

## Scott William Lowe, Ph.D.

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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  
2011–2022 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)

2009–2022 Editorial Board, Cell  
2002–pres. Editorial Board, Cancer Cell  
2023–pres. Editorial Board, Cancer Discovery

#### 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
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
2015–2022	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
2009–2020	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)**

2021	Organizer, “Precision Oncology: Translating Discovery to the Clinic”, Keystone
2019	Organizer, “The Tumour Cell: Plasticity, Progression and Therapy”, Nature-MSKCC
2017/19/21/23	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**

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  
 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

2023 Rose Winer Levin Lecture, Dana Farber Cancer Institute, Boston, MA  
 2023 Keynote, iFIT International Conference – Image Guided and Functionally Instructed Tumor Therapies, Salzburg, Austria  
 2023 Keynote, Gordon Research Seminar – Pancreatic Diseases, Mechanisms and Therapeutics in Pancreatic Diseases, Lucca, Italy  
 2023 Keynote, 16<sup>th</sup> bis International Wolfsberg Conference – “*Wolfsberg Meeting on Molecular Radiation Biology/Oncology*” - Molecular Radiation Biology/Oncology, Oslo, Norway  
 2022 Keynote, Columbia University Digestive & Liver Diseases Research Center Retreat, New York, NY (virtual)  
 2022 Keynote, CRCL International Symposium, Lyon, France  
 2021 6th Annual Meeting of the Spanish Network on Cell Senescence, SENESTHERAPY-III, Santiago de Compostela, Spain  
 2021 Moffitt Cancer Center Distinguished Lecturer Symposium, Tampa, FL (virtual)  
 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**

1. Burdziak, C, Alonso-Curbelo, D, Walle, T, Reyes, J, Barriga, FM, Haviv, D, Xie, Y, Zhao, Z, Zhao, CJ, Chen, HA Chaudhary, O, Masilionis, I, Choo, ZN, Gao, V, Luan, W, Wuest, A, Ho, YJ, Wei, Y, Quail, DF, Koche, R, Mazutis, L, Chaligne, R, Nawy, T, Lowe, SW, Pe'er, D. (2023). Epigenetic plasticity cooperates with cell-cell interactions to direct pancreatic tumorigenesis. *Science*. 380(6645):eadd5327. PMID: 37167403. PMCID: PMC10316746.
2. Barriga, FM, Tsanov, KM, Ho, YJ, Sohail, N, Zhang, A, Baslan, T, Wuest, AN, Del Priore, I, Meskauskaite, B, Livshits, G, Alonso-Curbelo, D, Simon, J, Chaves-Perez, A, Bar-Sagi, D, Iacobuzio-Donahue, CA, Notta, F, Chaligne, R, Sharma, R, Pe'er, D, Lowe, SW. (2022). MACHETE identifies interferon-encompassing chromosome 9p21.3 deletions as mediators of immune evasion and metastasis. *Nat Cancer*. 3:1367-85. PMID: 36344707. PMCID: PMC9701143.
3. Baslan, T, Morris IV, JP, Zhao, Z, Reyes, J, Ho, YJ, Tsanov, KM, Bermeo, J, Tian, S, Zhang, S, Askan, G, Yavas, A, Lecomte, N, Erakky, A, Varghese, AM, Zhang, A, Kendall, J, Ghiban, E, Chorbadjiev, L, Wu, J, Dimitrova, N, Chadalavada, K, Nanjangud, GJ, Bandlamudi, C, Gong, Y, Donoghue, MTA, Socci, ND, Krasnitz, A, Notta, F, Leach, SD, Iacobuzio-Donahue, CA, Lowe, SW. (2022). Ordered and deterministic cancer genome evolution after p53 loss. *Nature*. 608(7924):795-802. PMID: 35978189. PMCID: PMC9402436.
4. 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. PMCID: PMC8482641.
5. 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.
6. 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.
7. 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.
8. 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.

9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. Scuoppo, C, Miething, C, Lindqvist, L, Reyes, J, Ruse, C, Appelmann, 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.

22. Dickins, RA, McJunkin, K, Hernando, E, Premssirut, 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.
23. 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.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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**

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1. Burdziak C, Zhao CJ, Haviv D, Alonso-Curbelo D, Lowe SW, Pe'er D. (2023). scKINETICS: inference of regulatory velocity with single-cell transcriptomics data. *Bioinformatics.* 39 (39 Supp 1) i394-i403. PMID: 37387147. PMCID: PMC10311321.
2. Chibaya L, Murphy KC, DeMarco KD, Gopalan S, Liu H, Parikh CN, Lopez-Diaz Y, Faulkner M, Li J, Morris JP 4th, Ho YJ, Chana SK, Simon J, Luan W, Kulick A, de Stanchina E, Simin K, Zhu LJ, Fazio TG, Lowe SW, Ruscetti M. (2023). *Nat Cancer.* 4(6):872-892. EZH2 inhibition remodels the inflammatory senescence-associated secretory phenotype to potentiate pancreatic cancer immune surveillance. PMID: 37142692.

3. Zhu C, Soto-Feliciano YM, Morris JP, Huang CH, Koche RP, Ho YJ, Banito A, Chen CW, Shroff A, Tian S, Livshits G, Chen CC, Fennell M, Armstrong SA, Allis CD, Tschaharganeh DF, Lowe SW. (2023). *Elife*. 12. PMID: 37261974. PMCID: PMC10279454.
4. Schwörer S, Cimino FV, Ros M, Tsanov KM, Ng C, Lowe SW, Carmona-Fontaine C, Thompson CB. (2023). Hypoxia Potentiates the Inflammatory Fibroblast Phenotype Promoted by Pancreatic Cancer Cell-Derived Cytokines. *Cancer Res*. 83(10):1596-1610. PMID: 36912618.
5. Hu J, Sánchez-Rivera FJ, Wang Z, Johnson GN, Ho YJ, Ganesh K, Umeda S, Gan S, Mujal AM, Delconte RB, Hampton JP, Zhao H, Kottapalli S, de Stanchina E, Iacobuzio-Donahue CA, Pe'er D, Lowe SW, Sun JC, Massagué J. (2023). STING inhibits the reactivation of dormant metastasis in lung adenocarcinoma. *Nature*. 616(7958):806-813. PubMed PMID: 36991128.
6. Chen HA, Ho YJ, Mezzadra R, Adrover JM, Smolkin R, Zhu C, Woess K, Bernstein N, Schmitt G, Fong L, Luan W, Wuest A, Tian S, Li X, Broderick C, Hendrickson RC, Egeblad M, Chen Z, Alonso-Curbelo D, Lowe SW. (2023). Senescence rewires microenvironment sensing to facilitate antitumor immunity. *Cancer Discov*. 13(2):432-453. PMID: 36302222. PMCID: PMC9901536.
7. Soto-Feliciano, YM, Sanchez-Rivera, FJ, Perner, F, Barrows, DW, Kasthuber, ER, Ho, YJ, Carroll, T, Xiong, Y, Anand, D, Soshnev, AA, Gates, L, Beytagh, MC, Cheon, D, Gu, S, Liu, XS, Krivtsov, AV, Meneses, M, de Stanchina, E, Stone, RM, Armstrong, SA, Lowe, SW, Allis, CD. (2023). A molecular switch between mammalian MLL complexes dictates response to Menin-MLL inhibition. *Cancer Discov*. 13(1):146-69. PMID: 36264143. PMCID: PMC9827117.
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## LABORATORY MEMBERS

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### Current Graduate Students

- 2023– Hailey Goldberg, BS, University of Georgia, Athens, GA
- 2022– Isabella Del Priore, BS, Tufts University, Medford, MA
- 2020– Margaret Kennedy, BS, The College of New Jersey, Ewing, NJ
- 2020– Caroline Broderick, BS, University of California, Santa Barbara, CA

### Current Postdoctoral Fellows

- 2023– Nailin Ratnayake, PhD, Stanford University, Stanford, CA
- 2022– Domhnall McHugh, PhD, Imperial College London, United Kingdom
- 2022– Valentin Barthelet, PhD, University of Glasgow, Scotland, United Kingdom
- 2022– Andrea Chaikovskiy, PhD, Stanford University, Stanford, CA
- 2021– Clemens Hinterleitner, MD, Johannes-Gutenberg-University, School of Medicine, Mainz, Germany
- 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

### Past Graduate Students

- 2016–22 Stella Paffenholz, MS, German Cancer Research Center (DKFZ), Heidelberg, Germany  
Current position: Venture Capital Associate, Nextech Invest, Boston, MA
- 2016–22 Sean (Hsuan-An) Chen, BS, National Taiwan University, Taipei, Taiwan  
Current position: Postdoctoral Associate, The Rockefeller University, New York, NY
- 2015–21 Grace (Xiang) Li, PhD, Weill Cornell Medical College, New York, NY  
Current position: Postdoctoral Fellow, Harvard University, Cambridge, MA
- 2017–21 Corina Amor Vegas, MD, PhD, Gerstner Sloan Kettering Graduate School, New York, NY  
Current position: CSHL Independent Fellow, Cold Spring Harbor Laboratory, NY

- 2014–23 Timour Baslan, PhD, Stony Brook University, Stony Brook, NY  
Current Position: Assistant Professor, University of Pennsylvania
- 2014–19 Evangelia Loizou, PhD, Weill Cornell Medical College, New York, NY  
Current position: Senior Research Associate, Intelligencia, 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 Scoppo, 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 Premrirut, 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
- 2001-08 Sabrina Nuñez, PhD, Yale School of Medicine, New Haven CT  
Current position: Associate Professor/Director of Continuous Quality Improvement Strategy
- 2000-03 Zaher Nahle, MPA, Harvard University, Cambridge MA; PhD, Stony Brook University, Stony Brook, NY  
Current position: CSO and Vice President for Research at Solve ME/CFS Initiative
- 1997-98 Rachel Wallace-Brodeur, MS and Med, University of Vermont, Burlington, VT  
Current position: Project Director, Vermont Child Health Improvement Program, The University of Vermont, Burlington, VT
- 1995-00 Julia Polyakova: MS, Moscow State University, Moscow, Russia, Ph.D., Stony Brook University, Stony Brook, NY  
Current position: Last known position, Scientific Constultant, SearchBug.com

### Past Postdoctoral Fellows

- 2017–23 Francisco Barriga, PhD, University Pompeu Fabra, Barcelona, Barcelona, Spain  
Current position: Group Leader, Vall D’Hebron Institute of Oncology, Barcelona, Spain
- 2020–22 Bryan Ngo, PhD, Weill Cornell Medical College, New York, NY  
Group Leader, Altos Labs, San Francisco, CA
- 2016–21 Francisco Sanchez-Rivera, PhD, Massachusetts Institute of Technology, Cambridge, MA  
Current position: Assistant Professor of Biology, Massachusetts Institute of Technology, Cambridge, MA
- 2013–21 Direna Alonso Curbelo, PhD, Autonomous University of Madrid, Spain  
Current position: Junior Group Leader, Cancer Science, IRB Barcelona, Spain
- 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 Pediatric Hematology and Oncology, Dana-Farber Cancer Institute, Boston, MA
- 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 Appelmann, 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, Dept. of Gastroenterology, Hepatology and Endocrinology, Germany
- 2009–12 Jessica Bolden, PhD, Peter MacCallum Cancer Centre, Victoria, Australia  
Current position: Postdoctoral Fellow, Swinburne University of Technology, Hawthorn, Victoria, 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: Senior Group Leader, IMP Vienna, Austria
- 2005–09 Valery Krizhanovsky, PhD, Hebrew University of Jerusalem, Israel  
Current position: Associate Professor, Weizmann Institute of Science, 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: Professor, Massachusetts Institute of Technology, Cambridge, MA
- 2001–06 Jack Zilfou, PhD, Fox Chase Cancer Center, Temple University, Philadelphia, PA, JD, Widener University Commonwealth Law School, Harrisburg, PA  
Current position: Founder & CEO, Zilfou Therapeutics Inc., Philadelphia, PA  
Current position: Founder & CEO, Zilfou Law LLC., Philadelphia, PA
- 1998–05 Elisa de Stanchina, PhD, University of Pavia, Pavia, Italy  
Current Position: Director, Antitumor Assessment Core, MSKCC, New York, NY
- 1998–01 Gerardo Ferbeyre, PhD, University of Montreal, Montreal, QC  
Current position: Principal Scientist/Full Professor, Département de biochimie Faculté de Médecine, Université de Montréal, Montreal, QC
- 1998-01 Clemens Schmitt, PhD, Charité Universitätsmedizin Berlin, Germany, MD, Johannes Gutenberg University, Mainz, Germany  
Current position: Director of the Molecular Cancer Research Center, Charité Universitätsmedizin Berlin, Germany  
Current position: Professor, Johannes Kepler University, Linz Austria
- 1997–02 Maria Soengas, PhD, Universidad Autónoma de Madrid, Madrid, Spain  
Current position: Senior Scientist CNIO, Spain

- 1995–01 Athena Lin, PhD, University of Massachusetts Amherst, Amherst, MA  
Current Position: Unknown
- 2000–06 Masashi Narita, MD-PhD, Osaka University School of Medicine, Japan  
Current position: Professor, Cancer Research UK, Cambridge Research Institute, Cambridge, UK