Stanford

Anna L Gloyn

Professor of Pediatrics (Endocrinology) and, by courtesy, of Genetics

Pediatrics - Endocrinology and Diabetes

CONTACT INFORMATION

- **Administrative Associate**

  Jacqueline Sunderland

  Email jacquies@stanford.edu

  Tel 650 724 6080

Bio

BIO

Dr Anna Gloyn has recently relocated to Stanford University from the University of Oxford, UK where she was based for sixteen years at the Oxford Centre for Diabetes Endocrinology and Metabolism and the Wellcome Centre for Human Genetics.

Anna 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 her own research group focused on understanding beta-cell function through the investigation of genetic variants causally implicated in monogenic diabetes. Since her return to Oxford Dr Gloyn received continuous personal funding from Diabetes UK, the Medical Research Council and the Wellcome Trust. In 2011 she was awarded a prestigious Wellcome Senior Fellowship in Basic Biomedical Science which she successfully renewed in 2016.

ACADEMIC APPOINTMENTS

- Professor, Pediatrics - Endocrinology and Diabetes
- Professor (By courtesy), Genetics
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Faculty Fellow, Stanford ChEM-H

ADMINISTRATIVE APPOINTMENTS

- Associate Chair for Basic Science Research, Department of Pediatrics, (2020- present)
- Co-Lead of Pancreas & Islet Affinity Group, Stanford Diabetes Research Centre, (2020- present)
- Scholarly Concentration co-Lead for Basic /Translational Science, Pediatrics Residency Program, (2020- present)
- Member, Stanford Diabetes Research Centre, (2020- present)

HONORS AND AWARDS

- Rising Star Award, European Association for the Study of Diabetes (September 2005)
- RD Lawrence Named Lecture, Diabetes UK (March 2009)
- 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)
- Dorothy Hodgkin Named Lecture, Diabetes UK (March 2019)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- 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 - present)
- Editorial Advisory Board, Diabetologia (2018 - present)
- Trustee, European Diabetology (2017 - present)
- Expert Review Panel Member for Genetics Genomics & Population Health, Wellcome Trust (2016 - present)

LINKS

- Stanford Lab Website: https://med.stanford.edu/genomics-of-diabetes.html
- Oxford Website: https://www.rdm.ox.ac.uk/people/anna-gloyn

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.

Anna's current research projects are focused on the translation of genetic association signals for type 2 diabetes and glycaemic traits into cellular and molecular mechanisms for beta-cell dysfunction and diabetes. Her group uses a variety of complementary approaches, including human genetics, functional genomics, physiology and islet-biology to dissect out the molecular mechanisms driving disease pathogenesis.

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.

Anna is also involved in several initiatives under the Human Islet Research Network (HIRN): the NIDDK funded Human Pancreas Atlas Programme (HPAP) for Type 2 Diabetes, and the Integrated Islet Phenotyping Programme (IIPP).

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Nicole Krentz, Yingying Ye

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Endocrinology (Fellowship Program)
- Genetics (Phd Program)
- Pediatric Endocrinology (Fellowship Program)

Publications

PUBLICATIONS

- **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., Zhuo Yu, G., Nylander, V., Abaitua, F., Thurner, M., Torres, J. M., Mahajan, A., 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., Najmi, L. A., Bennett, A. J., Aukrust, I., Rundle, J. K., Colclough, K., Molnes, J., Kaci, A., Nawaz, S., van der Lugt, T., Hassanali, N., Mahajan, A., Molven, et al
  2020
- **Genetic variant effects on gene expression in human pancreatic islets and their implications for T2D.** *Nature communications*
  Viñuela, A., Varshney, A., van de Bunt, M., Prasad, R. B., Asplund, O., Bennett, A., Boehnke, M., Brown, A. A., Erdos, M. R., Fadista, J., Hansson, O., Hatem, G., 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., Hassanali, N., Bennett, A. J., Juszczak, A., Caswell, R., Colclough, K., Valabhji, J., Ellard, S., 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., Jensen, R. R., Alcántara, M. P., Beer, N. L., Duff, C., Nylander, V., Gosden, M., Witty, L., Bowden, R., McCarthy, M. I., Hansson, M., Gloyn, A. L., Honore, et al
  2020; 14 (1): 138–53
- **METABOLIC SYNDROME Exocrine or endocrine? A circulating pancreatic elastase that regulates glucose homeostasis** *NATURE METABOLISM*
  Gloyn, A. L.
  2019; 1 (9): 853–55
- **Fostering improved human islet research: a European perspective** *DIABETOLOGIA*
  Marchetti, P., Schulte, A. M., Marselli, L., Schoniger, E., Bugliani, M., Kramer, W., Overbergh, L., Ullrich, S., Gloyn, A. L., Ibberson, M., Rutter, G., Froguel, P., Groop, et al
  2019; 62 (8): 1514–16
- **Developing a network view of type 2 diabetes risk pathways through integration of genetic, genomic and functional data** *GENOME MEDICINE*
  Fernandez-Tajes, J., Gaulton, K. J., van de Bunt, M., Torres, J., Thurner, M., Mahajan, A., Gloyn, A. L., Lage, K., McCarthy, M. I.
  2019; 11: 19
- **Loss of ZnT8 function protects against diabetes by enhanced insulin secretion.** *Nature genetics*
  Dwivedi, O. P., Lehtovirta, M., Hastoy, B., Chandra, V., Krentz, N. A., Kleiner, S., Jain, D., Richard, A. M., Abaitua, F., Beer, N. L., Grotz, A., Prasad, R. B., Hansson, et al
  2019; 51 (11): 1596–1606
- **Plasma Fucosylated Glycans and C-Reactive Protein as Biomarkers of HNF1A-MODY in Young Adult-Onset Nonautoimmune Diabetes** *DIABETES CARE*
  Juszczak, A., Pavic, T., Vuckovic, F., Bennett, A. J., Shah, N., Medvidovic, E., Groves, C. J., Sekerija, M., Chandler, K., Burrows, C., Putarek, N., Lovrencic, M., Knezevic, et al
  2019; 42 (1): 17–26
- **Exocrine or endocrine? A circulating pancreatic elastase that regulates glucose homeostasis.** *Nature metabolism*
  Gloyn, A. L.
  2019; 1 (9): 853–55
- **A CRISPR/Cas9 genome editing pipeline in the EndoC-βH1 cell line to study genes implicated in beta cell function.** *Wellcome open research*
  Grotz, A. K., Abaitua, F., Navarro-Guerrero, E., Hastoy, B., Ebner, D., Gloyn, A. L.
  2019; 4: 150
- **Translational genomics and precision medicine: Moving from the lab to the clinic.** *Science (New York, N.Y.)*
  Zeggini, E., Gloyn, A. L., Barton, A. C., Wain, L. V.
  2019; 365 (6460): 1409–13
- **Fine-mapping type 2 diabetes loci to single-variant resolution using high-density imputation and islet-specific epigenome maps.** *Nature genetics*
  Mahajan, A., Taliun, D., Thurner, M., Robertson, N. R., Torres, J. M., Rayner, N. W., Payne, A. J., Steinthorsdottir, V., Scott, R. A., Grarup, N., Cook, J. P., Schmidt, E. M., Wuttke, et al
  2018

- **Understanding human fetal pancreas development using subpopulation sorting, RNA sequencing and single-cell profiling** *DEVELOPMENT*
  Ramond, C., Beydag-Tasoz, B., Azad, A., van de Bunt, M., Petersen, M., Beer, N. L., Glaser, N., Berthault, C., Gloyn, A. L., Hansson, M., McCarthy, M., Honore, C., Grapin-Botton, et al
  2018; 145 (16)

- **Patterns of differential gene expression in a cellular model of human islet development, and relationship to type 2 diabetes predisposition** *DIABETOLOGIA*
  Perez-Alcantara, M., Honore, C., Wesolowska-Andersen, A., Gloyn, A. L., McCarthy, M. I., Hansson, M., Beer, N. L., van de Bunt, M.
  2018; 61 (7): 1614–22

- **NKX6.1 induced pluripotent stem cell reporter lines for isolation and analysis of functionally relevant neuronal and pancreas populations** *STEM CELL RESEARCH*
  Gupta, S., Wesolowska-Andersen, A., Ringgaard, A. K., Jaiswal, H., Song, L., Hastoy, B., Ingvorsen, C., Taheri-Ghahfarokhi, A., Magnusson, B., Maresca, M., Jensen, R. R., Beer, N. L., Fels, et al
  2018; 29: 220–31

- **Regulatory variants at KLF14 influence type 2 diabetes risk via a female-specific effect on adipocyte size and body composition** *NATURE GENETICS*
  Small, K. S., Todorcevic, M., Civelek, M., Moustafa, J., Wang, X., Simon, M. M., Fernandez-Tajes, J., Mahajan, A., Horikoshi, M., Hugill, A., Glastonbury, C. A., Quaye, L., Neville, et al
  2018; 50 (4): 572-+

- **A Partial Loss-of-Function Variant in AKT2 Is Associated With Reduced Insulin-Mediated Glucose Uptake in Multiple Insulin-Sensitive Tissues: A Genotype-Based Callback Positron Emission Tomography Study** *DIABETES*
  Latva-Rasku, A., Honka, M., Stancakova, A., Koistinen, H. A., Kuusisto, J., Guan, L., Manning, A. K., Stringham, H., Gloyn, A. L., Lindgren, C. M., Collins, F. S., Mohlke, K. L., Scott, et al
  2018; 67 (2): 334–42

- **Sequence data and association statistics from 12,940 type 2 diabetes cases and controls (vol 4, 170179, 2017)** *SCIENTIFIC DATA*
  Flannick, J., Fuchsberger, C., Mahajan, A., Teslovich, T. M., Agarwala, V., Gaulton, K. J., Caulkins, L., Koesterer, R., Ma, C., Moutsianas, L., McCarthy, D. J., Rivas, M. A., Perry, et al
  2018; 5: 180002

- **Type 2 diabetes risk alleles in PAM impact insulin release from human pancreatic #-cells.** *Nature genetics*
  Thomsen, S. K., Raimondo, A., Hastoy, B., Sengupta, S., Dai, X. Q., Bautista, A., Censin, J., Payne, A. J., Umapathysivam, M. M., Spigelman, A. F., Barrett, A., Groves, C. J., Beer, et al
  2018; 50 (8): 1122–31

- **Maturity onset diabetes of the young due to HNF1A variants in Croatia** *BIOCHEMIA MEDICA*
  Pavic, T., Juszczak, A., Medvidovic, E., Burrows, C., Sekerija, M., Bennett, A. J., Knezevic, J., Gloyn, A. L., Lauc, G., McCarthy, M., Gornik, O., Owen, K. R.
  2018; 28 (2): 020703

- **Electrophysiological properties of human beta-cell lines EndoC-#H1 and -#H2 conform with human beta-cells.** *Scientific reports*
  Hastoy, B., Godazgar, M., Clark, A., Nylander, V., Spiliotis, I., van de Bunt, M., Chibalina, M. V., Barrett, A., Burrows, C., Tarasov, A. I., Scharfmann, R., Gloyn, A. L., Rorsman, et al
  2018; 8 (1): 16994

- **Integration of human pancreatic islet genomic data refines regulatory mechanisms at Type 2 Diabetes susceptibility loci.** *eLife*
  Thurner, M., van de Bunt, M., Torres, J. M., Mahajan, A., Nylander, V., Bennett, A. J., Gaulton, K. J., Barrett, A., Burrows, C., Bell, C. G., Lowe, R., Beck, S., Rakyan, et al
  2018; 7

- **Precision medicine in the management of type 2 diabetes.** *The lancet. Diabetes & endocrinology*
  Gloyn, A. L., Drucker, D. J.
  2018; 6 (11): 891–900

- **Data Descriptor: Sequence data and association statistics from 12,940 type 2 diabetes cases and controls** *SCIENTIFIC DATA*
  Flannick, J., Fuchsberger, C., Mahajan, A., Teslovich, T. M., Agarwala, V., Gaulton, K. J., Caulkins, L., Koesterer, R., Ma, C., Moutsianas, L., McCarthy, D. J., Rivas, M. A., Perry, et al
  2017; 4: 170179

- **Genes Associated with Pancreas Development and Function Maintain Open Chromatin in iPSCs Generated from Human Pancreatic Beta Cells** *STEM CELL REPORTS*

Thurner, M., Shenhav, L., Wesolowska-Andersen, A., Bennett, A. J., Barrett, A., Gloyn, A. L., McCarthy, M. I., Beer, N. L., Efrat, S.
2017; 9 (5): 1395–1405

- **Prioritising Causal Genes at Type 2 Diabetes Risk Loci** *CURRENT DIABETES REPORTS*
  Grotz, A. K., Gloyn, A. L., Thomsen, S. K.
  2017; 17 (9): 76

- **Human genetics as a model for target validation: finding new therapies for diabetes** *DIABETOLOGIA*
  Thomsen, S. K., Gloyn, A. L.
  2017; 60 (6): 960–70

- **Variant Enriched in the Finnish Population is Associated With Fasting Insulin Levels and Type 2 Diabetes Risk.** *Diabetes*
  Manning, A., Highland, H. M., Gasser, J., Sim, X., Tukiainen, T., Fontanillas, P., Grarup, N., Rivas, M. A., Mahajan, A., Locke, A. E., Cingolani, P., Pers, T. H., Viñuela, et al
  2017

- **Decreased STARD10 Expression Is Associated with Defective Insulin Secretion in Humans and Mice** *AMERICAN JOURNAL OF HUMAN GENETICS*
  Carrat, G. R., Hu, M., Nguyen-Tu, M., Chabosseau, P., Gaulton, K. J., van de Bunt, M., Siddiq, A., Falchi, M., Thurner, M., Canouil, M., Pattou, F., Leclerc, I., Pullen, et al
  2017; 100 (2): 238–56

- **The importance of Context: Uncovering Species- and Tissue-Specific Effects of Genetic Risk Variants for Type 2 Diabetes** *FRONTIERS IN ENDOCRINOLOGY*
  Thomsen, S. K., McCarthy, M. I., Gloyn, A. L.
  2016; 7: 112

- **The genetic architecture of type 2 diabetes** *NATURE*
  Fuchsberger, C., Flannick, J., Teslovich, T. M., Mahajan, A., Agarwala, V., Gaulton, K. J., Ma, C., Fontanillas, P., Moutsianas, L., McCarthy, D. J., Rivas, M. A., Perry, J. R., Sim, et al
  2016; 536 (7614): 41-?

- **Insights into metabolic disease from studying genetics in isolated populations: stories from Greece to Greenland** *DIABETOLOGIA*
  Zeggini, E., Gloyn, A. L., Hansen, T.
  2016; 59 (5): 938–41

- **Systematic Functional Characterization of Candidate Causal Genes for Type 2 Diabetes Risk Variants.** *Diabetes*
  Thomsen, S. K., Ceroni, A., van de Bunt, M., Burrows, C., Barrett, A., Scharfmann, R., Ebner, D., McCarthy, M. I., Gloyn, A. L.
  2016; 65 (12): 3805–11

- **Insights into islet development and biology through characterization of a human iPSC-derived endocrine pancreas model** *ISLETS*
  van de Bunt, M., Lako, M., Barrett, A., Gloyn, A. L., Hansson, M., McCarthy, M. I., Beer, N. L., Honore, C.
  2016; 8 (3): 83–95

- **Loss-of-Function Mutations in the Cell-Cycle Control Gene CDKN2A Impact on Glucose Homeostasis in Humans.** *Diabetes*
  Pal, A., Potjer, T. P., Thomsen, S. K., Ng, H. J., Barrett, A., Scharfmann, R., James, T. J., Bishop, D. T., Karpe, F., Godsland, I. F., Vasen, H. F., Newton-Bishop, J., Pijl, et al
  2016; 65 (2): 527–33

- **Genome-edited human stem cell-derived beta cells: a powerful tool for drilling down on type 2 diabetes GWAS biology.** *F1000Research*
  Beer, N. L., Gloyn, A. L.
  2016; 5

- **Transcript Expression Data from Human Islets Links Regulatory Signals from Genome-Wide Association Studies for Type 2 Diabetes and Glycemic Traits to Their Downstream Effectors** *PLOS GENETICS*
  van de Bunt, M., Fox, J., Dai, X., Barrett, A., Grey, C., Li, L., Bennett, A. J., Johnson, P. R., Rajotte, R. V., Gaulton, K. J., Dermitzakis, E. T., MacDonald, P. E., McCarthy, et al
  2015; 11 (12): e1005694

- **Genetic fine mapping and genomic annotation defines causal mechanisms at type 2 diabetes susceptibility loci** *NATURE GENETICS*
  Gaulton, K. J., Ferreira, T., Lee, Y., Raimondo, A., Maegi, R., Reschen, M. E., Mahajan, A., Locke, A., Rayner, N. W., Robertson, N., Scott, R. A., Prokopenko, I., Scott, et al

2015; 47 (12): 1415-?

- **Isocitrate-to-SENP1 signaling amplifies insulin secretion and rescues dysfunctional beta cells** *JOURNAL OF CLINICAL INVESTIGATION*
  Ferdaoussi, M., Dai, X., Jensen, M. V., Wang, R., Peterson, B. S., Huang, C., Ilkayeva, O., Smith, N., Miller, N., Hajmrle, C., Spigelman, A. F., Wright, R. C., Plummer, et al
  2015; 125 (10): 3847–60

- **When is it MODY? Challenges in the Interpretation of Sequence Variants in MODY Genes.** *The review of diabetic studies : RDS*
  Althari, S., Gloyn, A. L.
  2015; 12 (3-4): 330–48

- **Human islet function following 20 years of cryogenic biobanking** *DIABETOLOGIA*
  Fox, J., Lyon, J., Dai, X., Wright, R. C., Hayward, J., van de Bunt, M., Kin, T., Shapiro, A., McCarthy, M. I., Gloyn, A. L., Ungrin, M. D., Lakey, J. R., Kneteman, et al
  2015; 58 (7): 1503–12

- **Recognition and Management of Individuals With Hyperglycemia Because of a Heterozygous Glucokinase Mutation** *DIABETES CARE*
  Chakera, A. J., Steele, A. M., Gloyn, A. L., Shepherd, M. H., Shields, B., Ellard, S., Hattersley, A. T.
  2015; 38 (7): 1383–92

- **Glucokinase regulatory protein: complexity at the crossroads of triglyceride and glucose metabolism** *CURRENT OPINION IN LIPIDOLOGY*
  Raimondo, A., Rees, M. G., Gloyn, A. L.
  2015; 26 (2): 88–95

- **Identification and Functional Characterization of G6PC2 Coding Variants Influencing Glycemic Traits Define an Effector Transcript at the G6PC2-ABCB11 Locus** *PLOS GENETICS*
  Mahajan, A., Sim, X., Ng, H. J., Manning, A., Rivas, M. A., Highland, H. M., Locke, A. E., Grarup, N., Im, H. K., Cingolani, P., Flannick, J., Fontanillas, P., Fuchsberger, et al
  2015; 11 (1)

- **The pancreatic beta cell: recent insights from human genetics** *TRENDS IN ENDOCRINOLOGY AND METABOLISM*
  Thomsen, S. K., Gloyn, A. L.
  2014; 25 (8): 425–34

- **Reclassification of Diabetes Etiology in a Family With Multiple Diabetes Phenotypes** *JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM*
  Kavvoura, F. K., Raimondo, A., Thanabalasingham, G., Barrett, A., Webster, A. L., Shears, D., Mann, N. P., Ellard, S., Gloyn, A. L., Owen, K. R.
  2014; 99 (6): E1067–E1071

- **Analysis of the co-operative interaction between the allosterically regulated proteins GK and GKRP using tryptophan fluorescence** *BIOCHEMICAL JOURNAL*
  Zelent, B., Raimondo, A., Barrettt, A., Buettger, C. W., Chen, P., Gloyn, A. L., Matschinsky, F. M.
  2014; 459: 551–64

- **A Panel of Diverse Assays to Interrogate the Interaction between Glucokinase and Glucokinase Regulatory Protein, Two Vital Proteins in Human Disease** *PLOS ONE*
  Rees, M. G., Davis, M. I., Shen, M., Titus, S., Raimondo, A., Barrett, A., Gloyn, A. L., Collins, F. S., Simeonov, A.
  2014; 9 (2): e89335

- **Pancreatic islet enhancer clusters enriched in type 2 diabetes risk-associated variants** *NATURE GENETICS*
  Pasquali, L., Gaulton, K. J., Rodriguez-Segui, S. A., Mularoni, L., Miguel-Escalada, I., Akerman, I., Tena, J. J., Moran, I., Gomez-Marin, C., van de Bunt, M., Ponsa-Cobas, J., Castro, N., Nammo, et al
  2014; 46 (2): 136-+

- **Argonaute2 Mediates Compensatory Expansion of the Pancreatic beta Cell** *CELL METABOLISM*
  Tattikota, S. G., Rathjen, T., McAnulty, S. J., Wessels, H., Akerman, I., van de Bunt, M., Hausser, J., Esguerra, J. S., Musahl, A., Pandey, A. K., You, X., Chen, W., Herrera, et al
  2014; 19 (1): 122–34

- **Phenotypic severity of homozygous GCK mutations causing neonatal or childhood-onset diabetes is primarily mediated through effects on protein stability.** *Human molecular genetics*
  Raimondo, A., Chakera, A. J., Thomsen, S. K., Colclough, K., Barrett, A., De Franco, E., Chatelas, A., Demirbilek, H., Akcay, T., Alawneh, H., Flanagan, S. E., Van De Bunt, M., Hattersley, et al

2014; 23 (24): 6432–40

- **Genetics in Diabetes Type 2 Diabetes and Related Traits Preface** *GENETICS IN DIABETES: TYPE 2 DIABETES AND RELATED TRAITS*
  Gloyn, A. L., McCarthy, M. I., Gloyn, A. L., McCarthy, M. I.
  2014; 23: VII

- **Translating Genetic Association Signals for Diabetes and Metabolic Traits into Molecular Mechanisms for Disease** *GENETICS IN DIABETES: TYPE 2 DIABETES AND RELATED TRAITS*
  Rees, M. G., Gloyn, A. L., Gloyn, A. L., McCarthy, M. I.
  2014; 23: 133–45

- **Translating Advances in Our Understanding of the Genetics of Diabetes into the Clinic** *GENETICS IN DIABETES: TYPE 2 DIABETES AND RELATED TRAITS*
  Gardner, D. S., Owen, K. R., Gloyn, A. L., Gloyn, A. L., McCarthy, M. I.
  2014; 23: 173–86

- **Inheritance of rare functional GCKR variants and their contribution to triglyceride levels in families.** *Human molecular genetics*
  Rees, M. G., Raimondo, A., Wang, J., Ban, M. R., Davis, M. I., Barrett, A., Ranft, J., Jagdhuhn, D., Waterstradt, R., Baltrusch, S., Simeonov, A., Collins, F. S., Hegele, et al
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