

7. References

- Adzhubei, I. A., Schmidt, S., Peshkin, L., Ramensky, V. E., Gerasimova, A., Bork, P., . . . Sunyaev, S. R. (2010). A method and server for predicting damaging missense mutations. *Nat Methods*, 7(4), 248-249. doi:10.1038/nmeth0410-248
- Alexandrov, L. B., Jones, P. H., Wedge, D. C., Sale, J. E., Campbell, P. J., Nik-Zainal, S., & Stratton, M. R. (2015). Clock-like mutational processes in human somatic cells. *Nat Genet*, 47(12), 1402-1407. doi:10.1038/ng.3441
- Alexandrov, L. B., Kim, J., Haradhvala, N. J., Huang, M. N., Ng, A. W. T., Boot, A., . . . Stratton, M. R. (2018). The Repertoire of Mutational Signatures in Human Cancer. *bioRxiv*.
- Andrews, T. S., & Hemberg, M. (2018). Identifying cell populations with scRNASeq. *Mol Aspects Med*, 59, 114-122. doi:10.1016/j.mam.2017.07.002
- Beck, P., & Daughaday, W. H. (1967). Human placental lactogen: studies of its acute metabolic effects and disposition in normal man. *J Clin Invest*, 46(1), 103-110. doi:10.1172/JCI105503
- Behjati, S., Huch, M., van Boxtel, R., Karthaus, W., Wedge, D. C., Tamuri, A. U., . . . Stratton, M. R. (2014). Genome sequencing of normal cells reveals developmental lineages and mutational processes. *Nature*, 513(7518), 422-425. doi:10.1038/nature13448
- Bjerknes, M. (1986). A test of the stochastic theory of stem cell differentiation. *Biophys J*, 49(6), 1223-1227. doi:10.1016/S0006-3495(86)83751-1
- Bonner-Weir, S., Baxter, L. A., Schuppin, G. T., & Smith, F. E. (1993). A second pathway for regeneration of adult exocrine and endocrine pancreas. A possible recapitulation of embryonic development. *Diabetes*, 42(12), 1715-1720.
- Bonner-Weir, S., Guo, L., Li, W. C., Ouziel-Yahalom, L., Lysy, P. A., Weir, G. C., & Sharma, A. (2012). Islet neogenesis: a possible pathway for beta-cell replenishment. *Rev Diabet Stud*, 9(4), 407-416. doi:10.1900/RDS.2012.9.407
- Bonner-Weir, S., Inada, A., Yatoh, S., Li, W. C., Aye, T., Toschi, E., & Sharma, A. (2008). Transdifferentiation of pancreatic ductal cells to endocrine beta-cells. *Biochem Soc Trans*, 36(Pt 3), 353-356. doi:10.1042/BST0360353
- Brennan, K., Huangfu, D., & Melton, D. (2007). All beta cells contribute equally to islet growth and maintenance. *PLoS Biol*, 5(7), e163. doi:10.1371/journal.pbio.0050163

- Bruens, L., Ellenbroek, S. I. J., van Rheenen, J., & Snippert, H. J. (2017). In Vivo Imaging Reveals Existence of Crypt Fission and Fusion in Adult Mouse Intestine. *Gastroenterology*, *153*(3), 674-677 e673. doi:10.1053/j.gastro.2017.05.019
- Buels, R., Yao, E., Diesh, C. M., Hayes, R. D., Munoz-Torres, M., Helt, G., . . . Holmes, I. H. (2016). JBrowse: a dynamic web platform for genome visualization and analysis. *Genome Biology*, *17*(1), 66. doi:10.1186/s13059-016-0924-1
- Butler, A. E., Cao-Minh, L., Galasso, R., Rizza, R. A., Corradin, A., Cobelli, C., & Butler, P. C. (2010). Adaptive changes in pancreatic beta cell fractional area and beta cell turnover in human pregnancy. *Diabetologia*, *53*(10), 2167-2176. doi:10.1007/s00125-010-1809-6
- Butler, A. E., Janson, J., Bonner-Weir, S., Ritzel, R., Rizza, R. A., & Butler, P. C. (2003). Beta-cell deficit and increased beta-cell apoptosis in humans with type 2 diabetes. *Diabetes*, *52*(1), 102-110.
- Cabrera, O., Berman, D. M., Kenyon, N. S., Ricordi, C., Berggren, P. O., & Caicedo, A. (2006). The unique cytoarchitecture of human pancreatic islets has implications for islet cell function. *Proc Natl Acad Sci U S A*, *103*(7), 2334-2339. doi:10.1073/pnas.0510790103
- Campbell, P. J., Getz, G., Stuart, J. M., Korbel, J. O., & Stein, L. D. (2017). Pan-cancer analysis of whole genomes. *bioRxiv*.
- Campbell-Thompson, M. L., Heiple, T., Montgomery, E., Zhang, L., & Schneider, L. (2012). Staining protocols for human pancreatic islets. *J Vis Exp*(63), e4068. doi:10.3791/4068
- Castaing, M., Duvillie, B., Quemeneur, E., Basmaciogullari, A., & Scharfmann, R. (2005). Ex vivo analysis of acinar and endocrine cell development in the human embryonic pancreas. *Dev Dyn*, *234*(2), 339-345. doi:10.1002/dvdy.20547
- Castaing, M., Peault, B., Basmaciogullari, A., Casal, I., Czernichow, P., & Scharfmann, R. (2001). Blood glucose normalization upon transplantation of human embryonic pancreas into beta-cell-deficient SCID mice. *Diabetologia*, *44*(11), 2066-2076. doi:10.1007/s001250100012
- Chakravarthy, H., Gu, X., Enge, M., Dai, X., Wang, Y., Damond, N., . . . Kim, S. K. (2017). Converting Adult Pancreatic Islet alpha Cells into beta Cells by Targeting Both Dnmt1 and Arx. *Cell Metab*, *25*(3), 622-634. doi:10.1016/j.cmet.2017.01.009

- Chen, H., & Boutros, P. C. (2011). VennDiagram: a package for the generation of highly-customizable Venn and Euler diagrams in R. *BMC Bioinformatics*, *12*(1), 35. doi:10.1186/1471-2105-12-35
- Cheng, H., & Bjerknes, M. (1985). Whole population cell kinetics and postnatal development of the mouse intestinal epithelium. *Anat Rec*, *211*(4), 420-426. doi:10.1002/ar.1092110408
- Clarke, R. M. (1972). The effect of growth and of fasting on the number of villi and crypts in the small intestine of the albino rat. *J Anat*, *112*(Pt 1), 27-33.
- Cnop, M., Hughes, S. J., Igoillo-Esteve, M., Hoppa, M. B., Sayyed, F., van de Laar, L., . . . Clark, A. (2010). The long lifespan and low turnover of human islet beta cells estimated by mathematical modelling of lipofuscin accumulation. *Diabetologia*, *53*(2), 321-330. doi:10.1007/s00125-009-1562-x
- Dahl, D. B. (2003). An improved merge-split sampler for conjugate Dirichlet process mixture models. *Univ. Wisconsin-Madison Tech. Rep.*, *1086*, 1–32
- DeFronzo, R. A., & Tripathy, D. (2009). Skeletal muscle insulin resistance is the primary defect in type 2 diabetes. *Diabetes Care*, *32* Suppl 2, S157-163. doi:10.2337/dc09-S302
- Dor, Y., Brown, J., Martinez, O. I., & Melton, D. A. (2004). Adult pancreatic beta-cells are formed by self-duplication rather than stem-cell differentiation. *Nature*, *429*(6987), 41-46. doi:10.1038/nature02520
- El Ouaamari, A., Dirice, E., Gedeon, N., Hu, J., Zhou, J. Y., Shirakawa, J., . . . Kulkarni, R. N. (2016). SerpinB1 Promotes Pancreatic beta Cell Proliferation. *Cell Metab*, *23*(1), 194-205. doi:10.1016/j.cmet.2015.12.001
- Enge, M., Arda, H. E., Mignardi, M., Beausang, J., Bottino, R., Kim, S. K., & Quake, S. R. (2017). Single-Cell Analysis of Human Pancreas Reveals Transcriptional Signatures of Aging and Somatic Mutation Patterns. *Cell*, *171*(2), 321-330 e314. doi:10.1016/j.cell.2017.09.004
- Escribano, O., Guillen, C., Nevado, C., Gomez-Hernandez, A., Kahn, C. R., & Benito, M. (2009). Beta-Cell hyperplasia induced by hepatic insulin resistance: role of a liver-pancreas endocrine axis through insulin receptor A isoform. *Diabetes*, *58*(4), 820-828. doi:10.2337/db08-0551
- Forbes, S. A., Beare, D., Boutselakis, H., Bamford, S., Bindal, N., Tate, J., . . . Campbell, P. J. (2017). COSMIC: somatic cancer genetics at high-resolution. *Nucleic Acids Res*, *45*(D1), D777-D783. doi:10.1093/nar/gkw1121

- Fowler, M. J. (2008). Microvascular and Macrovascular Complications of Diabetes. *Clinical Diabetes*, 26(2), 77.
- Gatfield, D., & Izaurralde, E. (2004). Nonsense-mediated messenger RNA decay is initiated by endonucleolytic cleavage in *Drosophila*. *Nature*, 429(6991), 575-578. doi:10.1038/nature02559
- Gregg, B. E., Moore, P. C., Demozay, D., Hall, B. A., Li, M., Husain, A., . . . Rhodes, C. J. (2012). Formation of a human beta-cell population within pancreatic islets is set early in life. *J Clin Endocrinol Metab*, 97(9), 3197-3206. doi:10.1210/jc.2012-1206
- Gudem, G., Van Loo, P., Kremeyer, B., Alexandrov, L. B., Tubio, J. M. C., Papaemmanuil, E., . . . Bova, G. S. (2015). The evolutionary history of lethal metastatic prostate cancer. *Nature*, 520(7547), 353-357. doi:10.1038/nature14347
- Guz, Y., Nasir, I., & Teitelman, G. (2001). Regeneration of pancreatic beta cells from intra-islet precursor cells in an experimental model of diabetes. *Endocrinology*, 142(11), 4956-4968. doi:10.1210/endo.142.11.8501
- Hanahan, D., & Weinberg, R. A. (2011). Hallmarks of cancer: the next generation. *Cell*, 144(5), 646-674. doi:10.1016/j.cell.2011.02.013
- Hastings, W. K. (1970). Monte Carlo sampling methods using Markov chains and their applications. *Biometrika*, 57(1), 97-109. doi:10.1093/biomet/57.1.97
- Hines, K. E. (2015). A primer on Bayesian inference for biophysical systems. *Biophys J*, 108(9), 2103-2113. doi:10.1016/j.bpj.2015.03.042
- Hoang, M. L., Kinde, I., Tomasetti, C., McMahon, K. W., Rosenquist, T. A., Grollman, A. P., . . . Papadopoulos, N. (2016). Genome-wide quantification of rare somatic mutations in normal human tissues using massively parallel sequencing. *Proc Natl Acad Sci U S A*, 113(35), 9846-9851. doi:10.1073/pnas.1607794113
- Horiguchi, S., & Kamisawa, T. (2010). Major duodenal papilla and its normal anatomy. *Dig Surg*, 27(2), 90-93. doi:10.1159/000288841
- Horn, S., Figl, A., Rachakonda, P. S., Fischer, C., Sucker, A., Gast, A., . . . Kumar, R. (2013). TERT promoter mutations in familial and sporadic melanoma. *Science*, 339(6122), 959-961. doi:10.1126/science.1230062
- Huang, F. W., Hodis, E., Xu, M. J., Kryukov, G. V., Chin, L., & Garraway, L. A. (2013). Highly recurrent TERT promoter mutations in human melanoma. *Science*, 339(6122), 957-959. doi:10.1126/science.1229259

- Ionescu-Tirgoviste, C., Gagniuc, P. A., Gubceac, E., Mardare, L., Popescu, I., Dima, S., & Militaru, M. (2015). A 3D map of the islet routes throughout the healthy human pancreas. *Sci Rep*, *5*, 14634. doi:10.1038/srep14634
- Jacovetti, C., Matkovich, S. J., Rodriguez-Trejo, A., Guay, C., & Regazzi, R. (2015). Postnatal beta-cell maturation is associated with islet-specific microRNA changes induced by nutrient shifts at weaning. *Nat Commun*, *6*, 8084. doi:10.1038/ncomms9084
- Jager, M., Blokzijl, F., Sasselli, V., Boymans, S., Janssen, R., Besselink, N., . . . Cuppen, E. (2018). Measuring mutation accumulation in single human adult stem cells by whole-genome sequencing of organoid cultures. *Nat Protoc*, *13*(1), 59-78. doi:10.1038/nprot.2017.111
- Jennings, R. E., Berry, A. A., Kirkwood-Wilson, R., Roberts, N. A., Hearn, T., Salisbury, R. J., . . . Hanley, N. A. (2013). Development of the human pancreas from foregut to endocrine commitment. *Diabetes*, *62*(10), 3514-3522. doi:10.2337/db12-1479
- Jeon, J., Correa-Medina, M., Ricordi, C., Edlund, H., & Diez, J. A. (2009). Endocrine cell clustering during human pancreas development. *J Histochem Cytochem*, *57*(9), 811-824. doi:10.1369/jhc.2009.953307
- Jo, J., Kilimnik, G., Kim, A., Guo, C., Periwal, V., & Hara, M. (2011). Formation of pancreatic islets involves coordinated expansion of small islets and fission of large interconnected islet-like structures. *Biophys J*, *101*(3), 565-574. doi:10.1016/j.bpj.2011.06.042
- Jones, D., Raine, K. M., Davies, H., Tarpey, P. S., Butler, A. P., Teague, J. W., . . . Campbell, P. J. (2016). cgpCaVEManWrapper: Simple Execution of CaVEMan in Order to Detect Somatic Single Nucleotide Variants in NGS Data. *Curr Protoc Bioinformatics*, *56*, 15 10 11-15 10 18. doi:10.1002/cpbi.20
- Ju, Y. S., Martincorena, I., Gerstung, M., Petljak, M., Alexandrov, L. B., Rahbari, R., . . . Stratton, M. R. (2017). Somatic mutations reveal asymmetric cellular dynamics in the early human embryo. *Nature*, *543*(7647), 714-718. doi:10.1038/nature21703
- Kim, H. S., & Lee, M. K. (2016). beta-Cell regeneration through the transdifferentiation of pancreatic cells: Pancreatic progenitor cells in the pancreas. *J Diabetes Investig*, *7*(3), 286-296. doi:10.1111/jdi.12475

- Kodama, S., Kuhreber, W., Fujimura, S., Dale, E. A., & Faustman, D. L. (2003). Islet regeneration during the reversal of autoimmune diabetes in NOD mice. *Science*, 302(5648), 1223-1227. doi:10.1126/science.1088949
- Li, H., & Durbin, R. (2009). Fast and accurate short read alignment with Burrows-Wheeler transform. *Bioinformatics*, 25(14), 1754-1760. doi:10.1093/bioinformatics/btp324
- Lin, F., Chen, Z. E., & Wang, H. L. (2015). Utility of immunohistochemistry in the pancreatobiliary tract. *Arch Pathol Lab Med*, 139(1), 24-38. doi:10.5858/arpa.2014-0072-RA
- Lipsett, M., & Finegood, D. T. (2002). beta-cell neogenesis during prolonged hyperglycemia in rats. *Diabetes*, 51(6), 1834-1841.
- Lyttle, B. M., Li, J., Krishnamurthy, M., Fellows, F., Wheeler, M. B., Goodyer, C. G., & Wang, R. (2008). Transcription factor expression in the developing human fetal endocrine pancreas. *Diabetologia*, 51(7), 1169-1180. doi:10.1007/s00125-008-1006-z
- Macaulay, I. C., Haerty, W., Kumar, P., Li, Y. I., Hu, T. X., Teng, M. J., . . . Voet, T. (2015). G&T-seq: parallel sequencing of single-cell genomes and transcriptomes. *Nat Methods*, 12(6), 519-522. doi:10.1038/nmeth.3370
- Martincorena, I., Raine, K. M., Gerstung, M., Dawson, K. J., Haase, K., Van Loo, P., . . . Campbell, P. J. (2017). Universal Patterns of Selection in Cancer and Somatic Tissues. *Cell*, 171(5), 1029-1041 e1021. doi:10.1016/j.cell.2017.09.042
- Martincorena, I., Roshan, A., Gerstung, M., Ellis, P., Van Loo, P., McLaren, S., . . . Campbell, P. J. (2015). High burden and pervasive positive selection of somatic mutations in normal human skin. *Science*, 348(6237), 880-886. doi:10.1126/science.aaa6806
- Menge, B. A., Tannapfel, A., Belyaev, O., Drescher, R., Muller, C., Uhl, W., . . . Meier, J. J. (2008). Partial pancreatectomy in adult humans does not provoke beta-cell regeneration. *Diabetes*, 57(1), 142-149. doi:10.2337/db07-1294
- Messier, B., & Leblond, C. P. (1960). Cell proliferation and migration as revealed by radioautography after injection of thymidine-H3 into male rats and mice. *Am J Anat*, 106, 247-285. doi:10.1002/aja.1001060305

- Mezza, T., Muscogiuri, G., Sorice, G. P., Clemente, G., Hu, J., Pontecorvi, A., . . . Kulkarni, R. N. (2014). Insulin resistance alters islet morphology in nondiabetic humans. *Diabetes*, *63*(3), 994-1007. doi:10.2337/db13-1013
- Muraro, M. J., Dharmadhikari, G., Grun, D., Groen, N., Dielen, T., Jansen, E., . . . van Oudenaarden, A. (2016). A Single-Cell Transcriptome Atlas of the Human Pancreas. *Cell Syst*, *3*(4), 385-394 e383. doi:10.1016/j.cels.2016.09.002
- Nik-Zainal, S., Alexandrov, L. B., Wedge, D. C., Van Loo, P., Greenman, C. D., Raine, K., . . . Breast Cancer Working Group of the International Cancer Genome, C. (2012). Mutational processes molding the genomes of 21 breast cancers. *Cell*, *149*(5), 979-993. doi:10.1016/j.cell.2012.04.024
- Nik-Zainal, S., Van Loo, P., Wedge, D. C., Alexandrov, L. B., Greenman, C. D., Lau, K. W., . . . Breast Cancer Working Group of the International Cancer Genome, C. (2012). The life history of 21 breast cancers. *Cell*, *149*(5), 994-1007. doi:10.1016/j.cell.2012.04.023
- Papastamoulis, P. (2016). label.switching: An R Package for Dealing with the Label Switching Problem in MCMC Outputs. *J. Stat. Softw.*, *69*, 24. doi:10.18637/jss.v069.c01
- Papastamoulis, P., & Iliopoulos, G. (2010). An Artificial Allocations Based Solution to the Label Switching Problem in Bayesian Analysis of Mixtures of Distributions. *Journal of Computational and Graphical Statistics*, *19*(2), 313-331.
- Perl, S., Kushner, J. A., Buchholz, B. A., Meeker, A. K., Stein, G. M., Hsieh, M., . . . Tisdale, J. F. (2010). Significant human beta-cell turnover is limited to the first three decades of life as determined by in vivo thymidine analog incorporation and radiocarbon dating. *J Clin Endocrinol Metab*, *95*(10), E234-239. doi:10.1210/jc.2010-0932
- Piper, K., Brickwood, S., Turnpenny, L. W., Cameron, I. T., Ball, S. G., Wilson, D. I., & Hanley, N. A. (2004). Beta cell differentiation during early human pancreas development. *J Endocrinol*, *181*(1), 11-23.
- Pusztaszeri, M. P., Seelentag, W., & Bosman, F. T. (2006). Immunohistochemical expression of endothelial markers CD31, CD34, von Willebrand factor, and Fli-1 in normal human tissues. *J Histochem Cytochem*, *54*(4), 385-395. doi:10.1369/jhc.4A6514.2005

- R Core Team. (2018). R: A language and environment for statistical computing (Version 3.5.0): R Foundation for Statistical Computing, Vienna, Austria. Retrieved from <https://www.R-project.org/>
- Raine, K. M., Van Loo, P., Wedge, D. C., Jones, D., Menzies, A., Butler, A. P., . . . Campbell, P. J. (2016). ascatNgs: Identifying Somatically Acquired Copy-Number Alterations from Whole-Genome Sequencing Data. *Curr Protoc Bioinformatics*, 56, 15 19 11-15 19 17. doi:10.1002/cpbi.17
- Rall, L. B., Pictet, R. L., Williams, R. H., & Rutter, W. J. (1973). Early differentiation of glucagon-producing cells in embryonic pancreas: a possible developmental role for glucagon. *Proc Natl Acad Sci U S A*, 70(12), 3478-3482.
- Rieck, S., & Kaestner, K. H. (2010). Expansion of beta-cell mass in response to pregnancy. *Trends Endocrinol Metab*, 21(3), 151-158. doi:10.1016/j.tem.2009.11.001
- Riedel, M. J., Asadi, A., Wang, R., Ao, Z., Warnock, G. L., & Kieffer, T. J. (2012). Immunohistochemical characterisation of cells co-producing insulin and glucagon in the developing human pancreas. *Diabetologia*, 55(2), 372-381. doi:10.1007/s00125-011-2344-9
- Roberts, N. D. (2018). *Patterns of somatic genome rearrangement in human cancer (Doctoral Thesis)*. (Doctoral Thesis), University of Cambridge,
- Rosenthal, R., McGranahan, N., Herrero, J., Taylor, B. S., & Swanton, C. (2016). DeconstructSigs: delineating mutational processes in single tumors distinguishes DNA repair deficiencies and patterns of carcinoma evolution. *Genome Biol*, 17, 31. doi:10.1186/s13059-016-0893-4
- RStudio Team. (2016). RStudio: Integrated Development for R (Version 1.1.453). Boston, MA, USA: RStudio, Inc. Retrieved from <http://www.rstudio.com/>
- Sarkar, S. A., Kobberup, S., Wong, R., Lopez, A. D., Quayum, N., Still, T., . . . Hutton, J. C. (2008). Global gene expression profiling and histochemical analysis of the developing human fetal pancreas. *Diabetologia*, 51(2), 285-297. doi:10.1007/s00125-007-0880-0
- Seymour, P. A., Bennett, W. R., & Slack, J. M. (2004). Fission of pancreatic islets during postnatal growth of the mouse. *J Anat*, 204(2), 103-116. doi:10.1111/j.1469-7580.2004.00265.x
- Snippert, H. J., van der Flier, L. G., Sato, T., van Es, J. H., van den Born, M., Kroon-Veenboer, C., . . . Clevers, H. (2010). Intestinal crypt homeostasis results from

- neutral competition between symmetrically dividing Lgr5 stem cells. *Cell*, 143(1), 134-144. doi:10.1016/j.cell.2010.09.016
- Socorro, M., Criscimanna, A., Riva, P., Tandon, M., Prasad, K., Guo, P., . . . Esni, F. (2017). Identification of Newly Committed Pancreatic Cells in the Adult Mouse Pancreas. *Sci Rep*, 7(1), 17539. doi:10.1038/s41598-017-17884-z
- Sorenson, R. L., & Brelje, T. C. (1997). Adaptation of islets of Langerhans to pregnancy: beta-cell growth, enhanced insulin secretion and the role of lactogenic hormones. *Horm Metab Res*, 29(6), 301-307. doi:10.1055/s-2007-979040
- Spijker, H. S., Song, H., Ellenbroek, J. H., Roefs, M. M., Engelse, M. A., Bos, E., . . . de Koning, E. J. (2015). Loss of beta-Cell Identity Occurs in Type 2 Diabetes and Is Associated With Islet Amyloid Deposits. *Diabetes*, 64(8), 2928-2938. doi:10.2337/db14-1752
- Stratton, M. R., Campbell, P. J., & Futreal, P. A. (2009). The cancer genome. *Nature*, 458(7239), 719-724. doi:10.1038/nature07943
- Teh, Y. W., Jordan, M. I., Beal, M. J., & Blei, D. M. (2006). Hierarchical Dirichlet Processes. *Journal of the American Statistical Association*, 101(476), 1566-1581. doi:10.1198/016214506000000302
- Tischler, G., & Leonard, S. (2014). biobambam: tools for read pair collation based algorithms on BAM files. *Source Code for Biology and Medicine*, 9, 13-13. doi:10.1186/1751-0473-9-13
- Van Assche, F. A., Aerts, L., & De Prins, F. (1978). A morphological study of the endocrine pancreas in human pregnancy. *Br J Obstet Gynaecol*, 85(11), 818-820.
- van der Meulen, T., Mawla, A. M., DiGrucchio, M. R., Adams, M. W., Nies, V., Dolleman, S., . . . Huisman, M. O. (2017). Virgin Beta Cells Persist throughout Life at a Neogenic Niche within Pancreatic Islets. *Cell Metab*, 25(4), 911-926 e916. doi:10.1016/j.cmet.2017.03.017
- Van Loo, P., Nordgard, S. H., Lingjaerde, O. C., Russnes, H. G., Rye, I. H., Sun, W., . . . Kristensen, V. N. (2010). Allele-specific copy number analysis of tumors. *Proc Natl Acad Sci U S A*, 107(39), 16910-16915. doi:10.1073/pnas.1009843107
- Warnes, G. R., Bolker, B., Bonebakker, L., Gentleman, R. C., Liaw, W. H. A., Lumley, T., . . . Venables, B. (2015). gplots: Various R Programming Tools for Plotting

Data (Version 3.0.1). Retrieved from <https://CRAN.R-project.org/package=gplots>

- Wen, X. Y., Hegele, R. A., Wang, J., Wang, D. Y., Cheung, J., Wilson, M., . . . Stewart, A. K. (2003). Identification of a novel lipase gene mutated in *lpld* mice with hypertriglyceridemia and associated with dyslipidemia in humans. *Hum Mol Genet*, *12*(10), 1131-1143.
- World Health Organization. (2016). *Global report on diabetes*. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/204871/9789241565257_eng.pdf;jsessionid=5C2AFA5E158FB3E62F43519100F63B75?sequence=1
- Yee, T. W. (2015). *Vector generalized linear and additive models: with an implementation in R*. New York, NY, USA: Springer.
- Yu, G., Smith David, K., Zhu, H., Guan, Y., & Lam Tommy, T.-Y. (2016). ggtree: an R package for visualization and annotation of phylogenetic trees with their covariates and other associated data. *Methods in Ecology and Evolution*, *8*(1), 28-36. doi:10.1111/2041-210X.12628
- Zheng, Y., Ley, S. H., & Hu, F. B. (2018). Global aetiology and epidemiology of type 2 diabetes mellitus and its complications. *Nat Rev Endocrinol*, *14*(2), 88-98. doi:10.1038/nrendo.2017.151
- Zou, L., & Elledge, S. J. (2003). Sensing DNA damage through ATRIP recognition of RPA-ssDNA complexes. *Science*, *300*(5625), 1542-1548. doi:10.1126/science.1083430
- Zulewski, H., Abraham, E. J., Gerlach, M. J., Daniel, P. B., Moritz, W., Muller, B., . . . Habener, J. F. (2001). Multipotential nestin-positive stem cells isolated from adult pancreatic islets differentiate ex vivo into pancreatic endocrine, exocrine, and hepatic phenotypes. *Diabetes*, *50*(3), 521-533.