



## List of Publications 2021

- Addala, A., M. Auzanneau, K. Miller, W. Maier, N. Foster, T. Kapellen, A. Walker, J. Rosenbauer, D.M. Maahs, and R.W. Holl. 2021. A Decade of Disparities in Diabetes Technology Use and HbA(1c) in Pediatric Type 1 Diabetes: A Transatlantic Comparison. *Diabetes Care.* 44:133-140.
- Ahluwalia, T.S., B.P. Prins, M. Abdollahi, N.J. Armstrong, S. Aslibekyan, L. Bain, B. Jefferis, J. Baumert, M. Beekman, Y. Ben-Shlomo, J.C. Bis, B.D. Mitchell, E. de Geus, G.E. Delgado, D. Marek, J. Eriksson, E. Kajantie, S. Kanoni, J.P. Kemp, C. Lu, R.E. Marioni, S. McLachlan, Y. Milaneschi, I.M. Nolte, A.M. Petrelis, E. Porcu, M. Sabater-Lleal, E. Naderi, I. Seppälä, T. Shah, G. Singhal, M. Standl, A. Teumer, A. Thalamuthu, E. Thiering, S. Trompet, C.M. Ballantyne, E.J. Benjamin, J.P. Casas, C. Toben, G. Dedoussis, J. Deelen, P. Durda, J. Engmann, M.F. Feitosa, H. Grallert, A. Hammarstedt, S.E. Harris, G. Homuth, J.J. Hottenga, S. Jalkanen, Y. Jamshidi, M.C. Jawahar, T. Jess, M. Kivimaki, M.E. Kleber, J. Lahti, Y. Liu, P. Marques-Vidal, D. Mellström, S.P. Mooijaart, M. Müller-Nurasyid, B. Penninx, J.A. Revez, P. Rossing, K. Räikkönen, N. Sattar, H. Scharnagl, B. Sennblad, A. Silveira, B.S. Pourcain, N.J. Timpson, J. Trollor, J. van Dongen, D. Van Heemst, S. Visvikis-Siest, P. Vollenweider, U. Völker, M. Waldenberger, G. Willemse, D. Zabaneh, R.W. Morris, D.K. Arnett, B.T. Baune, D.I. Boomsma, Y.C. Chang, I.J. Deary, P. Deloukas, J.G. Eriksson, D.M. Evans, M.A. Ferreira, T. Gaunt, V. Gudnason, A. Hamsten, J. Heinrich, A. Hingorani, S.E. Humphries, J.W. Jukema, W. Koenig, M. Kumari, et al. 2021. Genome-wide association study of circulating interleukin 6 levels identifies novel loci. *Hum Mol Genet.* 30:393-409.
- Ahuja, V., P. Aronen, T.A. Pramodkumar, H. Looker, A. Chetrit, A.H. Bloigu, A. Juutilainen, C. Bianchi, L. La Sala, R.M. Anjana, R. Pradeepa, U. Venkatesan, S. Jebarani, V. Baskar, T.V. Fiorentino, P. Tempel, R.A. DeFronzo, A. Ceriello, S. Del Prato, M. Abdul-Ghani, S. Keinänen-Kiukaanniemi, R. Dankner, P.H. Bennett, W.C. Knowler, P. Schwarz, G. Sesti, R. Oka, V. Mohan, L. Groop, J. Tuomilehto, S. Ripatti, M. Bergman, and T. Tuomi. 2021. Accuracy of 1-Hour Plasma Glucose During the Oral Glucose Tolerance Test in Diagnosis of Type 2 Diabetes in Adults: A Meta-analysis. *Diabetes Care.* 44:1062-1069.
- Aliluev, A., S. Tritschler, M. Sterr, L. Oppenländer, J. Hinterdobler, T. Greisle, M. Irmler, J. Beckers, N. Sun, A. Walch, K. Stemmer, A. Kindt, J. Krumsiek, M.H. Tschöp, M.D. Luecken, F.J. Theis, H. Lickert, and A. Böttcher. 2021. Diet-induced alteration of intestinal stem cell function underlies obesity and prediabetes in mice. *Nat Metab.* 3:1202-1216.
- Alonso, G.T., K. Fink, C. Maffeis, S. Jannet, K.V. Sari, D. Elizabeth, J.C. Przemysława, P. Yash, and S. Carmel. 2021. Variation in nutrition education practices in SWEET pediatric diabetes centers—an international comparison. *Pediatr Diabetes.* 22:215-220.
- Altamura, S., K. Müdder, A. Schlotterer, T. Fleming, E. Heidenreich, R. Qiu, H.P. Hammes, P. Nawroth, and M.U. Muckenthaler. 2021. Iron aggravates hepatic insulin resistance in the absence of inflammation in a novel db/db mouse model with iron overload. *Mol Metab.* 51:101235.
- Ansarullah, C. Jain, F.F. Far, S. Homberg, K. Wißmiller, F.G. von Hahn, A. Raducanu, S. Schirge, M. Sterr, S. Bilekova, J. Siehler, J. Wiener, L. Oppenländer, A. Morshedi, A. Bastidas-Ponce, G. Collden, M. Irmler, J. Beckers, A. Feuchtinger, M. Grzybek, C. Ahlbrecht, R. Feederle, O. Plettenburg, T.D. Müller, M. Meier, M.H. Tschöp, Ü. Coskun, and H. Lickert. 2021. Inceptor counteracts insulin signalling in β-cells to control glycaemia. *Nature.* 590:326-331.
- Apaoalaza, P.S., P.I. Petropoulou, and T. Rodriguez-Calvo. 2021. Whole-Slide Image Analysis of Human Pancreas Samples to Elucidate the Immunopathogenesis of Type 1 Diabetes Using the QuPath Software. *Front Mol Biosci.* 8:689799.
- Apostolopoulou, M., L. Mastrototaro, S. Hartwig, D. Pesta, K. Straßburger, E. de Filippo, T. Jelenik, Y. Karusheva, S. Gancheva, D. Markgraf, C. Herder, K.S. Nair, A.S. Reichert, S. Lehr, K. Müssig, H. Al-Hasani, J. Szendroedi, and M. Roden. 2021. Metabolic responsiveness to training depends on insulin sensitivity and protein content of exosomes in insulin-resistant males. *Sci Adv.* 7:eabi9551.
- Ardila Riveros, J.C., A.K. Blöchinger, S. Atwell, M. Moussus, N. Compera, O. Rajabnia, T. Georgiev, H. Lickert, and M. Meier. 2021. Automated optimization of endoderm differentiation on chip. *Lab Chip.* 21:4685-4695.
- Arduino, D.M., V. Goh, D. Mokranjac, and F. Perocchi. 2021. Drug Discovery Assay to Identify Modulators of the Mitochondrial Ca(2+) Uniporter. *Methods Mol Biol.* 2277:69-89.
- Assfalg, R., J. Knoop, K.L. Hoffman, M. Pfirrmann, J.M. Zapadiel-Gonzalo, A. Hofelich, A. Eugster, M. Weigelt, C. Matzke, J. Reinhardt, Y. Fuchs, M. Bunk, A. Weiss, M. Hippich, K. Halfter, S.M. Hauck, J. Hasford, J.F. Petrosino, P. Achenbach, E. Bonifacio, and A.G. Ziegler. 2021. Oral insulin immunotherapy in children at risk for type 1 diabetes in a randomised controlled trial. *Diabetologia.* 64:1079-1092.
- Atasoy, S., H. Johar, C. Herder, W. Rathmann, W. Koenig, M. Roden, A. Peters, J. Kruse, and K.H. Ladwig. 2021. Generalized anxiety disorder symptoms and type 2 diabetes onset: Findings from the Prospective Cooperative Health Research in the Region of Augsburg F4 and FF4 studies. *J Psychosom Res.* 145:110480.



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- Auffenberg, E., U.B. Hedrich, R. Barbieri, D. Miely, B. Groschup, T.V. Wuttke, N. Vogel, P. Lührs, I. Zanardi, S. Bertelli, N. Spielmann, V. Gailus-Durner, H. Fuchs, M. Hrabě de Angelis, M. Pusch, M. Dichgans, H. Lerche, P. Gavazzo, N. Plesnila, and T. Freilinger. 2021. Hyperexcitable interneurons trigger cortical spreading depression in an Scn1a migraine model. *J Clin Invest.* 131.
- Auzanneau, M., A. Fritsche, A. Icks, E. Siegel, R. Kilian, W. Karges, S. Lanzinger, and R.W. Holl. 2021a. Diabetes in the Hospital—A Nationwide Analysis of all Hospitalized Cases in Germany With and Without Diabetes, 2015–2017. *Dtsch Arztebl Int.* 118:407-412.
- Auzanneau, M., B. Karges, A. Neu, T. Kapellen, S.A. Wudy, C. Grasemann, G. Krauch, E.M. Gerstl, G. Däublin, and R.W. Holl. 2021b. Use of insulin pump therapy is associated with reduced hospital-days in the long-term: a real-world study of 48,756 pediatric patients with type 1 diabetes. *Eur J Pediatr.* 180:597-606.
- Auzanneau, M., J. Rosenbauer, W. Maier, S. von Sengbusch, J. Hamann, T. Kapellen, G. Freckmann, S. Schmidt, E. Lilenthal, and R.W. Holl. 2021c. Heterogeneity of Access to Diabetes Technology Depending on Area Deprivation and Demographics Between 2016 and 2019 in Germany. *J Diabetes Sci Technol.* 15:1059-1068.
- Baechle, C., A. Stahl-Pehe, K. Castillo, S. Selinski, R.W. Holl, and J. Rosenbauer. 2021. Association of family structure with type 1 diabetes management and outcomes in adolescents: A population-based cross-sectional survey. *Pediatr Diabetes.* 22:482-494.
- Barber, T.M., P. Hanson, S. Kabisch, A.F.H. Pfeiffer, and M.O. Weickert. 2021. The Low-Carbohydrate Diet: Short-Term Metabolic Efficacy Versus Longer-Term Limitations. *Nutrients.* 13.
- Bardugo, A., C.D. Bendor, I. Zucker, M. Lutski, T. Cukierman-Yaffe, E. Derazne, O. Mosenzon, D. Tzur, Z. Beer, O. Pinhas-Hamiel, M. Ben-Ami, B. Fishman, D. Ben-Ami Shor, I. Raz, A. Afek, H.C. Gerstein, H.U. Häring, A. Tirosh, Z. Levi, and G. Twig. 2021. Adolescent Nonalcoholic Fatty Liver Disease and Type 2 Diabetes in Young Adulthood. *J Clin Endocrinol Metab.* 106:e34-e44.
- Barroso Oquendo, M., D. Siegel-Axel, F. Gerst, E. Lorza-Gil, A. Moller, R. Wagner, J. Machann, F. Fend, A. Königsrainer, M. Heni, H.U. Häring, S. Ullrich, and A.L. Birkenfeld. 2021. Pancreatic fat cells of humans with type 2 diabetes display reduced adipogenic and lipolytic activity. *Am J Physiol Cell Physiol.* 320:C1000-C1012.
- Bauer, A., A. Zierer, C. Gieger, M. Büyüközkan, M. Müller-Nurasyid, H. Grallert, C. Meisinger, K. Strauch, H. Prokisch, M. Roden, A. Peters, J. Krumsiek, C. Herder, W. Koenig, B. Thorand, and C. Huth. 2021a. Comparison of genetic risk prediction models to improve prediction of coronary heart disease in two large cohorts of the MONICA/KORA study. *Genet Epidemiol.* 45:633-650.
- Bauer, I., J. Hartkopf, A.K. Wikström, N.K. Schaal, H. Preissl, B. Derntl, and F. Schleger. 2021b. Acute relaxation during pregnancy leads to a reduction in maternal electrodermal activity and self-reported stress levels. *BMC Pregnancy Childbirth.* 21:628.
- Baumann, A., A. Hernández-Arriaga, A. Brandt, V. Sánchez, A. Nier, F. Jung, R. Kehm, A. Höhn, T. Grune, C. Frahm, O.W. Witte, A. Camarinha-Silva, and I. Bergheim. 2021a. Microbiota profiling in aging-associated inflammation and liver degeneration. *Int J Med Microbiol.* 311:151500.
- Baumann, P., S.C. Schriever, S. Kullmann, A. Zimprich, A. Peter, V. Gailus-Durner, H. Fuchs, M. Hrabe de Angelis, W. Wurst, M.H. Tschoöp, M. Heni, S.M. Höltner, and P.T. Pfluger. 2021b. Diabetes type 2 risk gene *Dusp8* is associated with altered sucrose reward behavior in mice and humans. *Brain Behav.* 11:e01928.
- Bechmann, N., I. Berger, S.R. Bornstein, and C. Steenblock. 2021a. Adrenal medulla development and medullary-cortical interactions. *Mol Cell Endocrinol.* 528:111258.
- Bechmann, N., D. Watts, C. Steenblock, P.W. Wallace, A. Schürmann, S.R. Bornstein, B. Wielockx, G. Eisenhofer, and M. Peitzsch. 2021b. Adrenal Hormone Interactions and Metabolism: A Single Sample Multi-Omics Approach. *Horm Metab Res.* 53:326-334.
- Becker, M., M. Strengert, D. Junker, P.D. Kaiser, T. Kerrinnes, B. Traenkle, H. Dinter, J. Häring, S. Ghozzi, A. Zeck, F. Weise, A. Peter, S. Hörber, S. Fink, F. Ruoff, A. Dulovic, T. Bakchoul, A. Baillot, S. Lohse, M. Cornberg, T. Illig, J. Gottlieb, S. Smola, A. Karch, K. Berger, H.G. Rammensee, K. Schenke-Layland, A. Nelde, M. Märklin, J.S. Heitmann, J.S. Walz, M. Templin, T.O. Joos, U. Rothbauer, G. Krause, and N. Schneiderhan-Marra. 2021. Exploring beyond clinical routine SARS-CoV-2 serology using MultiCoV-Ab to evaluate endemic coronavirus cross-reactivity. *Nat Commun.* 12:1152.
- Beckert, V., S. Rassmann, A.H. Kayvanjoo, C. Klausen, L. Bonaguro, D.S. Botermann, M. Krause, K. Moreth, N. Spielmann, P. da Silva-Buttkus, H. Fuchs, V. Gailus-Durner, M.H. de Angelis, K. Händler, T. Ulas, A.C. Aschenbrenner, E. Mass, and D. Wachten. 2021. Creld1 regulates myocardial development and function. *J Mol Cell Cardiol.* 156:45-56.



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- Bendig, E., N. Bauereiss, A. Schmitt, P. Albus, and H. Baumeister. 2021. ACTOnDiabetes-a guided psychological internet intervention based on Acceptance and Commitment Therapy (ACT) for adults living with type 1 or 2 diabetes: results of a randomised controlled feasibility trial. *BMJ Open*. 11:e049238.
- Biagosch, C.A., S. Vidali, M. Faerberboeck, S.V. Hensler, L. Becker, O.V. Amarie, A. Aguilar-Pimentel, L. Garrett, T. Klein-Rodewald, B. Rathkolb, E. Zanuttigh, J. Calzada-Wack, P. da Silva-Buttkus, J. Rozman, I. Treise, H. Fuchs, V. Gailus-Durner, M.H. de Angelis, D. Janik, W. Wurst, J.A. Mayr, T. Klopstock, T. Meitinger, H. Prokisch, and A. Iuso. 2021. A comprehensive phenotypic characterization of a whole-body *Wdr45* knock-out mouse. *Mamm Genome*. 32:332-349.
- Biester, T., J.M. Grimsmann, B. Heidtmann, B. Rami-Merhar, U. Ermer, J. Wolf, M. Freff, B. Karges, D. Agena, P. Bramlage, T. Danne, and R.W. Holl. 2021a. Intermittently Scanned Glucose Values for Continuous Monitoring: Cross-Sectional Analysis of Glycemic Control and Hypoglycemia in 1809 Children and Adolescents with Type 1 Diabetes. *Diabetes Technol Ther*. 23:160-167.
- Biester, T., A. Schwandt, B. Heidtmann, B. Rami-Merhar, T. Haak, A. Festa, S. Kostow, A. Müller, K. Mönkemöller, and T. Danne. 2021b. Declining Frequency of Acute Complications Associated with Tubeless Insulin Pump Use: Data from 2,911 Patients in the German/Austrian Diabetes Patienten Verlaufsdocumentation Registry. *Diabetes Technol Ther*. 23:527-536.
- Biglari, N., I. Gaziano, J. Schumacher, J. Radermacher, L. Paeger, P. Klemm, W. Chen, S. Corneliusen, C.M. Wunderlich, M. Sue, S. Vollmar, T. Klöckener, T. Sotelo-Hitschfeld, A. Abbasloo, F. Edenhofer, F. Reimann, F.M. Gribble, H. Fenselau, P. Kloppenburg, F.T. Wunderlich, and J.C. Brüning. 2021. Functionally distinct POMC-expressing neuron subpopulations in hypothalamus revealed by intersectional targeting. *Nat Neurosci*. 24:913-929.
- Bilekova, S., S. Sachs, and H. Lickert. 2021. Pharmacological Targeting of Endoplasmic Reticulum Stress in Pancreatic Beta Cells. *Trends Pharmacol Sci*. 42:85-95.
- Birling, M.C., A. Yoshiki, D.J. Adams, S. Ayabe, A.L. Beaudet, J. Bottomley, A. Bradley, S.D.M. Brown, A. Bürger, W. Bushell, F. Chiani, H.G. Chin, S. Christou, G.F. Codner, F.J. DeMayo, M.E. Dickinson, B. Doe, L.R. Donahue, M.D. Fray, A. Gambadoro, X. Gao, M. Gertsenstein, A. Gomez-Segura, L.O. Goodwin, J.D. Heaney, Y. Héroult, M.H. de Angelis, S.T. Jiang, M.J. Justice, P. Kasparek, R.E. King, R. Kühn, H. Lee, Y.J. Lee, Z. Liu, K.C.K. Lloyd, I. Lorenzo, A.M. Mallon, C. McKerlie, T.F. Meehan, V.M. Fuentes, S. Newman, L.M.J. Nutter, G.T. Oh, G. Pavlovic, R. Ramirez-Solis, B. Rosen, E.J. Ryder, L.A. Santos, J. Schick, J.R. Seavitt, R. Sedlacek, C. Seisenberger, J.K. Seong, W.C. Skarnes, T. Sorg, K.P. Steel, M. Tamura, G.P. Tocchini-Valentini, C.L. Wang, H. Wardle-Jones, M. Wattenhofer-Donzé, S. Wells, M.V. Wiles, B.J. Willis, J.A. Wood, W. Wurst, Y. Xu, L. Teboul, and S.A. Murray. 2021. A resource of targeted mutant mouse lines for 5,061 genes. *Nat Genet*. 53:416-419.
- Birukov, A., L.B. Andersen, M.S. Andersen, J.H. Nielsen, F. Nielsen, H.B. Kyhl, J.S. Jørgensen, P. Grandjean, R. Dechend, and T.K. Jensen. 2021a. Exposure to perfluoroalkyl substances and blood pressure in pregnancy among 1436 women from the Odense Child Cohort. *Environ Int*. 151:106442.
- Birukov, A., R. Cuadrat, E. Polemiti, F. Eichelmann, and M.B. Schulze. 2021b. Advanced glycation end-products, measured as skin autofluorescence, associate with vascular stiffness in diabetic, pre-diabetic and normoglycemic individuals: a cross-sectional study. *Cardiovasc Diabetol*. 20:110.
- Bissinger, R., T. Nemkov, A. D'Alessandro, M. Grau, T. Dietz, B.N. Bohnert, D. Essigke, M. Wörn, L. Schaefer, M. Xiao, J.M. Birne, M.Z. Kalo, A. Schork, T. Bakchoul, K. Omage, L. Kong, I. Gonzalez-Menendez, L. Quintanilla-Martinez, B. Fehrenbacher, M. Schaller, A. Dhariwal, A.L. Birkenfeld, F. Grahammer, S.M. Qadri, and F. Artunc. 2021. Proteinuric chronic kidney disease is associated with altered red blood cell lifespan, deformability and metabolism. *Kidney Int*. 100:1227-1239.
- Blonde, L., J. Rosenstock, J. Frias, A.L. Birkenfeld, E. Niemoeller, E. Souhami, C. Ji, S. Del Prato, and V.R. Aroda. 2021. Durable Effects of iGlarLixi Up to 52 Weeks in Type 2 Diabetes: The LixiLan-G Extension Study. *Diabetes Care*. 44:774-780.
- Boettcher, C., S.R. Tittel, T. Meissner, B. Gohlke, R. Stachow, A. Dost, S. Wunderlich, I. Lowak, and S. Lanzinger. 2021. Sex differences over time for glycemic control, pump use and insulin dose in patients aged 10-40 years with type 1 diabetes: a diabetes registry study. *BMJ Open Diabetes Res Care*. 9.
- Bohnert, B.N., M. Büttner-Herold, K. Amann, A. Schork, A.L. Birkenfeld, M. Guthoff, N. Heyne, S. Nadalin, and F. Artunc. 2021a. The Case | A 74-year-old liver transplant recipient with nephrotic-range proteinuria. *Kidney Int*. 99:1031-1032.
- Bohnert, B.N., D. Essigke, A. Janessa, J.C. Schneider, M. Wörn, M.Z. Kalo, M. Xiao, L. Kong, K. Omage, J. Hennenlotter, B. Amend, A.L. Birkenfeld, and F. Artunc. 2021b. Experimental nephrotic syndrome leads to proteolytic activation of the epithelial Na(+) channel in the mouse kidney. *Am J Physiol Renal Physiol*. 321:F480-f493.



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Bohnert, B.N., I. Gonzalez-Menendez, T. Dörffel, J.C. Schneider, M. Xiao, A. Janessa, M.Z. Kalo, B. Fehrenbacher, M. Schaller, N. Casadei, K. Amann, C. Daniel, A.L. Birkenfeld, F. Grahammer, L. Izem, E.F. Plow, L. Quintanilla-Martinez, and F. Artunc. 2021c. Essential role of DNA-PKcs and plasminogen for the development of doxorubicin-induced glomerular injury in mice. *Dis Model Mech.* 14.

Boniolo, F., E. Dorigatti, A.J. Ohnmacht, D. Saur, B. Schubert, and M.P. Menden. 2021. Artificial intelligence in early drug discovery enabling precision medicine. *Expert Opin Drug Discov.* 16:991-1007.

Borgmann, S.O., N. Chernyak, B. Haastert, U. Linnenkamp, S. Andrich, R. Schlenker, O. Razum, and A. Icks. 2021. Thoughts about health and patient-reported outcomes among people with diabetes mellitus: results from the DiaDec-study. *BMC Public Health.* 21:213.

Bornstein, S.R., F. Rubino, B. Ludwig, H. Rietzsch, P.E.H. Schwarz, R.N. Rodionov, K. Khunti, D. Hopkins, A.L. Birkenfeld, B. Boehm, S. Amiel, R.I.G. Holt, J.S. Skyler, J.H. DeVries, E. Renard, R.H. Eckel, P. Zimmet, K.G. Alberti, B. Geloneze, J.C. Chan, J.C. Mbanya, H.C. Onyegbutulem, A. Ramachandran, A. Basit, M. Hassanein, G.A. Spinias, F. Beuschlein, and G. Mingrone. 2021. Consequences of the COVID-19 pandemic for patients with metabolic diseases. *Nat Metab.* 3:289-292.

Böttcher, A., M. Büttner, S. Tritschler, M. Sterr, A. Aliluev, L. Oppenländer, I. Burtscher, S. Sass, M. Irmler, J. Beckers, C. Ziegenhain, W. Enard, A.C. Schamberger, F.M. Verhamme, O. Eickelberg, F.J. Theis, and H. Lickert. 2021. Non-canonical Wnt/PCP signalling regulates intestinal stem cell lineage priming towards enteroendocrine and Paneth cell fates. *Nat Cell Biol.* 23:23-31.

Brake, L., M.W. Löffler, M. Gründl, A. Grishina, H. Haeberle, C. Berg, M. Guthoff, A. Königsrainer, S. Nadalin, and M. Quante. 2021. [SARS-CoV-2 Infections and Clinical Consequences in a Cohort of Solid Organ Transplant Recipients during the first Wave in Germany - a Single Centre Survey and a Case Report]. *Zentralbl Chir.* 146:597-604.

Bramlage, P., S. Lanzinger, S.R. Tittel, E. Hess, S. Fahrner, C.H.J. Heyer, M. Friebel, I. Buschmann, T. Danne, J. Seufert, and R.W. Holl. 2021. Guidelines adherence in the prevention and management of chronic kidney disease in patients with diabetes mellitus on the background of recent European recommendations - a registry-based analysis. *BMC Nephrol.* 22:184.

Braude, S., S. Holtze, S. Begall, J. Brenmoehl, H. Burda, P. Dammann, D. Del Marmol, E. Gorshkova, Y. Henning, A. Hoeflich, A. Höhn, T. Jung, D. Hamo, A. Sahm, Y. Shebzukhov, R. Šumbera, S. Miwa, M.Y. Vyssokikh, T. von Zglinicki, O. Averina, and T.B. Hildebrandt. 2021. Surprisingly long survival of premature conclusions about naked mole-rat biology. *Biol Rev Camb Philos Soc.* 96:376-393.

Breunig, M., J. Merkle, M. Wagner, M.K. Melzer, T.F.E. Barth, T. Engleitner, J. Krumm, S. Wiedenmann, C.M. Cohrs, L. Perkhofer, G. Jain, J. Krüger, P.C. Hermann, M. Schmid, T. Madácsy, Á. Varga, J. Griger, N. Azoitei, M. Müller, O. Wessely, P.G. Robey, S. Heller, Z. Dantes, M. Reichert, C. Günes, C. Bolenz, F. Kuhn, J. Maléth, S. Speier, S. Liebau, B. Sipos, B. Kuster, T. Seufferlein, R. Rad, M. Meier, M. Hohwieler, and A. Kleger. 2021. Modeling plasticity and dysplasia of pancreatic ductal organoids derived from human pluripotent stem cells. *Cell Stem Cell.* 28:1105-1124.e1119.

Brüne, M., S. Andrich, B. Haastert, M. Kaltheuner, and A. Icks. 2021a. New prescription of antihyperglycemic agents among patients with diabetes in Germany: Moderate concordance between health insurance data and self-reports. *Pharmacoepidemiol Drug Saf.* 30:304-312.

Brüne, M., C. Emmel, G. Meilands, S. Andrich, S. Droste, H. Claessen, F. Jülich, and A. Icks. 2021b. Self-reported medication intake vs information from other data sources such as pharmacy records or medical records: Identification and description of existing publications, and comparison of agreement results for publications focusing on patients with cancer - a systematic review. *Pharmacoepidemiol Drug Saf.* 30:531-560.

Brüne, M., U. Linnenkamp, S. Andrich, L. Jaffan-Kolb, H. Claessen, C.M. Dintsios, I. Schmitz-Losem, J. Kruse, N. Chernyak, M. Hiligsmann, N. Hermanns, and A. Icks. 2021c. Health Care Use and Costs in Individuals With Diabetes With and Without Comorbid Depression in Germany: Results of the Cross-sectional DiaDec Study. *Diabetes Care.* 44:407-415.

Brusko, T.M., R. Mallone, and T. Rodriguez-Calvo. 2021. Editorial: Footprints of Immune Cells in the Type 1 Diabetic Pancreas. *Front Endocrinol (Lausanne).* 12:767012.

Bühler, L., A. Maida, E.S. Vogl, A. Georgiadi, A. Takacs, O. Kluth, A. Schürmann, A. Feuchtinger, C. von Toerne, F.F. Tsokanos, K. Klepac, G. Wolff, M. Sakurai, B. Ekim Üstünel, P. Nawroth, and S. Herzig. 2021. Lipocalin 13 enhances insulin secretion but is dispensable for systemic metabolic control. *Life Sci Alliance.* 4.



## List of Publications 2021

- Burtscher, I., M. Tarquis-Medina, C. Salinno, S. Schirge, J. Beckenbauer, M. Bakhti, and H. Lickert. 2021. Generation of a Novel Nkx6-1 Venus Fusion Reporter Mouse Line. *Int J Mol Sci.* 22.
- Cabral, M., O. Kuxhaus, F. Eichelmann, J.F. Kopp, W. Alker, J. Hackler, A.P. Kipp, T. Schwerdtle, H. Haase, L. Schomburg, and M.B. Schulze. 2021. Trace element profile and incidence of type 2 diabetes, cardiovascular disease and colorectal cancer: results from the EPIC-Potsdam cohort study. *Eur J Nutr.* 60:3267-3278.
- Cai, X., S. Rospleszcz, B. Mensel, U. Schminke, J.P. Kühn, A.A. Aghdassi, C. Storz, R. Lorbeer, C.L. Schlett, W. Rathmann, M. Roden, S. Hohenester, R. Bülow, F. Bamberg, A. Peters, B. Thorand, H. Völzke, and J. Nano. 2021. Association between hepatic fat and subclinical vascular disease burden in the general population. *BMJ Open Gastroenterol.* 8.
- Camacho Londoño, J.E., V. Kuryshev, M. Zorn, K. Saar, Q. Tian, N. Hübner, P. Nawroth, A. Dietrich, L. Birnbaumer, P. Lipp, C. Dieterich, and M. Freichel. 2021. Transcriptional signatures regulated by TRPC1/C4-mediated Background Ca(2+) entry after pressure-overload induced cardiac remodelling. *Prog Biophys Mol Biol.* 159:86-104.
- Cardona-Hernandez, R., A. Schwandt, H. Alkandari, H. Bratke, A. Chobot, N. Coles, S. Corathers, D. Goksen, P. Goss, Z. Imane, K. Nagl, S.M.P. O'Riordan, and C. Jefferies. 2021. Glycemic Outcome Associated With Insulin Pump and Glucose Sensor Use in Children and Adolescents With Type 1 Diabetes. Data From the International Pediatric Registry SWEET. *Diabetes Care.* 44:1176-1184.
- Cereda, E., P. Pedrazzoli, F. Lobascio, S. Masi, S. Crotti, C. Klerys, A. Turri, N. Stobäus, M. Tank, K. Franz, S. Cutti, E. Giaquinto, A.R. Filippi, K. Norman, and R. Caccialanza. 2021. The prognostic impact of BIA-derived fat-free mass index in patients with cancer. *Clin Nutr.* 40:3901-3907.
- Chakaroun, R.M., L. Massier, A. Heintz-Buschart, N. Said, J. Fallmann, A. Crane, T. Schütz, A. Dietrich, M. Blüher, M. Stumvoll, N. Musat, and P. Kovacs. 2021. Circulating bacterial signature is linked to metabolic disease and shifts with metabolic alleviation after bariatric surgery. *Genome Med.* 13:105.
- Chamorro, R., B. Wilms, A. Holst, C. Röhl, M. Mölle, A. Knaak, S. Meyhöfer, H. Lehnert, and S.M. Schmid. 2021. Acute mild dim light at night slightly modifies sleep but does not affect glucose homeostasis in healthy men. *Sleep Med.* 84:158-164.
- Chan, C.C., I.T.W. Harley, P.T. Pfluger, A. Trompette, T.E. Stankiewicz, J.L. Allen, M.E. Moreno-Fernandez, M. Damen, J.R. Oates, P.C. Alarcon, J.R. Doll, M.J. Flick, L.M. Flick, J. Sanchez-Gurmaches, R. Mukherjee, R. Karns, M. Helmrath, T.H. Inge, S.P. Weisberg, S.J. Pamp, D.A. Relman, R.J. Seeley, M.H. Tschöp, C.L. Karp, and S. Divanovic. 2021. A BAFF/APRIL axis regulates obesogenic diet-driven weight gain. *Nat Commun.* 12:2911.
- Chen, J., T. Fleming, S. Katz, M. Dewenter, K. Hofmann, A. Saadatmand, M. Kronlage, M.P. Werner, B. Pokrandt, F. Schreiter, J. Lin, D. Katz, J. Morgenstern, A. Elwakiel, P. Sinn, H.J. Gröne, H.P. Hammes, P.P. Nawroth, B. Isermann, C. Sticht, B. Brügger, H.A. Katus, M. Hagenmueller, and J. Backs. 2021a. CaM Kinase II-δ Is Required for Diabetic Hyperglycemia and Retinopathy but Not Nephropathy. *Diabetes.* 70:616-626.
- Chen, J., C.N. Spracklen, G. Marenne, A. Varshney, L.J. Corbin, J. Luan, S.M. Willems, Y. Wu, X. Zhang, M. Horikoshi, T.S. Boutin, R. Mägi, J. Waage, R. Li-Gao, K.H.K. Chan, J. Yao, M.D. Anasanti, A.Y. Chu, A. Claringbould, J. Heikkinen, J. Hong, J.J. Hottenga, S. Huo, M.A. Kaakinen, T. Louie, W. März, H. Moreno-Macias, A. Ndungu, S.C. Nelson, I.M. Nolte, K.E. North, C.K. Raulerson, D. Ray, R. Rohde, D. Rybin, C. Schurmann, X. Sim, L. Southam, I.D. Stewart, C.A. Wang, Y. Wang, P. Wu, W. Zhang, T.S. Ahluwalia, E.V.R. Appel, L.F. Bielak, J.A. Brody, N.P. Burtt, C.P. Cabrera, B.E. Cade, J.F. Chai, X. Chai, L.C. Chang, C.H. Chen, B.H. Chen, K.N. Chitrala, Y.F. Chiu, H.G. de Haan, G.E. Delgado, A. Demirkhan, Q. Duan, J. Engmann, S.A. Fatumo, J. Gayán, F. Julianini, J.H. Gong, S. Gustafsson, Y. Hai, F.P. Hartwig, J. He, Y. Heianza, T. Huang, A. Huerta-Chagoya, M.Y. Hwang, R.A. Jensen, T. Kawaguchi, K.A. Kentistou, Y.J. Kim, M.E. Kleber, I.K. Kooner, S. Lai, L.A. Lange, C.D. Langefeld, M. Lauzon, M. Li, S. Ligthart, J. Liu, M. Loh, J. Long, V. Lyssenko, M. Mangino, C. Marzi, M.E. Montasser, A. Nag, M. Nakatohchi, D. Noce, R. Noordam, G. Pistis, M. Preuss, L. Raffield, et al. 2021b. The trans-ancestral genomic architecture of glycemic traits. *Nat Genet.* 53:840-860.
- Chhabra, N.F., A.L. Amend, A. Bastidas-Ponce, S. Sabrautzki, M. Tarquis-Medina, S. Sachs, M. Rubey, B. Lorenz-Depiereux, A. Feuchtinger, M. Bakhti, H. Lickert, G.K.H. Przemeck, and M. Hrabé de Angelis. 2021. A point mutation in the Pdia6 gene results in loss of pancreatic β-cell identity causing overt diabetes. *Mol Metab.* 54:101334.
- Ciaunica, A., A. Constant, H. Preissl, and K. Fotopoulou. 2021. The first prior: From co-embodiment to co-homeostasis in early life. *Conscious Cogn.* 91:103117.
- Claessen, H., T. Kvirkina, M. Narres, C. Trautner, B. Bertram, and A. Icks. 2021a. Markedly decreasing incidence of cause-specific blindness in Saxony (Eastern Germany). *Graefes Arch Clin Exp Ophthalmol.* 259:1089-1101.



## List of Publications 2021

Claessen, H., M. Narres, T. Kvitkina, A. Wilk, H. Friedel, C. Günster, F. Hoffmann, M. Koch, K. Jandeleit-Dahm, and A. Icks. 2021b. Renal Replacement Therapy in People With and Without Diabetes in Germany, 2010-2016: An Analysis of More Than 25 Million Inhabitants. *Diabetes Care.* 44:1291-1299.

Claude, K.L., D. Bureik, D. Chatzitheodoridou, P. Adarska, A. Singh, and K.M. Schmoller. 2021. Transcription coordinates histone amounts and genome content. *Nat Commun.* 12:4202.

Coppin, E., B.S. Sundarasetty, S. Rahmig, J. Blume, N.A. Verheyden, F. Bahlmann, S. Ravens, U. Schubert, J. Schmid, S. Ludwig, K. Geissler, O. Guntinas-Lichius, C. von Kaisenberg, T. Groten, A. Platz, R. Naumann, B. Ludwig, I. Prinz, C. Waskow, and A. Krueger. 2021. Enhanced differentiation of functional human T cells in NSG-W41 mice with tissue-specific expression of human interleukin-7. *Leukemia.* 35:3561-3567.

Cordova, R., N. Kliemann, I. Huybrechts, F. Rauber, E.P. Vamos, R.B. Levy, K.H. Wagner, V. Viallon, C. Casagrande, G. Nicolas, C.C. Dahm, J. Zhang, J. Halkjær, A. Tjønneland, M.C. Boutron-Ruault, F.R. Mancini, N. Laouali, V. Katzke, B. Srour, F. Jannasch, M.B. Schulze, G. Masala, S. Grioni, S. Panico, Y.T. van der Schouw, J.W.G. Derkken, C. Rylander, G. Skeie, P. Jakobsen, M. Rodriguez-Barranco, J.M. Huerta, A. Barricarte, L. Brunkwall, S. Ramne, S. Bodén, A. Perez-Cornago, A.K. Heath, P. Vineis, E. Weiderpass, C.A. Monteiro, M.J. Gunter, C. Millett, and H. Freisling. 2021. Consumption of ultra-processed foods associated with weight gain and obesity in adults: A multi-national cohort study. *Clin Nutr.* 40:5079-5088.

Crawford, A.A., S. Bankier, E. Altmaier, C.L.K. Barnes, D.W. Clark, R. Ermel, N. Friedrich, P. van der Harst, P.K. Joshi, V. Karhunen, J. Lahti, A. Mahajan, M. Mangino, M. Nethander, A. Neumann, M. Pietzner, K. Sukhavasi, C.A. Wang, S.J.L. Bakker, J.L.M. Bjorkegren, H. Campbell, J. Eriksson, C. Gieger, C. Hayward, M.R. Jarvelin, S. McLachlan, A.P. Morris, C. Ohlsson, C.E. Pennell, J. Price, I. Rudan, A. Ruusalepp, T. Spector, H. Tiemeier, H. Völzke, J.F. Wilson, T. Michoel, N.J. Timpson, G.D. Smith, and B.R. Walker. 2021. Variation in the SERPINA6/SERPINA1 locus alters morning plasma cortisol, hepatic corticosteroid binding globulin expression, gene expression in peripheral tissues, and risk of cardiovascular disease. *J Hum Genet.* 66:625-636.

Cuellar-Partida, G., J.Y. Tung, N. Eriksson, E. Albrecht, F. Aliev, O.A. Andreassen, I. Barroso, J.S. Beckmann, M.P. Boks, D.I. Boomsma, H.A. Boyd, M.M.B. Breteler, H. Campbell, D.I. Chasman, L.F. Cherkas, G. Davies, E.J.C. de Geus, I.J. Deary, P. Deloukas, D.M. Dick, D.L. Duffy, J.G. Eriksson, T. Esko, B. Feenstra, F. Geller, C. Gieger, I. Giegling, S.D. Gordon, J. Han, T.F. Hansen, A.M. Hartmann, C. Hayward, K. Heikkilä, A.A. Hicks, J.N. Hirschhorn, J.J. Hottenga, J.E. Huffman, L.D. Hwang, M.A. Ikram, J. Kaprio, J.P. Kemp, K.T. Khaw, N. Klopp, B. Konte, Z. Kutalik, J. Lahti, X. Li, R.J.F. Loos, M. Luciano, S.H. Magnusson, M. Mangino, P. Marques-Vidal, N.G. Martin, W.L. McArdle, M.I. McCarthy, C. Medina-Gomez, M. Melby, S.A. Melville, A. Metspalu, L. Milani, V. Mooser, M. Nelis, D.R. Nyholt, K.S. O'Connell, R.A. Ophoff, C. Palmer, A. Palotie, T. Palvinainen, G. Pare, L. Paternoster, L. Peltonen, B. Penninx, O. Polasek, P.P. Pramstaller, I. Prokopenko, K. Raikonen, S. Ripatti, F. Rivadeneira, I. Rudan, D. Rujescu, J.H. Smit, G.D. Smith, J.W. Smoller, N. Soranzo, T.D. Spector, B.S. Pourcain, J.M. Starr, H. Stefánsson, S. Steinberg, M. Teder-Laving, G. Thorleifsson, K. Stefánsson, N.J. Timpson, A.G. Uitterlinden, C.M. van Duijn, F.J.A. van Rooij, J.M. Vink, P. Vollenweider, E. Vuoksimaa, G. Waeber, et al. 2021. Genome-wide association study identifies 48 common genetic variants associated with handedness. *Nat Hum Behav.* 5:59-70.

Danne, T., S. Lanzinger, M. de Bock, E.T. Rhodes, G.T. Alonso, P. Barat, Y. Elhenawy, M. Kershaw, B. Saboo, M. Scharf Pinto, A. Chobot, and K. Dovc. 2021. A Worldwide Perspective on COVID-19 and Diabetes Management in 22,820 Children from the SWEET Project: Diabetic Ketoacidosis Rates Increase and Glycemic Control Is Maintained. *Diabetes Technol Ther.* 23:632-641.

Dannecker, C., R. Wagner, A. Peter, J. Hummel, A. Vosseler, H.U. Häring, A. Fritzsche, A.L. Birkenfeld, N. Stefan, and M. Heni. 2021. Low-Density Lipoprotein Cholesterol Is Associated With Insulin Secretion. *J Clin Endocrinol Metab.* 106:1576-1584.

Daryadel, A., P.A. Ruiz, N. Gehring, D. Stojanovic, M. Ugrica, C. Bettoni, S. Sabrautzki, E.M. Pastor-Arroyo, I. Frey-Wagner, B. Lorenz-Depiereux, T.M. Strom, M.H. de Angelis, G. Rogler, C.A. Wagner, and I. Rubio-Aliaga. 2021. Systemic Jak1 activation provokes hepatic inflammation and imbalanced FGF23 production and cleavage. *Faseb j.* 35:e21302.

Dauben, L., K.S. Weber, L. Nießen, M. Verket, O. Spörkel, K. Strassburger, M. Roden, P. Kronsbein, and K. Müssig. 2021. Associations Between Migration Background and Media and Information Behavior in Primary School Children. *Exp Clin Endocrinol Diabetes.* 129:813-820.

de Las Fuentes, L., Y.J. Sung, R. Noordam, T. Winkler, M.F. Feitosa, K. Schwander, A.R. Bentley, M.R. Brown, X. Guo, A. Manning, D.I. Chasman, H. Aschard, T.M. Bartz, L.F. Bielak, A. Campbell, C.Y. Cheng, R. Dorajoo, F.P. Hartwig, A. Horimoto, C. Li, R. Li-Gao, Y. Liu, J. Marten, S.K. Musani, I. Ntalla, T. Rankinen, M. Richard, X. Sim, A.V. Smith, S.M. Tajuddin, B.O. Tayo, D. Vojinovic, H.R. Warren, D. Xuan, M. Alver, M. Boissel, J.F. Chai, X. Chen, K. Christensen, J. Divers, E. Evangelou, C. Gao, G. Girotto, S.E. Harris, M. He, F.C. Hsu, B. Kühnel, F. Laguzzi, X. Li, L.P. Lyttikäinen, I.M. Nolte, A. Poveda, R. Rauramaa, M. Riaz, R. Rueedi, X.O. Shu, H. Snieder, T. Sofer, F. Takeuchi, N. Verweij, E.B. Ware, S. Weiss, L.R. Yanek, N. Amin, D.E. Arnett, S. Bergmann, E.



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- Boerwinkle, J.A. Brody, U. Broeckel, M. Brumat, G. Burke, C.P. Cabrera, M. Canouil, M.L. Chee, Y.I. Chen, M. Cocca, J. Connell, H.J. de Silva, P.S. de Vries, G. Eiriksdottir, J.D. Faul, V. Fisher, T. Forrester, E.F. Fox, Y. Friedlander, H. Gao, B. Gigante, F. Giulianini, C.C. Gu, D. Gu, T.B. Harris, J. He, S. Heikkinen, C.K. Heng, S. Hunt, M.A. Ikram, M.R. Irvin, M. Kähönen, M. Kavousi, et al. 2021. Gene-educational attainment interactions in a multi-ancestry genome-wide meta-analysis identify novel blood pressure loci. *Mol Psychiatry*. 26:2111-2125.
- de Wendt, C., L. Espelage, S. Eickelschulte, C. Springer, L. Toska, A. Scheel, A.D. Bedou, T. Benninghoff, S. Cames, T. Stermann, A. Chadt, and H. Al-Hasani. 2021. Contraction-Mediated Glucose Transport in Skeletal Muscle Is Regulated by a Framework of AMPK, TBC1D1/4, and Rac1. *Diabetes*. 70:2796-2809.
- Delgadillo-Silva, L.F., M.N. Akhtar, E. Taşöz, and N. Ninov. 2021. Simultaneous Calcium Imaging and Glucose Stimulation in Living Zebrafish to Investigate In Vivo  $\beta$ -Cell Function. *J Vis Exp*.
- Demir, S., P.P. Nawroth, S. Herzig, and B. Ekim Üstünel. 2021. Emerging Targets in Type 2 Diabetes and Diabetic Complications. *Adv Sci (Weinh)*. 8:e2100275.
- Dena, M., A.M. Svensson, K.E. Olofsson, L. Young, A. Carlson, K. Miller, J. Grimsmann, R. Welp, J.K. Mader, D.M. Maahs, R.W. Holl, and M. Lind. 2021. Renal Complications and Duration of Diabetes: An International Comparison in Persons with Type 1 Diabetes. *Diabetes Ther*. 12:3093-3105.
- Deshpande, D., N. Agarwal, T. Fleming, C. Gaveriaux-Ruff, C.S.N. Klose, A. Tappe-Theodor, R. Kuner, and P. Nawroth. 2021. Loss of POMC-mediated antinociception contributes to painful diabetic neuropathy. *Nat Commun*. 12:426.
- Didangelos, T., E. Karlafti, E. Kotzakioulaifi, E. Margariti, P. Giannoulaki, G. Batanis, S. Tesfaye, and K. Kantartzis. 2021. Vitamin B12 Supplementation in Diabetic Neuropathy: A 1-Year, Randomized, Double-Blind, Placebo-Controlled Trial. *Nutrients*. 13.
- Dietz, B., J. Machann, V. Agrawal, M. Heni, P. Schwab, J. Dienes, S. Reichert, A.L. Birkenfeld, H.U. Häring, F. Schick, N. Stefan, A. Fritsche, H. Preissl, B. Schölkopf, S. Bauer, and R. Wagner. 2021a. Detection of diabetes from whole-body MRI using deep learning. *JCI Insight*. 6.
- Dietz, S., J. Schwarz, J. Rühle, M. Schaller, B. Fehrenbacher, A. Marmé, E. Schmid, A. Peter, C.F. Poets, C. Gille, and N. Köstlin-Gille. 2021b. Extracellular vesicles released by myeloid-derived suppressor cells from pregnant women modulate adaptive immune responses. *Cell Immunol*. 361:104276.
- Dodd, G.T., S.J. Kim, M. Méquinion, C.E. Xirouchaki, J.C. Brüning, Z.B. Andrews, and T. Tiganis. 2021. Insulin signaling in AgRP neurons regulates meal size to limit glucose excursions and insulin resistance. *Sci Adv*. 7.
- Draganidis, D., A.Z. Jamurtas, N. Chondrogianni, G. Mastorakos, T. Jung, T. Grune, C. Papadopoulos, K. Papanikolaou, I. Papassotiriou, N. Papaevgeniou, A. Poulios, A. Batrakoulis, C.K. Deli, K. Georgakouli, A. Chatzinikolaou, L.G. Karagounis, and I.G. Fatouros. 2021. Low-Grade Systemic Inflammation Interferes with Anabolic and Catabolic Characteristics of the Aged Human Skeletal Muscle. *Oxid Med Cell Longev*. 2021:8376915.
- Dreher, S.I., S. Höcke, P. Huypens, M. Irmler, C. Hoffmann, T. Jeske, M. Hastreiter, A. Moller, A.L. Birkenfeld, H.U. Häring, A. Peter, J. Beckers, M. Hrabě de Angelis, and C. Weigert. 2021. TGF- $\beta$  Induction of miR-143/145 Is Associated to Exercise Response by Influencing Differentiation and Insulin Signaling Molecules in Human Skeletal Muscle. *Cells*. 10.
- Drzyzga, C.J., M. Bahls, T. Ittermann, H. Völzke, R. Bülow, F. Hammer, R. Ewert, S. Gläser, S.B. Felix, M. Dörr, and M.R.P. Markus. 2021. Lower Cardiorespiratory Fitness Is Associated With Right Ventricular Geometry and Function - The Sedentary's Heart: SHIP. *J Am Heart Assoc*. 10:e021116.
- Durán, C., S. Ciucci, A. Palladini, U.Z. Ijaz, A.G. Zippo, F.P. Sterbini, L. Masucci, G. Cammarota, G. Ianiro, P. Spuul, M. Schroeder, S.W. Grill, B.N. Parsons, D.M. Pritchard, B. Posteraro, M. Sanguinetti, G. Gasbarrini, A. Gasbarrini, and C.V. Cannistraci. 2021. Nonlinear machine learning pattern recognition and bacteria-metabolite multilayer network analysis of perturbed gastric microbiome. *Nat Commun*. 12:1926.
- Eckert, A., M. Domhardt, C. Reinauer, G. Berger, A. Galler, A. Böckmann, M. Henn, T. Haak, and R.W. Holl. 2021a. Non-suicidal self-injury in adolescents and young adults with type 1 diabetes: clinical characteristics from a German diabetes-patient registry (DPV). *Psychiatry Res*. 297:113733.
- Eckert, A., A. Galler, M. Papsch, M. Hess, M. Holder, C. Döing, D. Bierkamp-Christophersen, E. Hammer, A. Pappa, and S. Lanzinger. 2021b. Are psychiatric disorders associated with thyroid hormone therapy in adolescents and young adults with type 1 diabetes? *J Diabetes*. 13:562-571.



## List of Publications 2021

Eckert, A.J., O. Semler, D. Schnabel, K. Köstner, D. Wurm, S. Bechtold-Dalla Pozza, K. Schaaf, T. Hörtenhuber, J. Hammersen, and R.W. Holl. 2021c. Bone Fractures in Children and Young Adults With Type 1 Diabetes: Age Distribution, Fracture Location, and the Role of Glycemic Control. *J Bone Miner Res.* 36:2371-2380.

Eckert, A.J., F.L. Zhou, J.M. Grimsmann, J.H. Pettus, W. Kerner, K.M. Miller, L. Stechemesser, S.V. Edelman, C. Spies, R.W. Holl, and A.M. Ibalid-Mulli. 2021d. Demographic characteristics and acute complications among adults with type 1 diabetes: Comparison of two multicentre databases from Germany and the United States. *J Diabetes Complications.* 35:107812.

Eckstein, M.L., J.B. Farinha, O. McCarthy, D.J. West, J.E. Yardley, L. Bally, T. Zueger, C. Stettler, W. Boff, A. Reischak-Oliveira, M.C. Riddell, D.P. Zaharieva, T.R. Pieber, A. Müller, P. Birnbaumer, F. Aziz, L. Brugnara, H. Haahr, E. Zijlstra, T. Heise, H. Sourij, M. Roden, P. Hofmann, R.M. Bracken, D. Pesta, and O. Moser. 2021. Differences in Physiological Responses to Cardiopulmonary Exercise Testing in Adults With and Without Type 1 Diabetes: A Pooled Analysis. *Diabetes Care.* 44:240-247.

Ehrmann, D., L. Priesterroth, A. Schmitt, B. Kulzer, and N. Hermanns. 2021. Associations of Time in Range and Other Continuous Glucose Monitoring-Derived Metrics With Well-Being and Patient-Reported Outcomes: Overview and Trends. *Diabetes Spectr.* 34:149-155.

Elhadad, M.A., R. Wilson, S.B. Zaghloul, C. Huth, C. Gieger, H. Grallert, J. Graumann, W. Rathmann, W. Koenig, M.F. Sinner, K. Hveem, K. Suhre, B. Thorand, C. Jonasson, M. Waldenberger, and A. Peters. 2021. Metabolic syndrome and the plasma proteome: from association to causation. *Cardiovasc Diabetol.* 20:111.

Epperlein, S., C. Gebhardt, K. Rohde, R. Chakaroun, M. Patt, I. Schamarek, S. Kralisch, J.T. Heiker, M. Scholz, M. Stumvoll, P. Kovacs, J. Breitfeld, and A. Tönjes. 2021. The Effect of FGF21 and Its Genetic Variants on Food and Drug Cravings, Adipokines and Metabolic Traits. *Biomedicines.* 9.

Erener, S., C.E. Ellis, A. Ramzy, M.M. Glavas, S. O'Dwyer, S. Pereira, T. Wang, J. Pang, J.E. Bruin, M.J. Riedel, R.K. Baker, T.D. Webber, M. Lesina, M. Blüher, H. Algül, J.L. Kopp, S. Herzig, and T.J. Kieffer. 2021. Deletion of pancreas-specific miR-216a reduces beta-cell mass and inhibits pancreatic cancer progression in mice. *Cell Rep Med.* 2:100434.

Essigke, D., A.V. Ilyaskin, M. Wörn, B.N. Bohnert, M. Xiao, C. Daniel, K. Amann, A.L. Birkenfeld, R. Szabo, T.H. Bugge, C. Korbmacher, and F. Artunc. 2021. Zymogen-locked mutant prostatasin (Prss8) leads to incomplete proteolytic activation of the epithelial sodium channel (ENaC) and severely compromises triamterene tolerance in mice. *Acta Physiol (Oxf).* 232:e13640.

Farnoud, A., H. Tofighian, I. Baumann, A.R. Martin, M.M. Rashidi, M.P. Menden, and O. Schmid. 2021. Pulsatile Bi-Directional Aerosol Flow Affects Aerosol Delivery to the Intranasal Olfactory Region: A Patient-Specific Computational Study. *Front Pharmacol.* 12:746420.

Feld, G.B., T.O. Bergmann, M. Alizadeh-Asfestani, V. Stuke, J.P. Wriede, S. Soekadar, and J. Born. 2021. Specific changes in sleep oscillations after blocking human metabotropic glutamate receptor 5 in the absence of altered memory function. *J Psychopharmacol.* 35:652-667.

Filler, J., R. von Krüchten, N. Wawro, L. Maier, R. Lorbeer, J. Nattenmüller, B. Thorand, F. Bamberg, A. Peters, C.L. Schlett, J. Linseisen, and S. Rospleszcz. 2021. Association of Habitual Dietary Intake with Liver Iron-A Population-Based Imaging Study. *Nutrients.* 14.

Fink, S., F. Ruoff, A. Stahl, M. Becker, P. Kaiser, B. Traenkle, D. Junker, F. Weise, N. Ruetalo, S. Hörber, A. Peter, A. Nelde, J. Walz, G. Krause, A. Baillot, K. Schenke-Layland, T.O. Joos, U. Rothbauer, N. Schneiderhan-Marra, M. Schindler, and M.F. Templin. 2021. Multiplexed Serum Antibody Screening Platform Using Virus Extracts from Endemic Coronaviridae and SARS-CoV-2. *ACS Infect Dis.* 7:1596-1606.

Flenkenthaler, F., E. Ländström, B. Shashikadze, M. Backman, A. Blutke, J. Philippou-Massier, S. Renner, M. Hrabe de Angelis, R. Wanke, H. Blum, G.J. Arnold, E. Wolf, and T. Fröhlich. 2021. Differential Effects of Insulin-Deficient Diabetes Mellitus on Visceral vs. Subcutaneous Adipose Tissue-Multi-omics Insights From the Munich MIDY Pig Model. *Front Med (Lausanne).* 8:751277.

Francque, S., G. Szabo, M.F. Abdelmalek, C.D. Byrne, K. Cusi, J.F. Dufour, M. Roden, F. Sacks, and F. Tacke. 2021. Nonalcoholic steatohepatitis: the role of peroxisome proliferator-activated receptors. *Nat Rev Gastroenterol Hepatol.* 18:24-39.

Frank-Podlech, S., P. Watson, A.A.C. Verhoeven, S. Stegmaier, H. Preissl, and S. de Wit. 2021. Competing influences on healthy food choices: Mindsetting versus contextual food cues. *Appetite.* 166:105476.



## List of Publications 2021

- Friedemann, M., F. Horn, K. Gutewort, L. Tautz, C. Jandeck, N. Bechmann, O. Sukocheva, M.P. Wirth, S. Fuessel, and M. Menschikowski. 2021. Increased Sensitivity of Detection of RASSF1A and GSTP1 DNA Fragments in Serum of Prostate Cancer Patients: Optimisation of Diagnostics Using OBBPA-ddPCR. *Cancers (Basel)*. 13.
- Fritzsche, A., J. Szendrődi, and A. Schürmann. 2021a. Editorial: Intermittent Fasting - Mechanisms and Clinical Usefulness. *Front Endocrinol (Lausanne)*. 12:757539.
- Fritzsche, A., R. Wagner, M. Heni, K. Kantartzis, J. Machann, F. Schick, R. Lehmann, A. Peter, C. Dannecker, L. Fritzsche, V. Valenta, R. Schick, P.P. Nawroth, S. Kopf, A.F.H. Pfeiffer, S. Kabisch, U. Dambeck, M. Stumvoll, M. Blüher, A.L. Birkenfeld, P. Schwarz, H. Hauner, J. Clavel, J. Seißler, A. Lechner, K. Müssig, K. Weber, M. Laxy, S. Bornstein, A. Schürmann, M. Roden, M.H. de Angelis, N. Stefan, and H.U. Häring. 2021b. Different Effects of Lifestyle Intervention in High- and Low-Risk Prediabetes: Results of the Randomized Controlled Prediabetes Lifestyle Intervention Study (PLIS). *Diabetes*. 70:2785-2795.
- Fueessl, L.U., M. Rottenkolber, C. Gar, A.L. Potzel, J. Keilen, J. Seissler, and A. Lechner. 2021a. No deleterious effect of an additional pregnancy on glucose metabolism in women with previous gestational diabetes mellitus. *Diabetes Res Clin Pract*. 171:108543.
- Fueessl, L.U., M. Rottenkolber, C. Gar, A.L. Potzel, J. Keilen, J. Seissler, and A. Lechner. 2021b. No deleterious effect of an additional pregnancy on glucose metabolism in women with previous gestational diabetes mellitus. Response to Mendoza et al. *Diabetes Res Clin Pract*. 179:109006.
- Galatà, G., A.C. García-Montero, T. Kristensen, A.A.Z. Dawoud, J.I. Muñoz-González, M. Meggendorfer, P. Guglielmelli, Y. Hoade, I. Alvarez-Twose, C. Gieger, K. Strauch, L. Ferrucci, T. Tanaka, S. Bandinelli, T.M. Schnurr, T. Haferlach, S. Broesby-Olsen, H. Vestergaard, M.B. Møller, C. Bindslev-Jensen, A.M. Vannucchi, A. Orfao, D. Radia, A. Reiter, A.J. Chase, N.C.P. Cross, and W.J. Tapper. 2021. Genome-wide association study identifies novel susceptibility loci for KIT D816V positive mastocytosis. *Am J Hum Genet*. 108:284-294.
- Galler, A., S.R. Tittel, H. Baumeister, C. Reinauer, B. Brosig, M. Becker, H. Haberland, D. Hilgard, M. Jivan, J. Mirza, J. Schwab, and R.W. Holl. 2021. Worse glycemic control, higher rates of diabetic ketoacidosis, and more hospitalizations in children, adolescents, and young adults with type 1 diabetes and anxiety disorders. *Pediatr Diabetes*. 22:519-528.
- Gantert, T., F. Henkel, C. Wurmser, J. Oeckl, L. Fischer, M. Haid, J. Adamski, J. Esser-von Bieren, M. Klingenspor, and T. Fromme. 2021. Fibroblast growth factor induced Ucp1 expression in preadipocytes requires PGE2 biosynthesis and glycolytic flux. *Faseb j*. 35:e21572.
- Gar, C., S.J. Haschka, S. Kern-Matschilles, B. Rauch, V. Sacco, C. Prehn, J. Adamski, J. Seissler, N.J. Wewer Albrechtsen, J.J. Holst, and A. Lechner. 2021. The liver-alpha cell axis associates with liver fat and insulin resistance: a validation study in women with non-steatotic liver fat levels. *Diabetologia*. 64:512-520.
- Gassenmaier, S., K. Kähm, S.S. Walter, J. Machann, K. Nikolaou, and M.N. Bongers. 2021. Quantification of liver and muscular fat using contrast-enhanced Dual Source Dual Energy Computed Tomography compared to an established multi-echo Dixon MRI sequence. *Eur J Radiol*. 142:109845.
- Gastaldelli, A., N. Stefan, and H.U. Häring. 2021. Liver-targeting drugs and their effect on blood glucose and hepatic lipids. *Diabetologia*. 64:1461-1479.
- Geirhos, A., F. Lunkenheimer, R.W. Holl, K. Minden, A. Schmitt, S. Temming, H. Baumeister, and M. Domhardt. 2021. Involving patients' perspective in the development of an internet- and mobile-based CBT intervention for adolescents with chronic medical conditions: Findings from a qualitative study. *Internet Interv*. 24:100383.
- Georgakis, M.K., J.A. de Lemos, C. Ayers, B. Wang, H. Björkbacka, T.A. Pana, B. Thorand, C. Sun, L. Fani, R. Malik, J. Dupuis, G. Engström, M. Orho-Melander, O. Melander, S.M. Boekholdt, A. Zierer, M.A. Elhadad, W. Koenig, C. Herder, R.C. Hoogeveen, M. Kavousi, C.M. Ballantyne, A. Peters, P.K. Myint, J. Nilsson, E.J. Benjamin, and M. Dichgans. 2021. Association of Circulating Monocyte Chemoattractant Protein-1 Levels With Cardiovascular Mortality: A Meta-analysis of Population-Based Studies. *JAMA Cardiol*. 6:587-592.
- Georgiadi, A., V. Lopez-Salazar, R.E. Merahbi, R.A. Karikari, X. Ma, A. Mourão, K. Klepac, L. Bühler, A.J. Alfaro, I. Kaczmarek, A. Linford, M. Bosma, O. Shilkova, O. Ritvos, N. Nakamura, S. Hirose, M. Lassi, R. Teperino, J. Machado, M. Scheideler, A. Dietrich, A. Geerlof, A. Feuchtinger, A. Blutke, K. Fischer, T.D. Müller, K. Kessler, T. Schöneberg, D. Thor, S. Hornemann, M. Kruse, P. Nawroth, O. Pivarova-Ramich, A.F.H. Pfeiffer, M. Sattler, M. Blüher, and S. Herzog. 2021. Orphan GPR116 mediates the insulin sensitizing effects of the hepatokine FNDC4 in adipose tissue. *Nat Commun*. 12:2999.



## List of Publications 2021

Geppert, J., A.A. Walth, R. Terrón Expósito, D. Kaltenecker, P. Morigny, J. Machado, M. Becker, E. Simoes, J. Lima, C. Daniel, M. Berriel Diaz, S. Herzig, M. Seelaender, and M. Rohm. 2021. Aging Aggravates Cachexia in Tumor-Bearing Mice. *Cancers (Basel)*. 14.

Gerckens, M., K. Schorpp, F. Pelizza, M. Wögrath, K. Reichau, H. Ma, A.M. Dworsky, A. Sengupta, M.G. Stoleriu, K. Heinzelmann, J. Merl-Pham, M. Irmler, H.N. Alsafadi, E. Trenkenschuh, L. Sarnova, M. Jirouskova, W. Frieß, S.M. Hauck, J. Beckers, N. Kneidinger, J. Behr, A. Hilgendorff, K. Hadian, M. Lindner, M. Königshoff, O. Eickelberg, M. Gregor, O. Plettenburg, A. Yildirim, and G. Burgstaller. 2021. Phenotypic drug screening in a human fibrosis model identified a novel class of antifibrotic therapeutics. *Sci Adv.* 7:eabb3673.

Gerhardsson, P., A. Schwandt, M. Witsch, O. Kordonouri, J. Svensson, G. Forsander, T. Battelino, H. Veeze, and T. Danne. 2021. The SWEET Project 10-Year Benchmarking in 19 Countries Worldwide Is Associated with Improved HbA1c and Increased Use of Diabetes Technology in Youth with Type 1 Diabetes. *Diabetes Technol Ther.* 23:491-499.

Gerling, K., L.M. Herrmann, C. Salewski, M. Wolf, P. Müllerbader, D. Siegel-Axel, H.P. Wendel, C. Schlensak, M. Avci-Adali, and S. Stoppelkamp. 2021. Synthetic Material Abdominal Swabs Reduce Activation of Platelets and Leukocytes Compared to Cotton Materials. *Biomolecules.* 11.

Gerst, F., E. Kemter, E. Lorza-Gil, G. Kaiser, A.K. Fritz, R. Nano, L. Piemonti, M. Gauder, A. Dahl, S. Nadalin, A. Königsrainer, F. Fend, A.L. Birkenfeld, R. Wagner, M. Heni, N. Stefan, E. Wolf, H.U. Häring, and S. Ullrich. 2021. The hepatokine fetuin-A disrupts functional maturation of pancreatic beta cells. *Diabetologia.* 64:1358-1374.

Giroud, M., F.F. Tsokanos, G. Caratti, S. Kotschi, S. Khani, C. Jouffe, E.S. Vogl, M. Irmler, C. Glantschnig, M. Gil-Lozano, D. Hass, A.A. Khan, M.R. Garcia, F. Mattijssen, A. Maida, D. Tews, P. Fischer-Posovszky, A. Feuchtinger, K.A. Virtanen, J. Beckers, M. Wabitsch, H. Uhlenhaut, M. Blüher, J. Tuckermann, M. Scheideler, A. Bartelt, and S. Herzig. 2021. HAND2 is a novel obesity-linked adipogenic transcription factor regulated by glucocorticoid signalling. *Diabetologia.* 64:1850-1865.

Gohlke, S., C. Mancini, F. Garcia-Carrizo, and T.J. Schulz. 2021. Loss of the ciliary gene Bbs4 results in defective thermogenesis due to metabolic inefficiency and impaired lipid metabolism. *Faseb j.* 35:e21966.

Gomez-Alonso, M.D.C., A. Kretschmer, R. Wilson, L. Pfeiffer, V. Karhunen, I. Seppälä, W. Zhang, K. Mittelstraß, S. Wahl, P.R. Matias-Garcia, H. Prokisch, S. Horn, T. Meitinger, L.R. Serrano-Garcia, S. Sebert, O. Raitakari, M. Loh, W. Rathmann, M. Müller-Nurasyid, C. Herder, M. Roden, M. Hurme, M.R. Jarvelin, M. Ala-Korpela, J.S. Kooner, A. Peters, T. Lehtimäki, J.C. Chambers, C. Gieger, J. Kettunen, and M. Waldenberger. 2021. DNA methylation and lipid metabolism: an EWAS of 226 metabolic measures. *Clin Epigenetics.* 13:7.

González-García, I., and C. García-Cáceres. 2021. Hypothalamic Astrocytes as a Specialized and Responsive Cell Population in Obesity. *Int J Mol Sci.* 22.

González-García, I., T. Gruber, and C. García-Cáceres. 2021a. Insulin action on astrocytes: From energy homeostasis to behaviour. *J Neuroendocrinol.* 33:e12953.

González-García, I., O. Le Thuc, M. Jastroch, and C. García-Cáceres. 2021b. Divide et impera: How mitochondrial fission in astrocytes rules obesity. *Mol Metab.* 45:101159.

Gonzalez-Rellán, M.J., M.F. Fondevila, U. Fernandez, A. Rodríguez, M. Varela-Rey, C. Veyrat-Durebex, S. Seoane, G. Bernardo, F. Lopitz-Otsoa, D. Fernández-Ramos, J. Bilbao, C. Iglesias, E. Novoa, C. Ameneiro, A. Senra, D. Beiroa, J. Cuñarro, M. Dp Chantada-Vazquez, M. Garcia-Vence, S.B. Bravo, N. Da Silva Lima, B. Porteiro, C. Carneiro, A. Vidal, S. Tovar, T.D. Müller, J. Ferno, D. Guallar, M. Fidalgo, G. Sabio, S. Herzig, W.H. Yang, J.W. Cho, M.L. Martinez-Chantar, R. Perez-Fernandez, M. López, C. Dieguez, J.M. Mato, O. Millet, R. Coppari, A. Woodhoo, G. Fruhbeck, and R. Nogueiras. 2021. O-GlcNAcylated p53 in the liver modulates hepatic glucose production. *Nat Commun.* 12:5068.

Goodrich, J.K., M. Singer-Berk, R. Son, A. Sveden, J. Wood, E. England, J.B. Cole, B. Weisburd, N. Watts, L. Caulkins, P. Dornbos, R. Koesterer, Z. Zappala, H. Zhang, K.A. Maloney, A. Dahl, C.A. Aguilar-Salinas, G. Atzmon, F. Barajas-Olmos, N. Barzilai, J. Blangero, E. Boerwinkle, L.L. Bonnycastle, E. Bottinger, D.W. Bowden, F. Centeno-Cruz, J.C. Chambers, N. Chami, E. Chan, J. Chan, C.Y. Cheng, Y.S. Cho, C. Contreras-Cubas, E. Córdova, A. Correa, R.A. DeFrondo, R. Duggirala, J. Dupuis, M.E. Garay-Sevilla, H. García-Ortíz, C. Gieger, B. Glaser, C. González-Villalpando, M.E. Gonzalez, N. Grarup, L. Groop, M. Gross, C. Haiman, S. Han, C.L. Hanis, T. Hansen, N.L. Heard-Costa, B.E. Henderson, J.M.M. Hernandez, M.Y. Hwang, S. Islas-Andrade, M.E. Jørgensen, H.M. Kang, B.J. Kim, Y.J. Kim, H.A. Koistinen, J.S. Kooner, J. Kuusisto, S.H. Kwak, M. Laakso, L. Lange, J.Y. Lee, J. Lee, D.M. Lehman, A. Linneberg, J. Liu, R.J.F. Loos, V. Lyssenko, R.C.W. Ma, A. Martínez-Hernández, J.B. Meigs, T. Meitinger, E. Mendoza-Caamal, K.L. Mohlke, A.D. Morris, A.C. Morrison, M.C.Y. Ng, P.M. Nilsson, C.J. O'Donnell, L. Orozco, C.N.A. Palmer, K.S. Park, W.S. Post, O.



## List of Publications 2021

Pedersen, M. Preuss, B.M. Psaty, A.P. Reiner, C. Revilla-Monsalve, S.S. Rich, J.I. Rotter, D. Saleheen, C. Schurmann, X. Sim, R. Sladek, K.S. Small, et al. 2021. Determinants of penetrance and variable expressivity in monogenic metabolic conditions across 77,184 exomes. *Nat Commun.* 12:3505.

Gorski, M., B. Jung, Y. Li, P.R. Matias-Garcia, M. Wuttke, S. Coassin, C.H.L. Thio, M.E. Kleber, T.W. Winkler, V. Wanner, J.F. Chai, A.Y. Chu, M. Cocca, M.F. Feitosa, S. Ghasemi, A. Hoppmann, K. Horn, M. Li, T. Natile, M. Scholz, K.B. Sieber, A. Teumer, A. Tin, J. Wang, B.O. Tayo, T.S. Ahluwalia, P. Almgren, S.J.L. Bakker, B. Banas, N. Bansal, M.L. Biggs, E. Boerwinkle, E.P. Bottinger, H. Brenner, R.J. Carroll, J. Chalmers, M.L. Chee, M.L. Chee, C.Y. Cheng, J. Coresh, M.H. de Borst, F. Degenhardt, K.U. Eckardt, K. Endlich, A. Franke, S. Freitag-Wolf, P. Gampawar, R.T. Gansevoort, M. Ghanbari, C. Gieger, P. Hamet, K. Ho, E. Hofer, B. Hollecze, V.H. Xian Foo, N. Nutri-Kähönen, S.J. Hwang, M.A. Ikram, N.S. Josyula, M. Kähönen, C.C. Khor, W. Koenig, H. Kramer, B.K. Krämer, B. Kühnel, L.A. Lange, T. Lehtimäki, W. Lieb, R.J.F. Loos, M.A. Lukas, L.P. Lytykäinen, C. Meisinger, T. Meitinger, O. Melander, Y. Milaneschi, P.P. Mishra, N. Mononen, J.C. Mychaleckyj, G.N. Nadkarni, M. Nauck, K. Nikus, B. Ning, I.M. Nolte, M.L. O'Donoghue, M. Orho-Melander, S.A. Pendergrass, B. Penninx, M.H. Preuss, B.M. Psaty, L.M. Raffield, O.T. Raitakari, R. Rettig, M. Rheinberger, K.M. Rice, A.R. Rosenkranz, P. Rossing, J.I. Rotter, C. Sabanayagam, H. Schmidt, R. Schmidt, et al. 2021. Meta-analysis uncovers genome-wide significant variants for rapid kidney function decline. *Kidney Int.* 99:926-939.

Gouveia, A., R. de Oliveira Beleza, and S.M. Steculorum. 2021. AgRP neuronal activity across feeding-related behaviours. *Eur J Neurosci.* 54:7458-7475.

Goveas, N., C. Waskow, K. Arndt, J. Heuberger, Q. Zhang, D. Alexopoulou, A. Dahl, W. Birchmeier, K. Anastassiadis, A.F. Stewart, and A. Kranz. 2021. MLL1 is required for maintenance of intestinal stem cells. *PLoS Genet.* 17:e1009250.

Graham, S.E., S.L. Clarke, K.H. Wu, S. Kanoni, G.J.M. Zajac, S. Ramdas, I. Surakka, I. Ntalla, S. Vedantam, T.W. Winkler, A.E. Locke, E. Marouli, M.Y. Hwang, S. Han, A. Narita, A. Choudhury, A.R. Bentley, K. Ekoru, A. Verma, B. Trivedi, H.C. Martin, K.A. Hunt, Q. Hui, D. Klarin, X. Zhu, G. Thorleifsson, A. Helgadottir, D.F. Gudbjartsson, H. Holm, I. Olafsson, M. Akiyama, S. Sakaue, C. Terao, M. Kanai, W. Zhou, B.M. Brumpton, H. Rasheed, S.E. Ruotsalainen, A.S. Havulinna, Y. Veturi, Q. Feng, E.A. Rosenthal, T. Lingren, J.A. Pacheco, S.A. Pendergrass, J. Haessler, F. Giulianini, Y. Bradford, J.E. Miller, A. Campbell, K. Lin, I.Y. Millwood, G. Hindy, A. Rasheed, J.D. Faul, W. Zhao, D.R. Weir, C. Turman, H. Huang, M. Graff, A. Mahajan, M.R. Brown, W. Zhang, K. Yu, E.M. Schmidt, A. Pandit, S. Gustafsson, X. Yin, J. Luan, J.H. Zhao, F. Matsuda, H.M. Jang, K. Yoon, C. Medina-Gomez, A. Pitsillides, J.J. Hottenga, G. Willemsen, A.R. Wood, Y. Ji, Z. Gao, S. Haworth, R.E. Mitchell, J.F. Chai, M. Aadahl, J. Yao, A. Manichaikul, H.R. Warren, J. Ramirez, J. Bork-Jensen, L.L. Kårhus, A. Goel, M. Sabater-Lleal, R. Noordam, C. Sidore, E. Fiorillo, A.F. McDaid, P. Marques-Vidal, M. Wielscher, S. Trompet, N. Sattar, et al. 2021. The power of genetic diversity in genome-wide association studies of lipids. *Nature.* 600:675-679.

Grahammer, F., T.B. Huber, and F. Artunc. 2021. Role of mTOR Signaling for Tubular Function and Disease. *Physiology (Bethesda).* 36:350-358.

Gratl, A., D. Pesta, L. Gruber, F. Speichinger, B. Raude, S. Omran, A. Greiner, and J.P. Frese. 2021a. The effect of revascularization on recovery of mitochondrial respiration in peripheral artery disease: a case control study. *J Transl Med.* 19:244.

Gratl, A., S. Wipper, J.P. Frese, B. Raude, A. Greiner, and D. Pesta. 2021b. The Role of Mitochondrial Function in Peripheral Arterial Disease: Insights from Translational Studies. *Int J Mol Sci.* 22.

Greco, C.M., K.B. Koronowski, J.G. Smith, J. Shi, P. Kunderfranco, R. Carrierro, S. Chen, M. Samad, P.S. Welz, V.M. Zinna, T. Mortimer, S.K. Chun, K. Shimaji, T. Sato, P. Petrus, A. Kumar, M. Vaca-Dempere, O. Deryagin, C. Van, J.M.M. Kuhn, D. Lutter, M.M. Seldin, S. Masri, W. Li, P. Baldi, K.A. Dyar, P. Muñoz-Cánores, S.A. Benitah, and P. Sassone-Corsi. 2021. Integration of feeding behavior by the liver circadian clock reveals network dependency of metabolic rhythms. *Sci Adv.* 7:eabi7828.

Greiner, G.G., A. Viehmann, U. Linnenkamp, S. Wilm, V. Leve, M. Neuenschwander, O. Kuss, T. Fehm, R. Ensenauer, L. Schumacher, U. Lange, D. Müller-Bößmann, V. Lappe, P. Ihle, H. Adamczewski, M. Kaltheuner, M. Tamayo, V. Gräfe, B. Westerhoff, N. Wallerich-Herf, S. Schellhammer, T. Kerres, I. Schmitz-Losem, S. Cramer, C.J. Rupprecht, B. Klüppelholz, F. Meyer, S. Koch-Schulte, U. Jüngling, and A. Icks. 2021. Study protocol for a mixed methods exploratory investigation of aftercare services for gestational diabetes in women to develop a new patient-centred model in Germany: the GestDiNa\_basic study. *BMJ Open.* 11:e046048.

Greulich, F., A. Mechtidou, T. Horn, and N.H. Uhlenhaut. 2021a. Protocol for using heterologous spike-ins to normalize for technical variation in chromatin immunoprecipitation. *STAR Protoc.* 2:100609.



## List of Publications 2021

Greulich, F., M. Wierer, A. Mechtidou, O. Gonzalez-Garcia, and N.H. Uhlenhaut. 2021b. The glucocorticoid receptor recruits the COMPASS complex to regulate inflammatory transcription at macrophage enhancers. *Cell Rep.* 34:108742.

Große-Segerath, L., and E. Lammert. 2021. Role of vasodilation in liver regeneration and health. *Biol Chem.* 402:1009-1019.

Grosu, S., R. Lorbeer, F. Hartmann, S. Rospleszcz, F. Bamberg, C.L. Schlett, F. Galie, S. Selder, S. Auweter, M. Heier, W. Rathmann, K. Mueller-Peltzer, K.H. Ladwig, A. Peters, B.B. Ertl-Wagner, and S. Stoecklein. 2021a. White matter hyperintensity volume in pre-diabetes, diabetes and normoglycemia. *BMJ Open Diabetes Res Care.* 9.

Grosu, S., S. Rospleszcz, F. Hartmann, M. Habes, F. Bamberg, C.L. Schlett, F. Galie, R. Lorbeer, S. Auweter, S. Selder, R. Buelow, M. Heier, W. Rathmann, K. Mueller-Peltzer, K.H. Ladwig, H.J. Grabe, A. Peters, B.B. Ertl-Wagner, and S. Stoecklein. 2021b. Associated factors of white matter hyperintensity volume: a machine-learning approach. *Sci Rep.* 11:2325.

Grottenthaler, J.M., J.K. Füger, M. Mahling, A. Königsrainer, N.P. Malek, A.L. Birkenfeld, S. Nadalin, C.P. Berg, N. Heyne, and M. Guthoff. 2021. Dynamics of glucose metabolism after liver transplantation: prediabetes as a window of opportunity for patient survival and long-term kidney function. *Transpl Int.* 34:1959-1970.

Gruber, T., C. Pan, R.E. Contreras, T. Wiedemann, D.A. Morgan, A.A. Skowronski, S. Lefort, C. De Bernardis Murat, O. Le Thuc, B. Legutko, F.J. Ruiz-Ojeda, M. Fuente-Fernández, A.L. García-Villalón, D. González-Hedström, M. Huber, K. Szigeti-Buck, T.D. Müller, S. Ussar, P. Pfluger, S.C. Woods, A. Ertürk, C.A. LeDuc, K. Rahmouni, M. Granado, T.L. Horvath, M.H. Tschöp, and C. García-Cáceres. 2021. Obesity-associated hyperleptinemia alters the gliovascular interface of the hypothalamus to promote hypertension. *Cell Metab.* 33:1155-1170.e1110.

Guasch-Ferré, M., P. Hernández-Alonso, J.P. Drouin-Chartier, M. Ruiz-Canela, C. Razquin, E. Toledo, J. Li, C. Dennis, C. Wittenbecher, D. Corella, R. Estruch, M. Fitó, E. Ros, N. Babio, S.N. Bhupathiraju, C.B. Clish, L. Liang, M.A. Martínez-González, F.B. Hu, and J. Salas-Salvadó. 2021. Walnut Consumption, Plasma Metabolomics, and Risk of Type 2 Diabetes and Cardiovascular Disease. *J Nutr.* 151:303-311.

Gutmann, D.A.P., S. Rospleszcz, W. Rathmann, C.L. Schlett, A. Peters, C. Wachinger, S. Gatidis, and F. Bamberg. 2021. MRI-Derived Radiomics Features of Hepatic Fat Predict Metabolic States in Individuals without Cardiovascular Disease. *Acad Radiol.* 28 Suppl 1:S1-s10.

Haimerl, P., U. Bernhardt, S. Schindela, F.D.R. Henkel, A. Lechner, U.M. Zissler, X. Pastor, D. Thomas, A. Cecil, Y. Ge, M. Haid, C. Prehn, J. Tokarz, M. Heinig, J. Adamski, C.B. Schmidt-Weber, A.M. Chaker, and J. Esser-von Bieren. 2021. Inflammatory macrophage memory in nonsteroidal anti-inflammatory drug-exacerbated respiratory disease. *J Allergy Clin Immunol.* 147:587-599.

Hallschmid, M. 2021a. Intranasal insulin. *J Neuroendocrinol.* 33:e12934.

Hallschmid, M. 2021b. Intranasal Insulin for Alzheimer's Disease. *CNS Drugs.* 35:21-37.

Hammersen, J., S.R. Tittel, K. Warncke, M. Fritsch, K. Placzek, D. Pacaud, B. Karges, J. Woelfle, and R.W. Holl. 2021. Previous diabetic ketoacidosis as a risk factor for recurrence in a large prospective contemporary pediatric cohort: Results from the DPV initiative. *Pediatr Diabetes.* 22:455-462.

Han, J., L. Harrison, L. Patzelt, M. Wu, D. Junker, S. Herzig, M. Berriel Diaz, and D.C. Karampinos. 2021. Imaging modalities for diagnosis and monitoring of cancer cachexia. *EJNMMI Res.* 11:94.

Hanley-Cook, G.T., I. Huybrechts, C. Biessy, R. Remans, G. Kennedy, M. Deschaseaux-Tanguy, K.A. Murray, M. Touvier, G. Skeie, E. Kesse-Guyot, A. Argaw, C. Casagrande, G. Nicolas, P. Vineis, C.J. Millett, E. Weiderpass, P. Ferrari, C.C. Dahm, H.B. Bueno-de-Mesquita, T.M. Sandanger, D.B. Ibsen, H. Freisling, S. Ramne, F. Jannasch, Y.T. van der Schouw, M.B. Schulze, K.K. Tsilidis, A. Tjønneland, E. Ardanaz, S. Bodén, L. Cirera, G. Gargano, J. Halkjær, P. Jakobsen, I. Johansson, V. Katzke, G. Masala, S. Panico, M. Rodriguez-Barranco, C. Sacerdote, B. Srour, R. Tumino, E. Riboli, M.J. Gunter, A.D. Jones, and C. Lachat. 2021. Food biodiversity and total and cause-specific mortality in 9 European countries: An analysis of a prospective cohort study. *PLoS Med.* 18:e1003834.

Härtig, F., I. Birschmann, A. Peter, M. Ebner, C. Spencer, M. Gramlich, H. Richter, J. Kuhn, R. Lehmann, G. Blumenstock, C.S. Zuern, U. Ziemann, and S. Poli. 2021. Specific Point-of-Care Testing of Coagulation in Patients Treated with Dabigatran. *Thromb Haemost.* 121:782-791.

Hartleben, G., K. Schorpp, Y. Kwon, B. Betz, F.F. Tsokanos, Z. Dantes, A. Schäfer, I. Rothenaigner, J.M. Monroy Kuhn, P. Mornigny, L. Mehr, S. Lin, S. Seitz, J. Tokarz, A. Artati, J. Adamsky, O. Plettenburg, D. Lutter, M. Irmler, J. Beckers, M. Reichert, K. Hadian, A.



## List of Publications 2021

- Zeigerer, S. Herzog, and M. Berriel Diaz. 2021. Combination therapies induce cancer cell death through the integrated stress response and disturbed pyrimidine metabolism. *EMBO Mol Med.* 13:e12461.
- Hartwig, S., J. Kotzka, and S. Lehr. 2021a. Investigating the Adipose Tissue Secretome: A Protocol to Generate High-Quality Samples Appropriate for Comprehensive Proteomic Profiling. *Methods Mol Biol.* 2261:421-431.
- Hartwig, S., J. Kotzka, and S. Lehr. 2021b. Isolation and Quality Control of Functional Mitochondria. *Methods Mol Biol.* 2276:41-55.
- Harwalkar, K., M.J. Ford, K. Teng, N. Yamanaka, B. Yang, I. Burtscher, H. Lickert, and Y. Yamanaka. 2021. Anatomical and cellular heterogeneity in the mouse oviduct-its potential roles in reproduction and preimplantation development†. *Biol Reprod.* 104:1249-1261.
- Haslauer, K.E., P. Schmitt-Kopplin, and S.S. Heinzmann. 2021. Data Processing Optimization in Untargeted Metabolomics of Urine Using Voigt Lineshape Model Non-Linear Regression Analysis. *Metabolites.* 11.
- Hauffe, R., M. Rath, M. Schell, K. Ritter, K. Kappert, S. Deubel, C. Ott, M. Jähnert, W. Jonas, A. Schürmann, and A. Kleinridders. 2021. HSP60 reduction protects against diet-induced obesity by modulating energy metabolism in adipose tissue. *Mol Metab.* 53:101276.
- Haugg, A., F.M. Renz, A.A. Nicholson, C. Lor, S.J. Götzendorfer, R. Sladky, S. Skouras, A. McDonald, C. Craddock, L. Hellrung, M. Kirschner, M. Herdener, Y. Koush, M. Papoutsi, J. Keynan, T. Hendler, K. Cohen Kadosh, C. Zich, S.H. Kohl, M. Hallschmid, J. MacInnes, R.A. Adcock, K.C. Dickerson, N.K. Chen, K. Young, J. Bodurka, M. Marxen, S. Yao, B. Becker, T. Auer, R. Schweizer, G. Pamplona, R.A. Lanius, K. Emmert, S. Haller, D. Van De Ville, D.Y. Kim, J.H. Lee, T. Marins, F. Megumi, B. Sorger, T. Kamp, S.L. Liew, R. Veit, M. Spetter, N. Weiskopf, F. Scharnowski, and D. Steyrl. 2021. Predictors of real-time fMRI neurofeedback performance and improvement - A machine learning mega-analysis. *Neuroimage.* 237:118207.
- Hazini, A., B. Dieringer, M. Pryshliak, K.P. Knoch, L. Heimann, B. Tolksdorf, K. Papritz, M. El-Shafeey, M. Solimena, A. Beling, J. Kurreck, K. Klingel, and H. Fechner. 2021. miR-375- and miR-1-Regulated Coxsackievirus B3 Has No Pancreas and Heart Toxicity But Strong Antitumor Efficiency in Colorectal Carcinomas. *Hum Gene Ther.* 32:216-230.
- Heidenreich, E., T. Pfeffer, T. Kracke, N. Mechtel, P. Nawroth, G.F. Hoffmann, C.P. Schmitt, R. Hell, G. Poschet, and V. Peters. 2021. A Novel UPLC-MS/MS Method Identifies Organ-Specific Dipeptide Profiles. *Int J Mol Sci.* 22.
- Heitkamp, M., M. Siegrist, S. Molnos, S. Brandmaier, S. Wahl, H. Langhof, H. Grallert, and M. Halle. 2021. Obesity Genes and Weight Loss During Lifestyle Intervention in Children With Obesity. *JAMA Pediatr.* 175:e205142.
- Henke, C., S. Haufe, D. Ziehl, S.R. Bornstein, J. Schulz-Menger, M. Heni, S. Engeli, J. Jordan, and A.L. Birkenfeld. 2021. Low-fat hypocaloric diet reduces neprilysin in overweight and obese human subjects. *ESC Heart Fail.* 8:938-942.
- Henning, C., A. Branopolski, P. Follert, O. Lewandowska, A. Ayhan, M. Benkhoff, U. Flögel, M. Kelm, C. Heiss, and E. Lammert. 2021. Endothelial β1 Integrin-Mediated Adaptation to Myocardial Ischemia. *Thromb Haemost.* 121:741-754.
- Herder, C., H. Maalmi, K. Strassburger, O.P. Zaharia, J.M. Ratter, Y. Karusheva, M.A. Elhadad, K. Bódis, B.W.C. Bongaerts, W. Rathmann, S. Trenkamp, M. Waldenberger, V. Burkart, J. Szendroedi, and M. Roden. 2021. Differences in Biomarkers of Inflammation Between Novel Subgroups of Recent-Onset Diabetes. *Diabetes.* 70:1198-1208.
- Herker, E., G. Vieyres, M. Beller, N. Krahmer, and M. Bohnert. 2021. Lipid Droplet Contact Sites in Health and Disease. *Trends Cell Biol.* 31:345-358.
- Herpich, C., K. Franz, S. Klaus, U. Müller-Werdan, M. Ost, and K. Norman. 2021a. Age-related fatigue is associated with reduced mitochondrial function in peripheral blood mononuclear cells. *Exp Gerontol.* 144:111177.
- Herpich, C., B. Kochlik, U. Haß, D. Weber, T. Grune, and K. Norman. 2021b. Altered Adiponectin Response in Older Women Following Dextrose and High-Fat Dietary Challenges. *Mol Nutr Food Res.* 65:e2100487.
- Herrmann, L., T. Ebert, H. Rosen, B. Novak, A. Philipsen, C. Touma, M. Schreckenbach, N.C. Gassen, T. Rein, and U. Schmidt. 2021. Analysis of the cerebellar molecular stress response led to first evidence of a role for FKBP51 in brain FKBP52 expression in mice and humans. *Neurobiol Stress.* 15:100401.
- Hinrichs, A., S. Renner, M. Bidlingmaier, J.J. Kopchick, and E. Wolf. 2021. MECHANISMS IN ENDOCRINOLOGY: Transient juvenile hypoglycemia in growth hormone receptor deficiency - mechanistic insights from Laron syndrome and tailored animal models. *Eur J Endocrinol.* 185:R35-r47.



## List of Publications 2021

- Hippich, M., L. Holthaus, R. Assfalg, J. Zapardiel-Gonzalo, H. Kapfelsperger, M. Heigermoser, F. Haupt, D.A. Ewald, T.C. Welzhofer, B.A. Marcus, S. Heck, A. Koelln, J. Stock, F. Voss, M. Secchi, L. Piemonti, K. de la Rosa, U. Protzer, M. Boehmer, P. Achenbach, V. Lampasona, E. Bonifacio, and A.G. Ziegler. 2021a. A Public Health Antibody Screening Indicates a 6-Fold Higher SARS-CoV-2 Exposure Rate than Reported Cases in Children. *Med (N Y)*. 2:149-163.e144.
- Hippich, M., P. Sifft, J. Zapardiel-Gonzalo, M.M. Böhmer, V. Lampasona, E. Bonifacio, and A.G. Ziegler. 2021b. A public health antibody screening indicates a marked increase of SARS-CoV-2 exposure rate in children during the second wave. *Med (N Y)*. 2:571-572.
- Hoene, M., L. Kappler, L. Kollipara, C. Hu, M. Irmler, D. Bleher, C. Hoffmann, J. Beckers, M. Hrabě de Angelis, H.U. Häring, A.L. Birkenfeld, A. Peter, A. Sickmann, G. Xu, R. Lehmann, and C. Weigert. 2021. Exercise prevents fatty liver by modifying the compensatory response of mitochondrial metabolism to excess substrate availability. *Mol Metab*. 54:101359.
- Holthaus, L., V. Sharma, D. Brandt, A.G. Ziegler, M. Jastroch, and E. Bonifacio. 2021. Functional and metabolic fitness of human CD4(+) T lymphocytes during metabolic stress. *Life Sci Alliance*. 4.
- Hoppel, F., E. Calabria, D.H. Pesta, W. Kantner-Rumplmair, E. Gnaiger, and M. Burtscher. 2021a. Effects of Ultramarathon Running on Mitochondrial Function of Platelets and Oxidative Stress Parameters: A Pilot Study. *Front Physiol*. 12:632664.
- Hoppel, F., L.F. Garcia-Souza, W. Kantner-Rumplmair, M. Burtscher, E. Gnaiger, D. Pesta, and E. Calabria. 2021b. Human Platelet Mitochondrial Function Reflects Systemic Mitochondrial Alterations: A Protocol for Application in Field Studies. *Cells*. 10.
- Hörber, S., R. Lehmann, L. Fritzsche, J. Machann, A.L. Birkenfeld, H.U. Häring, N. Stefan, M. Heni, A. Fritzsche, and A. Peter. 2021a. Lifestyle Intervention Improves Prothrombotic Coagulation Profile in Individuals at High Risk for Type 2 Diabetes. *J Clin Endocrinol Metab*. 106:e3198-e3207.
- Hörber, S., R. Lehmann, N. Stefan, J. Machann, A.L. Birkenfeld, R. Wagner, M. Heni, H.U. Häring, A. Fritzsche, and A. Peter. 2021b. Hemostatic alterations linked to body fat distribution, fatty liver, and insulin resistance. *Mol Metab*. 53:101262.
- Hörber, S., A. Lehn-Stefan, A. Hieronimus, S. Hudak, L. Fritzsche, A. Fritzsche, M. Heni, H.U. Häring, A. Peter, and E. Randrianarisoa. 2021c. Carotid Intima-Media Thickness is a Predictor of Subclinical Myocardial Damage in Men with Type 2 Diabetes Mellitus. *Exp Clin Endocrinol Diabetes*. 129:750-756.
- Hörber, S., A. Peter, R. Lehmann, and M. Hoene. 2021d. Evaluation of the first immunosuppressive drug assay available on a fully automated LC-MS/MS-based clinical analyzer suggests a new era in laboratory medicine. *Clin Chem Lab Med*. 59:913-920.
- Huang, J., M. Covic, C. Huth, M. Rommel, J. Adam, S. Zukunft, C. Prehn, L. Wang, J. Nano, M.F. Scheerer, S. Neschen, G. Kastenmüller, C. Gieger, M. Laxy, F. Schliess, J. Adamski, K. Suhre, M.H. de Angelis, A. Peters, and R. Wang-Sattler. 2021a. Validation of Candidate Phospholipid Biomarkers of Chronic Kidney Disease in Hyperglycemic Individuals and Their Organ-Specific Exploration in Leptin Receptor-Deficient db/db Mouse. *Metabolites*. 11.
- Huang, J., J.F. Linares, A. Duran, W. Xia, A.R. Saltiel, T.D. Müller, M.T. Diaz-Meco, and J. Moscat. 2021b. NBR1 is a critical step in the repression of thermogenesis of p62-deficient adipocytes through PPARy. *Nat Commun*. 12:2876.
- Huber, M.K., D.M. Drotar, H. Hiller, M.L. Beery, P. Joseph, I. Kusmartseva, S. Speier, M.A. Atkinson, C.E. Mathews, and E.A. Phelps. 2021. Observing Islet Function and Islet-Immune Cell Interactions in Live Pancreatic Tissue Slices. *J Vis Exp*.
- Hudak, S., P. Huber, A. Lamprinou, L. Fritzsche, N. Stefan, A. Peter, A.L. Birkenfeld, A. Fritzsche, M. Heni, and R. Wagner. 2021. Reproducibility and discrimination of different indices of insulin sensitivity and insulin secretion. *PLoS One*. 16:e0258476.
- Huebner, M., D. Börnigen, A. Deckert, R. Holle, C. Meisinger, M. Müller-Nurasyid, A. Peters, W. Rathmann, and H. Becher. 2021. Genetic Variation and Cardiovascular Risk Factors: A Cohort Study on Migrants from the Former Soviet Union and a Native German Population. *Int J Environ Res Public Health*. 18.
- Huemer, M.T., A. Bauer, A. Petrera, M. Scholz, S.M. Hauck, M. Drey, A. Peters, and B. Thorand. 2021. Proteomic profiling of low muscle and high fat mass: a machine learning approach in the KORA S4/FF4 study. *J Cachexia Sarcopenia Muscle*. 12:1011-1023.
- Hummel, J., L. Fritzsche, A. Vosseler, C. Dannecker, M. Hoene, K. Kantartzis, H.U. Häring, N. Stefan, J. Machann, A.L. Birkenfeld, C. Weigert, R. Wagner, A. Peter, A. Fritzsche, and M. Heni. 2021. Free fatty acids, glicentin and glucose-dependent insulinotropic polypeptide as potential major determinants of fasting substrate oxidation. *Sci Rep*. 11:16642.



## List of Publications 2021

- Icks, A., C. Wittgens, B. Haastert, K.H. Jöckel, M. Engel, R. Erbel, S. Andrich, J. Kruse, B. Kulzer, N. Hermanns, C. Herder, S. Moebus, A. Stang, and B. Kowall. 2021. High Depressive Symptoms in Previously Undetected Diabetes - 10-Year Follow-Up Results of the Heinz Nixdorf Recall Study. *Clin Epidemiol.* 13:429-438.
- Ittermann, T., M.R.P. Markus, M. Bahls, S.B. Felix, A. Steveling, M. Nauck, H. Völzke, and M. Dörr. 2021. Low serum TSH levels are associated with low values of fat-free mass and body cell mass in the elderly. *Sci Rep.* 11:10547.
- Jacobsen, H., K. Walendy-Gnirß, N. Tekin-Bubenheim, N.M. Kouassi, I. Ben-Batalla, N. Berenbrok, M. Wolff, V.P. Dos Reis, M. Zickler, L. Scholl, A. Gries, H. Jania, A. Kloetgen, A. Düsedau, G. Pilnitz-Stolze, A. Jeridi, A. Yildirim, H. Fuchs, V. Gailus-Durner, C. Stoeger, M.H. de Angelis, T. Manuylova, K. Klingel, F.J. Culley, J. Behrends, S. Loges, B. Schneider, S. Krauss-Etschmann, P. Openshaw, and G. Gabriel. 2021. Offspring born to influenza A virus infected pregnant mice have increased susceptibility to viral and bacterial infections in early life. *Nat Commun.* 12:4957.
- Jannasch, F., D. Nickel, and M.B. Schulze. 2021. The reliability and relative validity of predefined dietary patterns were higher than that of exploratory dietary patterns in the European Prospective Investigation into Cancer and Nutrition (EPIC)-Potsdam population. *Br J Nutr.* 125:1270-1280.
- Jasser-Nitsche, H., S. Bechtold-Dalla Pozza, E. Binder, E. Bollow, B. Heidtmann, Y.H. Lee-Barkley, K. Raile, G. de Sousa, U. Schramm, and R.W. Holl. 2021. Comorbidity of inflammatory bowel disease in children and adolescents with type 1 diabetes. *Acta Paediatr.* 110:1353-1358.
- Jeffcoate, W., F. Game, S. Morbach, M. Narres, K. Van Acker, and A. Icks. 2021. Assessing data on the incidence of lower limb amputation in diabetes. *Diabetologia.* 64:1442-1446.
- Jende, J.M.E., Z. Kender, C. Mooshage, J.B. Groener, L. Alvarez-Ramos, J. Kollmer, A. Juerchott, A. Hahn, S. Heiland, P. Nawroth, M. Bendszus, S. Kopf, and F.T. Kurz. 2021a. Diffusion Tensor Imaging of the Sciatic Nerve as a Surrogate Marker for Nerve Functionality of the Upper and Lower Limb in Patients With Diabetes and Prediabetes. *Front Neurosci.* 15:642589.
- Jende, J.M.E., Z. Kender, J. Morgenstern, P. Renn, C. Mooshage, A. Juerchott, S. Kopf, P.P. Nawroth, M. Bendszus, and F.T. Kurz. 2021b. Fractional Anisotropy and Troponin T Parallel Structural Nerve Damage at the Upper Extremities in a Group of Patients With Prediabetes and Type 2 Diabetes - A Study Using 3T Magnetic Resonance Neurography. *Front Neurosci.* 15:741494.
- Jende, J.M.E., C. Mooshage, Z. Kender, S. Kopf, J.B. Groener, S. Heiland, A. Juerchott, P. Nawroth, M. Bendszus, and F.T. Kurz. 2021c. Magnetic Resonance Neurography Reveals Smoking-Associated Decrease in Sciatic Nerve Structural Integrity in Type 2 Diabetes. *Front Neurosci.* 15:811085.
- Johar, H., D. Spieler, M. Bidlingmaier, C. Herder, W. Rathmann, W. Koenig, A. Peters, J. Kruse, and K.H. Ladwig. 2021. Chronic Inflammation Mediates the Association between Cortisol and Hyperglycemia: Findings from the Cross-Sectional Population-Based KORA Age Study. *J Clin Med.* 10.
- Jonas, W., and A. Schürmann. 2021. Genetic and epigenetic factors determining NAFLD risk. *Mol Metab.* 50:101111.
- Jones, A., J.E. Bardram, P. Bækgaard, C.L. Cramer-Petersen, T. Skinner, K. Vrangbæk, L. Starr, K. Nørgaard, N. Lind, M. Bechmann Christensen, C. Glümer, R. Wang-Sattler, M. Laxy, E. Brander, L. Heinemann, T. Heise, F. Schliess, K. Ladewig, and D. Kownatka. 2021. Integrated personalized diabetes management goes Europe: A multi-disciplinary approach to innovating type 2 diabetes care in Europe. *Prim Care Diabetes.* 15:360-364.
- Just, K.S., S.R. Tittel, C. Bollheimer, M. Naudorf, K. Laubner, S. Zimny, A. Zeyfang, M. Hummel, J.C. Stingl, and R.W. Holl. 2021. Hypoglycemia in Older Adults: Time Trends and Treatment Differences in Patients Aged  $\geq 75$  Years With Type 2 Diabetes. *J Am Med Dir Assoc.* 22:1898-1905.e1891.
- Kabisch, S., C. Honsek, M. Kemper, C. Gerbracht, A.M. Arafat, A.L. Birkenfeld, U. Dambeck, M.A. Osterhoff, M.O. Weickert, and A.F.H. Pfeiffer. 2021a. Dose-dependent effects of insoluble fibre on glucose metabolism: a stratified post hoc analysis of the Optimal Fibre Trial (OptiFiT). *Acta Diabetol.* 58:1649-1658.
- Kabisch, S., C. Honsek, M. Kemper, C. Gerbracht, N.M.T. Meyer, A.M. Arafat, A.L. Birkenfeld, J. Machann, U. Dambeck, M.A. Osterhoff, M.O. Weickert, and A.F.H. Pfeiffer. 2021b. Effects of Insoluble Cereal Fibre on Body Fat Distribution in the Optimal Fibre Trial. *Mol Nutr Food Res.* 65:e2000991.
- Kabisch, S., M. Markova, S. Hornemann, S. Sucher, O. Pivarova-Ramich, J. Machann, J. Hierholzer, S. Rohn, and A.F.H. Pfeiffer. 2021c. Liver fat scores do not reflect interventional changes in liver fat content induced by high-protein diets. *Sci Rep.* 11:8843.



## List of Publications 2021

Kabisch, S., S. Wenschuh, P. Buccellato, J. Spranger, and A.F.H. Pfeiffer. 2021d. Affordability of Different Isocaloric Healthy Diets in Germany-An Assessment of Food Prices for Seven Distinct Food Patterns. *Nutrients.* 13.

Kammerl, I.E., C. Flexeder, S. Karrasch, B. Thorand, M. Heier, A. Peters, H. Schulz, and S. Meiners. 2021. Blood Immunoproteasome Activity Is Regulated by Sex, Age and in Chronic Inflammatory Diseases: A First Population-Based Study. *Cells.* 10.

Kamrath, C., J. Rosenbauer, A.J. Eckert, A. Pappa, F. Reschke, T.R. Rohrer, K. Mönkemöller, M. Wurm, K. Hake, K. Raile, and R.W. Holl. 2021a. Incidence of COVID-19 and Risk of Diabetic Ketoacidosis in New-Onset Type 1 Diabetes. *Pediatrics.* 148.

Kamrath, C., J. Rosenbauer, S.R. Tittel, K. Warncke, R. Hirtz, C. Denzer, A. Dost, A. Neu, D. Pacaud, and R.W. Holl. 2021b. Frequency of Autoantibody-Negative Type 1 Diabetes in Children, Adolescents, and Young Adults During the First Wave of the COVID-19 Pandemic in Germany. *Diabetes Care.* 44:1540-1546.

Kamrath, C., S.R. Tittel, T.M. Kapellen, T. von dem Berge, B. Heidtmann, K. Nagl, U. Menzel, S. Pötzsch, K. Konrad, and R.W. Holl. 2021c. Early versus delayed insulin pump therapy in children with newly diagnosed type 1 diabetes: results from the multicentre, prospective diabetes follow-up DPV registry. *Lancet Child Adolesc Health.* 5:17-25.

Kannenberg, S., S. Meyhöfer, H. Lehnert, and S.M. Schmid. 2021. Petrifying: ears as hard as stone in adrenal insufficiency. *Lancet Diabetes Endocrinol.* 9:406.

Karges, B., N. Prinz, K. Placzek, N. Datz, M. Papsch, U. Strier, D. Agena, W. Bonfig, H. Kentrup, and R.W. Holl. 2021. A Comparison of Familial and Sporadic Type 1 Diabetes Among Young Patients. *Diabetes Care.* 44:1116-1124.

Karolina, R., D. Lutter, V. Miok, D. Fischer, I. Altun, T. Schöttl, K. Schorpp, A. Israel, C. Cero, J.W. Johnson, I. Kapser-Fischer, A. Böttcher, S. Keipert, A. Feuchtinger, E. Graf, T. Strom, A. Walch, H. Lickert, T. Walzthoeni, M. Heinig, F.J. Theis, C. García-Cáceres, A.M. Cypess, and S. Ussar. 2021. Identification and characterization of distinct brown adipocyte subtypes in C57BL/6J mice. *Life Sci Alliance.* 4.

Karusheva, Y., K. Strassburger, D.F. Markgraf, O.P. Zaharia, K. Bódis, T. Kössler, A. Tura, G. Pacini, V. Burkart, M. Roden, and J. Szendroedi. 2021. Branched-Chain Amino Acids Associate Negatively With Postprandial Insulin Secretion in Recent-Onset Diabetes. *J Endocr Soc.* 5:bvab067.

Kehm, R., T. Baldensperger, J. Raupbach, and A. Höhn. 2021. Protein oxidation - Formation mechanisms, detection and relevance as biomarkers in human diseases. *Redox Biol.* 42:101901.

Kemter, E., A. Müller, M. Neukam, A. Ivanova, N. Klymiuk, S. Renner, K. Yang, J. Broichhagen, M. Kurome, V. Zakhartchenko, B. Kessler, K.P. Knoch, M. Bickle, B. Ludwig, K. Johnsson, H. Lickert, T. Kurth, E. Wolf, and M. Solimena. 2021. Sequential in vivo labeling of insulin secretory granule pools in INS-SNAP transgenic pigs. *Proc Natl Acad Sci U S A.* 118.

Kiefer, L.S., J. Fabian, S. Rospleszcz, R. Lorbeer, J. Machann, M.S. Kraus, F. Roemer, W. Rathmann, C. Meisinger, M. Heier, K. Nikolaou, A. Peters, C. Storz, T.D. Diallo, C.L. Schlett, and F. Bamberg. 2021. Distribution patterns of intramyocellular and extramyocellular fat by magnetic resonance imaging in subjects with diabetes, prediabetes and normoglycaemic controls. *Diabetes Obes Metab.* 23:1868-1878.

Kifer, D., P. Louca, A. Cvetko, H. Deriš, A. Cindrić, H. Grallert, A. Peters, O. Polašek, O. Gornik, M. Mangino, T.D. Spector, A.M. Valdes, S. Padmanabhan, C. Gieger, G. Lauc, and C. Menni. 2021. N-glycosylation of immunoglobulin G predicts incident hypertension. *J Hypertens.* 39:2527-2533.

Kim, H.P., M.O. Idowu, A.R. Mospan, A.G. Allmon, M. Roden, P. Newsome, A.S. Lok, P.J. Thuluvath, J. Taunk, M.W. Fried, A.J. Sanyal, and A.S.t. Barritt. 2021. Liver biopsy in the real world-reporting, expert concordance and correlation with a pragmatic clinical diagnosis. *Aliment Pharmacol Ther.* 54:1472-1480.

Klaus, V.S., S.C. Schriever, J.M. Monroy Kuhn, A. Peter, M. Irmler, J. Tokarz, C. Prehn, G. Kastenmüller, J. Beckers, J. Adamski, A. Königsrainer, T.D. Müller, M. Heni, M.H. Tschöp, P.T. Pfluger, and D. Lutter. 2021. Correlation guided Network Integration (CoNI) reveals novel genes affecting hepatic metabolism. *Mol Metab.* 53:101295.

Koelman, L., R. Reichmann, C. Börnhorst, M.B. Schulze, C. Weikert, R. Biemann, B. Isermann, A. Fritzsche, and K. Aleksandrova. 2021. Determinants of elevated chemerin as a novel biomarker of immunometabolism: data from a large population-based cohort. *Endocr Connect.* 10:1200-1211.

Kohlmorgen, C., S. Gerfer, K. Feldmann, S. Twarock, S. Hartwig, S. Lehr, M. Klier, I. Krüger, C. Helten, P. Keul, S. Kahl, A. Polzin, M. Elvers, U. Flögel, M. Kelm, B. Levkau, M. Roden, J.W. Fischer, and M. Grandoch. 2021. Dapagliflozin reduces thrombin



## List of Publications 2021

- generation and platelet activation: implications for cardiovascular risk reduction in type 2 diabetes mellitus. *Diabetologia*. 64:1834-1849.
- König, S., C. Jockenhöfer, C. Billich, M. Beer, J. Machann, A. Schmidt-Trucksäss, and U. Schütz. 2021. Long distance running - Can bioprofiling predict success in endurance athletes? *Med Hypotheses*. 146:110474.
- Kopf, S., V. Kumar, Z. Kender, Z. Han, T. Fleming, S. Herzig, and P.P. Nawroth. 2021. Diabetic Pneumopathy-A New Diabetes-Associated Complication: Mechanisms, Consequences and Treatment Considerations. *Front Endocrinol (Lausanne)*. 12:765201.
- Korovila, I., A. Höhn, T. Jung, T. Grune, and C. Ott. 2021. Reduced Liver Autophagy in High-Fat Diet Induced Liver Steatosis in New Zealand Obese Mice. *Antioxidants (Basel)*. 10.
- Kössler, T., P. Bobrov, K. Strassburger, O. Kuss, O.P. Zaharia, Y. Karusheva, C. Möser, K. Bódis, V. Burkart, M. Roden, and J. Szendroedi. 2021. Impact of mixed meal tolerance test composition on measures of beta-cell function in type 2 diabetes. *Nutr Metab (Lond)*. 18:47.
- Kovářová, M., H. Kalbacher, A. Peter, H.U. Häring, T. Didangelos, N. Stefan, A. Birkenfeld, E. Schleicher, and K. Kantartzis. 2021. Detection and Characterization of Phosphorylation, Glycosylation, and Fatty Acid Bound to Fetuin A in Human Blood. *J Clin Med*. 10.
- Kowall, B., W. Rathmann, O. Kuß, C. Herder, M. Roden, A. Stang, R. Erbel, C. Huth, B. Thorand, C. Meisinger, K.H. Jöckel, and A. Peters. 2021a. Associations between haemoglobin A(1c) and mortality rate in the KORA S4 and the Heinz Nixdorf Recall population-based cohort studies. *Diabetes Metab Res Rev*. 37:e3369.
- Kowall, B., W. Rathmann, O. Kuss, C. Herder, M. Roden, A. Stang, C. Huth, B. Thorand, C. Meisinger, and A. Peters. 2021b. Reversion from prediabetes to normoglycaemia after weight change in older persons: The KORA F4/FF4 study. *Nutr Metab Cardiovasc Dis*. 31:429-438.
- Kršák, M., L. Lindeboom, V. Schrauwen-Hinderling, L.S. Szczepaniak, W. Derave, J. Lundbom, D. Befroy, F. Schick, J. Machann, R. Kreis, and C. Boesch. 2021. Proton magnetic resonance spectroscopy in skeletal muscle: Experts' consensus recommendations. *NMR Biomed*. 34:e4266.
- Krüchten, R.V., R. Lorbeer, S. Rospleszcz, C. Storz, E. Askani, C. Kulka, W. Rathmann, A. Peters, S. Karrasch, F. Bamberg, C. Schlett, and B. Mujaj. 2021. Serum insulin is associated with right ventricle function parameters and lung volumes in subjects free of cardiovascular disease. *Eur J Endocrinol*. 184:289-298.
- Krumm, P., T. Hupka, F. Haußmann, H. Dittmann, T. Mühlbacher, S. Nadalin, A. Königsrainer, K. Nikolaou, N. Heyne, U. Kramer, and M. Guthoff. 2021. Contrast-enhanced MRI for simultaneous evaluation of renal morphology and split renal function in living kidney donor candidates. *Eur J Radiol*. 142:109864.
- Kullmann, S. 2021. Nonnutritive Sweeteners and Neural Reward Response in Women and Individuals With Obesity. *JAMA Netw Open*. 4:e2128047.
- Kullmann, S., D. Blum, B.A. Jaghutriz, C. Gassenmaier, B. Bender, H.U. Häring, G. Reischl, H. Preissl, C. la Fougère, A. Fritzsche, M. Reimold, and M. Heni. 2021. Central Insulin Modulates Dopamine Signaling in the Human Striatum. *J Clin Endocrinol Metab*. 106:2949-2961.
- Kullmann, S., and R. Veit. 2021. Resting-state functional connectivity of the human hypothalamus. *Handb Clin Neurol*. 179:113-124.
- Kumar, V., and P.P. Nawroth. 2021. Is the association between diabetes mellitus and pulmonary fibrosis real? *Nat Rev Endocrinol*. 17:703-704.
- Kunath, A., J. Weiner, K. Krause, M. Rehders, A. Pejkovska, M. Gericke, M.L. Biniossek, S. Dommel, M. Kern, A. Ribas-Latre, O. Schilling, K. Brix, M. Stumvoll, N. Klöting, J.T. Heiker, and M. Blüher. 2021. Role of Kallikrein 7 in Body Weight and Fat Mass Regulation. *Biomedicines*. 9.
- Kupriyanova, Y., O.P. Zaharia, P. Bobrov, Y. Karusheva, V. Burkart, J. Szendroedi, J.H. Hwang, and M. Roden. 2021. Early changes in hepatic energy metabolism and lipid content in recent-onset type 1 and 2 diabetes mellitus. *J Hepatol*. 74:1028-1037.
- Kurz, E.M., A. Conzelmann, G.M. Barth, T.J. Renner, K. Zinke, and J. Born. 2021. How do children with autism spectrum disorder form gist memory during sleep? A study of slow oscillation-spindle coupling. *Sleep*. 44.



## List of Publications 2021

Laber, S., S. Forcisi, L. Bentley, J. Petzold, F. Moritz, K.S. Smirnov, L. Al Sadat, I. Williamson, S. Strobel, T. Agnew, S. Sengupta, T. Nicol, H. Grallert, M. Heier, J. Honecker, J. Mianne, L. Teboul, R. Dumbell, H. Long, M. Simon, C. Lindgren, W.A. Bickmore, H. Hauner, P. Schmitt-Kopplin, M. Claussnitzer, and R.D. Cox. 2021. Linking the FTO obesity rs1421085 variant circuitry to cellular, metabolic, and organismal phenotypes in vivo. *Sci Adv.* 7.

Lagou, V., R. Mägi, J.J. Hottenga, H. Grallert, J.R.B. Perry, N. Bouatia-Naji, L. Marullo, D. Rybin, R. Jansen, J.L. Min, A.S. Dimas, A. Ulrich, L. Zudina, J.R. Gådin, L. Jiang, A. Faggian, A. Bonnefond, J. Fadista, M.G. Stathopoulou, A. Isaacs, S.M. Willems, P. Navarro, T. Tanaka, A.U. Jackson, M.E. Montasser, J.R. O'Connell, L.F. Bielak, R.J. Webster, R. Saxena, J.M. Stafford, B.S. Pourcain, N.J. Timpson, P. Salo, S.Y. Shin, N. Amin, A.V. Smith, G. Li, N. Verweij, A. Goel, I. Ford, P.C.D. Johnson, T. Johnson, K. Kapur, G. Thorleifsson, R.J. Strawbridge, L.J. Rasmussen-Torvik, T. Esko, E. Mihailov, T. Fall, R.M. Fraser, A. Mahajan, S. Kanoni, V. Giedraitis, M.E. Kleber, G. Silbernagel, J. Meyer, M. Müller-Nurasyid, A. Ganna, A.P. Sarin, L. Yengo, D. Shungin, J. Luan, M. Horikoshi, P. An, S. Sanna, Y. Boettcher, N.W. Rayner, I.M. Nolte, T. Zemunik, E.V. Iperen, P. Kovacs, N.D. Hastie, S.H. Wild, S. McLachlan, S. Campbell, O. Polasek, O. Carlson, J. Egan, W. Kiess, G. Willemsen, J. Kuusisto, M. Laakso, M. Dimitriou, A.A. Hicks, R. Rauramaa, S. Bandinelli, B. Thorand, Y. Liu, I. Miljkovic, L. Lind, A. Doney, M. Perola, A. Hingorani, M. Kivimaki, M. Kumari, A.J. Bennett, C.J. Groves, C. Herder, H.A. Koistinen, L. Kinnunen, et al. 2021. Sex-dimorphic genetic effects and novel loci for fasting glucose and insulin variability. *Nat Commun.* 12:24.

Lamprinou, A., C. Willmann, J. Machann, F. Schick, S.S. Eckstein, C. Dalla Man, R. Visentin, A.L. Birkenfeld, A. Peter, N. Stefan, H.U. Häring, A. Fritzsche, M. Heni, and R. Wagner. 2021. Determinants of hepatic insulin clearance - Results from a Mendelian Randomization study. *Metabolism.* 119:154776.

Lang, A., O. Kuss, T. Fill, and S. Schlesinger. 2021. Association between per capita sugar consumption and diabetes prevalence mediated by the body mass index: results of a global mediation analysis. *Eur J Nutr.* 60:2121-2129.

Lassi, M., A. Tomar, G. Comas-Armangué, R. Vogtmann, D.J. Dijkstra, D. Corujo, R. Gerlini, J. Darr, F. Scheid, J. Rozman, A. Aguilar-Pimentel, O. Koren, M. Buschbeck, H. Fuchs, S. Marschall, V. Gailus-Durner, M. Hrabe de Angelis, T. Plösch, A. Gellhaus, and R. Teperino. 2021. Disruption of paternal circadian rhythm affects metabolic health in male offspring via nongerm cell factors. *Sci Adv.* 7.

Lau, L.H.Y., J. Nano, A. Cecil, F. Schederecker, W. Rathmann, C. Prehn, T. Zeller, A. Lechner, J. Adamski, A. Peters, and B. Thorand. 2021. Cross-sectional and prospective relationships of endogenous progestogens and estrogens with glucose metabolism in men and women: a KORA F4/FF4 Study. *BMJ Open Diabetes Res Care.* 9.

Laxy, M., J. Becker, K. Kähm, R. Holle, A. Peters, B. Thorand, L. Schwettmann, and F.M. Karl. 2021a. Utility Decremnts Associated With Diabetes and Related Complications: Estimates From a Population-Based Study in Germany. *Value Health.* 24:274-280.

Laxy, M., P. Zhang, S.R. Benoit, G. Imperatore, Y.J. Cheng, E.W. Gregg, S. Yang, and H. Shao. 2021b. Trends in Total and Out-of-pocket Payments for Insulin Among Privately Insured U.S. Adults With Diabetes From 2005 to 2018. *Diabetes Care.*

Lazarus, J.V., Q.M. Anstee, H. Hagström, K. Cusi, H. Cortez-Pinto, H.E. Mark, M. Roden, E.A. Tsochatzis, V.W. Wong, Z.M. Younossi, S. Zelber-Sagi, M. Romero-Gómez, and J.M. Schattenberg. 2021. Defining comprehensive models of care for NAFLD. *Nat Rev Gastroenterol Hepatol.* 18:717-729.

Lechner, K., B. Lechner, A. Crispin, P.E.H. Schwarz, and H. von Bibra. 2021. Waist-to-height ratio and metabolic phenotype compared to the Matsuda index for the prediction of insulin resistance. *Sci Rep.* 11:8224.

Lehmann, R. 2021. From bedside to bench-practical considerations to avoid pre-analytical pitfalls and assess sample quality for high-resolution metabolomics and lipidomics analyses of body fluids. *Anal Bioanal Chem.* 413:5567-5585.

Lehn-Stefan, A., A. Peter, J. Machann, F. Schick, E. Randrianarisoa, M. Heni, R. Wagner, A.L. Birkenfeld, A. Fritzsche, H.U. Häring, H. Staiger, and N. Stefan. 2021. Elevated Circulating Glutamate Is Associated With Subclinical Atherosclerosis Independently of Established Risk Markers: A Cross-Sectional Study. *J Clin Endocrinol Metab.* 106:e982-e989.

Lehr, S., S. Hartwig, and J. Kotzka. 2021. Preparation of "Functional" Mitochondria: A Challenging Business. *Methods Mol Biol.* 2276:31-39.

Lesch, S., V. Blumenberg, S. Stoiber, A. Gottschlich, J. Ogonek, B.L. Cadilha, Z. Dantes, F. Rataj, K. Dorman, J. Lutz, C.H. Karches, C. Heise, M. Kurzay, B.M. Larimer, S. Grassmann, M. Rapp, A. Nottebrock, S. Kruger, N. Tokarew, P. Metzger, C. Hoerth, M.R. Benmebarek, D. Dhoqina, R. Grünmeier, M. Seifert, A. Oener, Ö. Umut, S. Joaquina, L. Vimeux, T. Tran, T. Hank, T. Baba, D.



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- Huynh, R.T.A. Megens, K.P. Janssen, M. Jastroch, D. Lamp, S. Ruehland, M. Di Pilato, J.N. Pruessmann, M. Thomas, C. Marr, S. Ormanns, A. Reischer, M. Hristov, E. Tartour, E. Donnadieu, S. Rothenfusser, P. Duewell, L.M. König, M. Schnurr, M. Subklewe, A.S. Liss, N. Halama, M. Reichert, T.R. Mempel, S. Endres, and S. Kobold. 2021. T cells armed with C-X-C chemokine receptor type 6 enhance adoptive cell therapy for pancreatic tumours. *Nat Biomed Eng.* 5:1246-1260.
- Li, Z.M., M. Miller, S. Gachkar, J. Mittag, S.C. Schriever, P.T. Pfluger, K.W. Schramm, and M. De Angelis. 2021. Determination of 3-iodothyronamine (3-T(1)AM) in mouse liver using liquid chromatography-tandem mass spectrometry. *J Chromatogr B Anal Chem Life Sci.* 1165:122553.
- Liu, J., S. Dimitrov, A. Sawangjit, J. Born, I. Ehrlich, and M. Hallschmid. 2021a. Short-term high-fat feeding induces a reversible net decrease in synaptic AMPA receptors in the hypothalamus. *J Nutr Biochem.* 87:108516.
- Liu, L., S.O. Artigas, A. Ulrich, J. Tardu, P.N.C. Mohr, B. Wilms, B. Koletzko, S.M. Schmid, and S.Q. Park. 2021b. Eating to dare - Nutrition impacts human risky decision and related brain function. *Neuroimage.* 233:117951.
- Liu, L., M.N. Potenza, C.M. Lacadie, J.T. Zhang, S.W. Yip, C.C. Xia, J. Lan, Y.W. Yao, L.Y. Deng, S.Q. Park, and X.Y. Fang. 2021c. Altered intrinsic connectivity distribution in internet gaming disorder and its associations with psychotherapy treatment outcomes. *Addict Biol.* 26:e12917.
- Loft, A., A.J. Alfaro, S.F. Schmidt, F.B. Pedersen, M.K. Terkelsen, M. Puglia, K.K. Chow, A. Feuchtinger, M. Troullinaki, A. Maida, G. Wolff, M. Sakurai, R. Berutti, B. Ekim Üstünel, P. Nawroth, K. Ravnskjaer, M.B. Diaz, B. Blagoev, and S. Herzig. 2021a. Liver-fibrosis-activated transcriptional networks govern hepatocyte reprogramming and intra-hepatic communication. *Cell Metab.* 33:1685-1700.e1689.
- Loft, A., S. Herzig, and S.F. Schmidt. 2021b. Purification of GFP-tagged nuclei from frozen livers of INTACT mice for RNA- and ATAC-sequencing. *STAR Protoc.* 2:100805.
- Löfvenborg, J.E., S. Carlsson, T. Andersson, C.S. Hampe, A. Koulman, M.D. Chirlaque Lopez, P. Jakszyn, V.A. Katzke, T. Kühn, C. Kyrø, G. Masala, P.M. Nilsson, K. Overvad, S. Panico, M.J. Sánchez, Y. van der Schouw, M.B. Schulze, A. Tjønneland, E. Weiderpass, E. Riboli, N.G. Forouhi, S.J. Sharp, O. Rolandsson, and N.J. Wareham. 2021. Interaction Between GAD65 Antibodies and Dietary Fish Intake or Plasma Phospholipid n-3 Polyunsaturated Fatty Acids on Incident Adult-Onset Diabetes: The EPIC-InterAct Study. *Diabetes Care.* 44:416-424.
- Lorbeer, R., S. Rospleszcz, C.L. Schlett, S.D. Rado, B. Thorand, C. Meisinger, W. Rathmann, M. Heier, R.S. Vasan, F. Bamberg, A. Peters, and W. Lieb. 2021. Association of antecedent cardiovascular risk factor levels and trajectories with cardiovascular magnetic resonance-derived cardiac function and structure. *J Cardiovasc Magn Reson.* 23:2.
- Luong, Q.V., A. Israel, R. Sharma, S. Ussar, and K.Y. Lee. 2021. Development of an Optimized Clearing Protocol to Examine Adipocyte Subpopulations in White Adipose Tissue. *Methods Protoc.* 4.
- Lutz, N.D., M. Admard, E. Genzoni, J. Born, and K. Rauss. 2021. Occipital sleep spindles predict sequence learning in a visuo-motor task. *Sleep.* 44.
- Maalmi, H., K. Wouters, H. Savelberg, J. van der Velde, J.P.H. Reulen, W. Mess, C.G. Schalkwijk, C.D.A. Stehouwer, M. Roden, D. Ziegler, C. Herder, and N.C. Schaper. 2021. Associations of cells from both innate and adaptive immunity with lower nerve conduction velocity: the Maastricht Study. *BMJ Open Diabetes Res Care.* 9.
- Madhavan, B.K., Z. Han, A. Sickmann, R. Pepperkok, P.P. Nawroth, and V. Kumar. 2021a. A laser-mediated photo-manipulative toolbox for generation and real-time monitoring of DNA lesions. *STAR Protoc.* 2:100700.
- Madhavan, B.K., Z. Han, B. Singh, N. Bordt, S. Kaymak, O.R. Bandapalli, L. Kihm, K. Shahzad, B. Isermann, S. Herzig, P. Nawroth, and V. Kumar. 2021b. Elevated Expression of the RAGE Variant-V in SCLC Mitigates the Effect of Chemotherapeutic Drugs. *Cancers (Basel).* 13.
- Magalhães, P., P. Zürbig, H. Mischak, and E. Schleicher. 2021. Urinary fetuin-A peptides as a new marker for impaired kidney function in patients with type 2 diabetes. *Clin Kidney J.* 14:269-276.
- Maier, L., R. von Krüchten, R. Lorbeer, J. Filler, J. Nattenmüller, B. Thorand, W. Koenig, W. Rathmann, F. Bamberg, C.L. Schlett, A. Peters, and S. Rospleszcz. 2021. Distribution and Associated Factors of Hepatic Iron-A Population-Based Imaging Study. *Metabolites.* 11.
- Mancini, C., S. Gohlke, F. Garcia-Carrizo, V. Zagoriy, H. Stephanowitz, and T.J. Schulz. 2021. Identification of biomarkers of brown adipose tissue aging highlights the role of dysfunctional energy and nucleotide metabolism pathways. *Sci Rep.* 11:19928.



## List of Publications 2021

- Margaritidis, C., E. Karlafti, E. Kotzakioulafi, K. Kantartzis, K. Tziomalos, G. Kaiafa, C. Savopoulos, and T. Didangelos. 2021. Comparison of Premixed Human Insulin 30/70 to Biphasic Aspart 30 in Well-Controlled Patients with Type 2 Diabetes Using Continuous Glucose Monitoring. *J Clin Med.* 10.
- Marigliano, M., A.J. Eckert, P.K. Guness, A. Herbst, C.E. Smart, M. Witsch, and C. Maffeis. 2021. Association of the use of diabetes technology with HbA1c and BMI-SDS in an international cohort of children and adolescents with type 1 diabetes: The SWEET project experience. *Pediatr Diabetes.* 22:1120-1128.
- Markus, M.R.P., T. Ittermann, S. Schipf, M. Bahls, M. Nauck, H. Völzke, R.D. Santos, A. Peters, T. Zeller, S.B. Felix, R.S. Vasan, B. Thorand, E. Steinhagen-Thiessen, and M. Dörr. 2021. Association of sex-specific differences in lipoprotein(a) concentrations with cardiovascular mortality in individuals with type 2 diabetes mellitus. *Cardiovasc Diabetol.* 20:168.
- Marttila, S., L.E. Viiri, P.P. Mishra, B. Kühnel, P.R. Matias-Garcia, L.P. Lytytäinen, T. Ceder, N. Mononen, W. Rathmann, J. Winkelmann, A. Peters, M. Kähönen, N. Nutri-Kähönen, M. Juonala, K. Aalto-Setälä, O. Raitakari, T. Lehtimäki, M. Waldenberger, and E. Raitoharju. 2021. Methylation status of nc886 epiallele reflects periconceptional conditions and is associated with glucose metabolism through nc886 RNAs. *Clin Epigenetics.* 13:143.
- Mastrototaro, G., M. Zaghi, L. Massimino, M. Moneta, N. Mohammadi, F. Banfi, E. Bellini, M. Indrigo, G. Fagnocchi, A. Baglioni, S. Taverna, M. Rohm, S. Herzig, and A. Sessa. 2021. TBL1XR1 Ensures Balanced Neural Development Through NCOR Complex-Mediated Regulation of the MAPK Pathway. *Front Cell Dev Biol.* 9:641410.
- Mastrototaro, L., and M. Roden. 2021. Insulin resistance and insulin sensitizing agents. *Metabolism.* 125:154892.
- Matías-García, P.R., C.K. Ward-Caviness, L.M. Raffield, X. Gao, Y. Zhang, R. Wilson, X. Gào, J. Nano, A. Bostom, E. Colicino, A. Correa, B. Coull, C. Eaton, L. Hou, A.C. Just, S. Kunze, L. Lange, E. Lange, X. Lin, S. Liu, J.C. Nwanaji-Enwerem, A. Reiner, J. Shen, B. Schöttker, P. Vokonas, Y. Zheng, B. Young, J. Schwartz, S. Horvath, A. Lu, E.A. Whitsel, W. Koenig, J. Adamski, J. Winkelmann, H. Brenner, A.A. Baccarelli, C. Gieger, A. Peters, N. Franceschini, and M. Waldenberger. 2021. DNA-based signatures of accelerated aging and mortality in blood are associated with low renal function. *Clin Epigenetics.* 13:121.
- Matta, M., I. Huybrechts, C. Biessy, C. Casagrande, S. Yammie, A. Fournier, K.S. Olsen, M. Lukic, I.T. Gram, E. Ardanaz, M.J. Sánchez, L. Dossus, R.T. Fortner, B. Srour, F. Jannasch, M.B. Schulze, P. Amiano, A. Agudo, S. Colorado-Yohar, J.R. Quirós, R. Tumino, S. Panico, G. Masala, V. Pala, C. Sacerdote, A. Tjønneland, A. Olsen, C.C. Dahm, A.H. Rosendahl, S. Borgquist, M. Wennberg, A.K. Heath, D. Aune, J. Schmidt, E. Weiderpass, V. Chajes, M.J. Gunter, and N. Murphy. 2021. Dietary intake of trans fatty acids and breast cancer risk in 9 European countries. *BMC Med.* 19:81.
- Maurer, J., M. Hoene, and C. Weigert. 2021. Signals from the Circle: Tricarboxylic Acid Cycle Intermediates as Myometabokines. *Metabolites.* 11.
- Mei, J., C. Böhland, A. Geiger, I. Baur, K. Berner, S. Heuer, X. Liu, L. Mataite, M.C. Melo-Narváez, E. Özkaya, A. Rupp, C. Siebenwirth, F. Thoma, M.F. Kling, and A.A. Friedl. 2021. Development of a model for fibroblast-led collective migration from breast cancer cell spheroids to study radiation effects on invasiveness. *Radiat Oncol.* 16:159.
- Melmer, A., I. Zürrer, F. Kopp, M. Pfeifer, E. Kamml, G. Götz, S. Hofer, I. Schütz-Fuhrmann, A. Hungele, and R.W. Holl. 2021. Differences in insulin dosing in women with type 1 diabetes before and after the menopause. *Swiss Med Wkly.* 151:w30025.
- Meyhöfer, S. 2021. [72/f-Collapse following dizziness and strong sweating : Preparation for the medical specialist examination: part 6]. *Internist (Berl).* 62:35-40.
- Milbank, E., N.R.V. Dragano, I. González-García, M.R. Garcia, V. Rivas-Limeres, L. Perdomo, G. Hilairet, F. Ruiz-Pino, P. Mallegol, D.A. Morgan, R. Iglesias-Rey, C. Contreras, L. Vergori, J. Cuñarro, B. Portero, A. Gavaldà-Navarro, R. Oelkrug, A. Vidal, J. Roa, T. Sobrino, F. Villarroya, C. Diéguez, R. Nogueiras, C. García-Cáceres, M. Tena-Sempere, J. Mittag, M. Carmen Martínez, K. Rahmouni, R. Andriantsitohaina, and M. López. 2021. Small extracellular vesicle-mediated targeting of hypothalamic AMPKα1 corrects obesity through BAT activation. *Nat Metab.* 3:1415-1431.
- Mishto, M., A. Mansurkhodzhaev, T. Rodriguez-Calvo, and J. Liepe. 2021. Potential Mimicry of Viral and Pancreatic β Cell Antigens Through Non-Spliced and cis-Spliced Zwitter Epitope Candidates in Type 1 Diabetes. *Front Immunol.* 12:656451.
- Mönkemöller, K., C. Kamrath, J. Hammersen, T. Biester, K. Warncke, A. Pappa, K. Fink, K. Raile, T.R. Rohrer, and R.W. Holl. 2021. [Is it possible to prevent diabetic ketoacidosis at diagnosis of pediatric type 1 diabetes? Lessons from the COVID-19 pandemic]. *Monatsschr Kinderheilkd.* 169:451-460.



## List of Publications 2021

- Monzer, N., M. Hartmann, M. Buckert, K. Wolff, P. Nawroth, S. Kopf, Z. Kender, H.C. Friederich, and B. Wild. 2021. Associations of Childhood Neglect With the ACTH and Plasma Cortisol Stress Response in Patients With Type 2 Diabetes. *Front Psychiatry*. 12:679693.
- Morgenstern, J., T. Fleming, E. Kliemkamp, M. Brune, P. Nawroth, and A. Fischer. 2021a. Quantification of All-Trans Retinoic Acid by Liquid Chromatography-Tandem Mass Spectrometry and Association with Lipid Profile in Patients with Type 2 Diabetes. *Metabolites*. 11.
- Morgenstern, J., J.B. Groener, J.M.E. Jende, F.T. Kurz, A. Strom, J. Göpfert, Z. Kender, M. Le Marois, M. Brune, R. Kuner, S. Herzig, M. Roden, D. Ziegler, M. Bendszus, J. Szendroedi, P. Nawroth, S. Kopf, and T. Fleming. 2021b. Neuron-specific biomarkers predict hypo- and hyperalgesia in individuals with diabetic peripheral neuropathy. *Diabetologia*. 64:2843-2855.
- Morigny, P., J. Boucher, P. Arner, and D. Langin. 2021a. Lipid and glucose metabolism in white adipocytes: pathways, dysfunction and therapeutics. *Nat Rev Endocrinol*. 17:276-295.
- Morigny, P., D. Kaltenecker, J. Zuber, J. Machado, L. Mehr, F.F. Tsokanos, H. Kuzi, C.D. Hermann, M. Voelkl, G. Monogarov, C. Springfield, V. Laurent, B. Engelmann, H. Friess, I. Zörnig, A. Krüger, J. Krijgsveld, O. Prokopchuk, S. Fisker Schmidt, M. Rohm, S. Herzig, and M. Berriel Diaz. 2021b. Association of circulating PLA2G7 levels with cancer cachexia and assessment of darapladib as a therapy. *J Cachexia Sarcopenia Muscle*. 12:1333-1351.
- Moser, J., L. Batterink, Y. Li Hegner, F. Schleger, C. Braun, K.A. Paller, and H. Preissl. 2021a. Dynamics of nonlinguistic statistical learning: From neural entrainment to the emergence of explicit knowledge. *Neuroimage*. 240:118378.
- Moser, J., F. Schleger, M. Weiss, K. Sippel, L. Semeia, and H. Preissl. 2021b. Magnetoencephalographic signatures of conscious processing before birth. *Dev Cogn Neurosci*. 49:100964.
- Mueller-Stierlin, A.S., S.B. Teasdale, U. Dinc, S. Moerkel, N. Prinz, T. Becker, and R. Kilian. 2021. Feasibility and Acceptability of Photographic Food Record, Food Diary and Weighed Food Record in People with Serious Mental Illness. *Nutrients*. 13.
- Mühlbacher, T., K. Amann, M. Mahling, S. Nadalin, N. Heyne, and M. Guthoff. 2021. Successful long-term management of recurrent focal segmental glomerulosclerosis after kidney transplantation with costimulation blockade. *Clin Kidney J*. 14:1691-1693.
- Müller, A., D. Schmidt, C.S. Xu, S. Pang, J.V. D'Costa, S. Kretschmar, C. Münster, T. Kurth, F. Jug, M. Weigert, H.F. Hess, and M. Solimena. 2021a. 3D FIB-SEM reconstruction of microtubule-organelle interaction in whole primary mouse β cells. *J Cell Biol*. 220.
- Müller, G.A., A. Lechner, M.H. Tschöp, and T.D. Müller. 2021b. Interaction of Full-Length Glycosylphosphatidylinositol-Anchored Proteins with Serum Proteins and Their Translocation to Cells In Vitro Depend on the (Pre-)Diabetic State in Rats and Humans. *Biomedicines*. 9.
- Müller, G.A., M.H. Tschöp, and T.D. Müller. 2021c. Chip-Based Sensing of the Intercellular Transfer of Cell Surface Proteins: Regulation by the Metabolic State. *Biomedicines*. 9.
- Müller, J.A., R. Groß, C. Conzelmann, J. Krüger, U. Merle, J. Steinhart, T. Weil, L. Koepke, C.P. Bozzo, C. Read, G. Fois, T. Eiseler, J. Gehrmann, J. van Vuuren, I.M. Wessbecher, M. Frick, I.G. Costa, M. Breunig, B. Grüner, L. Peters, M. Schuster, S. Liebau, T. Seufferlein, S. Stenger, A. Stenzinger, P.E. MacDonald, F. Kirchhoff, K.M.J. Sparrer, P. Walther, H. Lickert, T.F.E. Barth, M. Wagner, J. Münch, S. Heller, and A. Kleger. 2021d. SARS-CoV-2 infects and replicates in cells of the human endocrine and exocrine pancreas. *Nat Metab*. 3:149-165.
- Müller, T.D., M. Klingenspor, and M.H. Tschöp. 2021e. Revisiting energy expenditure: how to correct mouse metabolic rate for body mass. *Nat Metab*. 3:1134-1136.
- Murakami, M., N. Sun, C. Greunke, A. Feuchtinger, S. Kircher, T. Deutschbein, T. Papathomas, N. Bechmann, P. William Wallace, M. Peitzsch, E. Korpershoek, J. Friemel, A.P. Gimenez-Roqueplo, M. Robledo, J.L.M.T. H, L. Canu, A. Weber, R.d.K. R, M. Fassnacht, T. Knösel, T. Kirchner, M. Reincke, A. Karl Walch, M. Kroiss, and F. Beuschlein. 2021. Mass spectrometry imaging identifies metabolic patterns associated with malignant potential in pheochromocytoma and paraganglioma. *Eur J Endocrinol*. 185:179-191.
- Murat, C.B., and C. García-Cáceres. 2021. Astrocyte Gliotransmission in the Regulation of Systemic Metabolism. *Metabolites*. 11.



## List of Publications 2021

- Naeem, M., R. Bülow, S. Schipf, N. Werner, M. Dörr, M.M. Lerch, J.P. Kühn, W. Rathmann, M. Nauck, M.R.P. Markus, T. Ittermann, and H. Völzke. 2021. Association of hepatic steatosis derived from ultrasound and quantitative MRI with prediabetes in the general population. *Sci Rep.* 11:13276.
- Napolitano, T., F. Avolio, S. Silvano, S. Forcisi, A. Pfeifer, A. Vieira, S. Navarro-Sanz, M.E. Friano, C. Ayachi, A. Garrido-Utrilla, J. Atlija, B. Hadzic, J. Becam, A. Sousa-De-Veiga, M.D. Plaisant, S. Balaji, D.F. Pisani, M. Mondin, P. Schmitt-Kopplin, E.Z. Amri, and P. Collombat. 2021. Gfi1 Loss Protects against Two Models of Induced Diabetes. *Cells.* 10.
- Nasteska, D., N.H.F. Fine, F.B. Ashford, F. Cuozzo, K. Viloria, G. Smith, A. Dahir, P.W.J. Dawson, Y.C. Lai, A. Bastidas-Ponce, M. Bakhti, G.A. Rutter, R. Fiancette, R. Nano, L. Piemonti, H. Lickert, Q. Zhou, I. Akerman, and D.J. Hodson. 2021. PDX1(LOW) MAFA(LOW)  $\beta$ -cells contribute to islet function and insulin release. *Nat Commun.* 12:674.
- Neumann, A.M., C. Geißler, V. Pilorz, I. Olejniczak, A.G. Lewis, R.J. Seeley, O. Shomroni, G. Salinas-Riester, H. Kirchner, and H. Oster. 2021. Restructuring of the male mice peripheral circadian network after bariatric surgery. *J Endocrinol.* 250:67-79.
- Neuwahl, S.J., P. Zhang, H. Chen, H. Shao, M. Laxy, A.M. Anderson, T.E. Craven, and T.J. Hoerger. 2021. Patient Health Utility Equations for a Type 2 Diabetes Model. *Diabetes Care.* 44:381-389.
- Ng, B.P., M. Laxy, S.S. Shrestha, R.E. Soler, M.J. Cannon, B.D. Smith, and P. Zhang. 2021. Prevalence and medical expenditures of diabetes-related complications among adult Medicaid enrollees with diabetes in eight U.S. states. *J Diabetes Complications.* 35:107814.
- Nguyen, P.B.H., A.J. Ohnmacht, S. Sharifli, M.J. Garnett, and M.P. Menden. 2021. Inferred Ancestral Origin of Cancer Cell Lines Associates with Differential Drug Response. *Int J Mol Sci.* 22.
- Nho, K., A. Kueider-Paisley, M. Arnold, S. MahmoudianDehkordi, S.L. Risacher, G. Louie, C. Blach, R. Baillie, X. Han, G. Kastenmüller, P.M. Doraiswamy, R. Kaddurah-Daouk, and A.J. Saykin. 2021. Serum metabolites associated with brain amyloid beta deposition, cognition and dementia progression. *Brain Commun.* 3:fcab139.
- Niethard, N., S. Brodt, and J. Born. 2021. Cell-Type-Specific Dynamics of Calcium Activity in Cortical Circuits over the Course of Slow-Wave Sleep and Rapid Eye Movement Sleep. *J Neurosci.* 41:4212-4222.
- Nitsch, S., L. Zorro Shahidian, and R. Schneider. 2021. Histone acylations and chromatin dynamics: concepts, challenges, and links to metabolism. *EMBO Rep.* 22:e52774.
- Noseda, A.C.D., L.S. Rodrigues, A.D.S. Targa, J.L. Ilkiw, J. Fagotti, P.D. Dos Santos, E. Cecon, R.P. Markus, M. Solimena, R. Jockers, and M.M.S. Lima. 2021. MT(2) melatonin receptors expressed in the olfactory bulb modulate depressive-like behavior and olfaction in the 6-OHDA model of Parkinson's disease. *Eur J Pharmacol.* 891:173722.
- Novikoff, A., S.L. O'Brien, M. Bernecker, G. Grandl, M. Kleinert, P.J. Knerr, K. Stemmer, M. Klingenspor, A. Zeigerer, R. DiMarchi, M.H. Tschöp, B. Finan, D. Calebiro, and T.D. Müller. 2021. Spatiotemporal GLP-1 and GIP receptor signaling and trafficking/recycling dynamics induced by selected receptor mono- and dual-agonists. *Mol Metab.* 49:101181.
- Nyasordzi, J., J. Conrad, J. Goletzke, H. Ludwig-Walz, C. Herder, M. Roden, S.A. Wudy, Y. Hua, T. Remer, and A.E. Buyken. 2021. Early life factors and their relevance for markers of cardiometabolic risk in early adulthood. *Nutr Metab Cardiovasc Dis.* 31:2109-2121.
- Ogurtsova, K., S. Morbach, B. Haastert, M. Dubský, G. Rümenapf, D. Ziegler, A. Jirkovska, and A. Icks. 2021. Cumulative long-term recurrence of diabetic foot ulcers in two cohorts from centres in Germany and the Czech Republic. *Diabetes Res Clin Pract.* 172:108621.
- Oppenländer, L., S. Palit, K. Stemmer, T. Greisle, M. Sterr, C. Salinno, A. Bastidas-Ponce, A. Feuchtinger, A. Böttcher, Ansarullah, F.J. Theis, and H. Lickert. 2021. Vertical sleeve gastrectomy triggers fast  $\beta$ -cell recovery upon overt diabetes. *Mol Metab.* 54:101330.
- Ott, C., T. Jung, S. Brix, C. John, I.R. Betz, A. Foryst-Ludwig, S. Deubel, W.M. Kuebler, T. Grune, U. Kintscher, and J. Grune. 2021a. Hypertrophy-Reduced Autophagy Causes Cardiac Dysfunction by Directly Impacting Cardiomyocyte Contractility. *Cells.* 10.
- Ott, C., K. Papritz, N. Hegemann, C. John, S. Jeuthe, C.S. McAlpine, Y. Iwamoto, J.H. Lauryn, J. Klages, R. Klopffleisch, S. Van Linthout, F. Swirski, M. Nahrendorf, U. Kintscher, T. Grune, W.M. Kuebler, and J. Grune. 2021b. Spontaneous Degenerative Aortic Valve Disease in New Zealand Obese Mice. *J Am Heart Assoc.* 10:e023131.



## List of Publications 2021

- Ott, C., F. Tomasina, N. Campolo, S. Bartesaghi, M. Mastrogiovanni, A. Leyva, C. Batthyány, W. Meinl, T. Grune, and R. Radi. 2021c. Decreased proteasomal cleavage at nitrotyrosine sites in proteins and peptides. *Redox Biol.* 46:102106.
- Ouni, M., P. Gottmann, E. Westholm, K. Schwerbel, M. Jähnert, M. Stadion, K. Rittig, H. Vogel, and A. Schürmann. 2021. MiR-205 is up-regulated in islets of diabetes-susceptible mice and targets the diabetes gene Tcf7l2. *Acta Physiol (Oxf)*. 232:e13693.
- Pafili, K., and M. Roden. 2021. Nonalcoholic fatty liver disease (NAFLD) from pathogenesis to treatment concepts in humans. *Mol Metab.* 50:101122.
- Patzelt, L., D. Junker, J. Syväri, E. Burian, M. Wu, O. Prokopchuk, U. Nitsche, M.R. Makowski, R.F. Braren, S. Herzig, M.B. Diaz, and D.C. Karampinos. 2021. MRI-Determined Psoas Muscle Fat Infiltration Correlates with Severity of Weight Loss during Cancer Cachexia. *Cancers (Basel)*. 13.
- Pawliczek, D., H. Fuchs, V. Gailus-Durner, M. Hrabě de Angelis, J. Graw, and C. Dalke. 2021. Ionising radiation causes vision impairment in neonatal B6C3F1 mice. *Exp Eye Res.* 204:108432.
- Pedron, S., C.F. Kurz, L. Schwettmann, and M. Laxy. 2021a. The Effect of BMI and Type 2 Diabetes on Socioeconomic Status: A Two-Sample Multivariable Mendelian Randomization Study. *Diabetes Care.* 44:850-852.
- Pedron, S., K. Schmaderer, M. Murawski, and L. Schwettmann. 2021b. The association between childhood socioeconomic status and adult health behavior: The role of locus of control. *Soc Sci Res.* 95:102521.
- Perrar, I., A.E. Buyken, K.J. Penczynski, T. Remer, G.G. Kuhnle, C. Herder, M. Roden, K. Della Corte, U. Nöthlings, and U. Alexy. 2021. Relevance of fructose intake in adolescence for fatty liver indices in young adulthood. *Eur J Nutr.* 60:3029-3041.
- Pesta, D., T. Jelenik, O.P. Zaharia, P. Bobrov, S. Görgens, K. Bódis, Y. Karusheva, N. Krako Jakovljevic, N.M. Lalic, D.F. Markgraf, V. Burkart, K. Müssig, B. Knebel, J. Kotzka, J. Eckel, K. Strassburger, J. Szendroedi, and M. Roden. 2021. NDUFB6 Polymorphism Is Associated With Physical Activity-Mediated Metabolic Changes in Type 2 Diabetes. *Front Endocrinol (Lausanne)*. 12:693683.
- Pestoni, G., A. Riedl, T.A. Breuninger, N. Wawro, J.P. Krieger, C. Meisinger, W. Rathmann, B. Thorand, C. Harris, A. Peters, S. Rohrmann, and J. Linseisen. 2021. Association between dietary patterns and prediabetes, undetected diabetes or clinically diagnosed diabetes: results from the KORA FF4 study. *Eur J Nutr.* 60:2331-2341.
- Peters, B., D.A. Koppold-Liebscher, B. Schuppelius, N. Steckhan, A.F.H. Pfeiffer, A. Kramer, A. Michalsen, and O. Pivovarova-Ramich. 2021. Effects of Early vs. Late Time-Restricted Eating on Cardiometabolic Health, Inflammation, and Sleep in Overweight and Obese Women: A Study Protocol for the ChronoFast Trial. *Front Nutr.* 8:765543.
- Pfeiffer, A.F.H., and S. Kabisch. 2021. Lean (Pre)Diabetes - Underestimated and Underexplored. *J Clin Endocrinol Metab.* 106:e3278-e3280.
- Pietzner, M., E. Wheeler, J. Carrasco-Zanini, A. Cortes, M. Koprulu, M.A. Wörheide, E. Oerton, J. Cook, I.D. Stewart, N.D. Kerrison, J. Luan, J. Raffler, M. Arnold, W. Arlt, S. O'Rahilly, G. Kastenmüller, E.R. Gamazon, A.D. Hingorani, R.A. Scott, N.J. Wareham, and C. Langenberg. 2021. Mapping the proteo-genomic convergence of human diseases. *Science.* 374:eabj1541.
- Pinart, M., K. Nimptsch, S.K. Forslund, K. Schlicht, M. Gueimonde, P. Brigi, S. Turroni, W. Ahrens, A. Hebestreit, M. Wolters, A. Dötsch, U. Nöthlings, K. Oluwagbemigun, R.R.C. Cuadrat, M.B. Schulze, M. Standl, M. Schloter, M. De Angelis, P. Iozzo, M.A. Guzzardi, G. Vlaemynck, J. Penders, D. Jonkers, M. Stemmer, G. Chiesa, D. Cavalieri, C. De Filippo, D. Ercolini, F. De Filippis, D. Ribet, N. Achamrah, M.P. Tavolacci, P. Déchelotte, J. Bouwman, M. Laudes, and T. Pischon. 2021. Identification and Characterization of Human Observational Studies in Nutritional Epidemiology on Gut Microbiomics for Joint Data Analysis. *Nutrients.* 13.
- Pinchuk, I., R. Kohen, W. Stuetz, D. Weber, C. Franceschi, M. Capri, M. Hurme, B. Grubeck-Loebenstein, C. Schön, J. Bernhardt, F. Debacq-Chainiaux, M.E.T. Dollé, E. Jansen, E.S. Gonos, E. Sikora, N. Breusing, D. Gradinaru, M. Moreno-Villanueva, A. Bürkle, T. Grune, and D. Lichtenberg. 2021. Do low molecular weight antioxidants contribute to the Protection against oxidative damage? The interrelation between oxidative stress and low molecular weight antioxidants based on data from the MARK-AGE study. *Arch Biochem Biophys.* 713:109061.
- Pinter, A., P. Schwarz, S. Gerdes, J.C. Simon, A. Saalbach, J. Rush, N. Melzer, T. Kramps, B. Häberle, and M. Reinhardt. 2021. Biologic Treatment in Combination with Lifestyle Intervention in Moderate to Severe Plaque Psoriasis and Concomitant Metabolic Syndrome: Rationale and Methodology of the METABOLyx Randomized Controlled Clinical Trial. *Nutrients.* 13.



## List of Publications 2021

- Pitchika, A., J.P. Kühn, S. Schipf, M. Nauck, M. Dörr, M.M. Lerch, M.L. Kromrey, S.B. Felix, M.R.P. Markus, W. Rathmann, H. Völzke, and T. Ittermann. 2021. Hepatic steatosis and hepatic iron overload modify the association of iron markers with glucose metabolism disorders and metabolic syndrome. *Liver Int.* 41:1841-1852.
- Pitsilos, T., A.K. Wikström, A. Skalkidou, B. Derntl, M. Hallschmid, N.D. Lutz, E. Ngai, I. Sundström Poromaa, and A. Wikman. 2021. Association Between Objectively Assessed Sleep and Depressive Symptoms During Pregnancy and Post-partum. *Front Glob Womens Health.* 2:807817.
- Pivovarova-Ramich, O., J. Loske, S. Hornemann, M. Markova, N. Seebeck, A. Rosenthal, F. Klauschen, J.P. Castro, R. Buschow, T. Grune, V. Lange, N. Rudovich, and D.M. Ouwendijk. 2021. Hepatic Wnt1 Inducible Signaling Pathway Protein 1 (WISP-1/CCN4) Associates with Markers of Liver Fibrosis in Severe Obesity. *Cells.* 10.
- Polemiti, E., J. Baudry, O. Kuxhaus, S. Jäger, M.M. Bergmann, C. Weikert, and M.B. Schulze. 2021. BMI and BMI change following incident type 2 diabetes and risk of microvascular and macrovascular complications: the EPIC-Potsdam study. *Diabetologia.* 64:814-825.
- Porniece Kumar, M., A.L. Cremer, P. Klemm, L. Steuernagel, S. Sundaram, A. Jais, A.C. Hausen, J. Tao, A. Secher, T. Pedersen, M. Schwaninger, F.T. Wunderlich, B.B. Lowell, H. Backes, and J.C. Brüning. 2021. Insulin signalling in tanycytes gates hypothalamic insulin uptake and regulation of AgRP neuron activity. *Nat Metab.* 3:1662-1679.
- Portilla-Fernández, E., S.J. Hwang, R. Wilson, J. Maddock, W.D. Hill, A. Teumer, P.P. Mishra, J.A. Brody, R. Joehanes, S. Ligthart, M. Ghanbari, M. Kavousi, A.J.M. Roks, A.H.J. Danser, D. Levy, A. Peters, S. Ghasemi, U. Schminke, M. Dörr, H.J. Grabe, T. Lehtimäki, M. Kähönen, M.A. Hurme, T.M. Bartz, N. Sotoodehnia, J.C. Bis, J. Thiery, W. Koenig, K.K. Ong, J.T. Bell, C. Meisinger, J.M. Wardlaw, J.M. Starr, J. Seissler, C. Then, W. Rathmann, M.A. Ikram, B.M. Psaty, O.T. Raitakari, H. Völzke, I.J. Deary, A. Wong, M. Waldenberger, C.J. O'Donnell, and A. Dehghan. 2021. Meta-analysis of epigenome-wide association studies of carotid intima-media thickness. *Eur J Epidemiol.* 36:1143-1155.
- Post, J., A. Schaffrath, I. Gering, S. Hartwig, S. Lehr, N.J. Shah, K.J. Langen, D. Willbold, J. Kutzsche, and A. Willuweit. 2021. Oral Treatment with RD2RD2 Impedes Development of Motoric Phenotype and Delays Symptom Onset in SOD1(G93A) Transgenic Mice. *Int J Mol Sci.* 22.
- Potzel, A.L., C. Gar, J. Seissler, and A. Lechner. 2021. A Smartphone App (TRIANGLE) to Change Cardiometabolic Risk Behaviors in Women Following Gestational Diabetes Mellitus: Intervention Mapping Approach. *JMIR Mhealth Uhealth.* 9:e26163.
- Prada, M., C. Wittenbecher, F. Eichelmann, A. Wernitz, J.P. Drouin-Chartier, and M.B. Schulze. 2021. Association of the odd-chain fatty acid content in lipid groups with type 2 diabetes risk: A targeted analysis of lipidomics data in the EPIC-Potsdam cohort. *Clin Nutr.* 40:4988-4999.
- Prinz, N., A. Schwandt, B. Borgert, B. Hartmann, H.P. Kempe, J.K. Mader, S. Merger, R. Weber-Lauffer, F.J. Wosch, and R.W. Holl. 2021a. Not All Type-2-Diabetes Patients Increase Body Mass Index After Initiating Insulin: Results of Latent Class Analysis from the DPV Registry. *Diabetes Technol Ther.* 23:799-806.
- Prinz, N., S.R. Tittel, R. Bachran, R. Birnbacher, J. Brückel, D. Dunstheimer, H. Haberland, M. Hess, W. Karges, R. Oeverink, A. Veigel, and R.W. Holl. 2021b. Characteristics of Patients with Type 1 Diabetes and Additional Autoimmune Disease in the DPV Registry. *J Clin Endocrinol Metab.* 106:e3381-e3389.
- Przybyszewski, E.M., G. Targher, M. Roden, and K.E. Corey. 2021. Nonalcoholic Fatty Liver Disease and Cardiovascular Disease. *Clin Liver Dis (Hoboken).* 17:19-22.
- Ptushkina, V., E. Seidel-Jacobs, W. Maier, S. Schipf, H. Völzke, M.R.P. Markus, M. Nauck, C. Meisinger, A. Peters, C. Herder, L. Schwettmann, M. Dörr, S.B. Felix, M. Roden, and W. Rathmann. 2021. Educational Level, but Not Income or Area Deprivation, is Related to Macrovascular Disease: Results From Two Population-Based Cohorts in Germany. *Int J Public Health.* 66:633909.
- Qi, H., F. Schmöhl, X. Li, X. Qian, C.T. Tabler, K. Bennewitz, C. Sticht, J. Morgenstern, T. Fleming, N. Volk, I. Hausser, E. Heidenreich, R. Hell, P.P. Nawroth, and J. Kroll. 2021. Reduced Acrolein Detoxification in akr1a1a Zebrafish Mutants Causes Impaired Insulin Receptor Signaling and Microvascular Alterations. *Adv Sci (Weinh).* 8:e2101281.
- Quante, M., L. Brake, A. Tolios, A. Della Penna, C. Steidle, M. Gruendl, A. Grishina, H. Haeberle, M. Guthoff, S.G. Tullius, A. Königsrainer, S. Nadalin, and M.W. Löffler. 2021. SARS-CoV-2 in Solid Organ Transplant Recipients: A Structured Review of 2020. *Transplant Proc.* 53:2421-2434.



## List of Publications 2021

- Quarta, C., M. Claret, L.M. Zeltser, K.W. Williams, G.S.H. Yeo, M.H. Tschöp, S. Diano, J.C. Brüning, and D. Cota. 2021. POMC neuronal heterogeneity in energy balance and beyond: an integrated view. *Nat Metab.* 3:299-308.
- Rahman, M., M. Irmler, S. Keshavan, M. Introna, J. Beckers, L. Palmberg, G. Johanson, K. Ganguly, and S. Upadhyay. 2021. Differential Effect of SARS-CoV-2 Spike Glycoprotein 1 on Human Bronchial and Alveolar Lung Mucosa Models: Implications for Pathogenicity. *Viruses.* 13.
- Rathkolb, B., M. Howaldt, S. Krebs, P. Prückl, S. Sauer, M. Hrabě de Angelis, and B. Aigner. 2021. Distinct Morphological and Behavioural Alterations in ENU-Induced Heterozygous Trpc7(K810Stop) Mutant Mice. *Genes (Basel).* 12.
- Rathmann, W., and B. Bongaerts. 2021. Pharmacogenetics of novel glucose-lowering drugs. *Diabetologia.* 64:1201-1212.
- Ratter-Rieck, J.M., H. Maalmi, S. Trenkamp, O.P. Zaharia, W. Rathmann, N.C. Schloot, K. Straßburger, J. Szendroedi, C. Herder, and M. Roden. 2021. Leukocyte Counts and T-Cell Frequencies Differ Between Novel Subgroups of Diabetes and Are Associated With Metabolic Parameters and Biomarkers of Inflammation. *Diabetes.* 70:2652-2662.
- Ratter, J.M., J.I.P. van Heck, H.M.M. Rooijackers, H.J. Jansen, P.C.M. van Poppel, C.J. Tack, and R. Stienstra. 2021. Insulin acutely activates metabolism of primary human monocytes and promotes a proinflammatory phenotype. *J Leukoc Biol.* 110:885-891.
- Razquin, C., M. Ruiz-Canela, E. Toledo, P. Hernández-Alonso, C.B. Clish, M. Guasch-Ferré, J. Li, C. Wittenbecher, C. Dennis, A. Alonso-Gómez, M. Fitó, L. Liang, D. Corella, E. Gómez-Gracia, R. Estruch, M. Fiol, J. Lapetra, L. Serra-Majem, E. Ros, F. Aros, J. Salas-Salvadó, F.B. Hu, and M.A. Martínez-González. 2021. Metabolomics of the tryptophan-kynurenine degradation pathway and risk of atrial fibrillation and heart failure: potential modification effect of Mediterranean diet. *Am J Clin Nutr.* 114:1646-1654.
- Rehman, S.U., T. Schallschmidt, A. Rasche, B. Knebel, T. Stermann, D. Altenhofen, R. Herwig, A. Schürmann, A. Chadt, and H. Al-Hasani. 2021. Alternative exon splicing and differential expression in pancreatic islets reveals candidate genes and pathways implicated in early diabetes development. *Mamm Genome.* 32:153-172.
- Reinehr, T., A. Kulle, A. Barth, J. Ackermann, R.W. Holl, and P.M. Holterhus. 2021a. Transition from gynaecomastia to lipomastia in pubertal boys. *Clin Endocrinol (Oxf).* 94:583-589.
- Reinehr, T., S.R. Tittel, R. Holle, S. Wiegand, I. Gellhaus, J. Hebebrand, S. Greber-Platzer, C. Denzer, S. Linke, W. Kiess, and R.W. Holl. 2021b. Comparison of cardiovascular risk factors between children and adolescents with classes III and IV obesity: findings from the APV cohort. *Int J Obes (Lond).* 45:1061-1073.
- Reinhardt, G., P. Timpel, P.E.H. Schwarz, and L. Harst. 2021. Long-Term Effects of a Video-Based Smartphone App ("VIDEA Bewegt") to Increase the Physical Activity of German Adults: A Single-Armed Observational Follow-Up Study. *Nutrients.* 13.
- Reitzle, L., C. Schmidt, C. Heidemann, A. Icks, M. Kaltheuner, T. Ziese, and C. Scheidt-Nave. 2021. Gestational diabetes in Germany: Development of screening participation and prevalence. *J Health Monit.* 6:3-18.
- Repp, K., D. Radke, T. Ittermann, M. Albers, M.R.P. Markus, E.T. Santa Helena, N. Friedrich, R. Bülow, and H. Völzke. 2021. The site of waist measurement impacts the estimation of visceral fat: results from three-dimensional photonic body scanning. *Br J Nutr.* 1-11.
- Reschke, F., J. Rohayem, P. Maffei, F. Dassie, A. Schwandt, C. de Beaufort, S. Toni, A. Szypowska, R. Cardona-Hernandez, N. Datz, K. Klee, and T. Danne. 2021. Collaboration for rare diabetes: understanding new treatment options for Wolfram syndrome. *Endocrine.* 71:626-633.
- Ress, C., J. Dobner, K. Rufinatscha, B. Staels, M. Hofer, S. Folie, B. Radlinger, T.E. Adolph, E.M. Rubin, M. Roden, H. Tilg, and S. Kaser. 2021. Apolipoprotein A5 controls fructose-induced metabolic dysregulation in mice. *Nutr Metab Cardiovasc Dis.* 31:972-978.
- Rezende, F., P.F. Malacarne, N. Müller, B. Rathkolb, M. Hrabě de Angelis, K. Schröder, and P.B. R. 2021. Nox4 Maintains Blood Pressure during Low Sodium Diet. *Antioxidants (Basel).* 10.
- Ried-Larsen, M., M.G. Rasmussen, K. Blond, T.F. Overvad, K. Overvad, K. Steindorf, V. Katzke, J.L.M. Andersen, K.E.N. Petersen, D. Aune, K.K. Tsilidis, A.K. Heath, K. Papier, S. Panico, G. Masala, V. Pala, E. Weiderpass, H. Freisling, M.M. Bergmann, W.M.M. Verschuren, R. Zamora-Ros, S.M. Colorado-Yohar, A.M.W. Spijkerman, M.B. Schulze, E.M.A. Ardanaz, L.B. Andersen, N. Wareham, S. Brage, and A. Grøntved. 2021. Association of Cycling With All-Cause and Cardiovascular Disease Mortality Among Persons With Diabetes: The European Prospective Investigation Into Cancer and Nutrition (EPIC) Study. *JAMA Intern Med.* 181:1196-1205.



## List of Publications 2021

- Rodriguez-Calvo, T., G. Christoffersson, C. Bender, M.G. von Herrath, R. Mallone, S.C. Kent, and E.A. James. 2021. Means, Motive, and Opportunity: Do Non-Islet-Reactive Infiltrating T Cells Contribute to Autoimmunity in Type 1 Diabetes? *Front Immunol.* 12:683091.
- Roth, J., O. Sommerfeld, A.L. Birkenfeld, C. Sponholz, U.A. Müller, and C. von Loeffelholz. 2021. Blood Sugar Targets in Surgical Intensive Care—Management and Special Considerations in Patients With Diabetes. *Dtsch Arztebl Int.* 118:629-636.
- Rothe, M., C. Wessel, S. Cames, J. Szendroedi, V. Burkart, J.H. Hwang, and M. Roden. 2021. In vivo absolute quantification of hepatic  $\gamma$ -ATP concentration in mice using (31) P MRS at 11.7 T. *NMR Biomed.* 34:e4422.
- Rottenkolber, M., C. Gar, C. Then, L. Wanger, V. Sacco, F. Banning, A.L. Potzel, S. Kern-Matschilles, C. Nevinny-Stickel-Hinzpeter, H. Grallert, N. Hesse, J. Seissler, and A. Lechner. 2021. A Pathophysiology of Type 2 Diabetes Unrelated to Metabolic Syndrome. *J Clin Endocrinol Metab.* 106:1460-1471.
- Rühlemann, M.C., B.M. Hermes, C. Bang, S. Doms, L. Moitinho-Silva, L.B. Thingholm, F. Frost, F. Degenhardt, M. Wittig, J. Kässens, F.U. Weiss, A. Peters, K. Neuhaus, U. Völker, H. Völzke, G. Homuth, S. Weiss, H. Grallert, M. Laudes, W. Lieb, D. Haller, M.M. Lerch, J.F. Baines, and A. Franke. 2021. Genome-wide association study in 8,956 German individuals identifies influence of ABO histo-blood groups on gut microbiome. *Nat Genet.* 53:147-155.
- Ruiz-Ojeda, F.J., J. Wang, T. Bäcker, M. Krueger, S. Zamani, S. Rosowski, T. Gruber, Y. Onogi, A. Feuchtinger, T.J. Schulz, R. Fässler, T.D. Müller, C. García-Cáceres, M. Meier, M. Blüher, and S. Ussar. 2021. Active integrins regulate white adipose tissue insulin sensitivity and brown fat thermogenesis. *Mol Metab.* 45:101147.
- Ruppert, P.M., L. Deng, G.J. Hooiveld, R.W. Hangelbroek, A. Zeigerer, and S. Kersten. 2021. RNA sequencing reveals niche gene expression effects of beta-hydroxybutyrate in primary myotubes. *Life Sci Alliance.* 4.
- Ruth, K.S., F.R. Day, J. Hussain, A. Martínez-Marchal, C.E. Aiken, A. Azad, D.J. Thompson, L. Knoblochova, H. Abe, J.L. Tarry-Adkins, J.M. Gonzalez, P. Fontanillas, A. Claringbould, O.B. Bakker, P. Sulem, R.G. Walters, C. Terao, S. Turon, M. Horikoshi, K. Lin, N.C. Onland-Moret, A. Sankar, E.P.T. Hertz, P.N. Timshel, V. Shukla, R. Borup, K.W. Olsen, P. Aguilera, M. Ferrer-Roda, Y. Huang, S. Stankovic, P. Timmers, T.U. Ahearn, B.Z. Alizadeh, E. Naderi, I.L. Andrusis, A.M. Arnold, K.J. Aronson, A. Augustinsson, S. Bandinelli, C.M. Barbieri, R.N. Beaumont, H. Becher, M.W. Beckmann, S. Benonisdottir, S. Bergmann, M. Bochud, E. Boerwinkle, S.E. Bojesen, M.K. Bolla, D.I. Boomsma, N. Bowker, J.A. Brody, L. Broer, J.E. Buring, A. Campbell, H. Campbell, J.E. Castelao, E. Catamo, S.J. Chanock, G. Chenevix-Trench, M. Ciullo, T. Corre, F.J. Couch, A. Cox, L. Crisponi, S.S. Cross, F. Cucca, K. Czene, G.D. Smith, E. de Geus, R. de Mutsert, I. De Vivo, E.W. Demerath, J. Dennis, A.M. Dunning, M. Dwek, M. Eriksson, T. Esko, P.A. Fasching, J.D. Faul, L. Ferrucci, N. Franceschini, T.M. Frayling, M. Gago-Dominguez, M. Mezzavilla, M. García-Closas, C. Gieger, G.G. Giles, H. Grallert, D.F. Gudbjartsson, V. Gudnason, P. Guénél, C.A. Haiman, N. Håkansson, P. Hall, C. Hayward, C. He, W. He, G. Heiss, et al. 2021. Genetic insights into biological mechanisms governing human ovarian ageing. *Nature.* 596:393-397.
- Saatmann, N., O.P. Zaharia, J.P. Loenneke, M. Roden, and D.H. Pesta. 2021. Effects of Blood Flow Restriction Exercise and Possible Applications in Type 2 Diabetes. *Trends Endocrinol Metab.* 32:106-117.
- Sachs, S., L. Niu, P. Geyer, S. Jall, M. Kleinert, A. Feuchtinger, K. Stemmer, M. Brielmeyer, B. Finan, R.D. DiMarchi, M.H. Tschöp, N. Wewer Albrechtsen, M. Mann, T.D. Müller, and S.M. Hofmann. 2021. Plasma proteome profiles treatment efficacy of incretin dual agonism in diet-induced obese female and male mice. *Diabetes Obes Metab.* 23:195-207.
- Sager, C.P., S. Weber, M. Negri, P. Banachowicz, G. Möller, J. Adamski, R.W. Hartmann, and S. Marchais-Oberwinkler. 2021. Homology modeling meets site-directed mutagenesis: An ideal combination to elucidate the topology of 17 $\beta$ -HSD2. *J Steroid Biochem Mol Biol.* 206:105790.
- Saiyed, M., D. Hasnani, G.T. Alonso, E. Richmond, S. Besançon, A. Cotterill, U. Ngwu, C. Mazza, D. Rottembourg, and S. Lanzinger. 2021. Worldwide differences in childhood type 1 diabetes: The SWEET experience. *Pediatr Diabetes.* 22:207-214.
- Salinno, C., M. Büttner, P. Cota, S. Tritschler, M. Tarquis-Medina, A. Bastidas-Ponce, K. Scheibner, I. Burtscher, A. Böttcher, F.J. Theis, M. Bakhti, and H. Lickert. 2021. CD81 marks immature and dedifferentiated pancreatic  $\beta$ -cells. *Mol Metab.* 49:101188.
- Scheiber, D., E. Zweck, S. Albermann, T. Jelenik, M. Spieker, F. Bönner, P. Horn, H.P. Schultheiss, G. Aleshcheva, F. Escher, U. Boeken, P. Akhyari, M. Roden, M. Kelm, J. Szendroedi, and R. Westenfeld. 2021. Human myocardial mitochondrial oxidative capacity is impaired in mild acute heart transplant rejection. *ESC Heart Fail.* 8:4674-4684.
- Scheibner, K., S. Schirge, I. Burtscher, M. Büttner, M. Sterr, D. Yang, A. Böttcher, Ansarullah, M. Irmler, J. Beckers, F.M. Cernilogar, G. Schotta, F.J. Theis, and H. Lickert. 2021. Epithelial cell plasticity drives endoderm formation during gastrulation. *Nat Cell Biol.* 23:692-703.



## List of Publications 2021

- Schell, M., K. Wardelmann, and A. Kleinridders. 2021. Untangling the effect of insulin action on brain mitochondria and metabolism. *J Neuroendocrinol.* 33:e12932.
- Schiborn, C., T. Kühn, K. Mühlenbruch, O. Kuxhaus, C. Weikert, A. Fritzsche, R. Kaaks, and M.B. Schulze. 2021. A newly developed and externally validated non-clinical score accurately predicts 10-year cardiovascular disease risk in the general adult population. *Sci Rep.* 11:19609.
- Schleger, F., K. Linder, L. Fritzsche, J. Pauluschke-Fröhlich, M. Heni, M. Weiss, H.U. Häring, H. Preissl, and A. Fritzsche. 2021. No Effect of Lifestyle Intervention during Third Trimester on Brain Programming in Fetuses of Mothers with Gestational Diabetes. *Nutrients.* 13.
- Schlesinger, S., M. Neuenschwander, A. Lang, K. Pafili, O. Kuss, C. Herder, and M. Roden. 2021. Risk phenotypes of diabetes and association with COVID-19 severity and death: a living systematic review and meta-analysis. *Diabetologia.* 64:1480-1491.
- Schlosser, P., A. Tin, P.R. Matias-Garcia, C.H.L. Thio, R. Joehanes, H. Liu, A. Weihs, Z. Yu, A. Hoppmann, F. Grundner-Culemann, J.L. Min, A.A. Adeyemo, C. Agyemang, J. Årnlöv, N.A. Aziz, A. Baccarelli, M. Bochud, H. Brenner, M.M.B. Breteler, C. Carmeli, L. Chaker, J.C. Chambers, S.A. Cole, J. Coresh, T. Corre, A. Correa, S.R. Cox, N. de Klein, G.E. Delgado, A. Domingo-Relloso, K.U. Eckardt, A.B. Ekici, K. Endlich, K.L. Evans, J.S. Floyd, M. Fornage, L. Franke, E. Fraszczyk, X. Gao, X. Gào, M. Ghanbari, S. Ghasemi, C. Gieger, P. Greenland, M.L. Grove, S.E. Harris, G. Hemani, P. Henneman, C. Herder, S. Horvath, L. Hou, M.A. Hurme, S.J. Hwang, M.R. Jarvelin, S.L.R. Kardia, S. Kasela, M.E. Kleber, W. Koenig, H. Kramer, F. Kronenberg, B. Kühnel, T. Lehtimäki, L. Lind, D. Liu, Y. Liu, D.M. Lloyd-Jones, K. Lohman, S. Lorkowski, A.T. Lu, R.E. Marioni, W. März, D.L. McCartney, K.A.C. Meeks, L. Milani, P.P. Mishra, M. Nauck, A. Navas-Acien, C. Nowak, A. Peters, H. Prokisch, B.M. Psaty, O.T. Raitakari, S.M. Ratliff, A.P. Reiner, S.E. Rosas, B. Schöttker, J. Schwartz, S. Sedaghat, J.A. Smith, N. Sotoodehnia, H.R. Stocker, S. Stringhini, J. Sundström, B.R. Swenson, M. Tellez-Plaza, J.B.J. van Meurs, J.V. van Vliet-Ostaptchouk, A. Venema, N. Verweij, et al. 2021. Meta-analyses identify DNA methylation associated with kidney function and damage. *Nat Commun.* 12:7174.
- Schmid, K.T., B. Höllbacher, C. Cruceanu, A. Böttcher, H. Lickert, E.B. Binder, F.J. Theis, and M. Heinig. 2021. scPower accelerates and optimizes the design of multi-sample single cell transcriptomic studies. *Nat Commun.* 12:6625.
- Schmitt, A., J. McSharry, J. Speight, E. Holmes-Truscott, C. Hendrieckx, T. Skinner, F. Pouwer, and M. Byrne. 2021. Symptoms of depression and anxiety in adults with type 1 diabetes: Associations with self-care behaviour, glycaemia and incident complications over four years - Results from diabetes MILES-Australia. *J Affect Disord.* 282:803-811.
- Schmitz, T., C. Thilo, J. Linseisen, M. Heier, A. Peters, B. Kuch, and C. Meisinger. 2021a. Admission ECG changes predict short term-mortality after acute myocardial infarction less reliable in patients with diabetes. *Sci Rep.* 11:6307.
- Schmitz, T., C. Thilo, J. Linseisen, M. Heier, A. Peters, B. Kuch, and C. Meisinger. 2021b. Low serum calcium is associated with higher long-term mortality in myocardial infarction patients from a population-based registry. *Sci Rep.* 11:2476.
- Schnermann, M.E., C.A. Schulz, C. Herder, U. Alexy, and U. Nöthlings. 2021. A lifestyle pattern during adolescence is associated with cardiovascular risk markers in young adults: results from the DONALD cohort study. *J Nutr Sci.* 10:e92.
- Schnurr, T.M., E. Jørsboe, A. Chadt, I.K. Dahl-Petersen, J.M. Kristensen, J.F.P. Wojtaszewski, C. Springer, P. Bjerregaard, S. Brage, O. Pedersen, I. Moltke, N. Grarup, H. Al-Hasani, A. Albrechtzen, M.E. Jørgensen, and T. Hansen. 2021. Physical activity attenuates postprandial hyperglycaemia in homozygous TBC1D4 loss-of-function mutation carriers. *Diabetologia.* 64:1795-1804.
- Schöllhorn, A., J. Schuhmacher, L. Besedovsky, R. Fendel, A.T.R. Jensen, S. Stevanović, T. Lange, H.G. Rammensee, J. Born, C. Gouttefangeas, and S. Dimitrov. 2021. Integrin Activation Enables Sensitive Detection of Functional CD4(+) and CD8(+) T Cells: Application to Characterize SARS-CoV-2 Immunity. *Front Immunol.* 12:626308.
- Scholz, O., S. Otter, A. Welters, L. Wörmeyer, J. Dolenšek, M.S. Klemen, V. Pohorec, D. Eberhard, J. Mrugala, A. Hamacher, A. Koch, M. Sanz, T. Hoffmann, J. Hogeback, D. Herebian, N. Klöcker, A. Piechot, E. Mayatepek, T. Meissner, A. Stožer, and E. Lammert. 2021. Peripherally active dextromethorphan derivatives lower blood glucose levels by targeting pancreatic islets. *Cell Chem Biol.* 28:1474-1488.e1477.
- Schork, A., K. Moll, M. Haap, R. Riessen, and R. Wagner. 2021. Course of lactate, pH and base excess for prediction of mortality in medical intensive care patients. *PLoS One.* 16:e0261564.
- Schranner, D., M. Schönfelder, W. Römisch-Margl, J. Scherr, J. Schlegel, O. Zelger, A. Riermeier, S. Kaps, C. Prehn, J. Adamski, Q. Söhnlein, F. Stöcker, F. Kreuzpointner, M. Halle, G. Kastenmüller, and H. Wackerhage. 2021. Physiological extremes of the



## List of Publications 2021

- human blood metabolome: A metabolomics analysis of highly glycolytic, oxidative, and anabolic athletes. *Physiol Rep.* 9:e14885.
- Schröder, B., S. Kahl, and M. Roden. 2021. Non-alcoholic fatty liver disease in type 2 diabetes - A specific entity? *Liver Int.* 41 Suppl 1:105-111.
- Schüler, R., M. Markova, M.A. Osterhoff, A. Arifat, O. Pivovarova, J. Machann, J. Hierholzer, S. Hornemann, S. Rohn, and A.F.H. Pfeiffer. 2021. Similar dietary regulation of IGF-1- and IGF-binding proteins by animal and plant protein in subjects with type 2 diabetes. *Eur J Nutr.* 60:3499-3504.
- Schultes, B., B. Ernst, and S.M. Schmid. 2021. Treating hypercholesterolemia in a patient with maternally inherited diabetes and deafness (MIDD) by the proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitor alirocumab. *Acta Diabetol.* 58:1575-1577.
- Schulze, M.B. 2021. Dietary Linoleic Acid: Will Modifying Dietary Fat Quality Reduce the Risk of Type 2 Diabetes? *Diabetes Care.* 44:1913-1915.
- Schumann, T., J. König, C. von Loeffelholz, D.F. Vatner, D. Zhang, R.J. Perry, M. Bernier, J. Chami, C. Henke, A. Kurzbach, N.N. El-Agroudy, D.M. Willmes, D. Pesta, R. de Cabo, O.S. JF, E. Simon, G.I. Shulman, B.S. Hamilton, and A.L. Birkenfeld. 2021. Deletion of the diabetes candidate gene Slc16a13 in mice attenuates diet-induced ectopic lipid accumulation and insulin resistance. *Commun Biol.* 4:826.
- Schuppelius, B., B. Peters, A. Ottawa, and O. Pivovarova-Ramich. 2021. Time Restricted Eating: A Dietary Strategy to Prevent and Treat Metabolic Disturbances. *Front Endocrinol (Lausanne).* 12:683140.
- Schütte, T., S.M. Kedziora, N. Haase, F. Herse, A. Busjahn, A. Birukov, N. Alenina, D.N. Müller, M. Bader, M. Schupp, R. Dechend, K. Kräker, and M. Golic. 2021. Intrauterine Exposure to Diabetic Milieu Does Not Induce Diabetes and Obesity in Male Adulthood in a Novel Rat Model. *Hypertension.* 77:202-215.
- Schwarz, M., K. Wolf, A. Schneider, K.W. Schramm, B. Bongaerts, B. Henkelmann, C. Herder, M. Roden, A. Peters, D. Ziegler, and W. Rathmann. 2021. Association of persistent organic pollutants with sensorimotor neuropathy in participants with and without diabetes or prediabetes: Results from the population-based KORA FF4 study. *Int J Hyg Environ Health.* 235:113752.
- Sedlmeier, A.M., S.E. Baumeister, A. Weber, B. Fischer, B. Thorand, T. Ittermann, M. Dörr, S.B. Felix, H. Völzke, A. Peters, and M.F. Leitzmann. 2021. Relation of body fat mass and fat-free mass to total mortality: results from 7 prospective cohort studies. *Am J Clin Nutr.* 113:639-646.
- Seeger, H., M. Wurm, J.M. Grimsmann, B. Karges, A. Neu, M. Sindichakis, K. Warncke, A. Dost, and R.W. Holl. 2021. Diabetic Ketoacidosis at Manifestation of Type 1 Diabetes in Childhood and Adolescence—Incidence and Risk Factors. *Dtsch Arztebl Int.* 118:367-372.
- Seifert, V., S. Richter, N. Bechmann, M. Bachmann, C.G. Ziegler, J. Pietzsch, and M. Ullrich. 2021. HIF2alpha-Associated Pseudohypoxia Promotes Radioresistance in Pheochromocytoma: Insights from 3D Models. *Cancers (Basel).* 13.
- Selig, J.I., J. Boulgaropoulos, N. Niazy, D.M. Ouwens, K. Preuß, P. Horn, R. Westenfeld, A. Lichtenberg, P. Akhyari, and M. Barth. 2021. Crosstalk of Diabetic Conditions with Static Versus Dynamic Flow Environment-Impact on Aortic Valve Remodeling. *Int J Mol Sci.* 22.
- Serr, I., F. Drost, B. Schubert, and C. Daniel. 2021a. Antigen-Specific Treg Therapy in Type 1 Diabetes - Challenges and Opportunities. *Front Immunol.* 12:712870.
- Serr, I., M. Kral, M.G. Scherm, and C. Daniel. 2021b. Advances in Human Immune System Mouse Models for Personalized Treg-Based Immunotherapies. *Front Immunol.* 12:643544.
- Sharapov, S.Z., A.S. Shadrina, Y.A. Tsepilov, E.E. Elgaeva, E.S. Tijs, S.G. Feoktistova, O.O. Zaytseva, F. Vuckovic, R. Cuadrat, S. Jäger, C. Wittenbecher, L.C. Karssen, M. Timofeeva, T. Tillin, I. Trbojević-Akmačić, T. Štambuk, N. Rudman, J. Krištić, J. Šimunović, A. Momčilović, M. Vilaj, J. Jurić, A. Slana, I. Gudelj, T. Klarić, L. Puljak, A. Skelin, A.J. Kadić, J. Van Zundert, N. Chaturvedi, H. Campbell, M. Dunlop, S.M. Farrington, M. Doherty, C. Dagostino, C. Gieger, M. Allegri, F. Williams, M.B. Schulze, G. Lauc, and Y.S. Aulchenko. 2021. Replication of 15 loci involved in human plasma protein N-glycosylation in 4802 samples from four cohorts. *Glycobiology.* 31:82-88.
- Shashikadze, B., F. Flenkenthaler, J.B. Stöckl, L. Valla, S. Renner, E. Kemter, E. Wolf, and T. Fröhlich. 2021. Developmental Effects of (Pre-)Gestational Diabetes on Offspring: Systematic Screening Using Omics Approaches. *Genes (Basel).* 12.



## List of Publications 2021

- Sherr, J.L., A. Schwandt, H. Phelan, M.A. Clements, R.W. Holl, P.Z. Benitez-Aguirre, K.M. Miller, J. Woelfle, T. Dover, D.M. Maahs, E. Fröhlich-Reiterer, and M.E. Craig. 2021. Hemoglobin A1c Patterns of Youth With Type 1 Diabetes 10 Years Post Diagnosis From 3 Continents. *Pediatrics*. 148.
- Siehler, J., A.K. Blöchinger, M. Meier, and H. Lickert. 2021. Engineering islets from stem cells for advanced therapies of diabetes. *Nat Rev Drug Discov*. 20:920-940.
- Sievert, H., C. Krause, C. Geißler, M. Grohs, A.T. El-Gammal, S. Wolter, O. Mann, H. Lehnert, and H. Kirchner. 2021. Epigenetic Downregulation of FASN in Visceral Adipose Tissue of Insulin Resistant Subjects. *Exp Clin Endocrinol Diabetes*. 129:674-682.
- Sinning, C., N. Makarova, H. Völzke, R.B. Schnabel, F. Ojeda, M. Dörr, S.B. Felix, W. Koenig, A. Peters, W. Rathmann, B. Schöttker, H. Brenner, G. Veronesi, G. Cesana, P. Brambilla, T. Palosaari, K. Kuulasmaa, I. Njølstad, E.B. Mathiesen, T. Wilsgaard, S. Blankenberg, S. Söderberg, M.M. Ferrario, and B. Thorand. 2021. Association of glycated hemoglobin A(1c) levels with cardiovascular outcomes in the general population: results from the BiomarCaRE (Biomarker for Cardiovascular Risk Assessment in Europe) consortium. *Cardiovasc Diabetol*. 20:223.
- Sinnott-Armstrong, N., I.S. Sousa, S. Laber, E. Rendina-Ruedy, S.E. Nitter Dankel, T. Ferreira, G. Mellgren, D. Karasik, M. Rivas, J. Pritchard, A.R. Guntur, R.D. Cox, C.M. Lindgren, H. Hauner, R. Sallari, C.J. Rosen, Y.H. Hsu, E.S. Lander, D.P. Kiel, and M. Claussnitzer. 2021. A regulatory variant at 3q21.1 confers an increased pleiotropic risk for hyperglycemia and altered bone mineral density. *Cell Metab*. 33:615-628.e613.
- Sometti, D., L. Semeia, S. Baek, H. Chen, G. Righetti, J. Dax, C. Kronlage, M. Kirchgässner, A. Romano, J. Heilos, D. Staber, J. Oppold, T. Middelmann, C. Braun, P. Broser, and J. Marquetand. 2021. Muscle Fatigue Revisited - Insights From Optically Pumped Magnetometers. *Front Physiol*. 12:724755.
- Sormendi, S., M. Deygas, A. Sinha, M. Bernard, A. Krüger, I. Kourtzelis, G. Le Lay, P.J. Sáez, M. Gerlach, K. Franke, A. Meneses, M. Kräter, A. Palladini, J. Guck, Ü. Coskun, T. Chavakis, P. Vargas, and B. Wielockx. 2021. HIF2α is a direct regulator of neutrophil motility. *Blood*. 137:3416-3427.
- Spears, E., I. Serafimidis, A.C. Powers, and A. Gavalas. 2021. Debates in Pancreatic Beta Cell Biology: Proliferation Versus Progenitor Differentiation and Transdifferentiation in Restoring β Cell Mass. *Front Endocrinol (Lausanne)*. 12:722250.
- Stahl-Pehe, A., S. Selinski, C. Bächle, and J. Rosenbauer. 2021. Increased risk of impaired treatment satisfaction among girls/women and young people with suboptimal HbA1c: Results of a nationwide type 1 diabetes study. *Diabetol Metab Syndr*. 13:55.
- Stazi, M., S. Negro, A. Megighian, G. D'Este, M. Solimena, R. Jockers, F. Lista, C. Montecucco, and M. Rigoni. 2021. Melatonin promotes regeneration of injured motor axons via MT(1) receptors. *J Pineal Res*. 70:e12695.
- Steenblock, C., S. Richter, I. Berger, M. Barovic, J. Schmid, U. Schubert, N. Jarzebska, A. von Mässenhausen, A. Linkermann, A. Schürmann, J. Pablik, T. Dienemann, K. Evert, R.N. Rodionov, N.Y. Semenova, V.A. Zinserling, R.R. Gainetdinov, G. Baretton, D. Lindemann, M. Solimena, B. Ludwig, and S.R. Bornstein. 2021a. Viral infiltration of pancreatic islets in patients with COVID-19. *Nat Commun*. 12:3534.
- Steenblock, C., P.E.H. Schwarz, B. Ludwig, A. Linkermann, P. Zimmet, K. Kulebyakin, V.A. Tkachuk, A.G. Markov, H. Lehnert, M.H. de Angelis, H. Rietzsch, R.N. Rodionov, K. Khunti, D. Hopkins, A.L. Birkenfeld, B. Boehm, R.I.G. Holt, J.S. Skyler, J.H. DeVries, E. Renard, R.H. Eckel, K. Alberti, B. Geloneze, J.C. Chan, J.C. Mbanya, H.C. Onyegbutule, A. Ramachandran, A. Basit, M. Hassanein, G. Bewick, G.A. Spinias, F. Beuschlein, R. Landgraf, F. Rubino, G. Mingrone, and S.R. Bornstein. 2021b. COVID-19 and metabolic disease: mechanisms and clinical management. *Lancet Diabetes Endocrinol*. 9:786-798.
- Stefan, N., A.L. Birkenfeld, and M.B. Schulze. 2021. Global pandemics interconnected - obesity, impaired metabolic health and COVID-19. *Nat Rev Endocrinol*. 17:135-149.
- Stöhr, J., J. Barbaresko, M. Neuenschwander, and S. Schlesinger. 2021. Bidirectional association between periodontal disease and diabetes mellitus: a systematic review and meta-analysis of cohort studies. *Sci Rep*. 11:13686.
- Stokes, C.S., D. Weber, S. Wagenpfeil, W. Stuetz, M. Moreno-Villanueva, M.E.T. Dollé, E. Jansen, E.S. Gonos, J. Bernhardt, B. Grubeck-Loebenstein, S. Fiegl, E. Sikora, O. Toussaint, F. Debacq-Chainiaux, M. Capri, A. Hervonen, P.E. Slagboom, N. Breusing, J. Frank, A. Bürkle, C. Franceschi, and T. Grune. 2021. Association between fat-soluble vitamins and self-reported health status: a cross-sectional analysis of the MARK-AGE cohort. *Br J Nutr*. 128:1-11.



## List of Publications 2021

- Storz, C., S. Rospleszcz, E. Askani, T. Rothenbacher, J. Linseisen, H. Messmann, C.N. De Cecco, J. Machann, L.S. Kiefer, S. Elser, W. Rathmann, A. Peters, C.L. Schlett, and F. Bamberg. 2021. Magnetic Resonance Imaging of Diverticular Disease and its Association with Adipose Tissue Compartments and Constitutional Risk Factors in Subjects from a Western General Population. *Rofu*. 193:33-41.
- Strasser, B., D. Pesta, J. Rittweger, J. Burtscher, and M. Burtscher. 2021. Nutrition for Older Athletes: Focus on Sex-Differences. *Nutrients*. 13.
- Strom, A., K. Strassburger, M. Schmuck, H. Shevalye, E. Davidson, F. Zivehe, G. Bönhof, R. Reimer, B.F. Belgardt, T. Fleming, B. Biermann, V. Burkart, K. Müssig, J. Szendroedi, M.A. Yorek, E. Fritsche, P.P. Nawroth, M. Roden, and D. Ziegler. 2021. Interaction between magnesium and methylglyoxal in diabetic polyneuropathy and neuronal models. *Mol Metab*. 43:101114.
- Sujana, C., V. Salomaa, F. Kee, S. Costanzo, S. Söderberg, J. Jordan, P. Jousilahti, C. Neville, L. Iacoviello, V. Oskarsson, D. Westermann, W. Koenig, K. Kuulasmaa, J. Reinikainen, S. Blankenberg, T. Zeller, C. Herder, U. Mansmann, A. Peters, and B. Thorand. 2021. Natriuretic Peptides and Risk of Type 2 Diabetes: Results From the Biomarkers for Cardiovascular Risk Assessment in Europe (BiomarCaRE) Consortium. *Diabetes Care*. 44:2527-2535.
- Sun, C., P. Kovacs, and E. Guiu-Jurado. 2021a. Genetics of Body Fat Distribution: Comparative Analyses in Populations with European, Asian and African Ancestries. *Genes (Basel)*. 12.
- Sun, D., M. Richard, S.K. Musani, Y.J. Sung, T.W. Winkler, K. Schwander, J.F. Chai, X. Guo, T.O. Kilpeläinen, D. Vojinovic, H. Aschard, T.M. Bartz, L.F. Bielak, M.R. Brown, K. Chitrala, F.P. Hartwig, A. Horimoto, Y. Liu, A.K. Manning, R. Noordam, A.V. Smith, S.E. Harris, B. Kühnel, L.P. Lyytikäinen, I.M. Nolte, R. Rauramaa, P.J. van der Most, R. Wang, E.B. Ware, S. Weiss, W. Wen, L.R. Yanek, D.E. Arking, D.K. Arnett, A. Barac, E. Boerwinkle, U. Broeckel, A. Chakravarti, Y.I. Chen, L.A. Cupples, M.L. Daviglus, L. de Las Fuentes, R. de Mutsert, P.S. de Vries, J.A.C. Delaney, A.V.D. Roux, M. Dörr, J.D. Faul, A.M. Fretts, L.C. Gallo, H.J. Grabe, C.C. Gu, T.B. Harris, C.C.A. Hartman, S. Heikkilä, M.A. Ikram, C. Isasi, W.C. Johnson, J.B. Jonas, R.C. Kaplan, P. Komulainen, J.E. Krieger, D. Levy, J. Liu, K. Lohman, A.I. Luik, L.W. Martin, T. Meitinger, Y. Milaneschi, J.R. O'Connell, W.R. Palmas, A. Peters, P.A. Peyser, L. Pulkki-Råback, L.J. Raffel, A.P. Reiner, K. Rice, J.G. Robinson, F.R. Rosendaal, C.O. Schmidt, P.J. Schreiner, L. Schwettmann, J.M. Shikany, X.O. Shu, S. Sidney, M. Sims, J.A. Smith, N. Sotoodehnia, K. Strauch, E.S. Tai, K. Taylor, A.G. Uitterlinden, C.M. van Duijn, M. Waldenberger, H.L. Wee, W.B. Wei, G. Wilson, D. Xuan, J. Yao, D. Zeng, et al. 2021b. Multi-Ancestry Genome-wide Association Study Accounting for Gene-Psychosocial Factor Interactions Identifies Novel Loci for Blood Pressure Traits. *HGG Adv*. 2.
- Suwandhi, L., I. Altun, R. Karlina, V. Miok, T. Wiedemann, D. Fischer, T. Walzthoeni, C. Lindner, A. Böttcher, S.S. Heinzmann, A. Israel, A. Khalil, A. Braun, I. Pramme-Steinwachs, I. Burtscher, P. Schmitt-Kopplin, M. Heinig, M. Elsner, H. Lickert, F.J. Theis, and S. Ussar. 2021. Asc-1 regulates white versus beige adipocyte fate in a subcutaneous stromal cell population. *Nat Commun*. 12:1588.
- Syväri, J., D. Junker, L. Patzelt, K. Kappo, L. Al Sadat, S. Erfanian, M.R. Makowski, H. Hauner, and D.C. Karampinos. 2021. Longitudinal changes on liver proton density fat fraction differ between liver segments. *Quant Imaging Med Surg*. 11:1701-1709.
- Taczanowska, A., A. Schwandt, S. Amed, P. Tóth-Heyn, C. Kanaka-Gantenbein, S.K. Volsky, J. Svensson, and A. Szypowska. 2021. Celiac disease in children with type 1 diabetes varies around the world: An international, cross-sectional study of 57 375 patients from the SWEET registry. *J Diabetes*. 13:448-457.
- Tang, X., I. Kusmartseva, S. Kulkarni, A. Posgai, S. Speier, D.A. Schatz, M.J. Haller, M. Campbell-Thompson, C.H. Wasserfall, B.O. Roep, J.S. Kaddis, and M.A. Atkinson. 2021. Image-Based Machine Learning Algorithms for Disease Characterization in the Human Type 1 Diabetes Pancreas. *Am J Pathol*. 191:454-462.
- Targher, G., K.E. Corey, C.D. Byrne, and M. Roden. 2021. The complex link between NAFLD and type 2 diabetes mellitus - mechanisms and treatments. *Nat Rev Gastroenterol Hepatol*. 18:599-612.
- Tarquis-Medina, M., K. Scheibner, I. González-García, A. Bastidas-Ponce, M. Sterr, J. Jaki, S. Schirge, C. García-Cáceres, H. Lickert, and M. Bakhti. 2021. Synaptotagmin-13 Is a Neuroendocrine Marker in Brain, Intestine and Pancreas. *Int J Mol Sci*. 22.
- Thaiss, W.M., S. Gatidis, T. Sartorius, J. Machann, A. Peter, T.K. Eigenthaler, K. Nikolaou, B.J. Pichler, and M. Kneilling. 2021. Noninvasive, longitudinal imaging-based analysis of body adipose tissue and water composition in a melanoma mouse model and in immune checkpoint inhibitor-treated metastatic melanoma patients. *Cancer Immunol Immunother*. 70:1263-1275.



## List of Publications 2021

- Thangapandi, V.R., O. Knittelfelder, M. Brosch, E. Patsenker, O. Vvedenskaya, S. Buch, S. Hinz, A. Hendricks, M. Nati, A. Herrmann, D.R. Rekhade, T. Berg, M. Matz-Soja, K. Huse, E. Klipp, J.K. Pauling, J.A. Wodke, J. Miranda Ackerman, M.V. Bonin, E. Aigner, C. Datz, W. von Schönfels, S. Nehring, S. Zeissig, C. Röcken, A. Dahl, T. Chavakis, F. Stickel, A. Shevchenko, C. Schafmayer, J. Hampe, and P. Subramanian. 2021. Loss of hepatic Mboat7 leads to liver fibrosis. *Gut*. 70:940-950.
- Then, C., C. Herder, H. Then, B. Thorand, C. Huth, M. Heier, C. Meisinger, A. Peters, W. Koenig, W. Rathmann, M. Roden, M. Stumvoll, H. Maalmi, T. Meitinger, A. Lechner, J. Scherberich, and J. Seissler. 2021a. Serum uromodulin is inversely associated with biomarkers of subclinical inflammation in the population-based KORA F4 study. *Clin Kidney J.* 14:1618-1625.
- Then, C., H.L. Then, A. Lechner, B. Thorand, C. Meisinger, M. Heier, A. Peters, W. Koenig, W. Rathmann, J. Scherberich, and J. Seissler. 2021b. Serum uromodulin and decline of kidney function in older participants of the population-based KORA F4/FF4 study. *Clin Kidney J.* 14:205-211.
- Theobalt, N., I. Hofmann, S. Fiedler, S. Renner, G. Dhom, A. Feuchtinger, A. Walch, M. Hrabě de Angelis, E. Wolf, R. Wanke, and A. Blutke. 2021. Unbiased analysis of obesity related, fat depot specific changes of adipocyte volumes and numbers using light sheet fluorescence microscopy. *PLoS One*. 16:e0248594.
- Thiede, K.I., J. Born, and A.P.A. Vorster. 2021. Sleep and conditioning of the siphon withdrawal reflex in Aplysia. *J Exp Biol.* 224.
- Thorand, B., A. Zierer, M. Büyüközkan, J. Krumsiek, A. Bauer, F. Schederecker, J. Sudduth-Klinger, C. Meisinger, H. Grallert, W. Rathmann, M. Roden, A. Peters, W. Koenig, C. Herder, and C. Huth. 2021. A Panel of 6 Biomarkers Significantly Improves the Prediction of Type 2 Diabetes in the MONICA/KORA Study Population. *J Clin Endocrinol Metab.* 106:e1647-e1659.
- Tin, A., P. Schlosser, P.R. Matias-Garcia, C.H.L. Thio, R. Joehanes, H. Liu, Z. Yu, A. Weihns, A. Hoppmann, F. Grundner-Culemann, J.L. Min, V.L.H. Kuhns, A.A. Adeyemo, C. Agyemang, J. Ärnlöv, N.A. Aziz, A. Baccarelli, M. Bochud, H. Brenner, J. Bressler, M.M.B. Breteler, C. Carmeli, L. Chaker, J. Coresh, T. Corre, A. Correa, S.R. Cox, G.E. Delgado, K.U. Eckardt, A.B. Ekici, K. Endlich, J.S. Floyd, E. Fraszczak, X. Gao, X. Gào, A.C. Gelber, M. Ghanbari, S. Ghasemi, C. Gieger, P. Greenland, M.L. Grove, S.E. Harris, G. Hemani, P. Henneman, C. Herder, S. Horvath, L. Hou, M.A. Hurme, S.J. Hwang, S.L.R. Kardia, S. Kasela, M.E. Kleber, W. Koenig, J.S. Kooner, F. Kronenberg, B. Kühnel, C. Ladd-Acosta, T. Lehtimäki, L. Lind, D. Liu, D.M. Lloyd-Jones, S. Lorkowski, A.T. Lu, R.E. Marioni, W. März, D.L. McCartney, K.A.C. Meeks, L. Milani, P.P. Mishra, M. Nauck, C. Nowak, A. Peters, H. Prokisch, B.M. Psaty, O.T. Raitakari, S.M. Ratliff, A.P. Reiner, B. Schöttker, J. Schwartz, S. Sedaghat, J.A. Smith, N. Sotoodehnia, H.R. Stocker, S. Stringhini, J. Sundström, B.R. Swenson, J.B.J. van Meurs, J.V. van Vliet-Ostaptchouk, A. Venema, U. Völker, J. Winkelmann, B.H.R. Wolffenbuttel, W. Zhao, Y. Zheng, M. Loh, H. Snieder, M. Waldenberger, D. Levy, S. Akilesh, O.M. Woodward, et al. 2021. Epigenome-wide association study of serum urate reveals insights into urate co-regulation and the SLC2A9 locus. *Nat Commun.* 12:7173.
- Tittel, S.R., D. Dunstheimer, D. Hilgard, B. Knauth, E. Fröhlich-Reiterer, A. Galler, M. Wurm, and R.W. Holl. 2021a. Coeliac disease is associated with depression in children and young adults with type 1 diabetes: results from a multicentre diabetes registry. *Acta Diabetol.* 58:623-631.
- Tittel, S.R., K. Laubner, S.M. Schmid, S. Kress, S. Merger, W. Karges, F.J. Wosch, M. Altmeier, M. Pavel, and R.W. Holl. 2021b. Immune-checkpoint inhibitor-associated diabetes compared to other diabetes types - A prospective, matched control study. *J Diabetes.* 13:1007-1014.
- Tokarz, J., G. Möller, A. Artati, S. Huber, A. Zeigerer, B. Blaauw, J. Adamski, and K.A. Dyrar. 2021a. Common Muscle Metabolic Signatures Highlight Arginine and Lysine Metabolism as Potential Therapeutic Targets to Combat Unhealthy Aging. *Int J Mol Sci.* 22.
- Tokarz, J., S.M. Schmitt, G. Möller, A.W. Brändli, and J. Adamski. 2021b. Functional characterization of two  $20\beta$ -hydroxysteroid dehydrogenase type 2 homeologs from *Xenopus laevis* reveals multispecificity. *J Steroid Biochem Mol Biol.* 210:105874.
- Tönnies, T., W. Rathmann, A. Hoyer, R. Brinks, and O. Kuss. 2021. Quantifying the underestimation of projected global diabetes prevalence by the International Diabetes Federation (IDF) Diabetes Atlas. *BMJ Open Diabetes Res Care.* 9.
- Torres, G.G., M. Nygaard, A. Caliebe, H. Blanché, S. Chantalat, P. Galan, W. Lieb, L. Christiansen, J.F. Deleuze, K. Christensen, K. Strauch, M. Müller-Nurasyid, A. Peters, M.M. Nöthen, P. Hoffmann, F. Flachsbart, S. Schreiber, D. Ellinghaus, A. Franke, J. Dose, and A. Nebel. 2021. Exome-Wide Association Study Identifies FN3KRP and PGP as New Candidate Longevity Genes. *J Gerontol A Biol Sci Med Sci.* 76:786-795.
- Trefzer, A., P. Kadam, S.H. Wang, S. Pennavaria, B. Lober, B. Akçabozan, J. Kranich, T. Brocker, N. Nakano, M. Irmler, J. Beckers, T. Straub, and R. Obst. 2021. Dynamic adoption of anergy by antigen-exhausted CD4(+) T cells. *Cell Rep.* 34:108748.



## List of Publications 2021

- Trujillo-Viera, J., R. El-Merahbi, V. Schmidt, T. Karwen, A. Loza-Valdes, A. Strohmeyer, S. Reuter, M. Noh, M. Wit, I. Hawro, S. Mocek, C. Fey, A.E. Mayer, M.C. Löffler, I. Wilhelmi, M. Metzger, E. Ishikawa, S. Yamasaki, M. Rau, A. Geier, M. Hankir, F. Seyfried, M. Klingenspor, and G. Sumara. 2021. Protein Kinase D2 drives chylomicron-mediated lipid transport in the intestine and promotes obesity. *EMBO Mol Med.* 13:e13548.
- Tsokanos, F.F., C. Muley, S. Khani, D. Hass, T. Fleming, G. Wolff, A. Bartelt, P. Nawroth, and S. Herzig. 2021. Methylglyoxal Drives a Distinct, Nonclassical Macrophage Activation Status. *Thromb Haemost.* 121:1464-1475.
- Tuvia, N., O. Pivovarova-Ramich, V. Murahovschi, S. Lück, A. Grudziecki, A.C. Ost, M. Kruse, V.J. Nikiforova, M. Osterhoff, P. Gottmann, Ö. Gögebakan, C. Sticht, N. Gretz, M. Schupp, A. Schürmann, N. Rudovich, A.F.H. Pfeiffer, and A. Kramer. 2021. Insulin Directly Regulates the Circadian Clock in Adipose Tissue. *Diabetes.* 70:1985-1999.
- Ung, M.C., L. Garrett, C. Dalke, V. Leitner, D. Dragosa, D. Hladik, F. Neff, F. Wagner, H. Zitzelsberger, G. Miller, M.H. de Angelis, U. Rößler, D. Vogt Weisenhorn, W. Wurst, J. Graw, and S.M. Höltner. 2021. Dose-dependent long-term effects of a single radiation event on behaviour and glial cells. *Int J Radiat Biol.* 97:156-169.
- Valdimarsdottir, R., A.K. Wikström, T.K. Kallak, E. Elenis, O. Axelsson, H. Preissl, S. Ubhayasekera, J. Bergquist, and I.S. Poromaa. 2021. Pregnancy outcome in women with polycystic ovary syndrome in relation to second-trimester testosterone levels. *Reprod Biomed Online.* 42:217-225.
- Van de Velde, F., D.M. Ouwens, A.H. Batens, Y. Van Nieuwenhove, and B. Lapauw. 2021. Divergent dynamics in systemic and tissue-specific metabolic and inflammatory responses during weight loss in subjects with obesity. *Cytokine.* 144:155587.
- Van Loocke, M., T. Battelino, S.R. Tittel, P. Prahalad, D. Goksen, E. Davis, and K. Casteels. 2021. Lower HbA1c targets are associated with better metabolic control. *Eur J Pediatr.* 180:1513-1520.
- van Mark, G., S.R. Tittel, R. Welp, J. Gloyer, S. Sziegoleit, R. Barion, P.M. Jehle, D. Erath, P. Bramlage, and S. Lanzinger. 2021. DIVE/DPV registries: benefits and risks of analog insulin use in individuals 75 years and older with type 2 diabetes mellitus. *BMJ Open Diabetes Res Care.* 9.
- Veit, R., K. Schag, E. Schopf, M. Borutta, J. Kreutzer, A.C. Ehlis, S. Zipfel, K.E. Giel, H. Preissl, and S. Kullmann. 2021. Diminished prefrontal cortex activation in patients with binge eating disorder associates with trait impulsivity and improves after impulsivity-focused treatment based on a randomized controlled IMPULS trial. *Neuroimage Clin.* 30:102679.
- Vidali, S., R. Gerlini, K. Thompson, J.E. Urquhart, J. Meisterknecht, J.A. Aguilar-Pimentel, O.V. Amarie, L. Becker, C. Breen, J. Calzada-Wack, N.F. Chhabra, Y.L. Cho, P. da Silva-Buttkus, R.G. Feichtinger, K. Gampe, L. Garrett, K.P. Hoefig, S.M. Höltner, E. Jameson, T. Klein-Rodewald, S. Leuchtenberger, S. Marschall, P. Mayer-Kuckuk, G. Miller, M.A. Oestereicher, K. Pfannes, B. Rathkolb, J. Rozman, C. Sanders, N. Spielmann, C. Stoeger, M. Szibor, I. Treise, J.H. Walter, W. Wurst, J.A. Mayr, H. Fuchs, U. Gärtnner, I. Wittig, R.W. Taylor, W.G. Newman, H. Prokisch, V. Gailus-Durner, and M. Hrabé de Angelis. 2021. Characterising a homozygous two-exon deletion in UQCRH: comparing human and mouse phenotypes. *EMBO Mol Med.* 13:e14397.
- Vissers, L.E.T., I. Sluijs, S. Burgess, N.G. Forouhi, H. Freisling, F. Imamura, T.K. Nilsson, F. Renström, E. Weiderpass, K. Aleksandrova, C.C. Dahm, A. Perez-Cornago, M.B. Schulze, T.Y.N. Tong, D. Aune, C. Bonet, J.M.A. Boer, H. Boeing, M.D. Chirlaque, M.I. Conchi, L. Imaz, S. Jäger, V. Krogh, C. Kyrø, G. Masala, O. Melander, K. Overvad, S. Panico, M.J. Sánchez, E. Sonestedt, A. Tjønneland, I. Tzoulaki, W.M.M. Verschuren, E. Riboli, N.J. Wareham, J. Danesh, A.S. Butterworth, and Y.T. van der Schouw. 2021. Milk intake and incident stroke and CHD in populations of European descent: a Mendelian randomisation study. *Br J Nutr.* 128:1-9.
- Vogtschmidt, Y.D., A. Raben, I. Faber, C. de Wilde, J.A. Lovegrove, D.I. Givens, A.F.H. Pfeiffer, and S.S. Soedamah-Muthu. 2021. Is protein the forgotten ingredient: Effects of higher compared to lower protein diets on cardiometabolic risk factors. A systematic review and meta-analysis of randomised controlled trials. *Atherosclerosis.* 328:124-135.
- Voisin, S., M. Jacques, S. Landen, N.R. Harvey, L.M. Haupt, L.R. Griffiths, S. Gancheva, M. Ouni, M. Jähnert, K.J. Ashton, V.G. Coffey, J.M. Thompson, T.M. Doering, A. Gabory, C. Junien, R. Caiazza, H. Verkindt, V. Raverdy, F. Pattou, P. Froguel, J.M. Craig, S. Blocquiaux, M. Thomis, A.P. Sharples, A. Schürmann, M. Roden, S. Horvath, and N. Eynon. 2021. Meta-analysis of genome-wide DNA methylation and integrative omics of age in human skeletal muscle. *J Cachexia Sarcopenia Muscle.* 12:1064-1078.
- Vollbach, H., M. Auzanneau, T. Reinehr, S. Wiegand, K.O. Schwab, R. Oeverink, E. Froehlich-Reiterer, J. Woelfle, C. De Beaufort, T. Kapellen, B. Gohlke, and R.W. Holl. 2021. Choice of basal insulin therapy is associated with weight and height development in type 1 diabetes: A multicenter analysis from the German/Austrian DPV registry in 10 338 children and adolescents. *J Diabetes.* 13:930-939.



## List of Publications 2021

Vosseler, A., D. Zhao, J. Hummel, A. Gholamrezaei, S. Hudak, K. Kantartzis, A. Peter, A.L. Birkenfeld, H.U. Häring, R. Wagner, H. Preißl, S. Kullmann, and M. Heni. 2021. Slow deep breathing modulates cardiac vagal activity but does not affect peripheral glucose metabolism in healthy men. *Sci Rep.* 11:20306.

Vvedenskaya, O., T.D. Rose, O. Knittelfelder, A. Palladini, J.A.H. Wodke, K. Schuhmann, J.M. Ackerman, Y. Wang, C. Has, M. Brosch, V.R. Thangapandi, S. Buch, T. Züllig, J. Hartler, H.C. Köfeler, C. Röcken, Ü. Coskun, E. Klipp, W. von Schoenfels, J. Gross, C. Schafmayer, J. Hampe, J.K. Pauling, and A. Shevchenko. 2021. Nonalcoholic fatty liver disease stratification by liver lipidomics. *J Lipid Res.* 62:100104.

Wagner, R., M. Heni, A.G. Tabák, J. Machann, F. Schick, E. Randrianarisoa, M. Hrabě de Angelis, A.L. Birkenfeld, N. Stefan, A. Peter, H.U. Häring, and A. Fritzsche. 2021. Pathophysiology-based subphenotyping of individuals at elevated risk for type 2 diabetes. *Nat Med.* 27:49-57.

Walter, S.S., R. Lorbeer, G. Hefferman, C.L. Schlett, A. Peters, S. Rospleszcz, K. Nikolaou, F. Bamberg, M. Notohamiprodjo, and E. Maurer. 2021. Correlation between thoracolumbar disc degeneration and anatomical spinopelvic parameters in supine position on MRI. *PLoS One.* 16:e0252385.

Walz, S., Q. Wang, X. Zhao, M. Hoene, H.U. Häring, J. Hennenlotter, M. Maas, A. Peter, T. Todenhöfer, A. Stenzl, X. Liu, R. Lehmann, and G. Xu. 2021. Comparison of the metabolome in urine prior and eight weeks after radical prostatectomy uncovers pathologic and molecular features of prostate cancer. *J Pharm Biomed Anal.* 205:114288.

Wang, H., R. Noordam, B.E. Cade, K. Schwander, T.W. Winkler, J. Lee, Y.J. Sung, A.R. Bentley, A.K. Manning, H. Aschard, T.O. Kilpeläinen, M. Ilkov, M.R. Brown, A.R. Horimoto, M. Richard, T.M. Bartz, D. Vojinovic, E. Lim, J.L. Nierenberg, Y. Liu, K. Chitrala, T. Rankinen, S.K. Musani, N. Franceschini, R. Rauramaa, M. Alver, P.C. Zee, S.E. Harris, P.J. van der Most, I.M. Nolte, P.B. Munroe, N.D. Palmer, B. Kühnel, S. Weiss, W. Wen, K.A. Hall, L.P. Lyttikäinen, J. O'Connell, G. Eiriksdottir, L.J. Launer, P.S. de Vries, D.E. Arking, H. Chen, E. Boerwinkle, J.E. Krieger, P.J. Schreiner, S. Sidney, J.M. Shikany, K. Rice, Y.I. Chen, S.A. Gharib, J.C. Bis, A.I. Luik, M.A. Ikram, A.G. Uitterlinden, N. Amin, H. Xu, D. Levy, J. He, K.K. Lohman, A.B. Zonderman, T.K. Rice, M. Sims, G. Wilson, T. Sofer, S.S. Rich, W. Palmas, J. Yao, X. Guo, J.I. Rotter, N.R. Biermasz, D.O. Mook-Kanamori, L.W. Martin, A. Barac, R.B. Wallace, D.J. Gottlieb, P. Komulainen, S. Heikkilä, R. Mägi, L. Milani, A. Metspalu, J.M. Starr, Y. Milaneschi, R.J. Waken, C. Gao, M. Waldenberger, A. Peters, K. Strauch, T. Meitinger, T. Roenneberg, U. Völker, M. Dörr, X.O. Shu, S. Mukherjee, D.R. Hillman, M. Kähönen, L.E. Wagenknecht, C. Gieger, H.J. Grabe, W. Zheng, et al. 2021a. Multi-ancestry genome-wide gene-sleep interactions identify novel loci for blood pressure. *Mol Psychiatry.* 26:6293-6304.

Wang, L., Y. Zhang, X. Liu, X. Zhao, Y. Ouyang, G. Qiu, W. Lv, F. Zheng, Q. Wang, X. Lu, X. Peng, T. Wu, R. Lehmann, C. Wang, W. Jia, and G. Xu. 2021b. Metabolite Triplet in Serum Improves the Diagnostic Accuracy of Prediabetes and Diabetes Screening. *J Proteome Res.* 20:10005-1014.

Wardelmann, K., M. Rath, J.P. Castro, S. Blümel, M. Schell, R. Hauffe, F. Schumacher, T. Flore, K. Ritter, A. Wernitz, T. Hosoi, K. Ozawa, B. Kleuser, J. Weiß, A. Schürmann, and A. Kleinridders. 2021. Central Acting Hsp10 Regulates Mitochondrial Function, Fatty Acid Metabolism, and Insulin Sensitivity in the Hypothalamus. *Antioxidants (Basel).* 10.

Warncke, K., N. Prinz, V. Iotova, D. Dunstheimer, N. Datz, B. Karges, M.V. Jali, D. Linsenmeyer, B.S. Olsen, M. Seiwald, P. Prahalad, G. de Sousa, and D. Pacaud. 2021. Thiamine-Responsive Megaloblastic Anemia-Related Diabetes: Long-Term Clinical Outcomes in 23 Pediatric Patients From the DPV and SWEET Registries. *Can J Diabetes.* 45:539-545.

Watts, D., N. Bechmann, A. Meneses, I.K. Poutakidou, D. Kaden, C. Conrad, A. Krüger, J. Stein, A. El-Armouche, T. Chavakis, G. Eisenhofer, M. Peitzsch, and B. Wielockx. 2021a. HIF2α regulates the synthesis and release of epinephrine in the adrenal medulla. *J Mol Med (Berl).* 99:1655-1666.

Watts, D., M. Janßen, M. Jaykar, F. Palmucci, M. Weigelt, C. Petzold, A. Hommel, T. Sparwasser, E. Bonifacio, and K. Kretschmer. 2021b. Transient Depletion of Foxp3(+) Regulatory T Cells Selectively Promotes Aggressive β Cell Autoimmunity in Genetically Susceptible DREG Mice. *Front Immunol.* 12:720133.

Watts, D., J. Stein, A. Meneses, N. Bechmann, A. Neuwirth, D. Kaden, A. Krüger, A. Sinha, V.I. Alexaki, P.-R. Luis Gustavo, S. Kircher, A. Martinez, M. Theodoropoulou, G. Eisenhofer, M. Peitzsch, A. El-Armouche, T. Chavakis, and B. Wielockx. 2021c. HIF1α is a direct regulator of steroidogenesis in the adrenal gland. *Cell Mol Life Sci.* 78:3577-3590.

Wedekind, R., P. Keski-Rahkonen, N. Robinot, V. Viallon, J.A. Rothwell, M.C. Boutron-Ruault, K. Aleksandrova, C. Wittenbecher, M.B. Schulze, J. Halkjaer, A.L. Rostgaard-Hansen, R. Kaaks, V. Katzke, G. Masala, R. Tumino, M. Santucci de Magistris, V. Krogh, C. Sacerdote, P. Jakobsen, E. Weiderpass, M.J. Gunter, I. Huybrechts, and A. Scalbert. 2021. Pepper Alkaloids and Processed Meat



## List of Publications 2021

Intake: Results from a Randomized Trial and the European Prospective Investigation into Cancer and Nutrition (EPIC) Cohort. *Mol Nutr Food Res.* 65:e2001141.

Weigert, C., S. Hartwig, and S. Lehr. 2021. Methods for Proteomics-Based Analysis of the Human Muscle Secretome Using an In Vitro Exercise Model. *Methods Mol Biol.* 2261:433-442.

Welters, A., S.R. Tittel, K. Laubner, M. Laimer, D. Tschöpe, J.K. Mader, S. Merger, S. Milek, S. Kummer, and R.W. Holl. 2021. Long-term trends of BMI and cardiometabolic risk factors among adults with type 1 diabetes: An observational study from the German/Austrian DPV registry. *Diabetes Res Clin Pract.* 178:108973.

Wiechers, C., L.S. Balles, S. Kirchhof, R. Weber, V. Avellina, J. Pauluschke-Fröhlich, M. Hallschmid, L. Fritzsche, H. Preißl, A. Fritzsche, C.F. Poets, and A.R. Franz. 2021. Body composition in term offspring after maternal gestational diabetes does not predict postnatal hypoglycemia. *BMC Pediatr.* 21:111.

Wiedenmann, S., M. Breunig, J. Merkle, C. von Toerne, T. Georgiev, M. Moussus, L. Schulte, T. Seufferlein, M. Sterr, H. Lickert, S.E. Weissinger, P. Möller, S.M. Hauck, M. Hohwieler, A. Kleger, and M. Meier. 2021. Single-cell-resolved differentiation of human induced pluripotent stem cells into pancreatic duct-like organoids on a microwell chip. *Nat Biomed Eng.* 5:897-913.

Wiedmer, P., T. Jung, J.P. Castro, L.C.D. Pomatto, P.Y. Sun, K.J.A. Davies, and T. Grune. 2021. Sarcopenia - Molecular mechanisms and open questions. *Ageing Res Rev.* 65:101200.

Wigger, L., M. Barovic, A.D. Brunner, F. Marzetta, E. Schöniger, F. Mehl, N. Kipke, D. Friedland, F. Burdet, C. Kessler, M. Lesche, B. Thorens, E. Bonifacio, C. Legido-Quigley, P. Barbier Saint Hilaire, P. Delerive, A. Dahl, C. Klose, M.J. Gerl, K. Simons, D. Aust, J. Weitz, M. Distler, A.M. Schulte, M. Mann, M. Ibberson, and M. Solimena. 2021. Multi-omics profiling of living human pancreatic islet donors reveals heterogeneous beta cell trajectories towards type 2 diabetes. *Nat Metab.* 3:1017-1031.

Wilhelmi, I., S. Grunwald, N. Gimber, O. Popp, G. Dittmar, A. Arumughan, E.E. Wanker, T. Laeger, J. Schmoranzer, O. Daumke, and A. Schürmann. 2021a. The ARFRP1-dependent Golgi scaffolding protein GOPC is required for insulin secretion from pancreatic β-cells. *Mol Metab.* 45:101151.

Wilhelmi, I., A. Neumann, M. Jähnert, M. Ouni, and A. Schürmann. 2021b. Enriched Alternative Splicing in Islets of Diabetes-Susceptible Mice. *Int J Mol Sci.* 22.

Willems, R., K. Tsoutsoulopoulou, R. Brondeel, G. Cardon, K. Makrilakis, S. Liatis, J. Lindström, J. Kivelä, E.M. González-Gil, N. Giménez-Legarre, N. Usheva, V. Iotova, T. Tankova, E. Antal, I. Rurik, P. Timpel, P.E.H. Schwarz, Y. Manios, and L. Annemans. 2021. Cost-effectiveness analysis of a school- and community-based intervention to promote a healthy lifestyle and prevent type 2 diabetes in vulnerable families across Europe: the Feel4Diabetes-study. *Prev Med.* 153:106722.

Willmes, D.M., M. Daniels, A. Kurzbach, S. Lieske, N. Bechmann, T. Schumann, C. Henke, N.N. El-Agroudy, A.C. Da Costa Goncalves, M. Peitzsch, A. Hofmann, W. Kanczkowski, K. Kräker, D.N. Müller, H. Morawietz, A. Deussen, M. Wagner, A. El-Armouche, S.L. Helfand, S.R. Bornstein, R. de Cabo, M. Bernier, G. Eisenhofer, J. Tank, J. Jordan, and A.L. Birkenfeld. 2021. The longevity gene *mlndy* (I'm Not Dead, Yet) affects blood pressure through sympathoadrenal mechanisms. *JCI Insight.* 6.

Wittenbecher, C., F. Eichelmann, E. Toledo, M. Guasch-Ferré, M. Ruiz-Canela, J. Li, F. Arós, C.H. Lee, L. Liang, J. Salas-Salvadó, C.B. Clish, M.B. Schulze, M. Martínez-González, and F.B. Hu. 2021. Lipid Profiles and Heart Failure Risk: Results From Two Prospective Studies. *Circ Res.* 128:309-320.

Wörheide, M.A., J. Krumsiek, G. Kastenmüller, and M. Arnold. 2021. Multi-omics integration in biomedical research - A metabolomics-centric review. *Anal Chim Acta.* 1141:144-162.

Wörn, M., B.N. Bohnert, F. Alenazi, K. Boldt, F. Klose, K. Junger, M. Ueffing, A.L. Birkenfeld, H. Kalbacher, and F. Artunc. 2021. Proteasuria in nephrotic syndrome-quantification and proteomic profiling. *J Proteomics.* 230:103981.

Wu, C., Y. Borné, R. Gao, M. López Rodriguez, W.C. Roell, J.M. Wilson, A. Regmi, C. Luan, D.M. Aly, A. Peter, J. Machann, H. Staiger, A. Fritzsche, A.L. Birkenfeld, R. Tao, R. Wagner, M. Canouil, M.G. Hong, J.M. Schwenk, E. Ahlgqvist, M.U. Kaikkonen, P. Nilsson, A.C. Shore, F. Khan, A. Natali, O. Melander, M. Orho-Melander, J. Nilsson, H.U. Häring, E. Renström, C.B. Wollheim, G. Engström, J. Weng, E.R. Pearson, P.W. Franks, M.F. White, K.L. Duffin, A.A. Vaag, M. Laakso, N. Stefan, L. Groop, and Y. De Marinis. 2021. Elevated circulating follistatin associates with an increased risk of type 2 diabetes. *Nat Commun.* 12:6486.

Xiao, M., B.N. Bohnert, H. Aypek, O. Kretz, F. Grahammer, U. Aukschun, M. Wörn, A. Janessa, D. Essigke, C. Daniel, K. Amann, T.B. Huber, E.F. Plow, A.L. Birkenfeld, and F. Artunc. 2021a. Plasminogen deficiency does not prevent sodium retention in a genetic mouse model of experimental nephrotic syndrome. *Acta Physiol (Oxf).* 231:e13512.



## List of Publications 2021

- Xiao, X., G. Yeghiazaryan, S. Hess, P. Klemm, A. Sieben, A. Kleinridders, D.A. Morgan, F.T. Wunderlich, K. Rahmouni, D. Kong, T.E. Scammell, B.B. Lowell, P. Kloppenburg, J.C. Brüning, and A.C. Hausen. 2021b. Orexin receptors 1 and 2 in serotonergic neurons differentially regulate peripheral glucose metabolism in obesity. *Nat Commun.* 12:5249.
- Xu, C.S., S. Pang, G. Shtengel, A. Müller, A.T. Ritter, H.K. Hoffman, S.Y. Takemura, Z. Lu, H.A. Pasolli, N. Iyer, J. Chung, D. Bennett, A.V. Weigel, M. Freeman, S.B. van Engelenburg, T.C. Walther, R.V. Farese, Jr., J. Lippincott-Schwartz, I. Mellman, M. Solimena, and H.F. Hess. 2021a. An open-access volume electron microscopy atlas of whole cells and tissues. *Nature.* 599:147-151.
- Xu, Y., J.M. Grimsmann, B. Karges, S. Hofer, T. Danne, R.W. Holl, R.A. Ajjan, and T.C. Dunn. 2021b. Personal Glycation Factors and Calculated Hemoglobin A1c for Diabetes Management: Real-World Data from the Diabetes Prospective Follow-up (DPV) Registry. *Diabetes Technol Ther.* 23:452-459.
- Yang, Y., H. Sadri, C. Prehn, J. Adamski, J. Rehage, S. Dänicke, M.H. Ghaffari, and H. Sauerwein. 2021. Targeted assessment of the metabolome in skeletal muscle and in serum of dairy cows supplemented with conjugated linoleic acid during early lactation. *J Dairy Sci.* 104:5095-5109.
- Yao, C., R. Joehanes, R. Wilson, T. Tanaka, L. Ferrucci, A. Kretschmer, H. Prokisch, K. Schramm, C. Gieger, A. Peters, M. Waldenberger, C. Marzi, C. Herder, and D. Levy. 2021. Epigenome-wide association study of whole blood gene expression in Framingham Heart Study participants provides molecular insight into the potential role of CHRNAs5 in cigarette smoking-related lung diseases. *Clin Epigenetics.* 13:60.
- Yaskolka Meir, A., M. Keller, S.H. Bernhart, E. Rinott, G. Tsaban, H. Zelicha, A. Kaplan, D. Schwarzfuchs, I. Shelef, Y. Gepner, J. Li, Y. Lin, M. Blüher, U. Ceglarek, M. Stumvoll, P.F. Stadler, M.J. Stampfer, P. Kovacs, L. Liang, and I. Shai. 2021a. Lifestyle weight-loss intervention may attenuate methylation aging: the CENTRAL MRI randomized controlled trial. *Clin Epigenetics.* 13:48.
- Yaskolka Meir, A., M. Keller, L. Müller, S.H. Bernhart, G. Tsaban, H. Zelicha, E. Rinott, A. Kaplan, Y. Gepner, I. Shelef, D. Schwarzfuchs, U. Ceglarek, P. Stadler, M. Blüher, M. Stumvoll, P. Kovacs, and I. Shai. 2021b. Effects of lifestyle interventions on epigenetic signatures of liver fat: Central randomized controlled trial. *Liver Int.* 41:2101-2111.
- Zacharias, H.U., J. Hertel, H. Johar, M. Pietzner, K. Lukaschek, S. Atasoy, S. Kunze, H. Völzke, M. Nauck, N. Friedrich, G. Kastenmüller, H.J. Grabe, C. Gieger, J. Krumsiek, and K.H. Ladwig. 2021. A metabolome-wide association study in the general population reveals decreased levels of serum laurylcarnitine in people with depression. *Mol Psychiatry.* 26:7372-7383.
- Zaghlool, S.B., S. Sharma, M. Molnar, P.R. Matías-García, M.A. Elhadad, M. Waldenberger, A. Peters, W. Rathmann, J. Graumann, C. Gieger, H. Grallert, and K. Suhre. 2021. Revealing the role of the human blood plasma proteome in obesity using genetic drivers. *Nat Commun.* 12:1279.
- Zaharia, O.P., Y. Kupriyanova, Y. Karusheva, D.F. Markgraf, K. Kantartzis, A.L. Birkenfeld, M. Trenell, A. Sahasranaman, C. Cheyette, T. Kössler, K. Bódis, V. Burkart, J.H. Hwang, M. Roden, J. Szendroedi, and D.H. Pesta. 2021a. Improving insulin sensitivity, liver steatosis and fibrosis in type 2 diabetes by a food-based digital education-assisted lifestyle intervention program: a feasibility study. *Eur J Nutr.* 60:3811-3818.
- Zaharia, O.P., D.H. Pesta, P. Bobrov, Y. Kupriyanova, C. Herder, Y. Karusheva, K. Bódis, G.J. Bönhof, J. Knizza, D. Simon, A. Kleyer, J.H. Hwang, K. Müssig, D. Ziegler, V. Burkart, G. Schett, M. Roden, and J. Szendroedi. 2021b. Reduced Muscle Strength Is Associated With Insulin Resistance in Type 2 Diabetes Patients With Osteoarthritis. *J Clin Endocrinol Metab.* 106:1062-1073.
- Zeigerer, A. 2021. NAFLD - A rising metabolic disease. *Mol Metab.* 50:101274.
- Zeigerer, A., R. Sekar, M. Kleinert, S. Nason, K.M. Habegger, and T.D. Müller. 2021. Glucagon's Metabolic Action in Health and Disease. *Compr Physiol.* 11:1759-1793.
- Zembic, A., N. Eckel, N. Stefan, J. Baudry, and M.B. Schulze. 2021. An Empirically Derived Definition of Metabolically Healthy Obesity Based on Risk of Cardiovascular and Total Mortality. *JAMA Netw Open.* 4:e218505.
- Zhang, Q., C.T. Delessa, R. Augustin, M. Bakhti, G. Colldén, D.J. Drucker, A. Feuchtinger, C.G. Caceres, G. Grandl, A. Harger, S. Herzig, S. Hofmann, C.L. Holleman, M. Jastroch, S. Keipert, M. Kleinert, P.J. Knerr, K. Kulaj, B. Legutko, H. Lickert, X. Liu, G. Luippold, D. Lutter, E. Malogajski, M.T. Medina, S.A. Mowery, A. Blutke, D. Perez-Tilve, C. Salinno, L. Sehrer, R.D. DiMarchi, M.H. Tschöp, K. Stemmer, B. Finan, C. Wolfrum, and T.D. Müller. 2021a. The glucose-dependent insulinotropic polypeptide (GIP) regulates body weight and food intake via CNS-GIPR signaling. *Cell Metab.* 33:833-844.e835.



## List of Publications 2021

- Zhang, S., S. Mwiberi, R. Pickford, S. Breitner, C. Huth, W. Koenig, W. Rathmann, C. Herder, M. Roden, J. Cyrys, A. Peters, K. Wolf, and A. Schneider. 2021b. Longitudinal associations between ambient air pollution and insulin sensitivity: results from the KORA cohort study. *Lancet Planet Health.* 5:e39-e49.
- Zhang, Y., L. Johansson, J. Andersson-Assarsson, M. Taube, M. Peltonen, P.A. Svensson, C. Herder, A. Rudin, L. Carlsson, S. Rantapää-Dahlqvist, and C. Maglio. 2021c. Adiponectin Associates with Rheumatoid Arthritis Risk in Overweight and Obesity Independently of Other Adipokines. *J Clin Med.* 10.
- Zhang, Y., Y. Lei, M. Honarpisheh, E. Kemter, E. Wolf, and J. Seissler. 2021d. Butyrate and Class I Histone Deacetylase Inhibitors Promote Differentiation of Neonatal Porcine Islet Cells into Beta Cells. *Cells.* 10.
- Zheng, J.S., J. Luan, E. Sofianopoulou, F. Imamura, I.D. Stewart, F.R. Day, M. Pietzner, E. Wheeler, L.A. Lotta, T.E. Gundersen, P. Amiano, E. Ardanaz, M.D. Chirlaque, G. Fagherazzi, P.W. Franks, R. Kaaks, N. Laouali, F.R. Mancini, P.M. Nilsson, N.C. Onland-Moret, A. Olsen, K. Overvad, S. Panico, D. Palli, F. Ricceri, O. Rolandsson, A.M.W. Spijkerman, M.J. Sánchez, M.B. Schulze, N. Sala, S. Sieri, A. Tjønneland, R. Tumino, Y.T. van der Schouw, E. Weiderpass, E. Riboli, J. Danesh, A.S. Butterworth, S.J. Sharp, C. Langenberg, N.G. Forouhi, and N.J. Wareham. 2021a. Plasma Vitamin C and Type 2 Diabetes: Genome-Wide Association Study and Mendelian Randomization Analysis in European Populations. *Diabetes Care.* 44:98-106.
- Zheng, S., X. Zhang, Z. Li, M. Hoene, L. Fritzsche, F. Zheng, Q. Li, A. Fritzsche, A. Peter, R. Lehmann, X. Zhao, and G. Xu. 2021b. Systematic, Modifying Group-Assisted Strategy Expanding Coverage of Metabolite Annotation in Liquid Chromatography-Mass Spectrometry-Based Nontargeted Metabolomics Studies. *Anal Chem.* 93:10916-10924.
- Ziegler, A.G., and E. Bonifacio. 2021. Shortening the paths to type 1 diabetes mellitus prevention. *Nat Rev Endocrinol.* 17:73-74.
- Ziegler, A.G., T. Danne, C. Daniel, and E. Bonifacio. 2021a. 100 Years of Insulin: Lifesaver, immune target, and potential remedy for prevention. *Med (N Y).* 2:1120-1137.
- Ziegler, D., G.J. Bönhof, A. Strom, K. Straßburger, Y. Karusheva, J. Szendroedi, and M. Roden. 2021b. Progression and regression of nerve fibre pathology and dysfunction early in diabetes over 5 years. *Brain.* 144:3251-3263.
- Ziegler, D., A. Strom, K. Straßburger, B. Knebel, G.J. Bönhof, J. Kotzka, J. Szendroedi, and M. Roden. 2021c. Association of cardiac autonomic dysfunction with higher levels of plasma lipid metabolites in recent-onset type 2 diabetes. *Diabetologia.* 64:458-468.
- Ziemssen, F., Y.S. Feng, S. Schnichels, T. Bayyoud, M. Ueffing, K.U. Bartz-Schmidt, P. Martus, and A. Peter. 2021. Testing for SARS-CoV-2 seroprevalence: experiences of a tertiary eye centre. *BMJ Open Ophthalmol.* 6:e000688.
- Zinke, K., V. Lehnert, A. Fritzsche, H. Preissl, and M. Hallschmid. 2021. Pregnant women do not display impaired memory formation across one night of sleep. *J Sleep Res.* 30:e13204.
- Zorro Shahidian, L., M. Haas, S. Le Gras, S. Nitsch, A. Mourão, A. Geerlof, R. Margueron, J. Michaelis, S. Daujat, and R. Schneider. 2021. Succinylation of H3K122 destabilizes nucleosomes and enhances transcription. *EMBO Rep.* 22:e51009.
- Zweck, E., D. Scheiber, T. Jelenik, F. Bönner, P. Horn, D. Pesta, H.P. Schultheiss, U. Boeken, P. Akhyari, A. Lichtenberg, M. Kelm, M. Roden, R. Westenfeld, and J. Szendroedi. 2021. Exposure to Type 2 Diabetes Provokes Mitochondrial Impairment in Apparently Healthy Human Hearts. *Diabetes Care.* 44:e82-e84.