



## Michael Bassik

Associate Professor of Genetics

### Bio

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#### 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

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#### 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

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### COURSES

#### 2022-23

- Advanced Genetics: GENE 205 (Win)
- Biology and Applications of CRISPR/Cas9: Genome Editing and Epigenome Modifications: BIOS 268, GENE 268 (Spr)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

#### 2021-22

- Advanced Genetics: GENE 205 (Win)
- Biology and Applications of CRISPR/Cas9: Genome Editing and Epigenome Modifications: BIOS 268, GENE 268 (Spr)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

#### 2020-21

- Advanced Genetics: GENE 205 (Win)
- Biology and Applications of CRISPR/Cas9: Genome Editing and Epigenome Modifications: BIOS 268 (Spr)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

#### 2019-20

- Advanced Genetics: GENE 205 (Win)
- Biology and Applications of CRISPR/Cas9: Genome Editing and Epigenome Modifications: BIOS 268 (Spr)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)

### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Abby Bergman, Tony Boutelle, Ching Pin Cheng, Justin Donnelly, Olivia Gautier, Emily Greenwald, Rosa Ma, Robin Meyers, Adi Mukund, Naomi Pacalin, Yuanhao Qu, Theo Susanto

#### Postdoctoral Faculty Sponsor

Asmita Bhattacharya, Kyuho Han, Roarke Kamber, Roni Levin Konigsberg, Alun Vaughan Jackson, Anthony Venida

#### Doctoral Dissertation Advisor (AC)

Peter Du, Nora Enright, Mingxin Gu, Ann Lin, David Yao, Catherine Zhang

#### Doctoral Dissertation Co-Advisor (AC)

Katherine Liu, Akshat Nigam, Raeline Valbuena

#### Postdoctoral Research Mentor

Swathi Karthikeyan

### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Informatics (Phd Program)
- Cancer Biology (Phd Program)
- Genetics (Phd Program)

## Publications

### PUBLICATIONS

- **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
- **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
- **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*  
Chaikovskiy, 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., Drinas, et al  
2021
- **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)
- **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
- **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
- **LRR8A: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.  
2020

- **Combined Proteomic and Genetic Interaction Mapping Reveals New RAS Effector Pathways and Susceptibilities.** *Cancer discovery*  
Kelly, M. R., Kostyrko, K., Han, K., Mooney, N. A., Jeng, E. E., Spees, K., Dinh, P. T., Abbott, K. L., Gwinn, D. M., Sweet-Cordero, E. A., Bassik, M. C., Jackson, P. K.  
2020
- **Systematic Identification of Regulators of Oxidative Stress Reveals Non-canonical Roles for Peroxisomal Import and the Pentose Phosphate Pathway.** *Cell reports*  
Dubreuil, M. M., Morgens, D. W., Okumoto, K., Honsho, M., Contrepolis, K., Lee-McMullen, B., Traber, G. M., Sood, R. S., Dixon, S. J., Snyder, M. P., Fujiki, Y., Bassik, M. C.  
2020; 30 (5): 1417
- **Lipid-droplet-accumulating microglia represent a dysfunctional and proinflammatory state in the aging brain.** *Nature neuroscience*  
Marschallinger, J., Iram, T., Zardeneta, M., Lee, S. E., Lehallier, B., Haney, M. S., Pluvinaige, J. V., Mathur, V., Hahn, O., Morgens, D. W., Kim, J., Tevini, J., Felder, et al  
2020
- **Genome-wide analysis of targets of macrolide antibiotics in mammalian cells.** *The Journal of biological chemistry*  
Gupta, A., Okesli-Armlovich, A., Morgens, D., Bassik, M. C., Khosla, C.  
2020
- **Metabolic precision labeling enables selective probing of O-linked N-acetylgalactosamine glycosylation.** *Proceedings of the National Academy of Sciences of the United States of America*  
Debets, M. F., Tastan, O. Y., Wisnovsky, S. P., Malaker, S. A., Angelis, N. n., Moeckl, L. K., Choi, J. n., Flynn, H. n., Wagner, L. J., Bineva-Todd, G. n., Antonopoulos, A. n., Cioce, A. n., Browne, et al  
2020
- **SETD5-Coordinated Chromatin Reprogramming Regulates Adaptive Resistance to Targeted Pancreatic Cancer Therapy.** *Cancer cell*  
Wang, Z. n., Hausmann, S. n., Lyu, R. n., Li, T. M., Lofgren, S. M., Flores, N. M., Fuentes, M. E., Caporicci, M. n., Yang, Z. n., Meiners, M. J., Cheek, M. A., Howard, S. A., Zhang, et al  
2020
- **Transcriptomic signatures across human tissues identify functional rare genetic variation.** *Science (New York, N.Y.)*  
Ferraro, N. M., Strober, B. J., Einson, J. n., Abell, N. S., Aguet, F. n., Barbeira, A. N., Brandt, M. n., Bucan, M. n., Castel, S. E., Davis, J. R., Greenwald, E. n., Hess, G. T., Hilliard, et al  
2020; 369 (6509)
- **Genome-wide synthetic lethal CRISPR screen identifies FIS1 as a genetic interactor of ALS-linked C9ORF72.** *Brain research*  
Chai, N., Haney, M. S., Couthouis, J., Morgens, D. W., Benjamin, A., Wu, K., Ousey, J., Fang, S., Finer, S., Bassik, M. C., Gitler, A. D.  
2019: 146601
- **The CoQ oxidoreductase FSP1 acts parallel to GPX4 to inhibit ferroptosis.** *Nature*  
Bersuker, K., Hendricks, J., Li, Z., Magtanong, L., Ford, B., Tang, P. H., Roberts, M. A., Tong, B., Maimone, T. J., Zoncu, R., Bassik, M. C., Nomura, D. K., Dixon, et al  
2019
- **A ZDHHC5-GOLGA7 Protein Acyltransferase Complex Promotes Nonapoptotic Cell Death.** *Cell chemical biology*  
Ko, P., Woodrow, C., Dubreuil, M. M., Martin, B. R., Skouta, R., Bassik, M. C., Dixon, S. J.  
2019
- **Phagolysosome resolution requires contacts with the endoplasmic reticulum and phosphatidylinositol-4-phosphate signalling.** *Nature cell biology*  
Levin-Konigsberg, R., Montano-Rendon, F., Keren-Kaplan, T., Li, R., Ego, B., Mylvaganam, S., DiCiccio, J. E., Trimble, W. S., Bassik, M. C., Bonifacino, J. S., Fairn, G. D., Grinstein, S.  
2019
- **CRISPR-Cas9 Screens Identify the RNA Helicase DDX3X as a Repressor of C9ORF72 (GGGGCC)<sub>n</sub> Repeat-Associated Non-AUG Translation.** *Neuron*  
Cheng, W., Wang, S., Zhang, Z., Morgens, D. W., Hayes, L. R., Lee, S., Portz, B., Xie, Y., Nguyen, B. V., Haney, M. S., Yan, S., Dong, D., Coyne, et al  
2019
- **Systematic Identification of Host Cell Regulators of Legionella pneumophila Pathogenesis Using a Genome-wide CRISPR Screen.** *Cell host & microbe*  
Jeng, E. E., Bhadkamkar, V., Ibe, N. U., Gause, H., Jiang, L., Chan, J., Jian, R., Jimenez-Morales, D., Stevenson, E., Krogan, N. J., Swaney, D. L., Snyder, M. P., Mukherjee, et al

2019

- **Discovery of small molecule inhibitors of human uridine-cytidine kinase 2 by high-throughput screening.** *Bioorganic & medicinal chemistry letters*  
Okesli-Armlovich, A., Gupta, A., Jimenez, M., Auld, D., Liu, Q., Bassik, M. C., Khosla, C.  
2019
- **Astrocyte-to-astrocyte contact and a positive feedback loop of growth factor signaling regulate astrocyte maturation** *GLIA*  
Li, J., Khankan, R. R., Caneda, C., Godoy, M., Haney, M. S., Krawczyk, M. C., Bassik, M. C., Sloan, S. A., Zhan, Y.  
2019; 67 (8): 1571–97
- **Kinetic analysis identifies determinants of sensitivity to MEK inhibitor-induced cell death**  
Inde, Z., Han, K., Bassik, M. C., Dixon, S. J.  
AMER ASSOC CANCER RESEARCH.2019
- **Neuronally Enriched RUFY3 Is Required for Caspase-Mediated Axon Degeneration.** *Neuron*  
Hertz, N. T., Adams, E. L., Weber, R. A., Shen, R. J., O'Rourke, M. K., Simon, D. J., Zebroski, H., Olsen, O., Morgan, C. W., Mileur, T. R., Hitchcock, A. M., Sinnott Armstrong, N. A., Wainberg, et al  
2019
- **SLC19A1 Is an Importer of the Immunotransmitter cGAMP.** *Molecular cell*  
Ritchie, C., Cordova, A. F., Hess, G. T., Bassik, M. C., Li, L.  
2019
- **CD22 blockade restores homeostatic microglial phagocytosis in ageing brains** *NATURE*  
Pluvinage, J. V., Haney, M. S., Smith, B. H., Sun, J., Iram, T., Bonanno, L., Li, L., Lee, D. P., Morgens, D. W., Yang, A. C., Shuken, S. R., Gate, D., Scott, et al  
2019; 568 (7751): 187–+
- **CD22 blockade restores homeostatic microglial phagocytosis in ageing brains.** *Nature*  
Pluvinage, J. V., Haney, M. S., Smith, B. A., Sun, J., Iram, T., Bonanno, L., Li, L., Lee, D. P., Morgens, D. W., Yang, A. C., Shuken, S. R., Gate, D., Scott, et al  
2019
- **Mitigation of off-target toxicity in CRISPR-Cas9 screens for essential non-coding elements.** *Nature communications*  
Tycko, J. n., Wainberg, M. n., Marinov, G. K., Ursu, O. n., Hess, G. T., Ego, B. K., Aradhana, n. n., Li, A. n., Truong, A. n., Trevino, A. E., Spees, K. n., Yao, D. n., Kaplow, et al  
2019; 10 (1): 4063
- **Targeted genomic CRISPR-Cas9 screen identifies MAP4K4 as essential for glioblastoma invasion.** *Scientific reports*  
Prolo, L. M., Li, A. n., Owen, S. F., Parker, J. J., Foshay, K. n., Nitta, R. T., Morgens, D. W., Bolin, S. n., Wilson, C. M., Vega L, J. C., Luo, E. J., Nwagbo, G. n., Waziri, et al  
2019; 9 (1): 14020
- **Discovery of common and rare genetic risk variants for colorectal cancer** *NATURE GENETICS*  
Huyghe, J. R., Bien, S. A., Harrison, T. A., Kang, H., Chen, S., Schmit, S. L., Conti, D. V., Qu, C., Jeon, J., Edlund, C. K., Greenside, P., Wainberg, M., Schumacher, et al  
2019; 51 (1): 76–+
- **METTL13 Methylation of eEF1A Increases Translational Output to Promote Tumorigenesis.** *Cell*  
Liu, S., Hausmann, S., Carlson, S. M., Fuentes, M. E., Francis, J. W., Pillai, R., Lofgren, S. M., Hulea, L., Tandoc, K., Lu, J., Li, A., Nguyen, N. D., Caporicci, et al  
2018
- **Genome-wide interrogation of extracellular vesicle biology using barcoded miRNAs.** *eLife*  
Lu, A., Wawro, P., Morgens, D. W., Portela, F., Bassik, M. C., Pfeffer, S. R.  
2018; 7
- **Genome-wide CRISPR Analysis Identifies Substrate-Specific Conjugation Modules in ER-Associated Degradation.** *Molecular cell*  
Leto, D. E., Morgens, D. W., Zhang, L., Walczak, C. P., Elias, J. E., Bassik, M. C., Kopito, R. R.  
2018
- **Discovery of common and rare genetic risk variants for colorectal cancer.** *Nature genetics*  
Huyghe, J. R., Bien, S. A., Harrison, T. A., Kang, H. M., Chen, S., Schmit, S. L., Conti, D. V., Qu, C., Jeon, J., Edlund, C. K., Greenside, P., Wainberg, M., Schumacher, et al

2018

- **CBP modulates sensitivity to dasatinib in pre-BCR+ acute lymphoblastic leukemia.** *Cancer research*  
Duque-Afonso, J., Lin, C., Han, K., Morgens, D. W., Jeng, E. E., Weng, Z., Jeong, J., Wong, S. H., Zhu, L., Wei, M. C., Chae, H., Schrappe, M., Cario, et al  
2018
- **KIF15 nanomechanics and kinesin inhibitors, with implications for cancer chemotherapeutics** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Milic, B., Chakraborty, A., Han, K., Bassik, M. C., Block, S. M.  
2018; 115 (20): E4613–E4622
- **A CRISPR-based screen for Hedgehog signaling provides insights into ciliary function and ciliopathies.** *Nature genetics*  
Breslow, D. K., Hoogendoorn, S., Kopp, A. R., Morgens, D. W., Vu, B. K., Kennedy, M. C., Han, K., Li, A., Hess, G. T., Bassik, M. C., Chen, J. K., Nachury, M. V.  
2018; 50 (3): 460-471
- **A CRISPR-based screen for Hedgehog signaling provides insights into ciliary function and ciliopathies** *Nat. Genet.*  
Breslow, D. K., Hoogendoorn, S., Kopp, A. R., Morgens, D. W., Vu, B. K., Han, K., Li, A., Hess, G. T., Bassik, M. C., Chen, J. K., V, N. M.  
2018; Epub ahead of print: 460–71
- **CRISPR-Cas9 screens in human cells and primary neurons identify modifiers of C9ORF72 dipeptide-repeat-protein toxicity.** *Nature genetics*  
Kramer, N. J., Haney, M. S., Morgens, D. W., Jovi#, A. n., Couthouis, J. n., Li, A. n., Ousey, J. n., Ma, R. n., Bieri, G. n., Tsui, C. K., Shi, Y. n., Hertz, N. T., Tessier-Lavigne, et al  
2018
- **CMTM6 maintains the expression of PD-L1 and regulates anti-tumour immunity** *NATURE*  
Burr, M. L., Sparbier, C. E., Chan, Y., Williamson, J. C., Woods, K., Beavis, P. A., Lam, E. N., Henderson, M. A., Bell, C. C., Stolzenburg, S., Gilan, O., Bloor, S., Noori, et al  
2017; 549 (7670): 101–5
- **Genome-scale measurement of off-target activity using Cas9 toxicity in high-throughput screens** *NATURE COMMUNICATIONS*  
Morgens, D. W., Wainberg, M., Boyle, E. A., Ursu, O., Araya, C. L., Tsui, C. K., Haney, M. S., Hess, G. T., Han, K., Jeng, E. E., Li, A., Snyder, M. P., Greenleaf, et al  
2017; 8
- **Population- and individual- specific regulatory variation in Sardinia** *NATURE GENETICS*  
Pala, M., Zappala, Z., Marongiu, M., Li, X., Davis, J. R., Cusano, R., Crobu, F., Kukurba, K. R., Gloudemans, M. J., Reinier, F., Berutti, R., Piras, M. G., Mulas, et al  
2017; 49 (5): 700-?
- **Synergistic drug combinations for cancer identified in a CRISPR screen for pairwise genetic interactions** *NATURE BIOTECHNOLOGY*  
Han, K., Jeng, E. E., Hess, G. T., Morgens, D. W., Li, A., Bassik, M. C.  
2017; 35 (5): 463-?
- **Human pyrimidine nucleotide biosynthesis as a target for antiviral chemotherapy.** *Current opinion in biotechnology*  
Okesli, A., Khosla, C., Bassik, M. C.  
2017; 48: 127-134
- **Methods and Applications of CRISPR-Mediated Base Editing in Eukaryotic Genomes.** *Molecular cell*  
Hess, G. T., Tycko, J. n., Yao, D. n., Bassik, M. C.  
2017; 68 (1): 26–43
- **Static and Dynamic DNA Loops form AP-1-Bound Activation Hubs during Macrophage Development.** *Molecular cell*  
Phanstiel, D. H., Van Bortle, K. n., Spacek, D. n., Hess, G. T., Shamim, M. S., Machol, I. n., Love, M. I., Aiden, E. L., Bassik, M. C., Snyder, M. P.  
2017; 67 (6): 1037–48.e6
- **Finding host targets for HIV therapy.** *Nature genetics*  
Tsui, C. K., Gupta, A. n., Bassik, M. C.  
2017; 49 (2): 175–76
- **The impact of rare variation on gene expression across tissues.** *Nature*

- Li, X. n., Kim, Y. n., Tsang, E. K., Davis, J. R., Damani, F. N., Chiang, C. n., Hess, G. T., Zappala, Z. n., Strober, B. J., Scott, A. J., Li, A. n., Ganna, A. n., Bassik, et al  
2017; 550 (7675): 239–43
- **Selective silencing of euchromatic L1s revealed by genome-wide screens for L1 regulators.** *Nature*  
Liu, N. n., Lee, C. H., Swigut, T. n., Grow, E. n., Gu, B. n., Bassik, M. n., Wysocka, J. n.  
2017
  - **The mTOR Complex Controls HIV Latency** *CELL HOST & MICROBE*  
Besnard, E., Hakre, S., Kampmann, M., Lim, H. W., Hosmane, N. N., Martin, A., Bassik, M. C., Verschueren, E., Battivelli, E., Chan, J., Svensson, J. P., Gramatica, A., Conrad, et al  
2016; 20 (6): 785-797
  - **Directed evolution using dCas9-targeted somatic hypermutation in mammalian cells.** *Nature methods*  
Hess, G. T., Frésard, L., Han, K., Lee, C. H., Li, A., Cimprich, K. A., Montgomery, S. B., Bassik, M. C.  
2016
  - **E2A-PBX1 remodels oncogenic signaling networks in B-cell precursor acute lymphoid leukemia.** *Cancer research*  
Duque-Afonso, J., Lin, C., Han, K., Wei, M. C., Feng, J., Kurzer, J., Schneidawind, C., Wong, S. H., Bassik, M. C., Cleary, M. L.  
2016
  - **Bithionol blocks pathogenicity of bacterial toxins, ricin, and Zika virus** *SCIENTIFIC REPORTS*  
Leonardi, W., Zilbermintz, L., Cheng, L. W., Zozaya, J., Tran, S. H., Elliott, J. H., Polukhina, K., Manasherob, R., Li, A., Chi, X., Gharaibeh, D., Kenny, T., Zamani, et al  
2016; 6
  - **Translation readthrough mitigation** *NATURE*  
Arribere, J. A., Cenik, E. S., Jain, N., Hess, G. T., Lee, C. H., Bassik, M. C., Fire, A. Z.  
2016; 534 (7609): 719-?
  - **Systematic comparison of CRISPR/Cas9 and RNAi screens for essential genes** *NATURE BIOTECHNOLOGY*  
Morgens, D. W., Deans, R. M., Li, A., Bassik, M. C.  
2016; 34 (6): 634-636
  - **Parallel shRNA and CRISPR-Cas9 screens enable antiviral drug target identification** *NATURE CHEMICAL BIOLOGY*  
Deans, R. M., Morgens, D. W., Okesli, A., Pillay, S., Horlbeck, M. A., Kampmann, M., Gilbert, L. A., Li, A., Mateo, R., Smith, M., Glenn, J. S., Carette, J. E., Khosla, et al  
2016; 12 (5): 361-?
  - **Weak base pairing in both seed and 3' regions reduces RNAi off-targets and enhances si/shRNA designs.** *Nucleic acids research*  
Gu, S., Zhang, Y., Jin, L., Huang, Y., Zhang, F., Bassik, M. C., Kampmann, M., Kay, M. A.  
2014; 42 (19): 12169-12176
  - **Functional genomics platform for pooled screening and generation of mammalian genetic interaction maps** *NATURE PROTOCOLS*  
Kampmann, M., Bassik, M. C., Weissman, J. S.  
2014; 9 (8): 1825-1847
  - **Next-Generation NAMPT Inhibitors Identified by Sequential High-Throughput Phenotypic Chemical and Functional Genomic Screens.** *Chemistry & biology*  
Matheny, C. J., Wei, M. C., Bassik, M. C., Donnelly, A. J., Kampmann, M., Iwasaki, M., Piloto, O., Solow-Cordero, D. E., Bouley, D. M., Rau, R., Brown, P., McManus, M. T., Weissman, et al  
2013; 20 (11): 1352-1363
  - **A systematic mammalian genetic interaction map reveals pathways underlying ricin susceptibility.** *Cell*  
Bassik, M. C., Kampmann, M., Lebbink, R. J., Wang, S., Hein, M. Y., Poser, I., Weibezahn, J., Horlbeck, M. A., Chen, S., Mann, M., Hyman, A. A., Leproust, E. M., McManus, et al  
2013; 152 (4): 909-22
  - **Rapid creation and quantitative monitoring of high coverage shRNA libraries.** *Nature methods*  
Bassik, M. C., Lebbink, R. J., Churchman, L. S., Ingolia, N. T., Patena, W., LeProust, E. M., Schuldiner, M., Weissman, J. S., McManus, M. T.  
2009; 6 (6): 443-5