Stanford



Michael Bassik

Associate Professor of Genetics

Bio

ACADEMIC APPOINTMENTS

- Associate Professor, Genetics
- Member, Bio-X
- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

PROFESSIONAL EDUCATION

- Postdoctoral Fellow, University of California, San Francisco , Cellular and Molecular Pharmacology (2013)
- Ph.D., Harvard University , Biological and Biomedical Sciences (2005)
- B.S., University of Wisconsin, Madison , Biochemistry and Molecular Biology (1996)

LINKS

- Bassik Lab Website: http://bassiklab.stanford.edu/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

We are an interdisciplinary lab focused on two major areas:

(1) we seek to understand mechanisms of cancer growth and drug resistance in order to find new therapeutic targets

(2) we study mechanisms by which macrophages and other cells take up diverse materials by endocytosis and phagocytosis; these substrates range from bacteria, viruses, and cancer cells to drugs and protein toxins.

In each case, the processes we study represent both fascinating basic problems in cell biology and important therapeutic targets. A complementary interest is in the characterization of novel small molecule drugs and identification of synergistic drug interactions, with the aim of finding new treatments for diseases such as cancer and neurodegeneration.

To accomplish these goals, we develop and use new technologies for high-throughput functional genomics. These include ultra-complex CRISPR/Cas9 and RNAi-based libraries for genome-wide screens, systematic pairwise genetic interaction maps, and strategies for targeted mutagenesis. We combine

these techniques with microscopy, biochemistry, cell biology, and bioinformatics, tailored to each problem. Together with collaborators, we use these tools to annotate the genome in health and disease states.

Teaching

COURSES

2026-27

- Advanced Genetics: GENE 205 (Win)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

2025-26

- Advanced Genetics: GENE 205 (Win)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

2024-25

- Advanced Genetics: GENE 205 (Win)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

2023-24

- Advanced Genetics: GENE 205 (Win)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Julia Bauman, Geo Janer Carattini, Darren Lam, Oswaldo Martinez, Matthew Matrongolo, Paloma Ruiz, Lucy Zhang

Postdoctoral Faculty Sponsor

Derek Bogdanoff, Chloe Ding, Kyuho Han, Alun Vaughan Jackson, Anthony Venida, Yingfeng Zhang

Doctoral Dissertation Advisor (AC)

Peter Du

Doctoral Dissertation Co-Advisor (AC)

Cesar Garcia

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Data Science (PhD Program)
- Cancer Biology (PhD Program)
- Genetics (PhD Program)

Publications

PUBLICATIONS

- **Inter-cellular CRISPR screens reveal regulators of cancer cell phagocytosis.** *Nature*
  Kamber, R. A., Nishiga, Y., Morton, B., Banuelos, A. M., Barkal, A. A., Vences-Catalan, F., Gu, M., Fernandez, D., Seoane, J. A., Yao, D., Liu, K., Lin, S., Spees, et al
  2021

- **CRISPR screens in cancer spheroids identify 3D growth-specific vulnerabilities.** *Nature*

Han, K., Pierce, S. E., Li, A., Spees, K., Anderson, G. R., Seoane, J. A., Lo, Y. H., Dubreuil, M., Olivas, M., Kamber, R. A., Wainberg, M., Kostyrko, K., Kelly, et al

2020; 580 (7801): 136-141

- **High-Throughput Discovery and Characterization of Human Transcriptional Effectors.** *Cell*

  Tycko, J. n., DelRosso, N. n., Hess, G. T., Aradhana, n. n., Banerjee, A. n., Mukund, A. n., Van, M. V., Ego, B. K., Yao, D. n., Spees, K. n., Suzuki, P. n., Marinov, G. K., Kundaje, et al

  2020

- **Retro-2 protects cells from ricin toxicity by inhibiting ASNA1-mediated ER targeting and insertion of tail-anchored proteins.** *eLife*

  Morgens, D. W., Chan, C., Kane, A. J., Weir, N. R., Li, A., Dubreuil, M. M., Tsui, C. K., Hess, G. T., Lavertu, A., Han, K., Polyakov, N., Zhou, J., Handy, et al

  2019; 8

- **CRISPR-Cas9 screens identify regulators of antibody-drug conjugate toxicity.** *Nature chemical biology*

  Tsui, C. K., Barfield, R. M., Fischer, C. R., Morgens, D. W., Li, A., Smith, B. A., Gray, M. A., Bertozzi, C. R., Rabuka, D., Bassik, M. C.

  2019

- **Identification of phagocytosis regulators using magnetic genome-wide CRISPR screens.** *Nature genetics*

  Haney, M. S., Bohlen, C. J., Morgens, D. W., Ousey, J. A., Barkal, A. A., Tsui, C. K., Ego, B. K., Levin, R., Kamber, R. A., Collins, H., Tucker, A., Li, A., Vorselen, et al

  2018

- **Programmable synthetic cytokine receptors polarize macrophages to user-defined functional states** *bioRxiv*

  Lunger, J. C., Sant'Anna, L. E., Salcido-Alcantar, A., Arroyo Hornero, R., Cho, W., Vaughan-Jackson, A., Gu, M., Liu, J. Y., Beckett, A. N., Parrilla-Garcia, J., Ramakrishna, S., Bassik, M. C., Daniels, et al

  2026

- **CRISPR screens in human neural organoids and assembloids.** *Nature protocols*

  Meng, X., Reis, N., Bassik, M. C., Pașca, S. P.

  2025

- **Reduced Cas9 transgene silencing by incorporation of intron sequences.** *Nature communications*

  Arana, S., Du, P. P., Vaughan-Jackson, A., Enright, N., Spees, K., Valbuena, R., Garcia, C. A., Nguyen, T., Venida, A., Seczynska, M., Bintu, L., Lehner, P. J., Prolo, et al

  2025; 16 (1): 10656

- **A peptide display system identifies a potent mutant β-melanocyte-stimulating hormone agonist of melanocortin-4 receptor.** *Cell genomics*

  Lin, A., Spees, K., Valbuena, R., Wirbel, J., Natarajan, A., Enright, N., Bhatt, A. S., Bassik, M. C.

  2025: 100988

- **Large-scale CRISPR screening in primary human 3D gastric organoids enables comprehensive dissection of gene-drug interactions.** *Nature communications*

  Lo, Y. H., Horn, H. T., Huang, M. F., Yu, W. C., Young, C. M., Liu, Q., Tomaske, M., Towers, M., Dominguez, A., Bassik, M. C., Lee, D. F., Qi, L. S., Weissman, et al

  2025; 16 (1): 7566

- **Defined human tri-lineage brain microtissues.** *bioRxiv : the preprint server for biology*

  Uenaka, T., Jung, S., Kumar, I., Vodehnal, K., Rastogi, M., Yoo, Y., Koontz, M., Thome, C., Li, W., Chan, T., Green, E. M., Chesnov, K., Sun, et al

  2025

- **A genome-wide, CRISPR-based screen reveals new requirements for translation initiation and ubiquitination in driving adipogenic fate change.** *Genes & development*

  Turn, R. E., Hilgendorf, K. I., Johnson, C. T., Han, K., Aziz-Zanjani, M. O., Swails Bollinger, S., Domizi, P., Cheng, R., Rabiee, A., Zhu, Y., Jiang, Z., Asthana, A., Demeter, et al

  2025

- **Monocytes use protrusive forces to generate migration paths in viscoelastic collagen-based extracellular matrices.** *Proceedings of the National Academy of Sciences of the United States of America*

  Adebowale, K., Allan, C., Ha, B., Saraswathibhatla, A., Zhu, J., Indana, D., Popescu, M. C., Demirdjian, S., Martinez, H. A., Esclamado, A., Yang, J., Bassik, M. C., Franck, et al

2025; 122 (25): e2309772122

- **Machine-guided dual-objective protein engineering for deimmunization and therapeutic functions.** *Cell systems*
  Wolfsberg, E., Paul, J. S., Tycko, J., Chen, B., Bassik, M. C., Bintu, L., Alizadeh, A. A., Gao, X. J.
  2025: 101299
- **Integrative multiomic approaches reveal ZMAT3 and p21 as conserved hubs in the p53 tumor suppression network.** *Cell death and differentiation*
  Boutelle, A. M., Mabene, A. R., Yao, D., Xu, H., Wang, M., Tang, Y. J., Lopez, S. S., Sinha, S., Demeter, J., Cheng, R., Benard, B. A., McCrea, E. M., Valente, et al
  2025
- **Long-range regulation of transcription scales with genomic distance in a gene-specific manner.** *Molecular cell*
  Jensen, C. L., Chen, L. F., Swigut, T., Crocker, O. J., Yao, D., Bassik, M. C., Ferrell, J. E., Boettiger, A. N., Wysocka, J.
  2024
- **Development of compact transcriptional effectors using high-throughput measurements in diverse contexts.** *Nature biotechnology*
  Tycko, J., Van, M. V., , DelRosso, N., Ye, H., Yao, D., Valbuena, R., Vaughan-Jackson, A., Xu, X., Ludwig, C., Spees, K., Liu, K., Gu, M., et al
  2024
- **An SLC12A9-dependent ion transport mechanism maintains lysosomal osmolarity.** *Developmental cell*
  Levin-Konigsberg, R., Mitra, K., Spees, K., Nigam, A., Liu, K., Januel, C., Hivare, P., Arana, S. M., Prolo, L. M., Kundaje, A., Leonetti, M. D., Krishnan, Y., Bassik, et al
  2024
- **CRISPR-Cas9 screens reveal regulators of ageing in neural stem cells.** *Nature*
  Ruetz, T. J., Pogson, A. N., Kashiwagi, C. M., Gagnon, S. D., Morton, B., Sun, E. D., Na, J., Yeo, R. W., Leeman, D. S., Morgens, D. W., Tsui, C. K., Li, A., Bassik, et al
  2024
- **Deciphering the impact of genomic variation on function.** *Nature*
  2024; 633 (8028): 47-57
- **Mapping spatial organization and genetic cell-state regulators to target immune evasion in ovarian cancer.** *Nature immunology*
  Yeh, C. Y., Aguirre, K., Laveroni, O., Kim, S., Wang, A., Liang, B., Zhang, X., Han, L. M., Valbuena, R., Bassik, M. C., Kim, Y. M., Plevritis, S. K., Snyder, et al
  2024
- **GCN2 is a determinant of the response to WEE1 kinase inhibition in small-cell lung cancer.** *Cell reports*
  Drainas, A. P., Hsu, W. H., Dallas, A. E., Poltorack, C. D., Kim, J. W., He, A., Coles, G. L., Baron, M., Bassik, M. C., Sage, J.
  2024; 43 (8): 114606
- **Pathways for macrophage uptake of cell-free circular RNAs.** *Molecular cell*
  Amaya, L., Abe, B., Liu, J., Zhao, F., Zhang, W. L., Chen, R., Li, R., Wang, S., Kamber, R. A., Tsai, M. C., Bassik, M. C., Majeti, R., Chang, et al
  2024
- **Development of combination therapies with BTK inhibitors and dasatinib to treat CNS-infiltrating E2A-PBX1+/preBCR+ ALL.** *Blood advances*
  Gentile, G., Poggio, T., Catalano, A., Voutilainen, M., Lahnalampi, M., Andrade-Martinez, M., Ma, T., Sankowski, R., Goncharenko, L., Tholen, S., Han, K., Morgens, D. W., Prinz, et al
  2024
- **Multicenter integrated analysis of noncoding CRISPRi screens.** *Nature methods*
  Yao, D., Tycko, J., Oh, J. W., Bounds, L. R., Gosai, S. J., Lataniotis, L., Mackay-Smith, A., Doughty, B. R., Gabdank, I., Schmidt, H., Guerrero-Altamirano, T., Siklenka, K., Guo, et al
  2024
- **Genome-Wide CRISPR/Cas9 Screening Reveals Multiple Endocytic Pathways for the Chemoattractant Receptor FPR1 in Neutrophil-Like Cells**
  Akdogan, E., Lundgren, S. M., Kamber, R. A., Bassik, M. C., Collins, S. R.
  AMER SOC CELL BIOLOGY.2024

- **A Lectin-Drug Conjugate CRISPR Screen Identifies Sortilin as the Lysosomal Trafficking Receptor for Galectin-1**
  Donnelly, J., Kamber, R., Wisnovsky, S., Roberts, D., Peltan, E., Bassik, M.
  OXFORD UNIV PRESS INC.2023: 1055

- **Cell volume expansion and local contractility drive collective invasion of the basement membrane in breast cancer.** *Nature materials*
  Chang, J., Saraswathibhatla, A., Song, Z., Varma, S., Sanchez, C., Alyafei, N. H., Indana, D., Slyman, R., Srivastava, S., Liu, K., Bassik, M. C., Marinkovich, M. P., Hodgson, et al
  2023

- **An encyclopedia of enhancer-gene regulatory interactions in the human genome.** *bioRxiv : the preprint server for biology*
  Gschwind, A. R., Mualim, K. S., Karbalayghareh, A., Sheth, M. U., Dey, K. K., Jagoda, E., Nurtdinov, R. N., Xi, W., Tan, A. S., Jones, H., Ma, X. R., Yao, D., Nasser, et al
  2023

- **Elucidating the cellular determinants of targeted membrane protein degradation by lysosome-targeting chimeras.** *Science (New York, N.Y.)*
  Ahn, G., Riley, N. M., Kamber, R. A., Wisnovsky, S., Moncayo von Hase, S., Bassik, M. C., Banik, S. M., Bertozzi, C. R.
  2023; 382 (6668): eadf6249

- **Assembloid CRISPR screens reveal impact of disease genes in human neurodevelopment** *NATURE*
  Meng, X., Yao, D., Imaizumi, K., Chen, X., Kelley, K. W., Reis, N., Thete, M., Arjun McKinney, A., Kulkarni, S., Panagiotakos, G., Bassik, M. C., Pasca, S. P.
  2023

- **Assembloid CRISPR screens reveal impact of disease genes in human neurodevelopment.** *Nature*
  Meng, X., Yao, D., Imaizumi, K., Chen, X., Kelley, K. W., Reis, N., Thete, M. V., Arjun McKinney, A., Kulkarni, S., Panagiotakos, G., Bassik, M. C., Pașca, S. P.
  2023

- **Single-molecule imaging reveals distinct elongation and frameshifting dynamics between frames of expanded RNA repeats in C9ORF72-ALS/FTD.** *Nature communications*
  Latallo, M. J., Wang, S., Dong, D., Nelson, B., Livingston, N. M., Wu, R., Zhao, N., Stasevich, T. J., Bassik, M. C., Sun, S., Wu, B.
  2023; 14 (1): 5581

- **Death-seq identifies regulators of cell death and senolytic therapies.** *Cell metabolism*
  Colville, A., Liu, J. Y., Rodriguez-Mateo, C., Thomas, S., Ishak, H. D., Zhou, R., Klein, J. D., Morgens, D. W., Goshayeshi, A., Salvi, J. S., Yao, D., Spees, K., Dixon, et al
  2023

- **A genome-wide genetic screen uncovers determinants of human pigmentation.** *Science (New York, N.Y.)*
  Bajpai, V. K., Swigut, T., Mohammed, J., Naqvi, S., Arreola, M., Tycko, J., Kim, T. C., Pritchard, J. K., Bassik, M. C., Wysocka, J.
  2023; 381 (6658): eade6289

- **High-throughput functional characterization of combinations of transcriptional activators and repressors.** *Cell systems*
  Mukund, A. X., Tycko, J., Allen, S. J., Robinson, S. A., Andrews, C., Sinha, J., Ludwig, C. H., Spees, K., Bassik, M. C., Bintu, L.
  2023

- **Parallel CRISPR-Cas9 screens identify mechanisms of PLIN2 and lipid droplet regulation.** *Developmental cell*
  Roberts, M. A., Deol, K. K., Mathiowetz, A. J., Lange, M., Leto, D. E., Stevenson, J., Hashemi, S. H., Morgens, D. W., Easter, E., Heydari, K., Nalls, M. A., Bassik, M. C., Kampmann, et al
  2023

- **Direct mapping of ligandable tyrosines and lysines in cells with chiral sulfonyl fluoride probes.** *Nature chemistry*
  Chen, Y., Craven, G. B., Kamber, R. A., Cuesta, A., Zhersh, S., Moroz, Y. S., Bassik, M. C., Taunton, J.
  2023

- **High-throughput discovery and characterization of viral transcriptional effectors in human cells.** *Cell systems*
  Ludwig, C. H., Thurm, A. R., Morgens, D. W., Yang, K. J., Tycko, J., Bassik, M. C., Glaunsinger, B. A., Bintu, L.
  2023; 14 (6): 482

- **Co-transcriptional genome surveillance by HUSH is coupled to termination machinery.** *Molecular cell*
  Spencley, A. L., Bar, S., Swigut, T., Flynn, R. A., Lee, C. H., Chen, L., Bassik, M. C., Wysocka, J.

2023

- **CasKAS: direct profiling of genome-wide dCas9 and Cas9 specificity using ssDNA mapping.** *Genome biology*
  Marinov, G. K., Kim, S. H., Bagdatli, S. T., Higashino, S. I., Trevino, A. E., Tycko, J., Wu, T., Bintu, L., Bassik, M. C., He, C., Kundaje, A., Greenleaf, W. J.
  2023; 24 (1): 85
- **An SPNS1-dependent lysosomal lipid transport pathway that enables cell survival under choline limitation.** *Science advances*
  Scharenberg, S. G., Dong, W., Ghoochani, A., Nyame, K., Levin-Konigsberg, R., Krishnan, A. R., Rawat, E. S., Spees, K., Bassik, M. C., Abu-Remaileh, M.
  2023; 9 (16): eadf8966
- **Large-scale mapping and mutagenesis of human transcriptional effector domains.** *Nature*
  DelRosso, N., Tycko, J., Suzuki, P., Andrews, C., , Mukund, A., Liongson, I., Ludwig, C., Spees, K., Fordyce, P., Bassik, M. C., Bintu, L.
  2023
- **A novel ammonium transporter functions as a lysosomal detoxifier**
  Konigsberg, R., Nigam, A., Mitra, K., Spees, K., Hivare, P., Krishnan, Y., Bassik, M. C.
  AMER SOC CELL BIOLOGY.2023: 1112-1113
- **A BORC-dependent molecular pathway for vesiculation of cell corpse phagolysosomes.** *Current biology : CB*
  Fazeli, G., Levin-Konigsberg, R., Bassik, M. C., Stigloher, C., Wehman, A. M.
  2023
- **Niclosamide Inhibits Proliferation of Leukemia Cells and Synergizes with Chemotherapy**
  Mark, K., Robbins, M., Gamble, A., Chae, H., Bassik, M., Han, K., Sakamoto, K. M.
  AMER SOC HEMATOLOGY.2022: 8870-8871
- **A conserved megaprotein-based molecular bridge critical for lipid trafficking and cold resilience.** *Nature communications*
  Wang, C., Wang, B., Pandey, T., Long, Y., Zhang, J., Oh, F., Sima, J., Guo, R., Liu, Y., Zhang, C., Mukherjee, S., Bassik, M., Lin, et al
  2022; 13 (1): 6805
- **The N6-methyladenosine methyltransferase METTL16 enables erythropoiesis through safeguarding genome integrity.** *Nature communications*
  Yoshinaga, M., Han, K., Morgens, D. W., Horii, T., Kobayashi, R., Tsuruyama, T., Hia, F., Yasukura, S., Kajiya, A., Cai, T., Cruz, P. H., Vandenbon, A., Suzuki, et al
  2022; 13 (1): 6435
- **Genome-wide CRISPR screen reveals v-ATPase as a drug target to lower levels of ALS protein ataxin-2.** *Cell reports*
  Kim, G., Nakayama, L., Blum, J. A., Akiyama, T., Boeynaems, S., Chakraborty, M., Couthouis, J., Tassoni-Tsuchida, E., Rodriguez, C. M., Bassik, M. C., Gitler, A. D.
  2022; 41 (4): 111508
- **Spatial epitope barcoding reveals clonal tumor patch behaviors.** *Cancer cell*
  Rovira-Clave, X., Drainas, A. P., Jiang, S., Bai, Y., Baron, M., Zhu, B., Dallas, A. E., Lee, M. C., Chu, T. P., Holzem, A., Ayyagari, R., Bhattacharya, D., McCaffrey, et al
  2022
- **Systematic discovery of recombinases for efficient integration of large DNA sequences into the human genome.** *Nature biotechnology*
  Durrant, M. G., Fanton, A., Tycko, J., Hinks, M., Chandrasekaran, S. S., Perry, N. T., Schaepe, J., Du, P. P., Lotfy, P., Bassik, M. C., Bintu, L., Bhatt, A. S., Hsu, et al
  2022
- **Identification of orphan ligand-receptor relationships using a cell-based CRISPRa enrichment screening platform.** *eLife*
  Siepe, D. H., Henneberg, L. T., Wilson, S. C., Hess, G. T., Bassik, M. C., Zinn, K., Garcia, K. C.
  2022; 11
- **Genome-scale CRISPR screening reveals that C3aR signaling is critical for rapid capture of fungi by macrophages.** *PLoS pathogens*
  Cohen, A., Jeng, E. E., Voorhies, M., Symington, J., Ali, N., Rodriguez, R. A., Bassik, M. C., Sil, A.
  2022; 18 (9): e1010237

- **Functional characterization of the PI3K/AKT/MTOR signaling pathway for targeted therapy in B-precursor acute lymphoblastic leukemia.** *Cancer gene therapy*
  Gruninger, P. K., Uhl, F., Herzog, H., Gentile, G., Andrade-Martinez, M., Schmidt, T., Han, K., Morgens, D. W., Bassik, M. C., Cleary, M. L., Gorka, O., Zeiser, R., GroSS, et al
  2022
- **Ribosome stalling during selenoprotein translation exposes a ferroptosis vulnerability.** *Nature chemical biology*
  Li, Z., Ferguson, L., Deol, K. K., Roberts, M. A., Magtanong, L., Hendricks, J. M., Mousa, G. A., Kilinc, S., Schaefer, K., Wells, J. A., Bassik, M. C., Goga, A., Dixon, et al
  2022
- **Pathogenic or benign?** *Nature biotechnology*
  Du, P. P., Liu, K., Bassik, M. C., Hess, G. T.
  2022
- **Small molecule C381 targets the lysosome to reduce inflammation and ameliorate disease in models of neurodegeneration.** *Proceedings of the National Academy of Sciences of the United States of America*
  Vest, R. T., Chou, C. C., Zhang, H., Haney, M. S., Li, L., Laqtom, N. N., Chang, B., Shuken, S., Nguyen, A., Yerra, L., Yang, A. C., Green, C., Tanga, et al
  2022; 119 (11): e2121609119
- **Small molecule C381 targets the lysosome to reduce inflammation and ameliorate disease in models of neurodegeneration** *Proc Natl Acad Sci U S A .*
  Vest*, R. T., Chou*, C., Zhang, H., Haney, M. S., Li, L., Laqtom, N. N., Chang, B., Shuken, S., Nguyen, A., Yerra, L., Yang, A. C., Green, C., Tanga, et al
  2022; 119 (11): e2121609119
- **Genome-Wide CRISPR screens reveal specific ligands for glycan-binding immune checkpoint receptors**
  Wisnovsky, S., Mockl, L., Malaker, S. A., Pedram, K., Hess, G. T., Riley, N. M., Gray, M. A., Smith, B. A. H., Bassik, M. C., Moerner, W. E., Bertozzi, C. R.
  OXFORD UNIV PRESS INC.2021: 1682-1683
- **An engineered transcriptional reporter of protein localization identifies regulators of mitochondrial and ER membrane protein trafficking in high-throughput CRISPRi screens.** *eLife*
  Coukos, R. W., Yao, D., Sanchez, M. L., Strand, E. T., Olive, M. E., Udeshi, N. D., Weissman, J. S., Carr, S. A., Bassik, M. C., Ting, A. Y.
  2021; 10
- **LKB1 inactivation modulates chromatin accessibility to drive metastatic progression.** *Nature cell biology*
  Pierce, S. E., Granja, J. M., Corces, M. R., Brady, J. J., Tsai, M. K., Pierce, A. B., Tang, R., Chu, P., Feldser, D. M., Chang, H. Y., Bassik, M. C., Greenleaf, W. J., Winslow, et al
  2021
- **A genome-wide atlas of co-essential modules assigns function to uncharacterized genes.** *Nature genetics*
  Wainberg, M., Kamber, R. A., Balsubramani, A., Meyers, R. M., Sinnott-Armstrong, N., Hornburg, D., Jiang, L., Chan, J., Jian, R., Gu, M., Shcherbina, A., Dubreuil, M. M., Spees, et al
  2021
- **The AMBRA1 E3 ligase adaptor regulates the stability of cyclinD.** *Nature*
  Chaikovsky, A. C., Li, C., Jeng, E. E., Loebell, S., Lee, M. C., Murray, C. W., Cheng, R., Demeter, J., Swaney, D. L., Chen, S., Newton, B. W., Johnson, J. R., Drainas, et al
  2021
- **An expanded universe of cancer targets.** *Cell*
  Hahn, W. C., Bader, J. S., Braun, T. P., Califano, A., Clemons, P. A., Druker, B. J., Ewald, A. J., Fu, H., Jagu, S., Kemp, C. J., Kim, W., Kuo, C. J., McManus, et al
  2021; 184 (5): 1142–55
- **Genome-wide CRISPR screens reveal a specific ligand for the glycan-binding immune checkpoint receptor Siglec-7.** *Proceedings of the National Academy of Sciences of the United States of America*
  Wisnovsky, S., Mockl, L., Malaker, S. A., Pedram, K., Hess, G. T., Riley, N. M., Gray, M. A., Smith, B. A., Bassik, M. C., Moerner, W. E., Bertozzi, C. R.

2021; 118 (5)

- **A New Paradigm in Catalase Research.** *Trends in cell biology*
  Fujiki, Y., Bassik, M. C.
  2021

- **p53 is a central regulator driving neurodegeneration caused by C9orf72 poly(PR).** *Cell*
  Maor-Nof, M. n., Shipony, Z. n., Lopez-Gonzalez, R. n., Nakayama, L. n., Zhang, Y. J., Couthouis, J. n., Blum, J. A., Castruita, P. A., Linares, G. R., Ruan, K. n., Ramaswami, G. n., Simon, D. J., Nof, et al
  2021

- **Roadmap for the use of base editors to decipher drug mechanism of action.** *PloS one*
  Aparicio-Prat, E., Yan, D., Mariotti, M., Bassik, M., Hess, G., Fortin, J., Weston, A., Xi, H. S., Stanton, R.
  2021; 16 (9): e0257537

- **Zmat3 Is a Key Splicing Regulator in the p53 Tumor Suppression Program.** *Molecular cell*
  Bieging-Rolett, K. T., Kaiser, A. M., Morgens, D. W., Boutelle, A. M., Seoane, J. A., Van Nostrand, E. L., Zhu, C., Houlihan, S. L., Mello, S. S., Yee, B. A., McClendon, J., Pierce, S. E., Winters, et al
  2020; 80 (3): 452

- **LRRC8A:C/E Heteromeric Channels Are Ubiquitous Transporters of cGAMP.** *Molecular cell*
  Lahey, L. J., Mardjuki, R. E., Wen, X., Hess, G. T., Ritchie, C., Carozza, J. A., Bohnert, V., Maduke, M., Bassik, M. C., Li, L.
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