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Member, Memorial Sloan-Kettering Cancer Center

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EDUCATION

1994 Ph.D. (Biology), Massachusetts Institute of Technology
1986 B.S. (Biochemistry & Molecular Biology), University of Wisconsin-Madison

RESEARCH TRAINING

1994 – 1995 Postdoctoral Research, Center for Cancer Research, M.I.T.
1988 – 1994 Graduate Research, Center for Cancer Research, M.I.T.
1986 – 1988 Research Technician, Dept. of Biochemistry, UW-Madison
1985 – 1986 Undergraduate Research, Dept. of Biochemistry, UW-Madison

RESEARCH APPOINTMENTS

2014 – pres. Chair, Cancer Biology and Genetics Program, Sloan Kettering Institute
2012 – 2015 Associate Director for Basic Cancer Research, Memorial Sloan Kettering Cancer Center
2011 – pres. Chair, Geoffrey Beene Center, Memorial Sloan-Kettering Cancer Center
2011 – pres. Member, Memorial Sloan Kettering Cancer Center
2011 – pres. Adjunct Professor, Cold Spring Harbor Laboratory
2010 – 2011 Head, Hillside Campus, Cold Spring Harbor Laboratory
2007 – 2011 Program Chair, Cancer and Molecular Biology, Cold Spring Harbor Laboratory
2005 – pres. Investigator, Howard Hughes Medical Institute
2004 – 2009 Head, James Laboratory, Cold Spring Harbor Laboratory
2001 – 2011 Deputy Director, Cold Spring Harbor Laboratory Cancer Center
2000 – 2011 Professor, Cold Spring Harbor Laboratory
1999 – 2000 Associate Professor, Cold Spring Harbor Laboratory
1998 – 1999 Associate Investigator, Cold Spring Harbor Laboratory
1996 – 1998 Assistant Investigator, Cold Spring Harbor Laboratory
1995 – 1996 Cold Spring Harbor Fellow, Cold Spring Harbor Laboratory

ACADEMIC APPOINTMENTS

2011 – pres. Professor, Weill Cornell Graduate School of Medical Sciences
2011 – pres. Professor, Gerstner Sloan-Kettering Graduate School of Biomedical Sciences
2005 – 2011 Faculty Member, Molecular and Cellular Biology Program, Stony Brook University
2000 – 2011 Adjunct Professor, Dept. of Physiology and Biophysics, Stony Brook University
1999 – 2005 Executive Committee, Watson School of Biological Sciences, Cold Spring Harbor
1999 – 2011 Professor, Watson School of Biological Sciences, Cold Spring Harbor
1996 – 2011 Faculty Member, Genetics Program, Stony Brook University

SCIENTIFIC REVIEW ADVISORY BOARDS

Scientific Publishing (selected)

2009 – pres. Editorial Board, Cell
2002 – pres. Editorial Board, Cancer Cell

Grant Review (selected)

2006/09/15/20 Ad-Hoc, various NIH panels
1999 – 2004 Member, Subcommittee C, NCI (parent committee)
1997 Ad-Hoc Member, CBY-1 Study Section, NIH

Advisory Boards (selected)

2019 – pres. Scientific Advisory Board, Faeth Pharmaceuticals

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| 2019 – pres. | External Advisory Board, University of Colorado Cancer Center |
| 2015 – 2020 | Scientific Advisory Board, Petra Pharmaceuticals |
| 2015 – 2021 | Scientific Advisory Board, Salk Institute Cancer Center |
| 2015 – pres. | Scientific Advisory Board, Yale Cancer Center |
| 2014 – pres. | Scientific Advisory Board, ORIC Pharmaceuticals |
| 2013 – pres. | Scientific Advisory Board, Spanish National Cancer Center (CNIO) |
| 2013 – pres. | Scientific Advisory Board, PMV Pharmaceuticals |
| 2012 – 2015 | Scientific Advisory Board, New York Genome Center |
| 2011 – pres. | Scientific Advisory Board, Blueprint Medicines |
| 2011 – pres. | Scientific Advisory Board, Mirimus, Incorporated |
| 2009 – pres. | Scientific Advisory Board, Mt. Sinai Cancer Center |
| 2009 – pres. | Scientific Advisory Board, Constellation Pharmaceuticals |
| 2007 – 2011 | Scientific Advisory Board, Lustgarten Foundation |
| 2005 – 2008 | Board of Directors, American Association for Cancer Research |
| 2005 – 2009 | Co-Chair, Mouse Models of Human Cancer Consortium, National Cancer Institute |
| 2004 – 2008 | Scientific Advisory Board, MGH Cancer Center |
| 2003 – 2007 | Scientific Advisory Board, Wistar Institute |
| 2003 – 2008 | External Advisory Board, University of Chicago Cancer Center |
| 2003 – 2006 | Science Policy and Legislative Affairs Committee, AACR |
| 2001 – 2008 | External Advisory Board, NYU Cancer Center |

Meeting Organization (selected)

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| 2021 | Organizer, “Precision Oncology: Translating Discovery to the Clinic”, Keystone |
| 2019 | Organizer, “The Tumour Cell: Plasticity, Progression and Therapy”, Nature-MSKCC |
| 2017/19/21 | Organizer, “Cancer Biology”, Cold Spring Harbor |
| 2016 | Organizer, “Targeting Cancer”, Cold Spring Harbor Symposium |
| 2016 | Organizer, “Cancer as an Evolving and Systemic Disease”, Nature-MSKCC |
| 2014 | Chairman, “Harnessing Breakthroughs, Targeting Cures”, AACR Annual Meeting |
| 2013 | Organizer, “Frontiers in Basic Cancer Research”, AACR Special Conference |
| 2011/13 | Organizer, “Cell Death”, Cold Spring Harbor |
| 2010 | Organizer, “Watson Symposium”, Cold Spring Harbor Asia |
| 2009 | Organizer, “Mouse Models of Human Cancer”, AACR Special Conference |
| 2008 | Organizer, “MicroRNAs and Cancer Biology”, National Cancer Institute |
| 2007 | Organizer, “Mouse models at the frontiers of cancer discovery”, Keystone Symposia |
| 2006 | Organizing Committee, AACR Annual Meeting |
| 2006 | Organizer, “Mouse Models of Human Cancer”, AACR Special Conference |
| 2004 | Organizer, “Cell Death and Senescence”, Keystone Symposia |
| 2003 | Organizer, “Apoptosis and Development”, Keystone Symposia |
| 2002 | Organizer, “Apoptosis and Cancer”, CNIO Symposium |
| 1999 | Organizer, “Apoptosis”, AACR Special Conference |
| 1998 | Education Committee, AACR Annual Meeting |
| 2000/02/04/06 | Organizer, “Cancer Genetics and Tumor Suppressor Genes”, Cold Spring Harbor |
| 1998 – 2002 | Organizing Committee, AACR Annual Meeting |
| 1997 | Organizer, “The biology of p53” Banbury Center, Cold Spring Harbor |

HONORS AND AWARDS

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| 2019 | Member, National Academy of Medicine |
| 2018 | AACR G.H.A. Clowes Memorial Award |
| 2017 | Honorary Professor, China Medical University |
| 2017 | Member, National Academy of Sciences |
| 2016 | Honorary Doctor of Medicine (Dr. med. h.c.), Goethe University |
| 2013 | Member, American Academy of Arts and Sciences |
| 2013 | Alfred G. Knudsen Award, National Cancer Institute |
| 2011 | Kunio Yagi Medal, Int. Union of Biochem. and Mol. Bio. |
| 2008 | Colin Thomson Memorial Medal, Int. Assoc. for Cancer Research |
| 2006 | American Association for Advancement of Science, Fellow |

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| 2005 | Paul Marks Prize for Cancer Research |
| 2005 | Investigator, Howard Hughes Medical Institute |
| 2004 | AACR-NFCR Professorship in Basic Cancer Research |
| 2000 | AACR Award for Outstanding Achievement in Cancer Research |
| 1999 | Rita Allen Foundation Scholar |
| 1997 | Sydney Kimmel Foundation Scholar |
| 1995 | Cold Spring Harbor Laboratory Fellow |
| 1994 | Anna Fuller Postdoctoral Fellow |
| 1993 | AACR Travel Award – Apoptosis |
| 1985 | Mary Shine Peterson Undergraduate Scholarship |

Honorary Lectures

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| 2019 | Albert Einstein Cancer Center Distinguished Lecture, New York, NY |
| 2019 | Marc J. Mass Memorial Distinguished Lecture, University of North Carolina at Chapel Hill, NC |
| 2019 | Keynote, International Symposium of Cell Fate Determination and Human Diseases, Shanghai, China |
| 2019 | Keynote, 27th Conference of the European Cell Death Organization, Dresden, Germany |
| 2019 | Ashely Dunn Oration, Lorne Cancer Conference, Lorne, Australia |
| 2019 | Renato Dulbecco Lecture, Salk Institute, La Jolla, CA |
| 2018 | Keynote, ESH International Conference on Myeloproliferative Neoplasms, Saggart (Dublin), Ireland |
| 2018 | Keynote, International Conference on Drug Target and Drug Discovery, Chengdu, China |
| 2017 | Keynote, AACR New Horizons in Cancer Research Conference, Shanghai, China |
| 2017 | Keynote, AACR Special Conference on Advances in Modeling Cancer in Mice, Orlando, FL |
| 2017 | Benjamin Trump Lecture, Aspen Cancer Conference, Aspen, CO |
| 2017 | Keynote, AEK Cancer Congress (Abteilung Experimentelle Krebsforschung), Heidelberg, Germany |
| 2016 | Keynote, ICSA Cellular Senescence: From Mechanisms to Therapeutic Opportunities, Rehovot, Israel |
| 2016 | Keynote, VHIO Special Symposium: Towards Predictive Cancer Models, Barcelona, Spain |
| 2016 | Keynote, Cold Spring Harbor Asia Conference on Liver Diseases and Tumorigenesis, Suzhou, China |
| 2015 | Peter Doherty Lecture, St. Jude Children's Research Hospital, Memphis, TN |
| 2015 | Keynote, AACR Molecular Biology in Clinical Oncology Workshop, Snowmass Village, CO |
| 2015 | Keynote, International Cell Death Society, Prague, Czech Republic |
| 2015 | Keynote, Revson Foundation Fellowship Program in Biomedical Science, New York, NY |
| 2015 | Keynote, Gordon Research Conference: Cancer Genetics & Epigenetics, Lucca (Barga), Italy |
| 2014 | Keynote, CRG 13th Symposium Gene Regulation, Stem Cells and Cancer, Barcelona, Spain |
| 2014 | Keynote, Keystone Symposia: Cell Death Signaling in Cancer, Sao Paulo, Brazil |
| 2014 | Keynote, University of Michigan: Cancer Biology Program Retreat, Ann Arbor, MI |
| 2014 | Keynote, EACR: Cell Death and Cancer, Amsterdam, Netherlands |
| 2013 | Keynote, FASEB Conference on Hematologic Malignancies, Saxton River, VT |
| 2013 | Keynote, Congress of the German Society of Pathology, Berlin, Germany |
| 2013 | Keynote, Challenges and Solutions in Cancer Research and Treatment, Rio de Janeiro, Brazil |
| 2013 | Keynote, EMBO Cycling to Death, Obergurgl, Austria |
| 2012 | Keynote, NCI/MMHCC Mouse Models of Prostate Cancer Symposium, New York, NY |
| 2011 | Keynote, Keystone Symposia: MicroRNAs and Non-Coding RNAs and Cancer, Banff, Alberta, Canada |

PUBLICATIONS – Primary Research Articles – Highlights

32. Alonso-Curbelo, D, Ho, YJ, Burdziak, C, Maag, JLV, Morris IV, JP, Chandwani, R, Chen, HA, Tsanov, KM, Barriga, FM, Luan, W, Tasdemir, N, Livshits, G, Azizi, E, Chun, J, Wilkinson, JE, Mazutis, L, Leach, SD, Koche, R, Pe'er, D, Lowe, SW. (2021). A gene–environment-induced epigenetic program initiates tumorigenesis. *Nature*. 590:642-648. PMID: 33536616.
31. Amor, C, Feucht, J, Leibold, J, Ho, YJ, Zhu, C, Alonso-Curbelo, D, Mansilla-Soto, J, Boyer, JA, Li, X, Giavridis, T, Kulick, A, Houlihan, S, Peerschke, E, Friedman, SL, Ponomarev, V, Piersigilli, A, Sadelain, M, Lowe, SW. (2020). Senolytic CAR T Cells Reverse Senescence-Associated Pathologies. *Nature*. 583:127-132. PMID: 32555459. PMCID: PMC7583560.
30. Ruscetti, M, Morris IV, JP, Mezzadra, R, Russell, J, Leibold, J, Romesser, PB, Simon, J, Kulick, A, Ho, YJ, Fennell, M, Li, J, Norgard, RJ, Wilkinson, JE, Alonso-Curbelo, D, Sridharan, R, Heller, DA, de Stanchina, E, Stanger, BZ, Sherr, CJ, Lowe, SW. (2020). Senescence-Induced Vascular Remodeling Creates Therapeutic Vulnerabilities in Pancreas Cancer. *Cell*. 181:424-441. PMID: 32234521. PMCID: PMC7278897.
29. Morris IV, JP, Yashinskie, JJ, Koche, R, Chandwani, R, Tian, S, Chen, C-C, Baslan, T, Marinkovic, ZS, Sanchez-Rivera, FJ, Leach, SD, Carmona-Fontaine, C, Thompson, CB, Finley, LWS, Lowe, SW. (2019). Alpha-ketoglutarate links p53 to cell fate during tumor suppression. *Nature*. 573:595-599. PMID: 31534224. PMCID: PMC6830448.
28. Ruscetti, M, Leibold, J, Bott, MJ, Fennell, M, Kulick, A, Chen, C-C, Baslan, T, Salgado, NR, Sanchez-Rivera, FJ, Tian, S, Romesser PB, Poirier, JT, Rudin, CM, de Stanchina, E, Manchado, E, Sherr, CJ, and Lowe, SW (2018). NK cell-mediated cytotoxicity contributes to tumor control by a cytostatic drug combination. *Science*. 362:1416-1422. PMID: 30573629. PMCID: PMC6711172.
27. Tasdemir, N, Banito, A, Alonso-Curbelo, D, Ro, J-S, Camiolo, M, Tschaharganeh, DF, Huang, C-H, Aksoy, O, Bolden, JE, Chen, C-C, Fennell, M, Thapar, V, Chicas, A, Vakoc, CR, and Lowe, SW (2016). BRD4 connects super enhancer remodeling to senescence immune surveillance. *Cancer Discov*. 6:612-29. PMID: 27099234. PMCID: PMC4893996.
26. Manchado, E, Weissmueller, S, Wullenkord, R, Lujambio, A, de Stanchina, E, Poirier, JT, Rudin, CM, Rosen, N, Lowe, SW (2015). A combinatorial strategy for treating KRAS mutant lung cancer. *Nature*. 534:647-51. PMID: 27338794. PMCID: PMC4939262.
25. Liu, Y, Chen, C, Xu, Z, Scuoppo, C, Rillahan, C, Gao, J, Spitzer, B, Bosbach, B, Kasthuber, ER, Baslan, T, Ackermann, S., Cheng, L, Wang, Q, Niu, T, Schultz, N, Levine. RL, Mills, A, and Lowe, SW (2016). Deletions linked o TP53 loss drive cancer through p53-independent mechanisms. *Nature*. 531:471-5. PMID: 26982726. PMCID: PMC4836395.
24. Dow, LE, O'Rourke KP, Simon, J, Tschaharganeh, DF, van Es, JH, Clevers, H and Lowe, SW (2015). Apc restoration promotes cellular differentiation and reestablishes crypt homeostasis in colorectal cancer. *Cell*. 7:1539-52. PMID: 26091037. PMCID: PMC4475279.
23. Tschaharganeh, DF, Xue, W, Calvisi, DF, Evert, M, Michurina, TV, Dow, LE, Banito, A, Katz, SF, Kasthuber, ER, Weissmueller, S, Huang, C-H, Lechel, A, Andersen, JB, Capper, D, Zender, L, Longerich, T, Enikolopov, G, and Lowe, SW (2014) p53 dependent Nestin regulation links tumor suppression to cellular plasticity in liver cancer. *Cell*. 158:579-592. PMID: 25083869. PMCID: PMC4221237.
22. Miething, C, Scuoppo, C, Bosbach, B, Appelmann, I, Nakitandwe, J, Ma, G, Wu, G, Lintault, L, Auer, M, Premsrirut, P, Teruya-Feldstein, J, Hicks, J, Benveniste, H, Speicher, MR, Downing, JR and Lowe, SW (2014). PTEN action in leukemia dictated by the tissue microenvironment. *Nature*. 510:402-6. PMID: 24805236. PMCID: PMC4165899.
21. Weissmueller, S, Manchado, E, Saborowski, M, Morris IV, JP, Wagenblast, E, Davis, CA, Moon, S-H, Pfister, NT, Tschaharganeh, DF, Kitzing, T, Aust, D, Markert, EK, Jianmin, W, Grimmond,

- SM, Pilarsky, C, Prives, CP, Biankin, AV, and Lowe, SW (2014). Mutant p53 drives pancreatic cancer metastasis through cell-autonomous PDGF receptor beta signaling. *Cell*. 157:382-94. PMID: 24725405. PMCID: PMC4001090.
20. Lujambio A, Akkari L, Simon J, Grace D, Bolden JE, Zhao Z, Thapar V, Joyce J, Krizhanovsky V, Lowe SW (2013). Non-cell-autonomous tumor suppression by p53. *Cell*. 153:449-60. PMID: 23562644. PMCID: PMC3702034.
 19. Scuoppo, C, Miething, C, Lindqvist, L, Reyes, J, Ruse, C, Appelman, I, Yoon, S, Krasnitz, A, Teruya-Feldstein, J, Pappin, D, Pelletier, J, and Lowe, SW (2012) A tumor suppressor network relying on the polyamine-hypusine axis. *Nature*. 487:244-8. PMID: 22722845. PMCID: PMC3530829.
 18. Zuber, J, Shi, J, Wang, E, Rappaport, AR, Herrmann, H, Sison, EA, Magoon, D, Qi, J, Blatt, K, Wunderlich, M, Taylor, MJ, Johns, C, Chicas, A, Mulloy, JC, Kogan, SC, Brown, P, Valent, P, Bradner, JE, Lowe, SW, and Vakoc CR (2011). RNAi screen identifies Brd4 as a therapeutic target in acute myeloid leukaemia. *Nature*. 478:524-8. PMID: 21814200. PMCID: PMC3328300.
 17. Premsrirut, PK, Dow, LE, Kim, YK, Malone, CD, Scuoppo, CI, Zuber, J, Miething, C, Dickins, RA, Hannon, GJ, and Lowe, SW (2011) A rapid and scalable system for studying gene function in mice using conditional RNA interference. *Cell*. 145:145-58. PMID:21458673. PMCID: PMC3244080.
 16. Chicas, A, Zhang, C, Wang, X, McCurrach, M, Zhao, Z, Dickins, R, Narita, M, Zhang, M, and Lowe, S (2010) Dissecting the unique role of the retinoblastoma tumor suppressor during cellular senescence. *Cancer Cell*. 17:376-87. PMID: 20385362. PMCID: PMC2889489.
 15. Zender, L, Xue, W, Zuber, J, Semighini, CP, Krasnitz, A, Ma, B, Zender, P, Kubicka, S, Luk, JM, Schirmacher, P, McCombie, RW, Wigler, M, Hicks, J, Hannon, GJ, Powers, S, and Lowe SW (2008). An oncogenomics-based in vivo RNAi screen identifies new tumor suppressors in liver cancer. *Cell*. 135:852-64. PMID: 19012953. PMCID: PMC2990916.
 14. Krizhanovsky, V, Yon, M, Dickins, RA, Hearn, S, Simon, J, Miething, C, Yee, H, Zender, L, and Lowe, SW (2008). Senescence of activated stellate cells limits liver fibrosis. *Cell*. 134:657-67. PMID: 18724938. PMCID: PMC3073300.
 13. Dickins, RA, McJunkin, K, Hernando, E, Premsrirut, PK, Krizhanovsky, V, Burgess, DJ, Kim, SY, Cordon-Cardo, C, Zender, L, Hannon, GJ, and Lowe, SW (2007). Tissue-specific and reversible RNAi in transgenic mice. *Nat. Genet*. 39:914-21. PMID: 17572676. PMCID: PMC4595852.
 12. Zender, L, Spector, MS, Xue, W, Flemming, P, Cordon-Cardo, C, Silke, J, Fan., S-T, Luk, JM, Wigler, M, Hannon, GJ, Mu, D, Lucito, R, Powers, S, and Lowe, SW (2006). Identification and validation of oncogenes in liver cancer using an integrative oncogenomic approach. *Cell*. 125:1253-67. PMID: 16814713. PMCID: PMC3026384.
 11. Hemann, MT, Bric, A, Teruya-Feldstein, J, Herbst, A, Nilsson, JA, Cordon-Cardo, C, Cleveland, JL, Tansey, WP, and Lowe, SW (2005). Evasion of the p53 tumor surveillance network by tumor derived myc mutants. *Nature*. 436:807-11. PMID: 16094360. PMCID: PMC4599579.
 10. Hernando, E, Nahle, Z, Juan, G, Diaz-Rodriguez, E, Alaminos, M, Hemann, M, Michel, L, Mittal, V, Gerald, W, Benezra, R, Lowe, SW*, and Cordon-Cardo, C (2004). Rb inactivation promotes genomic instability by uncoupling cell cycle progression from mitotic control. *Nature*. 430:797-802. (*corresponding author). PMID: 15306814.
 9. Narita, M, Nuñez, S, Heard, E, Narita, M, Lin, AW, Hearn, SA, Spector, DL, Hannon, GJ, and Lowe, SW (2003). Rb-mediated heterochromatin formation and silencing of E2F target genes during cellular senescence. *Cell*. 113:703-16. PMID: 12809602.

8. Hemann, MT, Fridman, JS, Zilfou, JT, Hernando, E, Paddison, PJ, Cordon-Cardo, C, Hannon, GJ, and Lowe, SW. (2003). An epi-allelic series of p53 hypomorphs created by stable RNAi produces distinct tumor phenotypes in vivo. *Nat. Genet.* 33:396-400. PMID: 12567186.
7. Schmitt, CA, Fridman, JS, Yang, M, Lee, S, Baranov, E, Hoffman, RM, and Lowe, SW (2002). A senescence program controlled by p53 and p16INK4a contributes to anticancer treatment outcome in vivo. (2002). *Cell.* 109:335-46. PMID: 12015983.
6. de Stanchina, E, McCurrach, ME, Zindy, F, Shieh, S-Y, Ferbeyre, G, Samuelson, AV, Prives, C, Roussel, MF, Sherr, CJ, and Lowe, SW (1998). E1A signaling to p53 involves the p19ARF tumor suppressor. *Genes Dev.* 12: 2434-42. PMID: 9694807. PMCID: PMC317046.
5. Serrano, M, Lin, A, McCurrach, ME, Beach, D, and Lowe, SW. (1997). Oncogenic ras provokes premature cell senescence associated with accumulation of p53 and p16INK4a. *Cell.* 88:593-602. PMID: 9054499.
4. Lowe, SW, Bodis, S, Remington, L, Ruley, HE, Fisher, D, Housman, DE, and Jacks, T. (1994). p53 status and the efficacy of cancer therapy in vivo. *Science.* 266:807-10. PMID: 7973635.
3. Lowe, SW, Ruley, HE, Jacks, T, and Housman, DE. (1993). p53-dependent apoptosis modulates the cytotoxicity of anticancer agents. *Cell* 74:957-67. PMCID: PMC8402885.
2. Lowe, SW, Schmitt, EM, Smith, SW, Osborne, BA, and Jacks, T. (1993). p53 is required for radiation-induced apoptosis in mouse thymocytes. *Nature* 362:847-9. PMCID: PMC8479522.
1. Lowe, SW and Ruley, HE. (1993). Stabilization of the p53 tumor suppressor is induced by adenovirus E1A and accompanies apoptosis. *Genes Dev.* 7:535-45. PMID: 8384579.

PUBLICATIONS – Primary Research Articles – Other work

238. Soto-Feliciano, YM*, Sánchez-Rivera, FJ*, Barrows, DW, Gates, L, Cheon, D, Carroll, T, Ho, YJ, Kastenhuber, E, Beytagh, MC, Armstrong, SA, Lowe, SW#, Allis, CD#. Antagonism between mammalian MLL complexes dictates response to epigenetic therapies. (*Co-first author, #Co-corresponding author.) In Review at Cell.
237. Baslan, T.*, Morris IV, J.P.*, Zhao, Z.*, Reyes, J, Ho, Y-J., Bermeo, J., Askan, G., Zhang, A., Wu, J., Gularte-Merida, R., Notta, F., Iacobuzio-Donahue, C.A., Lowe, S.W. Lineage tracing of sporadic loss of p53 heterozygosity reveals ordered and selective patterns of cancer genome evolution. (*Equally contributing authors). In preparation.
236. Maddipati, R, Norgard, RJ, Baslan, T, Rathi, KS, Zhang, A, Saeid, A, Higashihara, T, Wu, F, Kumar, A, Annamalai, V, Bhattacharya, S, Raman, P, Adkisson, CA, Pitarresi, JR, Wengyn, MD, Yamazoe, T, Li, J, Balli, D, LaRiviere, MJ, Ngo, TC, Folkert, IW, Millstein, ID, Bermeo, J, Carpenter, EL, McAuliffe, JC, Oktay, MH, Brekken, RA, Lowe, SW, Iacobuzio-Donahue, CA, Notta, F, Stanger, BZ. (2021). MYC levels regulate metastatic heterogeneity in pancreatic adenocarcinoma. *Cancer Discov.* 2021 Sep 22:candisc.1826.2020. Online ahead of print. PMID: 34551968
235. Baslan, T, Kovaka, S, Sedlazeck, FJ, Zhang, Y, Wappel, R, Tian, S, Lowe, SW, Goodwin, S, Schatz, MC. (2021). High resolution copy number inference in cancer using short-molecule nanopore sequencing. *Nucleic Acids Res.* 2021 Sep 22:gkab812. Online ahead of print. PMID: 34551429
234. Revia, S, Seretny, A, Wendler, L, Banito, A, Eckert, C, Breuer, K, Mayakonda, A, Lutsik, P, Evert, M, Ribback, S, Gallage, S, Chikh Bakri, I, Breuhahn, K, Schirmacher, P, Heinrich, S, Gaida, MM, Heikenwälder, M, Calvisi, DF, Plass, C, Lowe, SW, Tschaharganeh, DF. (2021). Histone H3K27 demethylase KDM6A is an epigenetic gatekeeper of mTORC1 signalling in cancer. *Gut.* 2021 Sep 11:gutjnl-2021-325405. Online ahead of print. PMID: 34509979

233. Lockett, KA, Cracchiolo, JR, Krishnamoorthy, GP, Leandro-Garcia, LJ, Nagarajah, J, Saqcena, M, Lester, R, Im, SY, Zhao, Z, Lowe, SW, de Stanchina, E, Sherman, EJ, Ho, AL, Leach, SD, Knauf, JA, Fagin, JA. (2021). Co-inhibition of SMAD and MAPK signaling enhances 124I uptake in BRAF-mutant thyroid cancers. *Endocr Relat Cancer*. 2021 May 18;28(6):391-402. PMID: 33890869
232. Jiménez-Alcázar, M, Curiel-García, Á, Nogales, P, Perales-Patón, J, Schuhmacher, AJ, Galán-Ganga, M, Zhu, L, Lowe, SW, Al-Shahrour, F, Squatrito, M. (2021). Dianhydrogalactitol Overcomes Multiple Temozolomide Resistance Mechanisms in Glioblastoma. *Mol Cancer Ther*. 2021 Jun;20(6):1029-1038. PMID: 33846235
231. Prasanna, PG, Citrin, DE, Hildesheim, J, Ahmed, MM, Venkatachalam, S, Riscuta, G, Xi, D, Zheng, G, van Deursen, J, Goronzy, J, Kron, SJ, Anscher, MS, Sharpless, NE, Campisi, J, Brown, SL, Niedernhofer, LJ, O'Loughlen, A, Georgakilas, AG, Paris, F, Gius, D, Gewirtz, DA, Schmitt, CA, Abazeed, ME, Kirkland, JL, Richmond, A, Romesser, PB, Lowe, SW, Gil, J, Mendonca, MS, Burma, S, Zhou, D, Coleman, CN. (2021). Therapy-Induced Senescence: Opportunities to Improve Anti-Cancer Therapy. *J Natl Cancer Inst*. 2021 Oct 1;113(10):1285-1298. PMID: 33792717.
230. Rapaport, F, Neelamraju, Y, Baslan, T, Hassane, D, Gruszczynska, A, de Massy, MR, Farnoud, NR, Haddox, S, Lee, T, Medina-Martinez, J, Sheridan, C, Thurmond, A, Becker, M, Bekiranov, S, Carroll, M, Valk, PJM, Bullinger, L, D'Andrea, R, Lowe, SW, Neuberg, D, Levine, RL, Melnick, A, Garrett-Bakelman, F. (2021). Genomic and evolutionary portraits of disease relapse in Acute Myeloid Leukemia. *Leukemia*. 2021 Sep;35(9):2688-2692. PMID: 33580203.
229. Biegging-Rolett, KT, Kaiser, AM, Morgens, DW, Boutelle, AM, Seoane, JA, Van Nostrand, EL, Zhu, C, Houlihan, SL, Mello, SS, Yee, BA, McClendon, J, Pierce, SE, Winters, IP, Wang, M, Connolly, AJ, Lowe, SW, Curtis, C, Yeo, GW, Winslow, MM, Bassik, MC, Attardi, LD. (2020). Zmat3 Is a Key Splicing Regulator in the p53 Tumor Suppression Program. *Mol Cell*. 80:452-469. PMID: 33157015. PMCID: PMC7654708.
228. Schneider, WM, Luna, JM, Hoffmann, HH, Sánchez-Rivera, FJ, Leal, AA, Ashbrook, AW, Le Pen, J, Ricardo-Lax, I, Michailidis, E, Peace, A, Stenzel, AF, Lowe, SW, MacDonald, MR, Rice, CM, Poirier, JT. (2021). Genome-Scale Identification of SARS-CoV-2 and Pan-coronavirus Host Factor Networks. *Cell*. 184:120-132. PMID: 33382968.
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3. Lowe, SW and Ruley, HE (1996). p53-dependent apoptosis in tumor progression and in cancer therapy. In *Cellular Aging and Cell Death, Modern Cell Biology* vol. 16, N. Holbrook, Martin, G. R., and Lockshin, R. A., eds. (New York: Wiley-Liss, Inc.), pp. 209-34.
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LABORATORY MEMBERS

Current Graduate Students

- 2020– Margaret Kennedy, BS, The College of New Jersey, Ewing, NJ
- 2020– Caroline Broderick, BS, University of California, Santa Barbara, CA
- 2017– Corina Amor Vegas, MD, Complutense University of Madrid, Spain
- 2016– Stella Paffenholz, MS, German Cancer Research Center (DKFZ), Heidelberg, Germany
- 2016– Sean (Hsuan-An) Chen, BS, National Taiwan University, Taipei, Taiwan
- 2015– Grace (Xiang) Li, MS, The Ohio State University, Columbus, Ohio

Current Postdoctoral Fellows

- 2020– Bryan Ngo, PhD, Weill Cornell Medical College, New York, NY
- 2020– Zeda Zhang, PhD, Gerstner Sloan Kettering Graduate School, New York, NY
- 2020– Almudena Chaves, PhD, Autonomous University of Madrid, Spain
- 2019– Changyu Zhu, PhD, Columbia University, New York, NY
- 2019– José Reyes, PhD, Harvard University, Cambridge, MA
- 2018– Riccardo Mezzadra, PhD, Netherlands Cancer Institute, Amsterdam, Netherlands
- 2017– Kaloyan Tsanov, PhD, Harvard University, Cambridge, MA
- 2017– Francisco Barriga, PhD, University Pompeu Fabra, Barcelona, Barcelona, Spain
- 2016– Francisco Sanchez-Rivera, PhD, Massachusetts Institute of Technology, Cambridge, MA
- 2014– Timour Baslan, PhD, Cold Spring Harbor Laboratory/Stony Brook University, Stony Brook, NY
- 2013– Direna Alonso Curbelo, PhD, Autonomous University of Madrid, Spain

Past Graduate Students

- 2014–19 Evangelia Loizou, PhD, Weill Cornell Medical College, New York, NY
Current position: Product Development Manager, NIPD Genetics, New York, NY
- 2014–19 Edward Kastenhuber, PhD, Gerstner Sloan Kettering Graduate School, New York, NY
Current position: Postdoctoral Associate, Weill Cornell Medical College, New York, NY
- 2012–19 Chi-Chao Chen, PhD, Weill Cornell Medical College, New York, NY
Current position: Data Scientist, Agios Pharmaceuticals, Inc., Cambridge, MA
- 2013–17 Kevin O'Rourke, MD-PhD, Weill Cornell Medical College, New York, NY
Current position: Investments, Roivant Sciences, New York, NY
- 2011–16 Chun-Hao Huang, PhD, Weill Cornell Medical College, New York, NY
Current position: Co-Founder & CEO, Algen Biotechnologies, San Francisco, CA
- 2009–14 Susann Weissmuller, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Strategic Partnering Associate, Roche, Basel, Switzerland
- 2009–14 Nilgun Tasdemir, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Senior Scientist, Functional Genomics, Target Sciences, Pfizer, New York
- 2009–14 Ozlem Aksoy (née Mert), PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Senior Scientist, Pfizer, San Francisco, CA
- 2008–14 Saya Ebbesen, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Director, Medical & Scientific Strategy, BluPrint Oncology, London
- 2008–11 Christof Fellmann, PhD, Cold Spring Harbor Laboratory, NY / University of Zurich, Switzerland
Current position: Research Investigator, Gladstone Institute, San Francisco, CA
- 2007–11 Amy Rappaport, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Associate Director, Gritstone Oncology, San Francisco, CA
- 2007–11 Claudio Scuoppo, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Instructor, Columbia University, New York, NY
- 2007–08 Camile Semighini, PhD, University of Nebraska, Lincoln, NE
Current position: Founder & CEO, InnoCreating Consulting LLC, West Orange, NJ

- 2006–10 Katherine McJunkin, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Tenure-track Investigator, NIH Intramural Research Program, Bethesda, MD
- 2005–10 Prem Premisrirut, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: President & CEO, Mirimus Inc., New York, NY
- 2005–09 Wen Xue, PhD, Stony Brook University, Stony Brook, NY
Current position: Assistant Professor, University of Massachusetts, Worcester, MA
- 2003–07 Darren Burgess, PhD, Watson School of Biological Sciences, Cold Spring Harbor Laboratory, NY
Current position: Assistant Editor, Nature Reviews Cancer, United Kingdom

Past Postdoctoral Fellows

- 2012–20 John P. Morris IV, PhD, University of California, San Francisco, CA
Current position: Assistant Professor, Department of Pharmacology, University of North Carolina, Chapel Hill, NC
- 2015–20 Josef Leibold, MD, University of Tübingen, Germany
Current position: Group Leader, University of Tübingen, Germany
- 2015–20 Marcus Ruscetti, PhD, University of California, Los Angeles, CA
Current position: Assistant Professor, Molecular, Cell & Cancer Biology, University of Massachusetts Medical School, Worcester, MA
- 2014–20 Shauna Houlihan, PhD, Northwestern University-Feinberg School of Medicine, Chicago, IL
Current position: Associate Director, Liver Research, Englander Institute for Precision Medicine, Weill Cornell Medicine, New York, NY
- 2016–19 Katerina Hatzi, PhD, Weill Cornell Medical College, New York, NY
Current position: Senior Scientist, Oncology Biomarker Development, Genentech, San Francisco, CA
- 2016–18 Allison Mayle, PhD, Baylor College of Medicine, Houston, TX
Current position: Assistant Director, DNALC, Cold Spring Harbor Laboratory, New York
- 2013–16 Benedikt Bosbach, PhD, University of Konstanz, Germany
Current position: Principal Scientist, CTI, Pfizer Research, New York
- 2013–15 Cory Rillahan, MD-PhD, The Scripps Research Institute, La Jolla, CA
Current position: Clinical Fellow in Pediatrics, Boston Children's Hospital
- 2012–18 Ana Banito, PhD, Imperial College London, United Kingdom
Current position: Group Leader, German Cancer Research Center (DKFZ), Heidelberg, Germany
- 2012–18 Geulah Livshits, PhD, The Rockefeller University, New York, NY
Current position: Senior Research Analyst, Biotechnology and Pharmaceuticals, Chardan Capital Markets LLC, New York, NY
- 2011–16 Darjus Tschaharganeh, MD, University of Heidelberg, Germany
Current position: Group Leader, German Cancer Research Center (DKFZ), Heidelberg, Germany
- 2011–16 Eusebio Manchado Robles, PhD, Spanish National Cancer Research Center (CNIO), Madrid, Spain
Current position: Senior Principal Scientist, Novartis, Basel, Switzerland
- 2010–15 Kiki (Yu) Liu, PhD, Albert Einstein College of Medicine, New York, NY
Current position: Professor, Sichuan University, Sichuan, China
- 2010–14 Amaia Lujambio, PhD, Spanish National Cancer Research Center (CNIO), Madrid, Spain
Current position: Associate Professor, Mount Sinai School of Medicine, New York, NY
- 2010–14 Iris Appelman, MD, Westphalian Wilhelms University, Münster, Germany
Current position: Physician, University Hospital RWTH Aachen, Germany
- 2010–14 Chong Chen, PhD, University of Michigan, Ann Arbor, MI
Current position: Professor, Sichuan University, Sichuan, China
- 2009–14 Thomas Kitzing, PhD, University of Heidelberg, Germany
Current position: Senior Research Scientist, Philipps University of Marburg, Institute of Pharmacology, Germany
- 2009–13 Anna Saborowski, MD, Hannover Medical School, Germany

- Current position: Physician, Hannover Medical School, Germany
- 2009–12 Jessica Bolden, PhD, Peter MacCallum Cancer Centre, Victoria, Australia
Current position: Postdoctoral Fellow, Swinburne University of Technology, Australia
- 2008–14 Lukas Dow, PhD, Peter MacCallum Cancer Centre, Australia
Current position: Assistant Professor, Weill Cornell Medical College, New York, NY
- 2008–13 Michael Saborowski, MD, University of Leipzig, Germany
Current position: Physician, Hannover Medical School, Germany
- 2007–11 Yuchen Chien, PhD, University of Texas Southwestern, Dallas, TX
Current position: Roche, NJ
- 2007–10 Uli Bialucha, PhD, University College London, UK
Current position: Project Leader, Novartis, Boston, MA
- 2006–14 Cornelius Miething, PhD, University of Frankfurt, Germany
Current position: Group Leader and Medical Fellow, University Medical Center Freiburg, Germany
- 2006–08 Timothy Pardee, MD-PhD, State University of New York at Buffalo, NY
Current position: Assistant Professor, Internal Medicine-Hematology and Oncology, Wake Forest Baptist Medical Center, Winston-Salem, NC
- 2005–11 Johannes Zuber, MD, Humboldt-University of Berlin, Germany
Current position: Leader/Assistant Professor, IMP Vienna, Austria
- 2005–09 Valery Krizhanovsky, PhD, Hebrew University of Jerusalem, Israel
Current position: Assistant Professor, Weizmann Institute, Israel
- 2005–08 Yoshi Hippo, PhD, The University of Tokyo, Japan
Current position: Section Head, National Cancer Center, Japan
- 2004–12 Agustin Chicas, PhD, Hunter College, New York, NY
Current position: Director of Biology/Head of Translational Drug Discovery, Monte Rosa Therapeutics, Boston, MA
- 2004–08 Lars Zender, MD, Hannover Medical School, Germany
Current position: Group Head, Helmholtz Centre for Infection Research, Germany
- 2003–08 Ross Dickins, PhD, Peter MacCallum Cancer Institute, Melbourne, Australia
Current position: Assistant Professor, WEHI, Australia
- 2002–09 Anka Bric, PhD, Colorado State University, Fort Collins, CO
Current position: Co-Owner & Chef, Twyrl Pasta Bistro, Arlington, MA
- 2002–06 Hans-Guido Wendel, MD-PhD, University of Edinburgh, UK & Technical University of Aachen, Germany
Current position: Member, Cancer Biology & Genetics, MSKCC
- 2002–06 Michael Hemann, PhD, Johns Hopkins University, Baltimore, MD
Current position: Associate Professor, Massachusetts Institute of Technology, Cambridge, MA
- 2001–06 Jack Zilfou, PhD, Fox Chase Cancer Center, Temple University, Philadelphia, PA
Current position: Founder & CEO, Zilfou Therapeutics Inc., Philadelphia, PA
- 2000–06 Masashi Narita, MD-PhD, Osaka University School of Medicine, Japan
Current position: Professor, Cancer Research UK, Cambridge Research Institute, Cambridge, UK