

References

- David J. Adams, Anthony G. Doran, Jingtao Lilue, and Thomas M. Keane. The Mouse Genomes Project: a repository of inbred laboratory mouse strain genomes. *Mammalian Genome*, 26(9-10):403–412, 2015. ISSN 14321777. doi: 10.1007/s00335-015-9579-6.
- Mazhar Adli. The CRISPR tool kit for genome editing and beyond. *Nature communications*, 9(1):1911, may 2018. ISSN 2041-1723. doi: 10.1038/s41467-018-04252-2.
- M Albert and A Bennett. The roles of CYP2C40 and CYP2C55 in preventing colon cancer. *Gut*, 61(Suppl 2):A333.2–A333, 2012. ISSN 0017-5749. doi: 10.1136/gutjnl-2012-302514d.89.
- Donna G. Albertson, Bauke Ylstra, Richard Segraves, Colin Collins, Shanaz H. Dairkee, David Kowbel, Wen-Lin Kuo, Joe W. Gray, and Daniel Pinkel. Quantitative mapping of amplicon structure by array CGH identifies CYP24 as a candidate oncogene. *Nature Genetics*, 25(2):144–146, jun 2000. ISSN 1061-4036. doi: 10.1038/75985.
- Samuel Aparicio and Carlos Caldas. The Implications of Clonal Genome Evolution for Cancer Medicine. *New England Journal of Medicine*, 368(9):842–851, feb 2013. ISSN 0028-4793. doi: 10.1056/NEJMra1204892.
- Lidia A Valle, Annalisa Camporeale, Andrea Camperi, and Valeria Poli. STAT3 in cancer: A double edged sword. *Cytokine*, 98:42–50, oct 2017. ISSN 10434666. doi: 10.1016/j.cyto.2017.03.018.
- Samuel F Bakhom and Duane a Compton. Chromosomal instability and cancer : a complex relationship with therapeutic potential. *The Journal of Clinical Investigation*, 122(4):1138–1143, 2012. ISSN 1558-8238. doi: 10.1172/JCI59954.1138.
- Sneha Balani, Long V. Nguyen, and Connie J. Eaves. Modeling the process of human tumorigenesis. *Nature Communications*, 8:15422, may 2017. ISSN 2041-1723. doi: 10.1038/ncomms15422.

- Allan Balmain. Cancer genetics: from Boveri and Mendel to microarrays. *Nature Reviews Cancer*, 1(1):77–82, oct 2001. ISSN 1474-175X. doi: 10.1038/35094086.
- Rodolphe Barrangou, Christophe Fremaux, H el ene Deveau, Melissa Richards, Patrick Boyaval, Sylvain Moineau, Dennis A Romero, and Philippe Horvath. CRISPR provides acquired resistance against viruses in prokaryotes. *Science (New York, N.Y.)*, 315(5819):1709–12, mar 2007. ISSN 1095-9203. doi: 10.1126/science.1138140.
- Philip A. Beer and Connie J. Eaves. Modeling Normal and Disordered Human Hematopoiesis. *Trends in Cancer*, 1(3):199–210, nov 2015. ISSN 2405-8033. doi: 10.1016/J.TRECAN.2015.09.002.
- Uri Ben-David, Benjamin Siranosian, Gavin Ha, Helen Tang, Yaara Oren, Kunihiko Hinohara, Craig A. Strathdee, Joshua Dempster, Nicholas J. Lyons, Robert Burns, Anweshia Nag, Guillaume Kugener, Beth Cimini, Peter Tsvetkov, Yosef E. Maruvka, Ryan O’Rourke, Anthony Garrity, Andrew A. Tubelli, Pratiti Bandopadhyay, Aviad Tsherniak, Francisca Vazquez, Bang Wong, Chet Birger, Mahmoud Ghandi, Aaron R. Thorner, Joshua A. Bittker, Matthew Meyerson, Gad Getz, Rameen Beroukhim, and Todd R. Golub. Genetic and transcriptional evolution alters cancer cell line drug response. *Nature*, 560(7718):325–330, aug 2018. ISSN 0028-0836. doi: 10.1038/s41586-018-0409-3.
- Benoit Biteau, Christine E Hochmuth, and Heinrich Jasper. Maintaining tissue homeostasis: dynamic control of somatic stem cell activity. *Cell stem cell*, 9(5):402–11, nov 2011. ISSN 1875-9777. doi: 10.1016/j.stem.2011.10.004.
- C edric Blanpain. Tracing the cellular origin of cancer. *Nature Cell Biology*, 15(2):126–134, feb 2013. ISSN 1465-7392. doi: 10.1038/ncb2657.
- T Boveri. Uber mehrpolige Mitosen als Mittle zur Analyse des Zellkerns. *Verhandl Phys-med Ges (Wulzburg) NF*, 35:67–90, 1902.
- D E Brash, J A Rudolph, J A Simon, A Lin, G J McKenna, H P Baden, A J Halperin, and J Pont en. A role for sunlight in skin cancer: UV-induced p53 mutations in squamous cell carcinoma. *Proceedings of the National Academy of Sciences of the United States of America*, 88(22):10124–8, nov 1991. ISSN 0027-8424. doi: 10.1073/PNAS.88.22.10124.
- Jian Cai, Dan Feng, Liang Hu, Haiyang Chen, Guangzhen Yang, Qingping Cai, Chunfang Gao, and Dong Wei. FAT4 functions as a tumour suppressor in gastric cancer by modulating Wnt/ β -catenin signalling. *British Journal of Cancer*, 113(12):1720–1729, 2015. ISSN 15321827. doi: 10.1038/bjc.2015.367.

- Cancer Research UK. Saving lives, averting costs - An analysis of the financial implications of achieving earlier diagnosis of colorectal, lung and ovarian cancer. Technical report, 2014.
- Ethan Cerami, Jianjiong Gao, Ugur Dogrusoz, Benjamin E. Gross, Selcuk Onur Sumer, Bü-
lent Arman Aksoy, Anders Jacobsen, Caitlin J. Byrne, Michael L. Heuer, Erik Larsson,
Yevgeniy Antipin, Boris Reva, Arthur P. Goldberg, Chris Sander, and Nikolaus Schultz.
The cBio Cancer Genomics Portal: An open platform for exploring multidimensional
cancer genomics data. *Cancer Discovery*, 2(5):401–404, 2012. ISSN 21598274. doi:
10.1158/2159-8290.CD-12-0095.
- Li Chen, Lynda Stuart, Toshiro K. Ohsumi, Shawn Burgess, Gaurav K. Varshney, Anahita
Dastur, Mark Borowsky, Cyril Benes, Adam Lacy-Hulbert, and Emmett V. Schmidt. Trans-
poson activation mutagenesis as a screening tool for identifying resistance to cancer thera-
peutics. *BMC Cancer*, 13(1):1, 2013. ISSN 14712407. doi: 10.1186/1471-2407-13-93.
- Jiqiu Cheng, Jonas Demeulemeester, David C. Wedge, Hans Kristian M. Vollan, Jason J. Pitt,
Hege G. Russnes, Bina P. Pandey, Gro Nilsen, Silje Nord, Graham R. Bignell, Kevin P.
White, Anne Lise Børresen-Dale, Peter J. Campbell, Vessela N. Kristensen, Michael R.
Stratton, Ole Christian Lingjærde, Yves Moreau, and Peter Van Loo. Pan-cancer analysis
of homozygous deletions in primary tumours uncovers rare tumour suppressors. *Nature
Communications*, 8(1), 2017. ISSN 20411723. doi: 10.1038/s41467-017-01355-0.
- Karen Cichowski and Tyler Jacks. NF1 tumor suppressor gene function: Narrowing the GAP.
Cell, 104(4):593–604, 2001. ISSN 00928674. doi: 10.1016/S0092-8674(01)00245-8.
- Lisa M Coussens and Zena Werb. Inflammation and cancer. *Nature*, 420(6917):860–7, 2002.
ISSN 0028-0836. doi: 10.1038/nature01322.
- Scott Cukras, Nicholas Morffy, Takbum Ohn, and Younghoon Kee. Inactivating UBE2M
impacts the DNA damage response and genome integrity involving multiple cullin ligases.
PloS one, 9(7):e101844, 2014. ISSN 1932-6203. doi: 10.1371/journal.pone.0101844.
- Petr Danecek, Adam Auton, Goncalo Abecasis, Cornelis A. Albers, Eric Banks, Mark A.
DePristo, Robert E. Handsaker, Gerton Lunter, Gabor T. Marth, Stephen T. Sherry, Gilean
McVean, and Richard Durbin. The variant call format and VCFtools. *Bioinformatics*, 27
(15):2156–2158, 2011. ISSN 13674803. doi: 10.1093/bioinformatics/btr330.
- David Dankort, David P Curley, Robert a Cartlidge, Betsy Nelson, N Anthony, William
E Damsky Jr, Mingjian J You, Ronald a Depinho, and Marcus Bosenberg. BRAF V600E

- cooperates with PTEN silencing to elicit metastatic melanoma. *Nature genetics*, 41(5): 544–552, 2009. ISSN 1546-1718. doi: 10.1038/ng.356.BRaf.
- Brigitte David-Watine. Silencing nuclear pore protein Tpr elicits a senescent-like phenotype in cancer cells. *PloS one*, 6(7), 2011. ISSN 1932-6203. doi: 10.1371/journal.pone.0022423.
- Elitza Deltcheva, Krzysztof Chylinski, Cynthia M. Sharma, Karine Gonzales, Yanjie Chao, Zaid A. Pirzada, Maria R. Eckert, Jörg Vogel, and Emmanuelle Charpentier. CRISPR RNA maturation by trans-encoded small RNA and host factor RNase III. *Nature*, 471(7340): 602–607, mar 2011. ISSN 0028-0836. doi: 10.1038/nature09886.
- Rebecca S. Devon, David J. Porteous, and Anthony J. Brookes. Splinkerettes - improved vectorettes for greater efficiency in PCR walking. *Nucleic Acids Research*, 23(9):1644–1645, 1995. ISSN 03051048. doi: 10.1093/nar/23.9.1644.
- Sheng Ding, Xiaohui Wu, Gang Li, Min Han, Yuan Zhuang, and Tian Xu. Efficient Transposition of the piggyBac (PB) Transposon in Mammalian Cells and Mice. *Cell*, 122(3): 473–483, aug 2005. ISSN 0092-8674. doi: 10.1016/J.CELL.2005.07.013.
- M. Ehrlich, J. Turner, P. Gibbs, L. Lipton, M. Giovanneti, C. Cantor, and D. van den Boom. Cytosine methylation profiling of cancer cell lines. *Proceedings of the National Academy of Sciences*, 105(12):4844–4849, mar 2008. ISSN 0027-8424. doi: 10.1073/pnas.0712251105.
- Karen Eilbeck, Suzanna E Lewis, Christopher J Mungall, Mark Yandell, Lincoln Stein, Richard Durbin, and Michael Ashburner. The Sequence Ontology: a tool for the unification of genome annotations. *Genome Biology*, 6(5), 2005. ISSN 1465-6914. doi: 10.1186/gb-2005-6-5-r44.
- Christina Fitzmaurice, Christine Allen, Ryan M. Barber, Lars Barregard, Zulfiqar A. Bhutta, Hermann Brenner, Daniel J. Dicker, Odgerel Chimed-Orchir, Rakhi Dandona, Lalit Dandona, Tom Fleming, Mohammad H. Forouzanfar, Jamie Hancock, Roderick J. Hay, Rachel Hunter-Merrill, Chantal Huynh, H. Dean Hosgood, Catherine O. Johnson, Jost B. Jonas, Jagdish Khubchandani, G. Anil Kumar, Michael Kutz, Qing Lan, Heidi J. Larson, Xiaofeng Liang, Stephen S. Lim, Alan D. Lopez, Michael F. MacIntyre, Laurie Marczak, Neal Marquez, Ali H. Mokdad, Christine Pinho, Farshad Pourmalek, Joshua A. Salomon, Juan Ramon Sanabria, Logan Sandar, Benn Sartorius, Stephen M. Schwartz, Katya A. Shackelford, Kenji Shibuya, Jeff Stanaway, Caitlyn Steiner, Jiandong Sun, Ken Takahashi, Stein Emil Vollset, Theo Vos, Joseph A. Wagner, Haidong Wang, Ronny West-

erman, Hajo Zeeb, Leo Zoeckler, Foad Abd-Allah, Muktar Beshir Ahmed, Samer Al-
abed, Noore K. Alam, Saleh Fahed Aldhahri, Girma Alem, Mulubirhan Assefa Alemay-
ohu, Raghieb Ali, Rajaa Al-Raddadi, Azmeraw Amare, Yaw Amoako, Al Artaman, Hamid
Asayesh, Niguse Atnafu, Ashish Awasthi, Huda Ba Saleem, Aleksandra Barac, Neeraj Bedi,
Isabela Bensenor, Adugnaw Berhane, Eduardo Bernabé, Balem Betsu, Agnes Binagwaho,
Dube Boneya, Ismael Campos-Nonato, Carlos Castañeda-Orjuela, Ferrán Catalá-López,
Peggy Chiang, Chioma Chibueze, Abdulaal Chitheer, Jee-Young Choi, Benjamin Cowie,
Solomon Damtew, José das Neves, Suhojit Dey, Samath Dharmaratne, Preet Dhillon, Eric
Ding, Tim Driscoll, Donatus Ekwueme, Aman Yesuf Endries, Maryam Farvid, Farshad
Farzadfar, Joao Fernandes, Florian Fischer, Tsegaye Tewelde G/hiwot, Alemseged Gebru,
Sameer Gopalani, Alemayehu Hailu, Masako Horino, Nobuyuki Horita, Abdullatif Hus-
seini, Inge Huybrechts, Manami Inoue, Farhad Islami, Mihajlo Jakovljevic, Spencer James,
Mehdi Javanbakht, Sun Ha Jee, Amir Kasaeian, Muktar Sano Kedir, Yousef S. Khader,
Young-Ho Khang, Daniel Kim, James Leigh, Shai Linn, Raimundas Lunevicius, Hassan
Magdy Abd El Razek, Reza Malekzadeh, Deborah Carvalho Malta, Wagner Marcenes, De-
salegn Markos, Yohannes A. Melaku, Kidanu G Meles, Walter Mendoza, Desalegn Tadesse
Mengiste, Tuomo J. Meretoja, Ted R. Miller, Karzan Abdulmuhsin Mohammad, Alireza
Mohammadi, Shafiu Mohammed, Maziar Moradi-Lakeh, Gabriele Nagel, Devina Nand,
Quyên Le Nguyen, Sandra Nolte, Felix A. Ogbo, Kelechi E. Oladimeji, Eyal Oren, Ma-
hesh Pa, Eun-Kee Park, David M Pereira, Dietrich Plass, Mostafa Qorbani, Amir Rad-
far, Anwar Rafay, Mahfuzar Rahman, Saleem M. Rana, Kjetil Søreide, Maheswar Sat-
pathy, Monika Sawhney, Sadaf G. Sepanlou, Masood Ali Shaikh, Jun She, Ivy Shiue,
Hirbo Roba Shore, Mark G. Shrimel, Samuel So, Samir Soneji, Vasiliki Stathopoulou,
Konstantinos Stroumpoulis, Muawiyah Babale Sufiyan, Bryan L. Sykes, Rafael Tabarés-
Seisdedos, Fentaw Tadesse, Bemnet Amare Tedla, Gizachew Assefa Tessema, J. S. Thakur,
Bach Xuan Tran, Kingsley Nnanna Ukwaja, Benjamin S. Chudi Uzochukwu, Vasilii Vic-
torovich Vlassov, Elisabete Weiderpass, Mamo Wubshet Terefe, Henock Gebremedhin
Yebyo, Hassen Hamid Yimam, Naohiro Yonemoto, Mustafa Z. Younis, Chuanhua Yu,
Zoubida Zaidi, Maysaa El Sayed Zaki, Zerihun Menkalew Zenebe, Christopher J. L. Mur-
ray, and Mohsen Naghavi. Global, Regional, and National Cancer Incidence, Mortality,
Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life-years for 32
Cancer Groups, 1990 to 2015. *JAMA Oncology*, 3(4):524, apr 2017. ISSN 2374-2437. doi:
10.1001/jamaoncol.2016.5688.

Simon A. Forbes, David Beare, Harry Boutselakis, Sally Bamford, Nidhi Bindal, John
Tate, Charlotte G. Cole, Sari Ward, Elisabeth Dawson, Laura Ponting, Raymund Stefanc-
sik, Bhavana Harsha, Chai YinKok, Mingming Jia, Harry Jubb, Zbyslaw Sondka, Sam

- Thompson, Tisham De, and Peter J. Campbell. COSMIC: Somatic cancer genetics at high-resolution. *Nucleic Acids Research*, 45(1):777–783, 2017. ISSN 13624962. doi: 10.1093/nar/gkw1121.
- Mathias J Friedrich, Lena Rad, Iraad F Bronner, Alexander Strong, Wei Wang, Julia Weber, Matthew Mayho, Hannes Ponstingl, Thomas Engleitner, Carolyn Grove, Anja Pfau, Dieter Saur, Juan Cadiñanos, Michael A Quail, George S Vassiliou, Pentao Liu, Allan Bradley, and Roland Rad. Genome-wide transposon screening and quantitative insertion site sequencing for cancer gene discovery in mice. *Nature Protocols*, 12(2):289–309, jan 2017. doi: 10.1038/nprot.2016.164.
- Stephen H. Friend, Rene Bernards, Snezna Rogelj, Robert A. Weinberg, Joyce M. Rapaport, Daniel M. Albert, and Thaddeus P. Dryja. A human DNA segment with properties of the gene that predisposes to retinoblastoma and osteosarcoma. *Nature*, 323(6089):643–646, oct 1986. ISSN 0028-0836. doi: 10.1038/323643a0.
- P.a. Andrew Futreal, Lachlan Coin, Mhairi Marshall, Thomas Down, Timothy Hubbard, Richard Wooster, Nazneen Rahman, and Michael R. M.R. Stratton. A census of human cancer genes. *Nature Reviews Cancer*, 4(3):177–183, 2004. ISSN 1474-175X. doi: 10.1038/nrc1299.A.
- Ying Gao, Chengyang Song, Linping Hui, Chun-yu Li, Junying Wang, Ye Tian, Xu Han, Yong Chen, Da-Li Tian, Xueshan Qiu, and Enhua Wang. Overexpression of RNF146 in Non-Small Cell Lung Cancer Enhances Proliferation and Invasion of Tumors through the Wnt/ β -catenin Signaling Pathway. *PLoS one*, 9(1), jan 2014. ISSN 1932-6203. doi: 10.1371/journal.pone.0085377.
- Jochen B Geigl, Sabine Uhrig, and Michael R Speicher. Multiplex-fluorescence in situ hybridization for chromosome karyotyping. *Nature Protocols*, 1(3):1172–1184, sep 2006. ISSN 1754-2189. doi: 10.1038/nprot.2006.160.
- Panagiota Giannakourous, Isabelle Matte, Claudine Rancourt, and Alain Piche. Transformation of NIH3T3 mouse fibroblast cells by MUC16 mucin (CA125) is driven by its cytoplasmic tail. *International Journal of Oncology*, 46(1):91–98, jan 2015. ISSN 1019-6439. doi: 10.3892/ijo.2014.2707.
- A. S. Goldstein, J. Huang, C. Guo, I. P. Garraway, and O. N. Witte. Identification of a Cell of Origin for Human Prostate Cancer. *Science*, 329(5991):568–571, jul 2010. ISSN 0036-8075. doi: 10.1126/science.1189992.

- Sheryl M Gough, Christopher I Slape, and Peter D Aplan. NUP98 gene fusions and hematopoietic malignancies: common themes and new biologic insights. *Blood*, 118(24): 6247–57, dec 2011. ISSN 1528-0020. doi: 10.1182/blood-2011-07-328880.
- David H. Gutmann, Rosalie E. Ferner, Robert H. Listernick, Bruce R. Korf, Pamela L. Wolters, and Kimberly J. Johnson. Neurofibromatosis type 1. *Nature Reviews Disease Primers*, 3: 1–18, 2017. ISSN 2056676X. doi: 10.1038/nrdp.2017.4.
- Michael Hajek, Andrew Sewell, Susan Kaech, Barbara Burtness, Wendell G. Yarbrough, and Natalia Issaeva. TRAF3/CYLD mutations identify a distinct subset of human papillomavirus-associated head and neck squamous cell carcinoma. *Cancer*, 123(10):1778–1790, may 2017. doi: 10.1002/cncr.30570.
- Douglas Hanahan and Robert A Weinberg. Hallmarks of Cancer: The Next Generation. *Cell*, 144:646–674, 2011. doi: 10.1016/j.cell.2011.02.013.
- Traver Hart and Jason Moffat. BAGEL: A computational framework for identifying essential genes from pooled library screens. *BMC Bioinformatics*, 17(1):1–7, 2016. ISSN 14712105. doi: 10.1186/s12859-016-1015-8.
- Masahiko Hibi, Masaaki Murakami, Mikiyoshi Saito, Toshio Hirano, Tetsuya Taga, and Tadimitsu Kishimoto. Molecular cloning and expression of an IL-6 signal transducer, gp130. *Cell*, 63(6):1149–1157, dec 1990. ISSN 00928674. doi: 10.1016/0092-8674(90)90411-7.
- Lingmi Hou, Maoshan Chen, Xiaobo Zhao, Jingdong Li, Shishan Deng, Jiani Hu, Hongwei Yang, and Jun Jiang. FAT4 functions as a tumor suppressor in triple-negative breast cancer. *Tumour biology : the journal of the International Society for Oncodevelopmental Biology and Medicine*, nov 2016. ISSN 1423-0380. doi: 10.1007/s13277-016-5421-3.
- V Y Hua, W K Wang, and P H Duesberg. Dominant transformation by mutated human ras genes in vitro requires more than 100 times higher expression than is observed in cancers. *Proceedings of the National Academy of Sciences of the United States of America*, 94(18): 9614–9, sep 1997. ISSN 0027-8424.
- Peyton Hughes, Damian Marshall, Yvonne Reid, Helen Parkes, and Cohava Gelber. The costs of using unauthenticated, over-passaged cell lines: How much more data do we need? *BioTechniques*, 43(5):575–586, 2007. ISSN 07366205. doi: 10.2144/000112598.
- Francesco Iorio, Theo A Knijnenburg, Daniel J Vis, Julio Saez-rodriguez, Ultan Mcdermott, and Mathew J Garnett. A Landscape of Pharmacogenomic Interactions in Resource A

- Landscape of Pharmacogenomic Interactions in Cancer. *Cell*, (166):740–754, 2016. doi: 10.1016/j.cell.2016.06.017.
- Z Ivics, P B Hackett, R H Plasterk, and Z Izsvák. Molecular reconstruction of Sleeping Beauty, a Tc1-like transposon from fish, and its transposition in human cells. *Cell*, 91(4):501–10, nov 1997. ISSN 0092-8674.
- Zoltán Ivics, Meng Amy Li, Lajos Mátés, Jef D Boeke, Andras Nagy, Allan Bradley, and Zsuzsanna Izsvák. Transposon-mediated genome manipulation in vertebrates. *Nature Methods*, 6(6):415–422, jun 2009. ISSN 1548-7091. doi: 10.1038/nmeth.1332.
- John L Jainchill, Stuart A Aaronson, and George J Todaro. Murine Sarcoma and Leukemia Viruses: Assay Using Clonal Lines of Contact-Inhibited Mouse Cells. *Journal of Virology*, 4(5):549–553, 1969. ISSN 0022-538X.
- Martin Jinek, Alexandra East, Aaron Cheng, Steven Lin, Enbo Ma, and Jennifer Doudna. RNA-programmed genome editing in human cells. *eLife*, 2:e00471, jan 2013. ISSN 2050-084X. doi: 10.7554/eLife.00471.
- U N Kasid, R R Weichselbaum, T Brennan, G E Mark, and A Dritschilo. Sensitivities of NIH/3T3-derived clonal cell lines to ionizing radiation: significance for gene transfer studies. *Cancer research*, 49(12):3396–400, jun 1989. ISSN 0008-5472.
- W. J Kent, C. W. Sugnet, T. S. Furey, and K. M. Roskin. The Human Genome Browser at UCSC W. *Journal of medicinal chemistry*, 19(10):1228–31, 1976. ISSN 0022-2623. doi: 10.1101/gr.229102.
- Rhoda J. Kinsella, Andreas Kähäri, Syed Haider, Jorge Zamora, Glenn Proctor, Giulietta Spudich, Jeff Almeida-King, Daniel Staines, Paul Derwent, Arnaud Kerhornou, Paul Kersey, and Paul Flicek. Ensembl BioMarts: A hub for data retrieval across taxonomic space. *Database*, 2011:1–9, 2011. ISSN 17580463. doi: 10.1093/database/bar030.
- A G Knudson. Mutation and cancer: statistical study of retinoblastoma. *Proceedings of the National Academy of Sciences of the United States of America*, 68(4):820–3, apr 1971. ISSN 0027-8424.
- Hiroko Koike-Yusa, Yilong Li, E-Pien Tan, Martin Del Castillo Velasco-Herrera, and Kosuke Yusa. Genome-wide recessive genetic screening in mammalian cells with a lentiviral CRISPR-guide RNA library. *Nature Biotechnology*, 32(3):267–273, 2013. ISSN 1087-0156. doi: 10.1038/nbt.2800.

- Nicole Lambertz, Nicolai El Hindy, Ilonka Kreitschmann-Andermahr, Klaus Peter Stein, Philipp Dammann, Neriman Oezkan, Oliver Mueller, Ulrich Sure, and Yuan Zhu. Down-regulation of programmed cell death 10 is associated with tumor cell proliferation, hyperangiogenesis and peritumoral edema in human glioblastoma. *BMC Cancer*, 15(1):759, dec 2015. ISSN 1471-2407. doi: 10.1186/s12885-015-1709-8.
- E S Lander, L M Linton, B Birren, C Nusbaum, M C Zody, J Baldwin, K Devon, K Dewar, M Doyle, W FitzHugh, R Funke, D Gage, K Harris, A Heaford, J Howland, L Kann, J Lehoczky, R LeVine, P McEwan, K McKernan, J Meldrim, J P Mesirov, C Miranda, W Morris, J Naylor, C Raymond, M Rosetti, R Santos, A Sheridan, C Sougnez, Y Stange-Thomann, N Stojanovic, A Subramanian, D Wyman, J Rogers, J Sulston, R Ainscough, S Beck, D Bentley, J Burton, C Clee, N Carter, A Coulson, R Deadman, P Deloukas, A Dunham, I Dunham, R Durbin, L French, D Grafham, S Gregory, T Hubbard, S Humphray, A Hunt, M Jones, C Lloyd, A McMurray, L Matthews, S Mercer, S Milne, J C Mullikin, A Mungall, R Plumb, M Ross, R Shownkeen, S Sims, R H Waterston, R K Wilson, L W Hillier, J D McPherson, M A Marra, E R Mardis, L A Fulton, A T Chinwalla, K H Pepin, W R Gish, S L Chissoe, M C Wendl, K D Delehaunty, T L Miner, A Delehaunty, J B Kramer, L L Cook, R S Fulton, D L Johnson, P J Minx, S W Clifton, T Hawkins, E Branscomb, P Predki, P Richardson, S Wenning, T Slezak, N Doggett, J F Cheng, A Olsen, S Lucas, C Elkin, E Uberbacher, M Frazier, R A Gibbs, D M Muzny, S E Scherer, J B Bouck, E J Sodergren, K C Worley, C M Rives, J H Gorrell, M L Metzker, S L Naylor, R S Kucherlapati, D L Nelson, G M Weinstock, Y Sakaki, A Fujiyama, M Hattori, T Yada, A Toyoda, T Itoh, C Kawagoe, H Watanabe, Y Totoki, T Taylor, J Weissenbach, R Heilig, W Saurin, F Artiguenave, P Brottier, T Bruls, E Pelletier, C Robert, P Wincker, D R Smith, L Doucette-Stamm, M Rubenfield, K Weinstock, H M Lee, J Dubois, A Rosenthal, M Platzer, G Nyakatura, S Taudien, A Rump, H Yang, J Yu, J Wang, G Huang, J Gu, L Hood, L Rowen, A Madan, S Qin, R W Davis, N A Federspiel, A P Abola, M J Proctor, R M Myers, J Schmutz, M Dickson, J Grimwood, D R Cox, M V Olson, R Kaul, C Raymond, N Shimizu, K Kawasaki, S Minoshima, G A Evans, M Athanasiou, R Schultz, B A Roe, F Chen, H Pan, J Ramser, H Lehrach, R Reinhardt, W R McCombie, M de la Bastide, N Dedhia, H Blöcker, K Hornischer, G Nordsieck, R Agarwala, L Aravind, J A Bailey, A Bateman, S Batzoglu, E Birney, P Bork, D G Brown, C B Burge, L Cerutti, H C Chen, D Church, M Clamp, R R Copley, T Doerks, S R Eddy, E E Eichler, T S Furey, J Galagan, J G Gilbert, C Harmon, Y Hayashizaki, D Haussler, H Hermjakob, K Hokamp, W Jang, L S Johnson, T A Jones, S Kasif, A Kasprzyk, S Kennedy, W J Kent, P Kitts, E V Koonin, I Korf, D Kulp, D Lancet, T M Lowe, A McLysaght, T Mikkelsen, J V Moran, N Mulder, V J Pollara, C P Ponting, G Schuler, J Schultz, G Slater, A F Smit, E Stupka, J Szus-

- takowki, D Thierry-Mieg, J Thierry-Mieg, L Wagner, J Wallis, R Wheeler, A Williams, Y I Wolf, K H Wolfe, S P Yang, R F Yeh, F Collins, M S Guyer, J Peterson, A Felsenfeld, K A Wetterstrand, A Patrinos, M J Morgan, P de Jong, J J Catanese, K Osoegawa, H Shizuya, S Choi, Y J Chen, J Szustakowki, and International Human Genome Sequencing Consortium. Initial sequencing and analysis of the human genome. *Nature*, 409(6822):860–921, feb 2001. ISSN 0028-0836. doi: 10.1038/35057062.
- David Lane and Arnold Levine. p53 Research: the past thirty years and the next thirty years. *Cold Spring Harbor perspectives in biology*, 2(12), dec 2010. ISSN 1943-0264. doi: 10.1101/cshperspect.a000893.
- T L Lasho, C M Finke, D Zblewski, M Patnaik, R P Ketterling, D Chen, C A Hanson, A Teferi, and A Pardanani. Novel recurrent mutations in ethanolamine kinase 1 (ETNK1) gene in systemic mastocytosis with eosinophilia and chronic myelomonocytic leukemia. *Blood cancer journal*, 5(1):e275, jan 2015. ISSN 2044-5385. doi: 10.1038/bcj.2014.94.
- Christine Leibiger, Nadezda Kosyakova, Hasmik Mkrtchyan, Michael Gleib, Vladimir Trifonov, and Thomas Liehr. First Molecular Cytogenetic High Resolution Characterization of the NIH 3T3 Cell Line by Murine Multicolor Banding. *Journal of Histochemistry and Cytochemistry*, 2013.
- Heng Li, Bob Handsaker, Alec Wysoker, Tim Fennell, Jue Ruan, Nils Homer, Gabor Marth, Goncalo Abecasis, and Richard Durbin. The Sequence Alignment/Map format and SAMtools. *Bioinformatics*, 25(16):2078–2079, 2009. ISSN 13674803. doi: 10.1093/bioinformatics/btp352.
- Lei Li, Guo-Dong Zhao, Zhe Shi, Li-Li Qi, Li-Yuan Zhou, and Ze-Xian Fu. The Ras/Raf/MEK/ERK signaling pathway and its role in the occurrence and development of HCC. *Oncology letters*, 12(5):3045–3050, nov 2016. ISSN 1792-1074. doi: 10.3892/ol.2016.5110.
- Ning Li, Maryam Yousefi, Angela Nakauka-Ddamba, Brian D Gregory, Zhengquan Yu, and Christopher J Lengner Correspondence. The Msi Family of RNA-Binding Proteins Function Redundantly as Intestinal Oncoproteins. 2015. doi: 10.1016/j.celrep.2015.11.022.
- Wei Li, Han Xu, Tengfei Xiao, Le Cong, Michael I Love, Feng Zhang, Rafael A Irizarry, Jun S Liu, Myles Brown, and X Shirley Liu. MAGeCK enables robust identification of essential genes from genome-scale CRISPR / Cas9 knockout screens. *Genome Biology*, 15(554): 1–12, 2014. doi: 10.1186/s13059-014-0554-4.

- Yunfang Li, Jing Pei, Hong Xia, Hengning Ke, Hongyan Wang, and Wufan Tao. Lats2, a putative tumor suppressor, inhibits G1/S transition. *Oncogene*, 22(28):4398–4405, 2003. ISSN 09509232. doi: 10.1038/sj.onc.1206603.
- Pixu Liu, Hailing Cheng, Thomas M Roberts, and Jean J Zhao. Targeting the phosphoinositide 3-kinase pathway in cancer. *Nature reviews Drug discovery*, 8(8):627–44, aug 2009. ISSN 1474-1784. doi: 10.1038/nrd2926.
- H Lodish, A Berk, and HL Zipursky. *Molecular Cell Biology*. W. H. Freeman, New York, 4th editio edition, 2000.
- Marcos Malumbres and Mariano Barbacid. RAS oncogenes: The first 30 years. *Nature Reviews Cancer*, 3(6):459–465, 2003. ISSN 1474175X. doi: 10.1038/nrc1097.
- Iñigo Martincorena, Helen Davies, Michael R Stratton, Peter J Campbell, Keiran M Raine, Moritz Gerstung, Kevin J Dawson, Kerstin Haase, and Peter Van Loo. Universal Patterns of Selection in Cancer and Somatic Tissues. *Cell*, 2017. doi: 10.1016/j.cell.2017.09.042.
- Lajos Mátés, Zsuzsanna Izsvák, and Zoltán Ivics. Technology transfer from worms and flies to vertebrates: transposition-based genome manipulations and their future perspectives. *Genome biology*, 8 Suppl 1(Suppl 1):S1, 2007. ISSN 1474-760X. doi: 10.1186/gb-2007-8-s1-s1.
- Andrea Mathe, Michelle Wong-Brown, Brianna Morten, John F. Forbes, Stephen G. Bray, Kelly A. Avery-Kiejda, and Rodney J. Scott. Novel genes associated with lymph node metastasis in triple negative breast cancer. *Scientific Reports*, 5(1):15832, dec 2015. ISSN 2045-2322. doi: 10.1038/srep15832.
- William McLaren, Laurent Gil, Sarah E Hunt, Harpreet Singh Riat, Graham R S Ritchie, Anja Thormann, Paul Flicek, and Fiona Cunningham. The Ensembl Variant Effect Predictor. *Genome Biology*, 17(1), jun 2016. doi: 10.1186/s13059-016-0974-4.
- Emmanouil Metzakopian, Alex Strong, Vivek Iyer, Alex Hodgkins, Liliana Antunes, Mathias J Friedrich, Qiaohua Kang, Teresa Davidson, Christina Hoffman, Gregory D Davis, George S Vassiliou, C William, and Allan Bradley. Enhancing the genome editing toolbox : genome wide CRISPR arrayed libraries. *Scientific Reports*, (April):1–9, 2017. doi: 10.1038/s41598-017-01766-5.
- Chrysiis Michaloglou, Liesbeth C W Vredeveld, Maria S. Soengas, Christophe Denoyelle, Thomas Kuilman, Chantal M A M Van Der Horst, Donné M. Majoer, Jerry W. Shay,

- Wolter J. Mooi, and Daniel S. Peeper. BRAFE600-associated senescence-like cell cycle arrest of human naevi. *Nature*, 436(7051):720–724, 2005. ISSN 00280836. doi: 10.1038/nature03890.
- Brandon Milholland, Adam Auton, Yousin Suh, and Jan Vijg. Age-related somatic mutations in the cancer genome. *Oncotarget*, 6(28):24627–35, sep 2015. ISSN 1949-2553. doi: 10.18632/oncotarget.5685.
- E C Miller and J A Miller. Mechanisms of chemical carcinogenesis. *Cancer*, 47(5):1055–64, mar 1981. ISSN 0008-543X.
- Eva Marie Y Moresco, Xiaohong Li, and Bruce Beutler. Going forward with genetics: recent technological advances and forward genetics in mice. *The American journal of pathology*, 182(5):1462–73, may 2013. ISSN 1525-2191. doi: 10.1016/j.ajpath.2013.02.002.
- Rebecca Nagy, Kevin Sweet, and Charis Eng. Highly penetrant hereditary cancer syndromes. *Oncogene*, 23(38):6445–6470, aug 2004. ISSN 0950-9232. doi: 10.1038/sj.onc.1207714.
- Jean Charles Nault, Julien Calderaro, Luca Di Tommaso, Charles Balabaud, Elie Serge Zafrani, Paulette Bioulac-Sage, Massimo Roncalli, and Jessica Zucman-Rossi. Telomerase reverse transcriptase promoter mutation is an early somatic genetic alteration in the transformation of premalignant nodules in hepatocellular carcinoma on cirrhosis. *Hepatology*, 60(6):1983–1992, dec 2014. ISSN 02709139. doi: 10.1002/hep.27372.
- J. R. Nevins. The Rb/E2F pathway and cancer. *Human Molecular Genetics*, 10(7):699–703, apr 2001. ISSN 14602083. doi: 10.1093/hmg/10.7.699.
- Chitose Oneyama, Tomoya Hikita, Shigeyuki Nada, and Masato Okada. Functional dissection of transformation by c-Src and v-Src. *Genes to Cells*, 13(1):1–12, dec 2007. ISSN 13569597. doi: 10.1111/j.1365-2443.2007.01145.x.
- Davide Pellacani, Misha Bilenky, Nagarajan Kannan, Alireza Heravi-Moussavi, David J.H.F. Knapp, Sitanshu Gakkhar, Michelle Moksa, Annaick Carles, Richard Moore, Andrew J. Mungall, Marco A. Marra, Steven J.M. Jones, Samuel Aparicio, Martin Hirst, and Connie J. Eaves. Analysis of Normal Human Mammary Epigenomes Reveals Cell-Specific Active Enhancer States and Associated Transcription Factor Networks. *Cell Reports*, 17(8):2060–2074, nov 2016. ISSN 22111247. doi: 10.1016/j.celrep.2016.10.058.
- Charles M. Perou, Therese Sørli, Michael B. Eisen, Matt van de Rijn, Stefanie S. Jeffrey, Christian A. Rees, Jonathan R. Pollack, Douglas T. Ross, Hilde Johnsen, Lars A. Akslen,

- Øystein Fluge, Alexander Pergamenschikov, Cheryl Williams, Shirley X. Zhu, Per E. Lønning, Anne-Lise Børresen-Dale, Patrick O. Brown, and David Botstein. Molecular portraits of human breast tumours. *Nature*, 406(6797):747–752, aug 2000. ISSN 0028-0836. doi: 10.1038/35021093.
- W E Pierceall, L H Goldberg, M A Tainsky, T Mukhopadhyay, and H N Ananthaswamy. Ras gene mutation and amplification in human nonmelanoma skin cancers. *Molecular carcinogenesis*, 4(3):196–202, 1991. ISSN 0899-1987.
- Larissa Pikor, Kelsie Thu, Emily Vucic, and Wan Lam. The detection and implication of genome instability in cancer. *Cancer and Metastasis Reviews*, 32(3-4):341–352, 2013. ISSN 01677659. doi: 10.1007/s10555-013-9429-5.
- Julia R. Pon and Marco A. Marra. Driver and Passenger Mutations in Cancer. *Annual Review of Pathology: Mechanisms of Disease*, 10(1):25–50, jan 2015. ISSN 1553-4006. doi: 10.1146/annurev-pathol-012414-040312.
- S Pulciani, E Santos, L K Long, V Sorrentino, and M Barbacid. Ras gene amplification and malignant transformation. *Molecular and cellular biology*, 5(10):2836–41, oct 1985. ISSN 0270-7306.
- Ying Qu, Bingchen Han, Yi Yu, Weiwu Yao, Shikha Bose, Beth Y Karlan, Armando E Giuliano, and Xiaojiang Cui. Evaluation of MCF10A as a Reliable Model for Normal Human Mammary Epithelial Cells. *PloS one*, 10(7), 2015. ISSN 1932-6203. doi: 10.1371/journal.pone.0131285.
- Aaron R. Quinlan and Ira M. Hall. BEDTools: A flexible suite of utilities for comparing genomic features. *Bioinformatics*, 26(6):841–842, 2010. ISSN 13674803. doi: 10.1093/bioinformatics/btq033.
- R. Rad, L. Rad, W. Wang, J. Cadinanos, G. Vassiliou, S. Rice, L. S. Campos, K. Yusa, R. Banerjee, M. A. Li, J. de la Rosa, A. Strong, D. Lu, P. Ellis, N. Conte, F. T. Yang, P. Liu, and A. Bradley. PiggyBac Transposon Mutagenesis: A Tool for Cancer Gene Discovery in Mice. *Science*, 330(6007):1104–1107, nov 2010. ISSN 0036-8075. doi: 10.1126/science.1193004.
- Wei Rao, Guohua Xie, Yong Zhang, Shujun Wang, Ying Wang, Huizhen Zhang, Feifei Song, Renfeng Zhang, Qinqin Yin, Lisong Shen, and Hailiang Ge. OVA66, a Tumor Associated Protein, Induces Oncogenic Transformation of NIH3T3 Cells. *PLoS one*, 9(3):e85705, mar 2014. ISSN 1932-6203. doi: 10.1371/journal.pone.0085705.

- Xavier Robin, Natacha Turck, Alexandre Hainard, Natalia Tiberti, Frédérique Lisacek, Jean Charles Sanchez, and Markus Müller. pROC: An open-source package for R and S+ to analyze and compare ROC curves. *BMC Bioinformatics*, 12, 2011. ISSN 14712105. doi: 10.1186/1471-2105-12-77.
- Carlota Rubio-Perez, David Tamborero, Michael P. Schroeder, Albert A. Antolín, Jordi Deu-Pons, Christian Perez-Llamas, Jordi Mestres, Abel Gonzalez-Perez, and Nuria Lopez-Bigas. In Silico Prescription of Anticancer Drugs to Cohorts of 28 Tumor Types Reveals Targeting Opportunities. *Cancer Cell*, 27(3):382–396, 2015. ISSN 18783686. doi: 10.1016/j.ccell.2015.02.007.
- Ignacio Sancho-Martinez, Emmanuel Nivet, Yun Xia, Tomoaki Hishida, Aitor Aguirre, Alejandro Ocampo, Li Ma, Robert Morey, Marie N. Krause, Andreas Zembrzycki, Olaf Ansorge, Eric Vazquez-Ferrer, Ilir Dubova, Pradeep Reddy, David Lam, Yuriko Hishida, Min-Zu Wu, Concepcion Rodriguez Esteban, Dennis O’Leary, Geoffrey M. Wahl, Inder M. Verma, Louise C. Laurent, and Juan Carlos Izpisua Belmonte. Establishment of human iPSC-based models for the study and targeting of glioma initiating cells. *Nature Communications*, 7:10743, feb 2016. ISSN 2041-1723. doi: 10.1038/ncomms10743.
- Long Shen, Kunhua Qin, Dekun Wang, Yan Zhang, Nan Bai, Shengyong Yang, Yunping Luo, Rong Xiang, and Xiaoyue Tan. Overexpression of Oct4 suppresses the metastatic potential of breast cancer cells via Rnd1 downregulation. *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease*, 1842(11):2087–2095, nov 2014. ISSN 0925-4439. doi: 10.1016/J.BBADIS.2014.07.015.
- Liran I. Shlush, Sasan Zandi, Amanda Mitchell, Weihsu Claire Chen, Joseph M. Brandwein, Vikas Gupta, James A. Kennedy, Aaron D. Schimmer, Andre C. Schuh, Karen W. Yee, Jessica L. McLeod, Monica Doedens, Jessie J. F. Medeiros, Rene Marke, Hyeoung Joon Kim, Kwon Lee, John D. McPherson, Thomas J. Hudson, The HALT Pan-Leukemia Gene Panel Consortium, Andrew M. K. Brown, Fouad Yousif, Quang M. Trinh, Lincoln D. Stein, Mark D. Minden, Jean C. Y. Wang, and John E. Dick. Identification of pre-leukaemic haematopoietic stem cells in acute leukaemia. *Nature*, 506(7488):328–333, feb 2014. ISSN 0028-0836. doi: 10.1038/nature13038.
- D. Stehelin, H. E. Varmus, J. M. Bishop, and P. K. Vogt. DNA related to the transforming gene(s) of avian sarcoma viruses is present in normal avian DNA. *Nature*, 260(5547):170–173, mar 1976. ISSN 0028-0836. doi: 10.1038/260170a0.
- Tetsuya Taga and Tadimitsu Kishimoto. Gp 130 and the Interleukin-6 Family of Cytokines.

- Annual Review of Immunology*, 15(1):797–819, apr 1997. ISSN 0732-0582. doi: 10.1146/annurev.immunol.15.1.797.
- Haiming Tang and Paul D Thomas. Tools for Predicting the Functional Impact of Non-synonymous Genetic Variation. *Genetics*, 203(2):635–47, 2016. ISSN 1943-2631. doi: 10.1534/genetics.116.190033.
- Cristian Tomasetti, Lu Li, and Bert Vogelstein. Stem cell divisions, somatic mutations, cancer etiology, and cancer prevention. *Science*, 355(6331):1330–1334, mar 2017. ISSN 0036-8075. doi: 10.1126/science.aaf9011.
- George J Torado and Howard Green. Quantative studies of the growth of mouse embryo cells in culture and their development into established lines. *The Journal of Cell Biology*, 1963.
- Elizabeth A Tovar and Carrie R Graveel. MET in human cancer: germline and somatic mutations. *Annals of translational medicine*, 5(10):205, may 2017. ISSN 2305-5839. doi: 10.21037/atm.2017.03.64.
- Mai Tsutsui, Hirofumi Kawakubo, Testsu Hayashida, and Kazumasa Fukuda. Comprehensive screening of genes resistant to an anticancer drug in esophageal squamous cell carcinoma. *International Journal of Oncology*, (September):867–874, 2015. doi: 10.3892/ijo.2015.3085.
- Christopher J. Walker, Mario A. Miranda, Matthew J. O’Hern, Joseph P. McElroy, Kevin R. Coombes, Ralf Bundschuh, David E. Cohn, David G. Mutch, and Paul J. Goodfellow. Patterns of CTCF and ZFH3 mutation and associated outcomes in endometrial cancer. *Journal of the National Cancer Institute*, 107(11):1–8, 2015. ISSN 1462105. doi: 10.1093/jnci/djv249.
- Wei Wang, Chengyi Lin, Dong Lu, Zeming Ning, Tony Cox, David Melvin, Xiaozhong Wang, Allan Bradley, and Pentao Liu. Chromosomal transposition of PiggyBac in mouse embryonic stem cells. *Proceedings of the National Academy of Sciences*, 105(27):920–9295, 2008.
- Y-D Wang, N Cai, X-L Wu, H-Z Cao, L-L Xie, and P-S Zheng. OCT4 promotes tumorigenesis and inhibits apoptosis of cervical cancer cells by miR-125b/BAK1 pathway. *Cell death & disease*, 4(8), aug 2013. ISSN 2041-4889. doi: 10.1038/cddis.2013.272.
- A R Wasylshen, A Stojanova, S Oliveri, A C Rust, A D Schimmer, and L Z Penn. New model systems provide insights into Myc-induced transformation. *Oncogene*, 30(34):3727–3734, aug 2011. ISSN 0950-9232. doi: 10.1038/onc.2011.88.

- John N Weinstein, Eric A Collisson, Gordon B Mills, Kenna M Shaw, A Brad, Kyle Ellrott, Ilya Shmulevich, Chris Sander, and Joshua M Stuart. The cancer genome atlas pan-cancer analysis project. *Nature*, 45(10):1113–1120, 2013. doi: 10.1038/ng.2764.The.
- World Health Organisation. Cancer, feb 2018.
- Wei Xia, Peter Bringmann, John McClary, Patrick P. Jones, Warren Manzana, Ying Zhu, Soujuan Wang, Yi Liu, Susan Harvey, Mary Rose Madlansacay, Kirk McLean, Mary P. Rosser, Jean MacRobbie, Catherine L. Olsen, and Ronald R. Cobb. High levels of protein expression using different mammalian CMV promoters in several cell lines. *Protein Expression and Purification*, 45(1):115–124, jan 2006. ISSN 10465928. doi: 10.1016/j.pep.2005.07.008.
- Kiyoshi Yamaguchi, Michihiro Sakai, JooHun Kim, Shin-ichiro Tsunesumi, Tomoaki Fujii, Tsuneo Ikenoue, Yoshinao Yamada, Yoshiyuki Akiyama, Yasuhiko Muto, Rui Yamaguchi, Satoru Miyano, Yusuke Nakamura, and Yoichi Furukawa. MRG-binding protein contributes to colorectal cancer development. *Cancer Science*, 102(8):1486–1492, aug 2011. ISSN 13479032. doi: 10.1111/j.1349-7006.2011.01971.x.
- Takaharu Yamamoto, Shinichiro Taya, and Kozo Kaibuchi. Ras-induced transformation and signaling pathway. *Journal of Biochemistry*, 126(5):799–803, 1999. ISSN 0021924X. doi: 10.1093/oxfordjournals.jbchem.a022519.
- K. Yusa, L. Zhou, M. A. Li, A. Bradley, and N. L. Craig. A hyperactive piggyBac transposase for mammalian applications. *Proceedings of the National Academy of Sciences*, 108(4): 1531–1536, 2011. ISSN 0027-8424. doi: 10.1073/pnas.1008322108.
- Daniel R. Zerbino, Premanand Achuthan, Wasiu Akanni, M. Ridwan Amode, Daniel Barrell, Jyothish Bhai, Konstantinos Billis, Carla Cummins, Astrid Gall, Carlos García Girón, Laurent Gil, Leo Gordon, Leanne Haggerty, Erin Haskell, Thibaut Hourlier, Osagie G. Izuogu, Sophie H. Janacek, Thomas Juettemann, Jimmy Kiang To, Matthew R. Laird, Ilias Lavidas, Zhicheng Liu, Jane E. Loveland, Thomas Maurel, William McLaren, Benjamin Moore, Jonathan Mudge, Daniel N. Murphy, Victoria Newman, Michael Nuhn, Denye Ogeh, Chuang Kee Ong, Anne Parker, Mateus Patricio, Harpreet Singh Riat, Helen Schuilenburg, Dan Sheppard, Helen Sparrow, Kieron Taylor, Anja Thormann, Alessandro Vullo, Brandon Walts, Amonida Zadissa, Adam Frankish, Sarah E. Hunt, Myrto Kostadima, Nicholas Langridge, Fergal J. Martin, Matthieu Muffato, Emily Perry, Magali Ruffier, Dan M. Staines, Stephen J. Trevanion, Bronwen L. Aken, Fiona Cunningham, Andrew Yates, and Paul

Flicek. Ensembl 2018. *Nucleic Acids Research*, 46(1):754–761, 2018. ISSN 13624962. doi: 10.1093/nar/gkx1098.

Ming-Jun Zhang, Yan-Yan Hong, and Na Li. Overexpression of Kin of IRRE-Like Protein 1 (KIRREL) in Gastric Cancer and Its Clinical Prognostic Significance. *Medical science monitor : international medical journal of experimental and clinical research*, 24:2711–2719, may 2018. ISSN 1643-3750. doi: 10.12659/MSM.910386.

