Stanford



Anna L Gloyn

Professor of Pediatrics (Endocrinology) and of Genetics

Pediatrics - Endocrinology

CONTACT INFORMATION

- **Administrative Associate**

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Bio

BIO

Dr Anna Gloyn joined the faculty at Stanford University in February 2020 after sixteen years at the University of Oxford, UK. Dr Gloyn completed her DPhil at the University of Oxford under the supervision of the late Professor Robert Turner. Her post-doctoral training was carried out at the University of Exeter under the mentorship of Professors Andrew Hattersley & Sian Ellard and at the University of Pennsylvania in Philadelphia under the mentorship of Professor Franz Matschinsky. In 2004 she returned to Oxford with a Diabetes UK RD Lawrence Career Development Fellowship and established an independent research group focused on understanding beta-cell function through the investigation of genetic variants causally implicated in monogenic diabetes. In 2011 she was awarded a prestigious Wellcome Senior Fellowship in Basic Biomedical Science which she successfully renewed in 2016 and transferred to Stanford when she relocated.

ACADEMIC APPOINTMENTS

- Professor, Pediatrics - Endocrinology
- Professor, Genetics
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)
- Faculty Fellow, Sarafan ChEM-H

ADMINISTRATIVE APPOINTMENTS

- Associate Chair for Basic Science Research, Department of Pediatrics, (2020- present)
- Associate Director for Basic Science, Stanford Diabetes Research Center, (2026- present)
- Co-Director of Enrichment Program, Stanford Diabetes Research Center, (2023- present)
- Co-Lead of Pancreas & Islet Affinity Group, Stanford Diabetes Research Centre, (2020- present)
- Co-Director of the Pilot & Feasibility Program, Stanford Diabetes Research Center, (2023-2026)
- Member, Stanford Diabetes Research Centre, (2020- present)

- Co-Director of Recruitment for Physician-Scientist Training Program, Pediatrics Residency Program, (2022- present)
- Co-Lead for Basic & Translational Science Scholarly Concentration, Pediatrics Residency Program, (2020- present)

HONORS AND AWARDS

- Honorary Doctorate, University of Bergen, Norway (May 2026)
- Transatlantic Alliance Award, Endocrine Society & European Society for Endocrinology (May 2026)
- Fellow, Academy of Medical Sciences (May 2025)
- Outstanding Scientific Achievement Award, American Diabetes Association (June 2022)
- Dorothy Hodgkin Named Lecture, Diabetes UK (March 2019)
- G.B. Morgagni Prize Silver Medal, University of Padua Medical School, Padua, Italy (October 2014)
- Minkowski Award, European Association for the Study of Diabetes (October 2014)
- RD Lawrence Named Lecture, Diabetes UK (March 2009)
- Rising Star Award, European Association for the Study of Diabetes (September 2005)
- Senior Fellowship in Basic Biomedical Science, Wellcome (2011-2022)
- New Investigator, Medical Research Council (UK) (2007-2011)
- RD Lawrence Career Development Fellow, Diabetes UK (2004-2008)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Associate Editor, Diabetes Care (2024 - present)
- Editorial Advisory Board, Cell Genomics (2021 - present)
- Chair of Working Group Precision Diagnostics for Monogenic Diabetes, American Diabetes Association Precision Medicine Consensus Working Group (2020 - present)
- Member of the Executive Committee, Atlas of Variant Effects Alliance (2020 - present)
- Member of the Flagship Disease (Diabetes) Working Group, International Common Disease Alliance (2020 - present)
- Member of the Working Group (Mechanisms), International Common Disease Alliance (2020 - present)
- Member of the Working Group (Medicines), International Common Disease Alliance (2019 - present)
- Panel Member, ClinGen Monogenic Diabetes Variant Curation Expert Panel (2019 - present)
- Associate Editor, Endocrine Reviews (2018 - 2021)
- Editorial Advisory Board, Diabetologia (2018 - 2021)
- Trustee, European Diabetology (2017 - 2021)
- Expert Review Panel Member for Genetics Genomics & Population Health, Wellcome Trust (2016 - 2021)

PROFESSIONAL EDUCATION

- DPhil, University of Oxford , Molecular Genetics of Type 2 Diabetes (2000)
- BSc (Hons), University of Surrey , Biochemistry (Medical) (1996)

LINKS

- Stanford Lab Website: https://med.stanford.edu/genomics-of-diabetes.html

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The consistent focus of Anna's research has been using naturally occurring mutations in humans as tools to identity critical regulatory pathways and insights into normal physiology. Her early post-doctoral research led to the identification a new genetic aetiology for permanent and transient neonatal diabetes due to KCNJ11 mutations and resulted in one of the first examples of precision medicine, where the determination of the molecular genetic aetiology lead to improved treatment options for patients. Whilst in Oxford, Anna's team discovered a novel genetic cause of constitutive insulin sensitivity in humans due to mutations in the PTEN gene highlighting the complex interplay between pathways involved in cell-growth and metabolism.

Her early independent work focused on the clinical and functional characterization of glucokinase mutations in monogenic forms of hyperinsulinemia of infancy, hyperglycemia and neonatal diabetes. Anna maintains an active research program in monogenic forms of diabetes and how genetics can be used to assist diabetes diagnosis and treatment. Her lab has expertise in variant characterization for multiple genes involved in monogenic diabetes and she supports clinicians with the interpretation of variants of unknown significance from genetic testing. A major focus of her current work is focused on how deep mutational scanning and maps of variant effects for diabetes relevant genes can be incorporated into guidelines for variant interpretation for monogenic diabetes through her involvement in the Clin Gen Monogenic Diabetes Variant Expert Review Panel and the Atlas of Variant Effects (AVE) consortium. Recently she has co-led the working group on Precision Diagnostics in monogenic diabetes for the and the ADA/EASD Precision Medicines Initiative which has uncovered a number of gaps in our knowledge.

Anna's research is not limited to monogenic forms of diabetes she is also an active member of multiple international consortia for genetic discovery for type 2 diabetes including the Accelerated Medicines Partnership for Common Metabolic Disease (AMP-CMD) where she uses her expertise in islet biology, functional genomics and cell and molecular physiology to bridge the gap between genetic discovery and biological and clinical insight. One of her areas of interest is in how genetics can be used for stratified medicine. Dr Gloyn is involved in several efforts to integrate genetic data on diabetes heterogeneity into human islet research within the Human Islet Research Network (HIRN). She is currently responsible for the genetic characterization of human islet donors for both the Integrated Islet Distribution Program (IIDP) where she heads the Human Genotyping Initiative (HIGI) and the Human Pancreas Analysis Program (HPAP) where she is responsible for the genotyping all donors. She has developed tools and methods to make genetic data available to islet users on ancestry and genetic risk for type 1 and type 2 diabetes.

Anna is an active member of multiple internal genetic discovery efforts including: NIH/Pharma funded Accelerated Medicines Partnership, DIAGRAM (Diabetes Genetics Replication and Meta-analysis), MAGIC (Meta-analysis of Glucose and Insulin traits Consortium), Type 2 Diabetes Genetic Exploration by Next-generation sequencing in multi-Ethnic Samples (T2D-GENES) and the Genetics of Type 2 Diabetes (GoT2D). She was also involved in the IMI funded STEMBANCC project which focused on delivering human IPS cell derived beta-cell models for drug discovery efforts.

Teaching

STANFORD ADVISEES

Esmeralda Matias

Doctoral Dissertation Reader (AC)

Kyle Trinh, Lucy Zhang

Postdoctoral Faculty Sponsor

Claire Kim, Yunkyeong Lee, Mei-Lin Okino, Phoebe Tran, Lu Zhang

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Endocrinology (Fellowship Program)
- Genetics (PhD Program)
- Medical Genetics (Fellowship Program)
- Medicine (Masters Program)
- Pediatric Endocrinology (Fellowship Program)

Publications

PUBLICATIONS

- **European Society of Endocrinology 2026 awards** *TRENDS IN ENDOCRINOLOGY AND METABOLISM*
  Gloyn, A. L., Goldstein, I., Zennaro, M.
  2026; 37 (11): 1009-1012

- **Autophagy and mitophagy in pancreatic β-cell homeostasis and their involvement in diabetes pathophysiology.** *FEBS letters*
  Lee, Y., Tong, M., Gloyn, A. L.
  2026

- **Heterogeneous endocrine cell composition defines human islet functional phenotypes.** *Nature communications*
  Evans-Molina, C., Pettway, Y. D., Saunders, D. C., Sharp, S. A., Bate, T. S., Sun, H., Durai, H., Mei, S., Coldren, A., Davis, C., Reihsmann, C. V., Hopkirk, A. L., Taylor, et al
  2026; 17 (1)

- **Type 2 diabetes risk alleles in peptidyl-glycine alpha-amidating monooxygenase influence GLP-1 levels and response to GLP-1 receptor agonists.** *Genome medicine*
  Umapathysivam, M. M., Araldi, E., Hastoy, B., Dawed, A. Y., Vatandaslar, H., Mayrhofer, J. E., Lindquist, P., Silva, P. N., Goga, A., Trüllinger, G. O., Godbersen, S., Sengupta, S., Kaufmann, et al
  2026

- **Functional Characterization of Glucokinase Variants to Aid Clinical Interpretation of Monogenic Diabetes** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
  Rajesh, V., Ibarra, D., Yang, J., Zhang, H., Barrett, A., Kaplan, E. G., Kumthekar, A., Sunden, F., Sun, H., Addala, A., Misakian, A., Letourneau-Freiberg, L. R., Jodarski, et al
  2025; 27 (1)

- **Complete Loss of PAX4 causes Transient Neonatal Diabetes in Humans.** *Molecular metabolism*
  Russ-Silsby, J., Lee, Y., Rajesh, V., Amoli, M., Mirhosseini, N. A., Godbole, T., Johnson, M. B., Ibarra, D. E., Sun, H., Krentz, N. A., Wakeling, M. N., Flanagan, S. E., Hattersley, et al
  2025: 102201

- **Diabetes mellitus polygenic risk scores: heterogeneity and clinical translation.** *Nature reviews. Endocrinology*
  Ortega, H. I., Udler, M. S., Gloyn, A. L., Sharp, S. A.
  2025

- **Accelerating Medicines Partnership in Type 2 Diabetes and Common Metabolic Diseases: Collaborating to Maximize the Value of Genetic and Genomic Data.** *Diabetes*
  Costanzo, M. C., Akolkar, B., Claussnitzer, M., Florez, J. C., Gloyn, A. L., Grant, S. F., Kaestner, K. H., Manning, A. K., Mohlke, K. L., Parker, S. C., Titchenell, P. M., Udler, M. S., Jones, et al
  2025

- **Standardized Measurement of Type 1 Diabetes Polygenic Risk Across Multiancestry Population Cohorts.** *Diabetes care*
  Luckett, A. M., Oram, R. A., Deutsch, A. J., Ortega, H. I., Fraser, D. P., Ashok, K., Manning, A. K., Mercader, J. M., Rivas, M. A., Udler, M. S., Weedon, M. N., Gloyn, A. L., Sharp, et al
  2025

- **Peptidylglycine alpha-amidating monooxygenase is important in mice for beta-cell cilia formation and insulin secretion but promotes diabetes risk through beta-cell independent mechanisms.** *Molecular metabolism*

Chen, Y., Back, N. E., Zhen, J., Xiong, L., Komba, M., Gloyn, A. L., MacDonald, P. E., Mains, R. E., Eipper, B. A., Verchere, C. B.
2025: 102123

- **Effects of coding variants in the glucokinase regulatory protein gene on hepatic glucose and triglyceride metabolism suggest a gene regulatory function of glucokinase.** *Metabolism: clinical and experimental*
  Langer, S., Jagdhuhn, D., Waterstradt, R., Gromoll, J., Müller, M., Rees, M. G., Gloyn, A. L., Baltrusch, S.
  2025: 156150
- **Prediction of metabolic subphenotypes of type 2 diabetes via continuous glucose monitoring and machine learning.** *Nature biomedical engineering*
  Metwally, A. A., Perelman, D., Park, H., Wu, Y., Jha, A., Sharp, S., Celli, A., Ayhan, E., Abbasi, F., Gloyn, A. L., McLaughlin, T., Snyder, M. P.
  2024
- **Rare variant analyses in 51,256 type 2 diabetes cases and 370,487 controls reveal the pathogenicity spectrum of monogenic diabetes genes.** *Nature genetics*
  Huerta-Chagoya, A., Schroeder, P., Mandla, R., Li, J., Morris, L., Vora, M., Alkanaq, A., Nagy, D., Szczerbinski, L., Madsen, J. G., Bonas-Guarch, S., Mollandin, F., Cole, et al
  2024
- **HumanIslets.com: Improving accessibility, integration, and usability of human research islet data.** *Cell metabolism*
  Ewald, J. D., Lu, Y., Ellis, C. E., Worton, J., Kolic, J., Sasaki, S., Zhang, D., Dos Santos, T., Spigelman, A. F., Bautista, A., Dai, X., Lyon, J. G., Smith, et al
  2024
- **Characteristics of glucokinase regulatory protein missense mutations with distinct effects on hepatic lipid metabolism suggest a gene regulatory function of glucokinase**
  Langer, S., Jagdhuhn, D., Waterstradt, R., Gromoll, J., Mueller, M., Rees, M. G., Gloyn, A. L., Baltrusch, S. E.
  SPRINGER.2024: S270-S271
- **Diabetes mellitus-Progress and opportunities in the evolving epidemic.** *Cell*
  Abel, E. D., Gloyn, A. L., Evans-Molina, C., Joseph, J. J., Misra, S., Pajvani, U. B., Simcox, J., Susztak, K., Drucker, D. J.
  2024; 187 (15): 3789-3820
- **A global initiative to deliver precision health in diabetes.** *Nature medicine*
  Cefalu, W. T., Franks, P. W., Rosenblum, N. D., Zaghloul, N. A., Florez, J. C., Giorgino, F., Ji, L., Ma, R. C., Mathieu, C., Misra, S., Ramirez, A. H., Roden, M., Scherer, et al
  2024
- **Proteomic predictors of individualized nutrient-specific insulin secretion in health and disease.** *Cell metabolism*
  Kolic, J., Sun, W. G., Cen, H. H., Ewald, J. D., Rogalski, J. C., Sasaki, S., Sun, H., Rajesh, V., Xia, Y. H., Moravcova, R., Skovsø, S., Spigelman, A. F., Manning Fox, et al
  2024; 36 (7): 1619-1633.e5
- **CD39 delineates chimeric antigen receptor regulatory T cell subsets with distinct cytotoxic & regulatory functions against human islets** *FRONTIERS IN IMMUNOLOGY*
  Wu, X., Chen, P., Whitener, R. L., MacDougall, M. S., Coykendall, V. M. N., Yan, H., Kim, Y., Harper, W., Pathak, S., Iliopoulou, B. P., Hestor, A., Saunders, D. C., Spears, et al
  2024; 15: 1415102
- **Electrophysiological characterisation of iPSC-derived human β-like cells and an SLC30A8 disease model.** *Diabetes*
  Jaffredo, M., Krentz, N. A., Champon, B., Duff, C. E., Nawaz, S., Beer, N., Honore, C., Clark, A., Rorsman, P., Lang, J., Gloyn, A. L., Raoux, M., Hastoy, et al
  2024
- **Multiplexed CRISPR gene editing in primary human islet cells with Cas9 ribonucleoprotein.** *iScience*
  Bevacqua, R. J., Zhao, W., Merheb, E., Kim, S. H., Marson, A., Gloyn, A. L., Kim, S. K.
  2024; 27 (1): 108693
- **Heterogeneity of increased biological age in type 2 diabetes correlates with differential tissue DNA methylation, biological variables, and pharmacological treatments.** *GeroScience*
  Cortez, B. N., Pan, H., Hinthorn, S., Sun, H., Neretti, N., Gloyn, A. L., Aguayo-Mazzucato, C.

2023

- **Large-scale exome array summary statistics resources for glycemic traits to aid effector gene prioritization.** *Wellcome open research*
  Willems, S. M., Ng, N. H., Fernandez, J., Fine, R. S., Wheeler, E., Wessel, J., Kitajima, H., Marenne, G., Sim, X., Yaghootkar, H., Wang, S., Chen, S., Chen, et al
  2023; 8: 483

- **Second international consensus report on gaps and opportunities for the clinical translation of precision diabetes medicine.** *Nature medicine*
  Tobias, D. K., Merino, J., Ahmad, A., Aiken, C., Benham, J. L., Bodhini, D., Clark, A. L., Colclough, K., Corcoy, R., Cromer, S. J., Duan, D., Felton, J. L., Francis, et al
  2023

- **The use of precision diagnostics for monogenic diabetes: a systematic review and expert opinion.** *Communications medicine*
  Murphy, R., Colclough, K., Pollin, T. I., Ikle, J. M., Svalastoga, P., Maloney, K. A., Saint-Martin, C., Molnes, J., Misra, S., Aukrust, I., de Franco, E., Flanagan, S. E., Njølstad, et al
  2023; 3 (1): 136

- **PAX4 loss of function increases diabetes risk by altering human pancreatic endocrine cell development.** *Nature communications*
  Lau, H. H., Krentz, N. A., Abaitua, F., Perez-Alcantara, M., Chan, J. W., Ajeian, J., Ghosh, S., Lee, Y., Yang, J., Thaman, S., Champon, B., Sun, H., Jha, et al
  2023; 14 (1): 6119

- **Safe use of the ketogenic diet in an infant with microcephaly, epilepsy, and diabetes syndrome: a case report.** *BMC pediatrics*
  Zegarra, W. A., Gallentine, W. B., Ruzhnikov, M. R., McAndrews, C. A., Gloyn, A. L., Addala, A.
  2023; 23 (1): 453

- **Management of Neonatal Diabetes due to a KCNJ11 Mutation with Automated Insulin Delivery System and Remote Patient Monitoring.** *Case reports in endocrinology*
  Lee, M. Y., Gloyn, A. L., Maahs, D. M., Prahalad, P.
  2023; 2023: 8825724

- **An Atlas of Variant Effects to understand the genome at nucleotide resolution.** *Genome biology*
  Fowler, D. M., Adams, D. J., Gloyn, A. L., Hahn, W. C., Marks, D. S., Muffley, L. A., Neal, J. T., Roth, F. P., Rubin, A. F., Starita, L. M., Hurles, M. E.
  2023; 24 (1): 147

- **A comprehensive map of human glucokinase variant activity.** *Genome biology*
  Gersing, S., Cagiada, M., Gebbia, M., Gjesing, A. P., Coté, A. G., Seesankar, G., Li, R., Tabet, D., Weile, J., Stein, A., Gloyn, A. L., Hansen, T., Roth, et al
  2023; 24 (1): 97

- **Small but mighty: microexons in glucose homeostasis.** *Trends in genetics : TIG*
  Garcia, K., Gloyn, A. L.
  2023

- **Type 2 Diabetes risk alleles in Peptidyl-glycine Alpha-amidating Monooxygenase influence GLP-1 levels and response to GLP-1 Receptor Agonists.** *medRxiv : the preprint server for health sciences*
  Umapathysivam, M. M., Araldi, E., Hastoy, B., Dawed, A. Y., Vatandaslar, H., Sengupta, S., Kaufmann, A., Thomsen, S., Hartmann, B., Jonsson, A. E., Kabakci, H., Thaman, S., Grarup, et al
  2023

- **The Type 2 Diabetes Knowledge Portal: An open access genetic resource dedicated to type 2 diabetes and related traits.** *Cell metabolism*
  Costanzo, M. C., von Grotthuss, M., Massung, J., Jang, D., Caulkins, L., Koesterer, R., Gilbert, C., Welch, R. P., Kudtarkar, P., Hoang, Q., Boughton, A. P., Singh, P., Sun, et al
  2023

- **Loss of RREB1 in pancreatic beta cells reduces cellular insulin content and affects endocrine cell gene expression.** *Diabetologia*
  Mattis, K. K., Krentz, N. A., Metzendorf, C., Abaitua, F., Spigelman, A. F., Sun, H., Ikle, J. M., Thaman, S., Rottner, A. K., Bautista, A., Mazzaferro, E., Perez-Alcantara, M., Manning Fox, et al
  2023

- **Inferring causal genes at type 2 diabetes GWAS loci through chromosome interactions in islet cells.** *Wellcome open research*
  Torres, J. M., Sun, H., Nylander, V., Downes, D. J., van de Bunt, M., McCarthy, M. I., Hughes, J. R., Gloyn, A. L.
  2023; 8: 165
- **A genome-wide CRISPR screen identifies CALCOCO2 as a regulator of beta cell function influencing type 2 diabetes risk.** *Nature genetics*
  Rottner, A. K., Ye, Y., Navarro-Guerrero, E., Rajesh, V., Pollner, A., Bevacqua, R. J., Yang, J., Spigelman, A. F., Baronio, R., Bautista, A., Thomsen, S. K., Lyon, J., Nawaz, et al
  2022
- **Zmiz1 is required for mature β-cell function and mass expansion upon high fat feeding.** *Molecular metabolism*
  Alghamdi, T. A., Krentz, N. A., Smith, N., Spigelman, A. F., Rajesh, V., Jha, A., Ferdaoussi, M., Suzuki, K., Yang, J., Manning Fox, J. E., Sun, H., Sun, Z., Gloyn, et al
  2022: 101621
- **The contribution of functional HNF1A variants and polygenic susceptibility to risk of type 2 diabetes in ancestrally diverse populations.** *Diabetologia*
  Stalbow, L. A., Preuss, M. H., Smit, R. A., Chami, N., Bjørkhaug, L., Aukrust, I., Gloyn, A. L., Loos, R. J.
  2022
- **Genetic regulation of RNA splicing in human pancreatic islets.** *Genome biology*
  Atla, G., Bonas-Guarch, S., Cuenca-Ardura, M., Beucher, A., Crouch, D. J., Garcia-Hurtado, J., Moran, I., T2DSystems Consortium, Irimia, M., Prasad, R. B., Gloyn, A. L., Marselli, L., Suleiman, M., et al
  2022; 23 (1): 196
- **Every islet matters: improving the impact of human islet research.** *Nature metabolism*
  Gloyn, A. L., Ibberson, M., Marchetti, P., Powers, A. C., Rorsman, P., Sander, M., Solimena, M.
  2022
- **Multi-ancestry genetic study of type 2 diabetes highlights the power of diverse populations for discovery and translation.** *Nature genetics*
  Mahajan, A., Spracklen, C. N., Zhang, W., Ng, M. C., Petty, L. E., Kitajima, H., Yu, G. Z., Rueger, S., Speidel, L., Kim, Y. J., Horikoshi, M., Mercader, J. M., Taliun, et al
  2022
- **TIGER: The gene expression regulatory variation landscape of human pancreatic islets.** *Cell reports*
  Alonso, L., Piron, A., Moran, I., Guindo-Martinez, M., Bonas-Guarch, S., Atla, G., Miguel-Escalada, I., Royo, R., Puiggros, M., Garcia-Hurtado, X., Suleiman, M., Marselli, L., Esguerra, et al
  2021; 37 (2): 109807
- **Genetics of Type 2 Diabetes: Opportunities for Precision Medicine: JACC Focus Seminar.** *Journal of the American College of Cardiology*
  Kim, D. S., Gloyn, A. L., Knowles, J. W.
  2021; 78 (5): 496-512
- **A brief history of diabetes genetics: insights for pancreatic beta-cell development and function.** *The Journal of endocrinology*
  Ikle, J. M., Gloyn, A. L.
  2021
- **There is more than one way to reach type 2 diabetes.** *Nature metabolism*
  Gloyn, A. L., Powers, A. C.
  2021
- **The trans-ancestral genomic architecture of glycemic traits.** *Nature genetics*
  Chen, J., Spracklen, C. N., Marenne, G., Varshney, A., Corbin, L. J., Luan, J., Willems, S. M., Wu, Y., Zhang, X., Horikoshi, M., Boutin, T. S., Magi, R., Waage, et al
  2021
- **Monogenic diabetes: a gateway to precision medicine in diabetes.** *The Journal of clinical investigation*
  Zhang, H., Colclough, K., Gloyn, A. L., Pollin, T. I.
  2021; 131 (3)
- **A Multi-omic Integrative Scheme Characterizes Tissues of Action at Loci Associated with Type 2 Diabetes.** *American journal of human genetics*

Torres, J. M., Abdalla, M., Payne, A., Fernandez-Tajes, J., Thurner, M., Nylander, V., Gloyn, A. L., Mahajan, A., McCarthy, M. I.
2020

- **Response to Comment on Misra et al. Homozygous Hypomorphic HNF1A Alleles Are a Novel Cause of Young-Onset Diabetes and Result in Sulfonylurea-Sensitive Diabetes. Diabetes Care 2020;43:909-912.** *Diabetes care*
  Misra, S., Hassanali, N., Bennett, A. J., Juszczak, A., Caswell, R., Colclough, K., Valabhji, J., Ellard, S., Oliver, N. S., Gloyn, A. L.
  2020; 43 (10): e155–e156

- **Identification of type 2 diabetes loci in 433,540 East Asian individuals.** *Nature*
  Spracklen, C. N., Horikoshi, M., Kim, Y. J., Lin, K., Bragg, F., Moon, S., Suzuki, K., Tam, C. H., Tabara, Y., Kwak, S., Takeuchi, F., Long, J., Lim, et al
  2020

- **Endocrine-Exocrine Signaling Drives Obesity-Associated Pancreatic Ductal Adenocarcinoma.** *Cell*
  Chung, K. M., Singh, J., Lawres, L., Dorans, K. J., Garcia, C., Burkhardt, D. B., Robbins, R., Bhutkar, A., Cardone, R., Zhao, X., Babic, A., Vayrynen, S. A., Dias Costa, et al
  2020

- **From Genetic Association to Molecular Mechanisms for Islet-cell Dysfunction in Type 2 Diabetes** *JOURNAL OF MOLECULAR BIOLOGY*
  Mattis, K. K., Gloyn, A. L.
  2020; 432 (5): 1551–78

- **Editorial Overview: "Islet Biology in Type 2 Diabetes"** *JOURNAL OF MOLECULAR BIOLOGY*
  Gaisano, H. Y., Jonas, J., Gloyn, A. L.
  2020; 432 (5): 1307–9

- **Insights into pancreatic islet cell dysfunction from type 2 diabetes mellitus genetics.** *Nature reviews. Endocrinology*
  Krentz, N. A., Gloyn, A. L.
  2020

- **Deep learning models predict regulatory variants in pancreatic islets and refine type 2 diabetes association signals.** *eLife*
  Wesolowska-Andersen, A. n., Zhuo Yu, G. n., Nylander, V. n., Abaitua, F. n., Thurner, M. n., Torres, J. M., Mahajan, A. n., Gloyn, A. L., McCarthy, M. I.
  2020; 9

- **Unsupervised Clustering of Missense Variants in HNF1A Using Multidimensional Functional Data Aids Clinical Interpretation.** *American journal of human genetics*
  Althari, S. n., Najmi, L. A., Bennett, A. J., Aukrust, I. n., Rundle, J. K., Colclough, K. n., Molnes, J. n., Kaci, A. n., Nawaz, S. n., van der Lugt, T. n., Hassanali, N. n., Mahajan, A. n., Molven, et al
  2020

- **Genetic variant effects on gene expression in human pancreatic islets and their implications for T2D.** *Nature communications*
  Viñuela, A. n., Varshney, A. n., van de Bunt, M. n., Prasad, R. B., Asplund, O. n., Bennett, A. n., Boehnke, M. n., Brown, A. A., Erdos, M. R., Fadista, J. n., Hansson, O. n., Hatem, G. n., Howald, et al
  2020; 11 (1): 4912

- **Homozygous Hypomorphic HNF1A Alleles Are a Novel Cause of Young-Onset Diabetes and Result in Sulphonylurea-Sensitive Diabetes.** *Diabetes care*
  Misra, S. n., Hassanali, N. n., Bennett, A. J., Juszczak, A. n., Caswell, R. n., Colclough, K. n., Valabhji, J. n., Ellard, S. n., Oliver, N. S., Gloyn, A. L.
  2020

- **Analysis of Differentiation Protocols Defines a Common Pancreatic Progenitor Molecular Signature and Guides Refinement of Endocrine Differentiation.** *Stem cell reports*
  Wesolowska-Andersen, A. n., Jensen, R. R., Alcántara, M. P., Beer, N. L., Duff, C. n., Nylander, V. n., Gosden, M. n., Witty, L. n., Bowden, R. n., McCarthy, M. I., Hansson, M. n., Gloyn, A. L., Honore, et al
  2020; 14 (1): 138–53

- **Exocrine or endocrine? A circulating pancreatic elastase that regulates glucose homeostasis.** *Nature metabolism*
  Gloyn, A. L.
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