose tolerance. *Communications Biology*, 3(1), 628. <https://doi.org/10.1038/s42003-020-01337-x>
4. Dibe, H. A., Townsend, L. K., McKie, G. L., & Wright, D. C. (2020). Epinephrine responsiveness is reduced in livers from trained mice. *Physiological Reports*, 8(3), e14370. <https://doi.org/10.14814/phy2.14370>
5. Eike Früh, Christin Elgert, Frank Eggert, Stephan Scherneck, Ingo Rustenbeck, Glucagonotropic and Glucagonostatic Effects of KATP Channel Closure and Potassium Depolarization, *Endocrinology*, Volume 162, Issue 1, January 2021, bqa136, <https://doi.org/10.1210/endocr/bqa136>
6. Filippello, A., Scamporrino, A., Di Mauro, S., Malaguarnera, R., Di Pino, A., Scicali, R., Purrello, F., & Piro, S. (2020). Direct Effects of D-Chiro-Inositol on Insulin Signaling and Glucagon Secretion of Pancreatic Alpha Cells. *Biomolecules*, 10(10). <https://doi.org/10.3390/biom10101404>
7. Flak, J. N., Goforth, P., Dell'Orco, J., Sabatini, P. V, Li, C., Bozadjieva, N., Sorensen, M. J., Valenta, A. C., Rupp, A. C., Affinati, A. H., Cras-Méneur, C., Ansari, A., Sacksner, J., Kodur, N., Sandoval, D. A., Kennedy, R. T., Olson, D., & Myers, M. G. (2020). Ventromedial hypothalamic nucleus neuronal subset regulates blood glucose independently of insulin. *The Journal of Clinical Investigation*. <https://doi.org/10.1172/JCI134135>

8. Galsgaard, K. D., Jepsen, S. L., Kjeldsen, S. A. S., Pedersen, J., Wewer Albrechtsen, N. J., & Holst, J. J. (2020). Alanine, arginine, cysteine, and proline but not glutamine are substrates for and acute mediators of the liver-alpha cell axis in female mice. *American Journal of Physiology-Endocrinology and Metabolism*, ajpendo.00459.2019. <https://doi.org/10.1152/ajpendo.00459.2019>
9. Galsgaard, K. D., Pedersen, J., Kjeldsen, S. A. S., Winther-Sørensen, M., Stojanovska, E., Vilstrup, H., Ørskov, C., Wewer Albrechtsen, N. J., & Holst, J. J. (2020). Glucagon receptor signaling is not required for L-carbamoyl glutamate and L-citrulline induced ureagenesis in mice. *American Journal of Physiology. Gastrointestinal and Liver Physiology*, ajpgi.00294.2019. <https://doi.org/10.1152/ajpgi.00294.2019>
10. Grau-Bové, C., Sierra-Cruz, M., Miguéns-Gómez, A., Rodríguez-Gallego, E., Beltrán-Debón, R., Blay, M., Terra, X., Pinent, M., & Ardévol, A. (2020). A Ten-Day Grape Seed Procyanidin Treatment Prevents Certain Ageing Processes in Female Rats over the Long Term. *Nutrients*, 12(12). <https://doi.org/10.3390/nut12123647>
11. Cavino, K., Sung, B., Qi Su, Na, E., Kim, J., Cheng, X., Gromada, J., Okamoto, H., (2020). Glucagon Receptor Inhibition Reduces Hyperammonemia and Lethality in Male Mice with Urea Cycle Disorder. *Endocrinology*. <https://doi.org/10.1210/ENDOCR/BQAA211>
12. Grupe, K., Asuaje Pfeifer, M., Dannehl, F., et al. Metabolic changes during pregnancy in glucose-intolerant NZO mice: A polygenic model with prediabetic metabolism. *Physiol Rep.* 2020;8:e14417. <https://doi.org/10.14814/phy2.14417>
13. Hadova, K., Mesarosova, L., Kralova, E., Doka, G., Krenek, P. and Klimas, J. (2020) The tyrosine kinase inhibitor crizotinib influences blood glucose and mRNA expression of GLUT4 and PPARs in the heart of rats with experimental diabetes. *Canadian Journal of Physiology and Pharmacology*. 99(6): 635-643. <https://doi.org/10.1139/cjpp-2020-0572>
14. Lou, P.-H., Lucchinetti, E., Wawrzyniak, P., Morsy, Y., Wawrzyniak, M., Scharl, M., Krämer, S. D., Rogler, G., Hersberger, M., & Zaugg, M. (2020). Choice of Lipid Emulsion Determines Inflammation of the Gut-Liver Axis, Incretin Profile, and Insulin Signaling in a Murine Model of Total Parenteral Nutrition. *Molecular Nutrition & Food Research*, e2000412. <https://doi.org/10.1002/mnfr.202000412>
15. Maikawa, C. L., Smith, A. A. A., Zou, L., Roth, G. A., Gale, E. C., Stapleton, L. M., Baker, S. W., Mann, J. L., Yu, A. C., Correa, S., Grosskopf, A. K., Liong, C. S., Meis, C. M., Chan, D., Troxell, M., Maahs, D. M., Buckingham, B. A., Webber, M. J., & Appel, E. A. (2020). A co-formulation of supramolecularly stabilized insulin

and pramlintide enhances mealtime glucagon suppression in diabetic pigs. *Nature Biomedical Engineering*, 4(5), 507–517. <https://doi.org/10.1038/s41551-020-0555-4>

16. Medak, K. D., Shamshoum, H., Peppler, W. T., & Wright, D. C. (2020). GLP1 Receptor Agonism Protects Against Acute Olanzapine Induced Hyperglycemia. *American Journal of Physiology. Endocrinology and Metabolism*. <https://doi.org/10.1152/ajpendo.00309.2020>
17. Morrison, C. D., Hill, C. M., DuVall, M. A., Coulter, C. E., Gosey, J. L., Herrera, M. J., Maisano, L. E., Sikaffy, H. X., & McDougal, D. H. (2020). Consuming a ketogenic diet leads to altered hypoglycemic counter-regulation in mice. *Journal of Diabetes and Its Complications*, 107557. <https://doi.org/10.1016/J.JDIACOMP.2020.107557>
18. Oduori, O. S., Murao, N., Shimomura, K., Takahashi, H., Zhang, Q., Dou, H., Sakai, S., Minami, K., Chanclon, B., Guida, C., Kothegeala, L., Tolö, J., Maejima, Y., Yokoi, N., Minami, Y., Miki, T., Rorsman, P., & Seino, S. (2020). Gs/Gq signaling switch in β cells defines incretin effectiveness in diabetes. *The Journal of Clinical Investigation*. <https://doi.org/10.1172/JCI140046>
19. Osaka, N., Kushima, H., Mori, Y., Saito, T., Hiromura, M., Terasaki, M., Yashima, H., Ohara, M., Fukui, T., Matsui, T., Hirano, T., & Yamagishi, S.-I. (2020). Anti-inflammatory and atheroprotective properties of glucagon. *Diabetes & Vascular Disease Research*, 17(5), 1479164120965183. <https://doi.org/10.1177/1479164120965183>
20. Peterson, Q. P., Veres, A., Chen, L., Slama, M. Q., Kenty, J. H. R., Hassoun, S., Brown, M. R., Dou, H., Duffy, C. D., Zhou, Q., Matveyenko, A. V., Tyrberg, B., Sörhede-Winzell, M., Rorsman, P., & Melton, D. A. (2020). A method for the generation of human stem cell-derived alpha cells. *Nature Communications*, 11. <https://doi.org/10.1038/S41467-020-16049-3>
21. Pierzynowska, K., Oredsson, S., & Pierzynowski, S. (2020). Amylase-Dependent Regulation of Glucose Metabolism and Insulin/Glucagon Secretion in the Streptozotocin-Induced Diabetic Pig Model and in a Rat Pancreatic Beta-Cell Line, BRIN-BD11. *Journal of Diabetes Research*, 2020, 1–10. <https://doi.org/10.1155/2020/2148740>
22. Rubey, M., Chhabra, N. F., Gradinger, D., Sanz-Moreno, A., Lickert, H., Przemeck, G. K. H., & Hrabě de Angelis, M. (2020). DLL1- and DLL4-Mediated Notch Signaling is Essential for Adult Pancreatic Islet Homeostasis. *Diabetes*, db190795. <https://doi.org/10.2337/db19-0795>

23. Banerjee, S., Ghoshal, S., Stevens, J. R., McCommis, K. S., Gao, S., Castro-Sepulveda, M., Mizgier, M. L., Girardet, C., Kumar, K. G., Galgani, J. E., Niehoff, M. L., Farr, S. A., Zhang, J., & Butler, A. A. (2020). Hepatocyte expression of the micropeptide adropin regulates the liver fasting response and is enhanced by caloric restriction. *The Journal of biological chemistry*, 295(40), 13753–13768. <https://doi.org/10.1074/jbc.RA120.014381>
24. Sato, Y., Rahman, M. M., Haneda, M., Tsuyama, T., Mizumoto, T., Yoshizawa, T., Kitamura, T., Gonzalez, F. J., Yamamura, K.-I., & Yamagata, K. (2020). HNF1 α controls glucagon secretion in pancreatic α -cells through modulation of SGLT1. *Biochimica et Biophysica Acta. Molecular Basis of Disease*, 1866(11), 165898. <https://doi.org/10.1016/j.bbadi.2020.165898>
25. Shamshoum, H., McKie, G. L., Medak, K. D., Ashworth, K. E., Kemp, B. E., & Wright, D. C. (2020). Voluntary physical activity protects against olanzapine-induced hyperglycemia. *Journal of Applied Physiology*. <https://doi.org/10.1152/japplphysiol.00876.2020>
26. Takei, S., Nagashima, S., Takei, A., Yamamuro, D., Wakabayashi, T., Murakami, A., Isoda, M., Yamazaki, H., Ebihara, C., Takahashi, M., Ebihara, K., Dezaki, K., Takayanagi, Y., Onaka, T., Fujiwara, K., Yashiro, T., & Ishibashi, S. (2020). β Cell-Specific Deletion of HMG-CoA (3-hydroxy-3-methylglutaryl-coenzyme A) Reductase Causes Overt Diabetes Due to Reduction of β Cell Mass and Impaired Insulin Secretion. *Diabetes*. <https://doi.org/10.2337/db19-0996>
27. Viloria, K., Nasteska, D., Briant, L. J. B., Heising, S., Larner, D. P., Fine, N. H. F., Ashford, F. B., da Silva Xavier, G., Ramos, M. J., Hasib, A., Cuozzo, F., Manning Fox, J. E., MacDonald, P. E., Akerman, I., Lavery, G. G., Flaxman, C., Morgan, N. G., Richardson, S. J., Hewison, M., & Hodson, D. J. (2020). Vitamin-D-Binding Protein Contributes to the Maintenance of α Cell Function and Glucagon Secretion. *Cell Reports*, 31(11), 107761. <https://doi.org/10.1016/j.celrep.2020.107761>
28. Winther-Sørensen, M., Galsgaard, K. D., Santos, A., Trammell, S. A. J., Sulek, K., Kuhre, R. E., Pedersen, J., Andersen, D. B., Hassing, A. S., Dall, M., Treebak, J. T., Gillum, M. P., Torekov, S. S., Windeløv, J. A., Hunt, J. E., Kjeldsen, S. A. S., Jepsen, S. L., Vasilopoulou, C. G., Knop, F. K., ... Wewer Albrechtsen, N. J. (2020). Glucagon acutely regulates hepatic amino acid catabolism and the effect may be disturbed by steatosis. *Molecular Metabolism*, 101080. <https://doi.org/10.1016/j.molmet.2020.101080>
29. Sato, Y., Rahman, M., Haneda, M., Tsuyama, T., Mizumoto, T., Yoshizawa, T., Kitamura, T., Gonzalez, F. J., Yamamura, K.-I., Yamagata, K., (2020). HNF1 α controls glucagon secretion in pancreatic α -cells through modulation of SGLT1. *Biochimica et Biophysica Acta. Molecular Basis of Disease*, 1866(11).

<https://doi.org/10.1016/J.BBADIS.2020.165898>

30. Zhang, G.-F., Jensen, M. V., Gray, S. M., El, K., Wang, Y., Lu, D., Becker, T. C., Campbell, J. E., & Newgard, C. B. (2020). Reductive TCA cycle metabolism fuels glutamine- and glucose-stimulated insulin secretion. *Cell Metabolism*. <https://doi.org/10.1016/j.cmet.2020.11.020>

2019

31. Abdurrachim, D., Woo, C. C., Teo, X. Q., Chan, W. X., Radda, G. K., & Lee, P. T. H. (2019). A new hyperpolarized ¹³C ketone body probe reveals an increase in acetoacetate utilization in the diabetic rat heart. *Scientific Reports*, 9(1), 5532. <https://doi.org/10.1038/s41598-019-39378-w>
32. Adingupu, D. D., Göpel, S. O., Grönros, J., Behrendt, M., Sotak, M., Miliotis, T., Dahlqvist, U., Gan, L.-M., & Jönsson-Rylander, A.-C. (2019). SGLT2 inhibition with empagliflozin improves coronary microvascular function and cardiac contractility in prediabetic ob/ob-/- mice. *Cardiovascular Diabetology*, 18(1), 16. <https://doi.org/10.1186/s12933-019-0820-6>
33. Bethea, M., Liu, Y., Wade, A. K., Mullen, R., Gupta, R., Gelfanov, V., DiMarchi, R., Bhatnagar, S., Behringer, R., Habegger, K. M., & Hunter, C. S. (2019). The islet-expressed Lhx1 transcription factor interacts with Islet-1 and contributes to glucose homeostasis. *American Journal of Physiology. Endocrinology and Metabolism*, ajpendo.00235.2018. <https://doi.org/10.1152/ajpendo.00235.2018>
34. Chang, Y.-H., Katoh, M. C., Abdellatif, A. M., Xiafukaiti, G., Elzeftawy, A., Ojima, M., Mizuno, S., Kuno, A., & Takahashi, S. (2019). Uncovering the role of MAFB in glucagon production and secretion in pancreatic α -cells using a new α -cell-specific Mafb conditional knockout mouse model. *Experimental Animals*. <https://doi.org/10.1538/expanim.19-0105>
35. Douros, J. D., Niu, J., Sdao, S. M., Gregg, T., Fisher-Wellman, K. H., Bharadwaj, M. S., Molina, A., Arumugam, R., Martin, M. D., Petretto, E., Merrins, M. J., Herman, M. A., Tong, J., Campbell, J. E., & D'Alessio, D. (2019). Sleeve gastrectomy rapidly enhances islet function independently of body weight. *JCI Insight*. <https://doi.org/10.1172/jci.insight.126688>
36. Fernández, A., Mazuecos, L., Pintado, C., Rubio, B., López, V., de Solís, A. J., Rodríguez, M., Andrés, A., & Gallardo, N. (2019). Effects of Moderate Chronic Food Restriction on the Development of Postprandial Dyslipidemia with Ageing. *Nutrients*, 11(8), 1865. <https://doi.org/10.3390/nu11081865>

37. Galsgaard, K. D., Winther-Sørensen, M., Pedersen, J., Kjeldsen, S. A. S., Rosenkilde, M. M., Wewer Albrechtsen, N. J., & Holst, J. J. (2019). Glucose and Amino Acid Metabolism in Mice Depend Mutually on Glucagon and Insulin Receptor Signaling. *American Journal of Physiology-Endocrinology and Metabolism*, ajpendo.00410.2018. <https://doi.org/10.1152/ajpendo.00410.2018>
38. Ginés, I., Gil-Cardoso, K., Serrano, J., Casanova-Martí, À., Lobato, M., Terra, X., Blay, M. T., Ardévol, A., & Pinent, M. (2019). Proanthocyanidins limit adipose accrual induced by a cafeteria diet, several weeks after the end of the treatment. *Genes*, 10(8), 598. <https://doi.org/10.3390/genes10080598>
39. Himuro, M., Miyatsuka, T., Suzuki, L., Miura, M., Katahira, T., Goto, H., Nishida, Y., Sasaki, S., Koike, M., Shiota, C., Gittes, G. K., Fujitani, Y., & Watada, H. (2019). Cellular autophagy in α cells plays a role in the maintenance of islet architecture. *Journal of the Endocrine Society*. <https://doi.org/10.1210/js.2019-00075>
40. Holm, L. J., Haupt-Jorgensen, M., Giacobini, J. D., Hasselby, J. P., Bilgin, M., & Buschard, K. (2019). Fenofibrate increases very-long-chain sphingolipids and improves blood glucose homeostasis in NOD mice. *Diabetologia*, 1–11. <https://doi.org/10.1007/s00125-019-04973-z>
41. Jux, B., Gosejacob, D., Tolksdorf, F., Mandel, C., Rieck, M., Namislo, A., Pfeifer, A., & Kolanus, W. (2019). Cytohesin-3 is required for full insulin receptor signaling and controls body weight via lipid excretion. *Scientific Reports*, 9(1), 3442. <https://doi.org/10.1038/s41598-019-40231-3>
42. Kim, J., Dominguez Gutierrez, G., Xin, Y., Cavino, K., Sung, B., Sipos, B., Kloepfel, G., Gromada, J., & Okamoto, H. (2019). Increased SLC38A4 amino acid transporter expression in human pancreatic α -cells after glucagon receptor inhibition. *Endocrinology*, 160(5), 979–988. <https://doi.org/10.1210/en.2019-00022>
43. Kolbe, I., Leinweber, B., Brandenburger, M., Metabolism, H. O.-M., & 2019, undefined. (2019). Circadian clock network desynchrony promotes weight gain and alters glucose homeostasis in mice. *Molecular Metabolism*. <https://doi.org/https://doi.org/10.1016/j.molmet.2019.09.012>
44. Kuhre, R. E., Christiansen, C. B., Ghiasi, S. M., Gabe, M. B. N., Skat-Rørdam, P. A., Modvig, I. M., Mandrup-Poulsen, T., Albrechtsen, R., Rosenkilde, M. M., Hartmann, B., Wewer Albrechtsen, N. J., & Holst, J. J. (2019). Neuromedin U Does Not Act as a Decretin in Rats. *Cell Metabolism*, 29(3), 719-726.e5. <https://doi.org/10.1016/j.cmet.2018.10.008>

45. Lam, C. J., Rankin, M. M., King, K. B., Wang, M. C., Shook, B. C., & Kushner, J. A. (2019). Glucagon Receptor Antagonist Stimulated α -Cell Proliferation is Severely Restricted with Advanced Age. *Diabetes*, db181293. <https://doi.org/10.2337/db18-1293>
46. Lee, S., Moon, S., Oh, J. Y., Seo, E. H., Kim, Y. H., Jun, E., Shim, I. K., & Kim, S. C. (2019, September 5). Enhanced insulin production and reprogramming efficiency of mesenchymal stem cells derived from porcine pancreas using suitable induction medium. *Xenotransplantation*, 26(1), e12451. <https://doi.org/10.1111/xen.12451>
47. Lee, Y. S., Riopel, M., Cabrales, P., & Bandyopadhyay, G. K. (2019). Hepatocyte-specific HIF-1 alfa ablation improves obesity-induced glucose intolerance by reducing first-pass GLP-1 degradation. In *Sci. Adv* (Vol. 5). <http://advances.sciencemag.org/>
48. Linden, M. A., Ross, T. T., Beebe, D. A., Gorgoglione, M. F., Hamilton, K. L., Miller, B. F., Braun, B., & Esler, W. P. (2019). The combination of exercise training and sodium-glucose cotransporter-2 inhibition improves glucose tolerance and exercise capacity in a rodent model of type 2 diabetes. *Metabolism*, 97, 68–80. <https://doi.org/10.1016/j.metabol.2019.05.009>
49. McKie, G. L., Medak, K. D., Knuth, C. M., Shamshoum, H., Townsend, L. K., Peppler, W. T., & Wright, D. C. (2019). Housing temperature affects the acute and chronic metabolic adaptations to exercise in mice. *Journal of Physiology*, JP278221. <https://doi.org/10.1113/JP278221>
50. Medak, K. D., Townsend, L. K., Hahn, M. K., & Wright, D. C. (2019). Female mice are protected against acute olanzapine-induced hyperglycemia. *Psychoneuroendocrinology*, 110, 104413. <https://doi.org/10.1016/J.PSYNEUEN.2019.104413>
51. Obata, A., Kimura, T., Obata, Y., Shimoda, M., Kinoshita, T., Kohara, K., Okauchi, S., Hirukawa, H., Kamei, S., Nakanishi, S., Mune, T., Kaku, K., & Kaneto, H. (2019). Vascular endothelial PDPK1 plays a pivotal role in the maintenance of pancreatic beta cell mass and function in adult male mice. *Diabetologia*. <https://doi.org/10.1007/s00125-019-4878-1>
52. Park, J.-H., Seo, I., Shim, H.-M., & Cho, H. (2019). Melatonin ameliorates SGLT2 inhibitor-induced diabetic ketoacidosis by inhibiting lipolysis and hepatic ketogenesis in type 2 diabetic mice. *Journal of Pineal Research*, e12623. <https://doi.org/10.1111/jpi.12623>

53. Quesada-Candela, C., Tudurí, E., Marroquí, L., Alonso-Magdalena, P., Quesada, I., & Nadal, Á. (2019). Morphological and functional adaptations of pancreatic alpha-cells during late pregnancy in the mouse. *Metabolism: Clinical and Experimental*, 153963. <https://doi.org/10.1016/j.metabol.2019.153963>
54. Ren, H., Vieira-de-Abreu, A., Yan, S., Reilly, A. M., Chan, O., & Accili, D. (2019). Altered Central Nutrient Sensing in Male Mice Lacking Insulin Receptors in Glut4-expressing Neurons. *Endocrinology*. <https://doi.org/10.1210/en.2019-00341>
55. Shamshoum, H., Medak, K. D., Townsend, L. K., Ashworth, K. E., Bush, N. D., Hahn, M. K., Kemp, B. E., & Wright, D. C. (2019). AMPK β 1 activation suppresses antipsychotic-induced hyperglycemia in mice. *FASEB Journal : Official Publication of the Federation of American Societies for Experimental Biology*, fj201901820R. <https://doi.org/10.1096/fj.201901820R>
56. Soedling, H. (2019). The role of leptin receptors in the endocrine pancreas and nucleus tractus solitarius [Imperial College London]. <https://spiral.imperial.ac.uk/handle/10044/1/63933>
57. Svendsen, B., Capozzi, M. E., Nui, J., Hannou, S. A., Finan, B., Naylor, J., Ravn, P., D'Alessio, D. A., & Campbell, J. E. (2019). Pharmacological Antagonism of the Incretin System Protects Against Diet-induced Obesity. *Molecular Metabolism*. <https://doi.org/10.1016/J.MOLMET.2019.11.018>
58. Townsend, L. K., Medak, K. D., Knuth, C. M., Peppler, W. T., Charron, M. J., & Wright, D. C. (2019). Loss of glucagon signaling alters white adipose tissue browning. *FASEB Journal : Official Publication of the Federation of American Societies for Experimental Biology*, 33(4), 4824–4835. <https://doi.org/10.1096/fj.201802048RR>
59. Trefts, E., Hughey, C. C., Lantier, L., Lark, D. S., Boyd, K. L., Pozzi, A., Zent, R., & Wasserman, D. H. (2019). Energy Metabolism Couples Hepatocyte Integrin-linked Kinase to Liver Glucoregulation and the Postabsorptive Response of Mice in an Age-dependent Manner. *American Journal of Physiology. Endocrinology and Metabolism*, ajpendo.00496.2018. <https://doi.org/10.1152/ajpendo.00496.2018>
60. Varin, E. M., Mulvihill, E. E., Baggio, L. L., Koehler, J. A., Cao, X., Seeley, R. J., & Drucker, D. J. (2019). Distinct Neural Sites of GLP-1R Expression Mediate Physiological versus Pharmacological Control of Incretin Action. *Cell Reports*, 27(11), 3371-3384.e3. <https://doi.org/10.1016/J.CELREP.2019.05.055>
61. Vergari, E., Knudsen, J. G., Ramracheya, R., Salehi, A., Zhang, Q., Adam, J., Asterholm, I. W., Benrick, A., Briant, L. J. B., Chibalina, M. V., Gribble, F. M., Hamilton, A., Hastoy, B., Reimann, F., Rorsman, N. J. G., Spiliotis, I. I., Tarasov,

- A., Wu, Y., Ashcroft, F. M., & Rorsman, P. (2019). Insulin inhibits glucagon release by SGLT2-induced stimulation of somatostatin secretion. *Nature Communications*, 10(1), 139. <https://doi.org/10.1038/s41467-018-08193-8>
62. Wollam, J., Riopel, M., Xu, Y.-J., Johnson, A. M. F., Ofrecio, J. M., Ying, W., El Ouarrat, D., Chan, L. S., Han, A. W., Mahmood, N. A., Ryan, C. N., Lee, Y. S., Watrous, J. D., Chordia, M. D., Pan, D., Jain, M., & Olefsky, J. M. (2019). The Microbiota-Produced N-Formyl Peptide fMLF Promotes Obesity-Induced Glucose Intolerance. *Diabetes*, db181307. <https://doi.org/10.2337/db18-1307>
63. Xiafukaiti, G., Maimaiti, S., Ogata, K., Kudo, T., Shawki, H. H., & Oishi, H. (2019). MafB is important for pancreatic β -cell maintenance under a MafA deficient condition 2 3. *Molecular and Cellular Biology*. <https://doi.org/10.1128/MCB.00080-19>
64. Yagishita, Y., Urano, A., Chartoumpekis, D. V., Kensler, T. W., & Yamamoto, M. (2019). Nrf2 represses the onset of type 1 diabetes in non-obese diabetic mice. *The Journal of Endocrinology*, 403–416. <https://doi.org/10.1530/JOE-18-0355>
65. Zhang, K., Guo, X., Yan, H., Wu, Y., Pan, Q., Shen, J. Z., Li, X., Chen, Y., Li, L., Qi, Y., Xu, Z., Xie, W., Zhang, W., Threadgill, D., He, L., Villarreal, D., Sun, Y., White, M. F., Zheng, H., & Guo, S. (2019). Phosphorylation of Forkhead Protein FoxO1 at S253 Regulates Glucose Homeostasis in Mice. *Endocrinology*, 160(5), 1333–1347. <https://doi.org/10.1210/en.2018-00853>

2018

66. Adhikari, B., Khanal, P., & Nielsen, M. O. (2018). Impacts of pre- and postnatal nutrition on glucagon regulation and hepatic signalling in sheep. *Journal of Endocrinology*, 238(1), 1–12. <https://doi.org/10.1530/JOE-17-0705>
67. Basco, D., Zhang, Q., Salehi, A., Tarasov, A., Dolci, W., Herrera, P., Spiliotis, I., Berney, X., Tarussio, D., Rorsman, P., & Thorens, B. (2018). α -cell glucokinase suppresses glucose-regulated glucagon secretion. *Nature Communications*, 9(1), 546. <https://doi.org/10.1038/s41467-018-03034-0>
68. Cao, T., Zhang, X., Yang, D., Wang, Y. Q., Qiao, Z. D., Huang, J. M., & Zhang, P. (2018). Antioxidant effects of epigallocatechin-3-gallate on the aTC1-6 pancreatic alpha cell line. *Biochemical and Biophysical Research Communications*, 495(1), 693–699. <https://doi.org/10.1016/j.bbrc.2017.11.006>

69. Caron, A., Lemko, H. M. D., Castorena, C. M., Fujikawa, T., Lee, S., Lord, C. C., Ahmed, N., Lee, C. E., Holland, W. L., Liu, C., & Elmquist, J. K. (2018). POMC neurons expressing leptin receptors coordinate metabolic responses to fasting via suppression of leptin levels. *eLife*, 7, e33710. <https://doi.org/10.7554/eLife.33710>
70. Faber, C. L., Matsen, M. E., Velasco, K. R., Damian, V., Phan, B. A., Adam, D., Therattil, A., Schwartz, M. W., & Morton, G. J. (2018). Distinct neuronal projections from the hypothalamic ventromedial nucleus mediate glycemic and behavioral effects. *Diabetes*, 67(12), 2518–2529. <https://doi.org/10.2337/db18-0380>
71. Handgraaf, S., Dusaulcy, R., Visentin, F., Philippe, J., & Gosmain, Y. (2018). 17- β Estradiol regulates proglucagon-derived peptide secretion in mouse and human α - and L cells. *JCI Insight*, 3(7). <https://doi.org/10.1172/jci.insight.98569>
72. Hinke, S. A., Cieniewicz, A. M., Kirchner, T., D'Aquino, K., Nanjunda, R., Aligo, J., Perkinson, R., Cooper, P., Boayke, K., Chiu, M. L., Jarantow, S., Lacy, E. R., Liang, Y., Johnson, D. L., Whaley, J. M., Lingham, R. B., & Kihm, A. J. (2018). Unique pharmacology of a novel allosteric agonist/sensitizer insulin receptor monoclonal antibody. *Molecular Metabolism*, 10, 87–99. <https://doi.org/10.1016/j.molmet.2018.01.014>
73. Hughey, C. C., Trefts, E., Bracy, D. P., James, F. D., Donahue, E. P., & Wasserman, D. H. (2018). Glycine N -methyltransferase deletion in mice diverts carbon flux from gluconeogenesis to pathways that utilize excess methionine cycle intermediates. *Journal of Biological Chemistry*, 293(30), 11944–11954. <https://doi.org/10.1074/jbc.RA118.002568>
74. Hunter, R. W., Hughey, C. C., Lantier, L., Sundelin, E. I., Peggie, M., Zeqiraj, E., Sicheri, F., Jessen, N., Wasserman, D. H., & Sakamoto, K. (2018). Metformin reduces liver glucose production by inhibition of fructose-1-6-bisphosphatase. *Nature Medicine*, 24(9), 1395–1406. <https://doi.org/10.1038/s41591-018-0159-7>
75. Ikeda, Y., Kamagata, M., Hirao, M., Yasuda, S., Iwami, S., Sasaki, H., Tsubosaka, M., Hattori, Y., Todoh, A., Tamura, K., Shiga, K., Ohtsu, T., & Shibata, S. (2018). Glucagon and/or IGF-1 Production Regulates Resetting of the Liver Circadian Clock in Response to a Protein or Amino Acid-only Diet. *EBioMedicine*, 28, 210–224. <https://doi.org/10.1016/j.ebiom.2018.01.012>
76. Katoh, M. C., Jung, Y., Ugboma, C. M., Shimbo, M., Kuno, A., Basha, W. A., Kudo, T., Oishi, H., & Takahashi, S. (2018). MafB Is Critical for Glucagon Production and Secretion in Mouse Pancreatic α Cells In Vivo. *Molecular and Cellular Biology*, 38(8), MCB.00504-17. <https://doi.org/10.1128/MCB.00504-17>

77. Lee, Y.-S., & Jun, H.-S. (2018). Glucagon-Like Peptide-1 Receptor Agonist and Glucagon Increase Glucose-Stimulated Insulin Secretion in Beta Cells via Distinct Adenylyl Cyclases. *International Journal of Medical Sciences*, 15(6), 603–609. <https://doi.org/10.7150/ijms.24492>
78. Meek, T. H., Matsen, M. E., Faber, C. L., Samstag, C. L., Damian, V., Nguyen, H. T., Scarlett, J. M., Flak, J. N., Myers, M. G., & Morton, G. J. (2018). In Uncontrolled Diabetes, Hyperglucagonemia and Ketosis Result from Deficient Leptin Action in the Parabrachial Nucleus. *Endocrinology*, 159(4), 1585–1594. <https://doi.org/10.1210/en.2017-03199>
79. Nagata, M., Kimura, Y., Ishiwata, Y., Takahashi, H., & Yasuhara, M. (2018). Clozapine-Induced Acute Hyperglycemia Is Accompanied with Elevated Serum Concentrations of Adrenaline and Glucagon in Rats. *Biological & Pharmaceutical Bulletin*, 41(8), 1286–1290. <https://doi.org/10.1248/bpb.b18-00195>
80. Nakatsuru, Y., Murase-Mishiba, Y., Bessho-Tachibana, M., Terasaki, J., Hanafusa, T., & Imagawa, A. (2018). Taurine improves glucose tolerance in STZ-induced insulin-deficient diabetic mice. *Diabetology International*, 1–9. <https://doi.org/10.1007/s13340-018-0353-3>
81. Neumann, U. H., Kwon, M. M., Baker, R. K., & Kieffer, T. J. (2018). Leptin contributes to the beneficial effects of insulin treatment in streptozotocin-diabetic male mice. *American Journal of Physiology. Endocrinology and Metabolism*, ajpendo.00159.2018. <https://doi.org/10.1152/ajpendo.00159.2018>
82. Riopel, M., Seo, J. B., Bandyopadhyay, G. K., Li, P., Wollam, J., Chung, H., Jung, S. R., Murphy, A., Wilson, M., De Jong, R., Patel, S., Balakrishna, D., Bilakovics, J., Fanjul, A., Plonowski, A., Koh, D. S., Larson, C. J., Olefsky, J. M., & Lee, Y. S. (2018). Chronic fractalkine administration improves glucose tolerance and pancreatic endocrine function. *Journal of Clinical Investigation*, 128(4), 1458–1470. <https://doi.org/10.1172/JCI94330>
83. Rodriguez-Diaz, R., Molano, R. D., Weitz, J. R., Abdulreda, M. H., Berman, D. M., Leibiger, B., Leibiger, I. B., Kenyon, N. S., Ricordi, C., Pileggi, A., Caicedo, A., & Berggren, P.-O. (2018). Paracrine Interactions within the Pancreatic Islet Determine the Glycemic Set Point. *Cell Metabolism*, 27(3), 549–558.e4. <https://doi.org/10.1016/j.cmet.2018.01.015>
84. Sabatini, P. V., Speckmann, T., Nian, C., Glavas, M. M., Wong, C. K., Yoon, J. S., Kin, T., Shapiro, A. M. J., Gibson, W. T., Verchere, C. B., & Lynn, F. C. (2018). Neuronal PAS Domain Protein 4 Suppression of Oxygen Sensing Optimizes Metabolism during Excitation of Neuroendocrine Cells. *Cell Reports*, 22(1), 163–174. <https://doi.org/10.1016/J.CELREP.2017.12.033>

85. Scarlett, J. M., Muta, K., Brown, J. M., Rojas, J. M., Matsen, M. E., Acharya, N. K., Secher, A., Ingvorsen, C., Jorgensen, R., Høeg-Jensen, T., Stefanovski, D., Bergman, R. N., Piccinini, F., Kaiyala, K. J., Shiota, M., Morton, G. J., & Schwartz, M. W. (2018). Peripheral Mechanisms Mediating the Sustained Anti-Diabetic Action of FGFI in the Brain. *Diabetes*, db180498. <https://doi.org/10.2337/db18-0498>
86. Svingen, T., Ramhøj, L., Mandrup, K., Christiansen, S., Axelstad, M., Vinggaard, A. M., & Hass, U. (2018). Effects on metabolic parameters in young rats born with low birth weight after exposure to a mixture of pesticides. *Scientific Reports*, 8(1), 305. <https://doi.org/10.1038/s41598-017-18626-x>
87. Toda, K., Toda, A., Ono, M., & Saibara, T. (2018). Lack of 17 β -estradiol reduces sensitivity to insulin in the liver and muscle of male mice. *Heliyon*, 4(9), e00772. <https://doi.org/10.1016/J.HELIYON.2018.E00772>
88. Tura, A., Pacini, G., Yamada, Y., Seino, Y., & Ahren, B. (2018). Glucagon and insulin secretion, insulin clearance and fasting glucose in GIP receptor and GLP-1 receptor knockout mice. *American Journal of Physiology. Regulatory, Integrative and Comparative Physiology*, ajpregu.00288.2018. <https://doi.org/10.1152/ajpregu.00288.2018>
89. Untereiner, A., Abdo, S., Bhattacharjee, A., Gohil, H., Pourasgari, F., Ibeh, N., Lai, M., Batchuluun, B., Wong, A., Khuu, N., Liu, Y., Al Rijjal, D., Winegarden, N., Virtanen, C., Orser, B. A., Cabrera, O., Varga, G., Rocheleau, J., Dai, F. F., & Wheeler, M. B. (2018). GABA promotes β -cell proliferation, but does not overcome impaired glucose homeostasis associated with diet-induced obesity. *The FASEB Journal*, fj.201801397R. <https://doi.org/10.1096/fj.201801397R>
90. Villa-Pérez, P., Merino, B., Fernández-Díaz, C. M., Cidad, P., Lobatón, C. D., Moreno, A., Muturi, H. T., Ghadieh, H. E., Najjar, S. M., Leissring, M. A., Cázar-Castellano, I., & Perdomo, G. (2018). Liver-specific ablation of insulin-degrading enzyme causes hepatic insulin resistance and glucose intolerance, without affecting insulin clearance in mice. *Metabolism: Clinical and Experimental*, 88, 1–11. <https://doi.org/10.1016/j.metabol.2018.08.001>
91. Wewer Albrechtsen, N. J. (2018). Glucagon receptor signaling in metabolic diseases. *Peptides*, 100, 42–47. <https://doi.org/10.1016/j.peptides.2017.11.016>
92. Wong, C. K., Wade-Vallance, A. K., Luciani, D. S., Brindle, P. K., Lynn, F. C., & Gibson, W. T. (2018). The p300 and CBP transcriptional coactivators are required for β -cell and α -cell proliferation. *Diabetes*, 67(3), 412–422. <https://doi.org/10.2337/db17-0237>

93. Yagi, T., Kubota, E., Koyama, H., Tanaka, T., Kataoka, H., Imaeda, K., & Joh, T. (2018). Glucagon promotes colon cancer cell growth via regulating AMPK and MAPK pathways. *Oncotarget*, 9(12), 10650–10664.
<https://doi.org/10.18632/oncotarget.24367>
94. Yu, Q. (2018). Digital Comprehensive Summaries of Uppsala Dissertations from the Faculty of Medicine 1478 α -Cell signalling in glucose-regulated glucagon secretion. <http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-356478>

2017

95. Ackermann, A. M., Zhang, J., Heller, A., Briker, A., & Kaestner, K. H. (2017). High-fidelity Glucagon-CreER mouse line generated by CRISPR-Cas9 assisted gene targeting. *Molecular Metabolism*, 6(3), 236–244.
<https://doi.org/10.1016/j.molmet.2017.01.003>
96. Barbieux, C. (2017). Relations intercellulaires dans les îlots de Langerhans et leur rôle dans la sécrétion du glucagon. <https://archive-ouverte.unige.ch/unige:102713>
97. Castellani, L. N., Peppler, W. T., Sutton, C. D., Whitfield, J., Charron, M. J., & Wright, D. C. (2017). Glucagon receptor knockout mice are protected against acute olanzapine-induced hyperglycemia. *Psychoneuroendocrinology*, 82, 38–45. <https://doi.org/10.1016/j.psyneuen.2017.05.005>
98. Chakravarthy, H., Gu, X., Enge, M., Dai, X., Wang, Y., Damond, N., Downie, C., Liu, K., Wang, J., Xing, Y., Chera, S., Thorel, F., Quake, S., Oberholzer, J., MacDonald, P. E., Herrera, P. L., & Kim, S. K. (2017). Converting Adult Pancreatic Islet α Cells into β Cells by Targeting Both Dnmt1 and Arx. *Cell Metabolism*, 25(3), 622–634. <https://doi.org/10.1016/j.cmet.2017.01.009>
99. D'Souza, A. M. (2017). The effects of leptin knockout and insulin suppression on glucose metabolism in rodents [University of British Columbia].
<https://doi.org/10.14288/1.0354409>
100. Dunford, E. C., Mandel, E. R., Mohajeri, S., Haas, T. L., & Riddell, M. C. (2017). The metabolic effects of prazosin on skeletal muscle insulin resistance in glucocorticoid-treated male rats. *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*, 312(1), R62–R73.
101. Gao, H., Molinas, A. J. R., Miyata, K., Qiao, X., & Zsombok, A. (2017). Overactivity of Liver-Related Neurons in the Paraventricular Nucleus of the Hypothalamus: Electrophysiological Findings in db/db Mice. *The Journal of Neuroscience*, 37(46), 11140–11150. <https://doi.org/10.1523/JNEUROSCI.1706-17>

17.2017

102. Katsura, T., Kawamori, D., Aida, E., Matsuoka, T. A., & Shimomura, I. (2017). Glucotoxicity induces abnormal glucagon secretion through impaired insulin signaling in InRIG cells. *PLoS ONE*, 12(4), e0176271.
<https://doi.org/10.1371/journal.pone.0176271>
103. Kim, J., Okamoto, H., Huang, Z. J., Anguiano, G., Chen, S., Liu, Q., Cavino, K., Xin, Y., Na, E., Hamid, R., Lee, J., Zambrowicz, B., Unger, R., Murphy, A. J., Xu, Y., Yancopoulos, G. D., Li, W. hong, & Gromada, J. (2017). Amino Acid Transporter Slc38a5 Controls Glucagon Receptor Inhibition-Induced Pancreatic α Cell Hyperplasia in Mice. *Cell Metabolism*, 25(6), 1348-1361.e8.
<https://doi.org/10.1016/j.cmet.2017.05.006>
104. Komazaki, R., Katagiri, S., Takahashi, H., Maekawa, S., Shiba, T., Takeuchi, Y., Kitajima, Y., Ohtsu, A., Udagawa, S., Sasaki, N., Watanabe, K., Sato, N., Miyasaka, N., Eguchi, Y., Anzai, K., & Izumi, Y. (2017). Periodontal pathogenic bacteria, *Aggregatibacter actinomycetemcomitans* affect non-alcoholic fatty liver disease by altering gut microbiota and glucose metabolism. *Scientific Reports*, 7(1), 13950. <https://doi.org/10.1038/s41598-017-14260-9>
105. Liu, H., Javaheri, A., Godar, R. J., Murphy, J., Ma, X., Rohatgi, N., Mahadevan, J., Hyrc, K., Saftig, P., Marshall, C., McDaniel, M. L., Remedi, M. S., Razani, B., Urano, F., & Diwan, A. (2017, August 30). Intermittent fasting preserves beta-cell mass in obesity-induced diabetes via the autophagy-lysosome pathway. *Autophagy*, 1–17. <https://doi.org/10.1080/15548627.2017.1368596>
106. Möllmann, J., Kahles, F., Lebherz, C., Kappel, B., Baeck, C., Tacke, F., Werner, C., Federici, M., Marx, N., & Lehrke, M. (2017). The PDE4 inhibitor roflumilast reduces weight gain by increasing energy expenditure and leads to improved glucose metabolism. *Diabetes, Obesity and Metabolism*, 19(4), 496–508. <https://doi.org/10.1111/dom.12839>
107. Neumann, U. H., Ho, J. S. S., Chen, S., Tam, Y. Y. C., Cullis, P. R., & Kieffer, T. J. (2017). Lipid nanoparticle delivery of glucagon receptor siRNA improves glucose homeostasis in mouse models of diabetes. *Molecular Metabolism*, 6(10), 1161–1172. <https://doi.org/10.1016/j.molmet.2017.06.012>
108. Panaro, B. L., Flock, G. B., Campbell, J. E., Beaudry, J. L., Cao, X., & Drucker, D. J. (2017). β -cell inactivation of Gpr119 unmasks incretin dependence of GPR119-mediated glucoregulation. *Diabetes*, 66(6), 1626–1635.
<https://doi.org/10.2337/db17-0017>
109. Petrenko, V., Gosmain, Y., & Dibner, C. (2017). High-resolution recording of the circadian oscillator in primary mouse α - and β -cell culture. *Frontiers in*

Endocrinology, 8(APR), 68. <https://doi.org/10.3389/fendo.2017.00068>

110. Ramírez, S., Gómez-Valadés, A. G., Schneeberger, M., Varela, L., Haddad-Tóvolli, R., Altirriba, J., Noguera, E., Drougard, A., Flores-Martínez, Á., Imberón, M., Chivite, I., Pozo, M., Vidal-Itriago, A., García, A., Cervantes, S., Gasa, R., Nogueiras, R., Gama-Pérez, P., García-Roves, P. M., ... Claret, M. (2017). Mitochondrial Dynamics Mediated by Mitofusin 1 Is Required for POMC Neuron Glucose-Sensing and Insulin Release Control. *Cell Metabolism*, 25(6), 1390-1399.e6. <https://doi.org/10.1016/j.cmet.2017.05.010>
111. Ryan, P. M., Patterson, E., Kent, R. M., Stack, H., O'Connor, P. M., Murphy, K., Peterson, V. L., Mandal, R., Wishart, D. S., Dinan, T. G., Cryan, J. F., Seeley, R. J., Stanton, C., & Ross, R. P. (2017). Recombinant Incretin-Secreting Microbe Improves Metabolic Dysfunction in High-Fat Diet Fed Rodents. *Scientific Reports*, 7(1), 13523. <https://doi.org/10.1038/s41598-017-14010-x>
112. Traub, S., Meier, D. T., Schulze, F., Dror, E., Nordmann, T. M., Goetz, N., Koch, N., Dalmas, E., Stawiski, M., Makshana, V., Thorel, F., Herrera, P. L., Böni-Schnetzler, M., & Donath, M. Y. (2017). Pancreatic α Cell-Derived Glucagon-Related Peptides Are Required for β Cell Adaptation and Glucose Homeostasis. *Cell Reports*, 18(13), 3192–3203. <https://doi.org/10.1016/j.celrep.2017.03.005>

2016

113. Abels, M., Riva, M., Bennet, H., Ahlvist, E., Dyachok, O., Nagaraj, V., Shcherbina, L., Fred, R. G., Poon, W., Sörhede-Winzell, M., Fadista, J., Lindqvist, A., Kask, L., Sathanoori, R., Dekker-Nitert, M., Kuhar, M. J., Ahrén, B., Wollheim, C. B., Hansson, O., ... Wierup, N. (2016). CART is overexpressed in human type 2 diabetic islets and inhibits glucagon secretion and increases insulin secretion. *Diabetologia*, 59(9), 1928–1937. <https://doi.org/10.1007/s00125-016-4020-6>
114. Albury-Warren, T. M., Pandey, V., Spinelli, L. P., Masternak, M., & Altomare, D. A. (2016). Prediabetes linked to excess glucagon in transgenic mice with pancreatic active AKT1. *J Endocrinol*, 228(1), 46–59. <https://doi.org/10.1530/JOE-15-0288>
115. Atageldiyeva, K., Fujita, Y., Yanagimachi, T., Mizumoto, K., Takeda, Y., Honjo, J., Takiyama, Y., Abiko, A., Makino, Y., & Haneda, M. (2016). Sodium-glucose cotransporter 2 inhibitor and a low carbohydrate diet affect gluconeogenesis and glycogen content differently in the kidney and the liver of non-diabetic mice. *PLoS ONE*, 11(6), e0157672. <https://doi.org/10.1371/journal.pone.0157672>

116. Deisl, C., Anderegg, M., Albano, G., Lüscher, B. P., Cerny, D., Soria, R., Bouillet, E., Rimoldi, S., Scherrer, U., Fuster, D. G. D., Donowitz, M., Tse, C. M., Fuster, D. G. D., Fuster, D. G. D., Alexander, R., Battaglino, R., Pham, L., Morse, L., Vokes, M., ... Stashenko, P. (2016). Loss of Sodium/Hydrogen Exchanger NHA2 Exacerbates Obesity- and Aging-Induced Glucose Intolerance in Mice. *PLOS ONE*, 11(9), e0163568. <https://doi.org/10.1371/journal.pone.0163568>
117. Dusaulcy, R., Handgraaf, S., Skarupelova, S., Visentin, F., Vesin, C., Heddad-Masson, M., Reimann, F., Gribble, F., Philippe, J., & Gosmain, Y. (2016). Functional and molecular adaptations of enteroendocrine L-cells in male obese mice are associated with preservation of pancreatic α -cell function and prevention of hyperglycemia. *Endocrinology*, 157(10), 3832–3843. <https://doi.org/10.1210/en.2016-1433>
118. Galbreath, J. (2016). Exploratory Study of Climate Change Innovations in Wine Regions in Australia. *Regional Studies*, 50(11), 1903–1918. <https://doi.org/10.1007/s10565-017-9387-8>
119. Ganic, E., Singh, T., Luan, C., Fadista, J., Johansson, J. K., Cyphert, H. A., Bennet, H., Storm, P., Prost, G., Ahlenius, H., Renström, E., Stein, R., Groop, L., Fex, M., & Artner, I. (2016). MafA-Controlled Nicotinic Receptor Expression Is Essential for Insulin Secretion and Is Impaired in Patients with Type 2 Diabetes. *Cell Reports*, 14(8), 1991–2002. <https://doi.org/10.1016/j.celrep.2016.02.002>
120. Hassing, H. A., Engelstoft, M. S., Sichlau, R. M., Madsen, A. N., Rehfeld, J. F., Pedersen, J., Jones, R. M., Holst, J. J., Schwartz, T. W., Rosenkilde, M. M., & Hansen, H. S. (2016). Oral 2-oleyl glyceryl ether improves glucose tolerance in mice through the GPR119 receptor. *BioFactors*, 42(6), 665–673. <https://doi.org/10.1002/biof.1303>
121. Hoelmkjaer, K. M., Wewer Albrechtsen, N. J., Holst, J. J., Cronin, A. M., Nielsen, D. H., Mandrup-Poulsen, T., & Bjornvad, C. R. (2016). A Placebo-Controlled Study on the Effects of the Glucagon-Like Peptide-1 Mimetic, Exenatide, on Insulin Secretion, Body Composition and Adipokines in Obese, Client-Owned Cats. *PloS One*, 11(5), e0154727. <https://doi.org/10.1371/journal.pone.0154727>
122. Malmgren, S., & Ahrén, B. (2016). Evidence for time dependent variation of glucagon secretion in mice. *Peptides*, 76, 102–107. <https://doi.org/10.1016/j.peptides.2016.01.008>

123. Manell, E., Hedenqvist, P., Svensson, A., & Jensen-Waern, M. (2016). Establishment of a Refined Oral Glucose Tolerance Test in Pigs, and Assessment of Insulin, Glucagon and Glucagon-Like Peptide-1 Responses. *PLoS One*, 11(2), e0148896. <https://doi.org/10.1371/journal.pone.0148896>
124. Neumann, U. H., Denroche, H. C., Mojibian, M., Covey, S. D., & Kieffer, T. J. (2016). Insulin Knockout Mice Have Extended Survival but Volatile Blood Glucose Levels on Leptin Therapy. *Endocrinology*, 157(3), 1007–1012. <https://doi.org/10.1210/en.2015-1890>
125. Neumann, U. H., Ho, J. S. S., Mojibian, M., Covey, S. D., Charron, M. J., & Kieffer, T. J. (2016). Glucagon receptor gene deletion in insulin knockout mice modestly reduces blood glucose and ketones but does not promote survival. In *Molecular Metabolism* (Vol. 5, Issue 8). <https://doi.org/10.1016/j.molmet.2016.05.014>
126. Ren, Z., Yang, F., Wang, X., Wang, Y., Xu, M., Frank, J. A., Ke, Z., Zhang, Z., Shi, X., & Luo, J. (2016). Chronic plus binge ethanol exposure causes more severe pancreatic injury and inflammation. *Toxicology and Applied Pharmacology*, 308, 11–19. <https://doi.org/10.1016/j.taap.2016.08.012>
127. Tuduri, E., Beiroa, D., Stegbauer, J., Fernández, J., López-Pérez, M., Diéguez, C., & Nogueiras, R. (2016). Acute stimulation of brain mu opioid receptors inhibits glucose-stimulated insulin secretion via sympathetic innervation. *Neuropharmacology*, 110, 322–332. <https://doi.org/10.1016/j.neuropharm.2016.08.005>
128. Wewer Albrechtsen, N. J., Kuhre, R. E., Windelov, J. A., Ørgaard, A., Deacon, C. F., Kissow, H., Hartmann, B., Holst, J. J., Windeløv, J. A., Ørgaard, A., Deacon, C. F., Kissow, H., Hartmann, B., & Holst, J. J. (2016). Dynamics of glucagon secretion in mice and rats revealed using a validated sandwich ELISA for small sample volumes. *American Journal of Physiology. Endocrinology and Metabolism*, 311(2), ajpendo.00119.2016. <https://doi.org/10.1152/ajpendo.00119.2016>
129. Wewer Albrechtsen, N. J., Kuhre, R. E., Windelov, J. A., Ørgaard, A., Deacon, C. F., Kissow, H., Hartmann, B., & Holst, J. J. (2016). Dynamics of glucagon secretion in mice and rats revealed using a validated sandwich ELISA for small sample volumes. *American Journal of Physiology. Endocrinology and Metabolism*, ajpendo.00119.2016. <https://doi.org/10.1152/ajpendo.00119.2016>
130. Wewer Albrechtsen, N. J., Kuhre, R. E., Windeløv, J. A., Ørgaard, A., Deacon, C. F., Kissow, H., Hartmann, B., & Holst, J. J. (2016). Dynamics of glucagon secretion in mice and rats revealed using a validated sandwich ELISA for small sample volumes. *American Journal of Physiology - Endocrinology And Metabolism*, 311(2), E302–E309. <https://doi.org/10.1152/ajpendo.00119.2016>

2015

131. Andersen, B., Omar, B. A., Rakipovski, G., Raun, K., & Ahren, B. (2015). Fibroblast growth factor 21 prevents glycemic deterioration in insulin deficient mouse models of diabetes. *Eur J Pharmacol*, 764, 189–194. <https://doi.org/10.1016/j.ejphar.2015.07.003>
132. Hauge-Evans, A. C., Bowe, J., Franklin, Z. J., Hassan, Z., & Jones, P. M. (2015). Inhibitory effect of somatostatin on insulin secretion is not mediated via the CNS. *J Endocrinol*, 225(1), 19–26. <https://doi.org/10.1530/JOE-14-0709>
133. Li, J., Yu, Q., Ahooghalandari, P., Gribble, F. M., Reimann, F., Tengholm, A., & Gylfe, E. (2015). Submembrane ATP and Ca²⁺ kinetics in α -cells: Unexpected signaling for glucagon secretion. *FASEB Journal*, 29(8), 3379–3388. <https://doi.org/10.1096/fj.14-265918>
134. Lindfors, C., Katz, A., Selander, L., Johansen, J. E., Marconi, G., Schalling, M., Hökfelt, T., Berggren, P.-O., Zaitsev, S., & Nilsson, I. A. K. (2015). Glucose intolerance and pancreatic β -cell dysfunction in the anorectic anx / anx mouse. *American Journal of Physiology-Endocrinology and Metabolism*, 309(4), E418–E427. <https://doi.org/10.1152/ajpendo.00081.2015>
135. Oropeza, D., Jouvet, N., Budry, L., Campbell, J. E., Bouyakdan, K., Lacombe, J., Perron, G., Bergeron, V., Neuman, J. C., Brar, H. K., Fenske, R. J., Meunier, C., Sczalecki, S., Kimple, M. E., Drucker, D. J., Scretton, R. A., Poitout, V., Ferron, M., Alquier, T., & Estall, J. L. (2015). Phenotypic Characterization of MIP-CreERT1Lphi Mice With Transgene-Driven Islet Expression of Human Growth Hormone. *Diabetes*, 64(11), 3798–3807. <https://doi.org/10.2337/db15-0272>
136. Rojas, J. M., Matsen, M. E., Mundinger, T. O., Morton, G. J., Stefanovski, D., Bergman, R. N., Kaiyala, K. J., Taborsky Jr., G. J., & Schwartz, M. W. (2015). Glucose intolerance induced by blockade of central FGF receptors is linked to an acute stress response. *Mol Metab*, 4(8), 561–568. <https://doi.org/10.1016/j.molmet.2015.05.005>
137. Rudinsky, A. J., Adin, C. A., Borin-Crivellenti, S., Rajala-Schultz, P., Hall, M. J., & Gilor, C. (2015). Pharmacology of the glucagon-like peptide-1 analog exenatide extended-release in healthy cats. *Domest Anim Endocrinol*, 51, 78–85. <https://doi.org/10.1016/j.domeviend.2014.12.003>
138. Soty, M., Penhoat, A., Amigo-Correig, M., Vinera, J., Sardella, A., Vullin-Bouilloux, F., Zitoun, C., Houberdon, I., & Mithieux, G. (2015). A gut-brain neural circuit controlled by intestinal gluconeogenesis is crucial in metabolic health. *Mol Metab*, 4(2), 106–117. <https://doi.org/10.1016/j.molmet.2014.12.009>

139. Steenberg, V. R., Jensen, S. M., Pedersen, J., Madsen, A. N., Windelov, J. A., Holst, B., Quistorff, B., Poulsen, S. S., & Holst, J. J. (2015). Acute disruption of glucagon secretion or action does not improve glucose tolerance in an insulin-deficient mouse model of diabetes. *Diabetologia*, 59(2), 363–370. <https://doi.org/10.1007/s00125-015-3794-2>

2014

140. Kwon, E., Joung, H., Liu, S., ... S. C.-N., & 2020, U. Optogenetic stimulation of the liver-projecting melanocortinergic pathway promotes hepatic glucose production. *Nature*. <https://www.nature.com/articles/s41467-020-20160-w>
141. Kyriazis, G. A., Smith, K. R., Tyrberg, B., Hussain, T., & Pratley, R. E. (2014). Sweet taste receptors regulate basal insulin secretion and contribute to compensatory insulin hypersecretion during the development of diabetes in male mice. *Endocrinology*, 155(6), 2112–2121. <https://doi.org/10.1210/en.2013-2015>
142. Li, W., Kirchner, T., Ho, G., Bonilla, F., D'Aquino, K., Littrell, J., Zhang, R., Jian, W., Qiu, X., Zheng, S., Wong, P., Leonard, J. N., & Camacho, R. C. (n.d.). Amino Acids Are Sensitive Glucagon Receptor Specific Biomarkers for Glucagon-Like Peptide 1 Receptor/Glucagon Receptor Dual Agonists. *Diabetes, Obesity and Metabolism*. <https://doi.org/10.1111/DOM.14173>
143. Yokota, S. I., Nakamura, K., Ando, M., Kamei, H., Hakuno, F., Takahashi, S. I., & Shibata, S. (2014). Acetylcholinesterase (AChE) inhibition aggravates fasting-induced triglyceride accumulation in the mouse liver. *FEBS Open Bio*, 4, 905–914. <https://doi.org/10.1016/j.fob.2014.10.009>



mercodia.com

Mercodia is a registered trademark of Mercodia AB.
© Mercodia AB 2023. Mercodia AB, Sylveniusgatan 8A, SE 754 50
Uppsala, Sweden.

32-5022 v2 05/2024