

Prof. Dr. Michael J. Ziller

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Personal Data

Date of birth: 17/07/1983

Place of birth: Hamm (Germany)

Nationality: German

h-index: 35

Total citations: >14,500

Website: <https://web.ukm.de/index.php?id=11809>

Research Experience

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| Since 2020 | Full Professor for Functional Genomics in Psychiatry (W3), Department of Psychiatry, Muenster University |
| 2016-2021 | Principal Investigator and Independent Group Leader, Max-Planck Institute of Psychiatry, Germany |
| 2014-2015 | Postdoctoral Fellow in the Department of Stem Cell and Regenerative Biology, Harvard University, USA |
| 2009-2015 | Graduate Research Assistant, The Broad Institute of Harvard and MIT, USA |
| 2010-2014 | Visiting PhD student in the Department of Stem Cell and Regenerative Biology, Harvard University and the Broad Institute of Harvard and MIT, USA |
| 2009-2010 | Visiting student in the Department of Stem Cell and Regenerative Biology, Harvard University and the Broad Institute, USA |

Education

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| 2010-2014 | Dr. rer. nat. in Bioinformatics, summa cum laude University of Tübingen, Germany (2014), Advisors:
Prof. Alex Meissner (Harvard University, USA)
Prof. Oliver Kohlbacher (University of Tübingen, Germany) |
| 2004-2010 | Diplom in Physics University of Tübingen, Germany - with honors
Major: Mathematical/ Computational Physics
Theses: Simulation of Protein Charge Distributions Under the Influence of Salt |
| 2003-2009 | Diplom in Bioinformatics, University of Tübingen, Germany - with honors
Major: Molecular Biology/ Genetics
Automated Mathematical Modeling of Biochemical Reaction Networks |

Awards and Fellowships

- 2010-2013 PhD fellowship by Studienstiftung des Deutschen Volkes
2009 DAAD Master Thesis Fellowship for Conducting Research Abroad

Miscellaneous

- Seit 2016 Review Panel Mitglied, Joachim Hertz Stiftung, Germany
2016-2018 Projektkomitee Mitglied, BMBF Initiative für Systemmedizin (eMed), Germany
2017 Review Panel Mitglied German Conference on Bioinformatics

First/Last author primary research paper

1. Raabe FJ, Hausrucking A, Gagliardi M, Ahmad R, Almeida V, Galinski S, Hoffmann A, Weigert L, Rummel CK, Murek V, Trastulla L, Jimenez-Barron L, Atella A, Maidl S, Menegaz D, Hauger B, Wagner EM, Gabellini N, Kauschat B, Riccardo S, Cesana M, Papiol S, Sportelli V, Rex-Haffner M, Stolte SJ, Wehr MC, Salcedo TO, Papazova I, Detera-Wadleigh S, McMahon FJ, Schmitt A, Falkai P, Hasan A, Cacchiarelli D, Dannlowski U, Nenadić I, Kircher T, Scheuss V, Eder M, Binder EB, Spengler D, Rossner MJ, **Ziller MJ**. Polygenic risk for schizophrenia converges on alternative polyadenylation as molecular mechanism underlying synaptic impairment. [Preprint] bioRxiv. 2024 Jan 13:2024.01.09.574815. doi: 10.1101/2024.01.09.574815. PMID: 38260577; PMCID: PMC10802452.
2. Rummel CK, Gagliardi M, Ahmad R, Herholt A, Jimenez-Barron L, Murek V, Weigert L, Hausrucking A, Maidl S, Hauger B, Raabe FJ, Fürle C, Trastulla L, Turecki G, Eder M, Rossner MJ, **Ziller MJ**. Massively parallel functional dissection of schizophrenia-associated noncoding genetic variants. *Cell*. 2023 Nov 9;186(23):5165-5182.e33. doi: 10.1016/j.cell.2023.09.015. Epub 2023 Oct 17. PubMed PMID: 37852259.
3. Trastulla L, Moser S, Jiménez-Barrón LT, Andlauer TFM, von Scheidt M, Budde M, Heilbronner U, Papiol S, Teumer A, Homuth G, Falkai P, Völzke H, Dörr M, Schulze TG, Gagneur J, Iorio F, Müller-Myhsok B, Schunkert H, **Ziller MJ**. Distinct genetic liability profiles define clinically relevant patient strata across common diseases. *Nature Communications*, 2024, doi: 10.1038/s41467-024-49338-2. PMID: 38951512
4. Yuan W, Ma S, Brown JR, Kim K, Murek V, Trastulla L, Meissner A, Lodato S, Shetty AS, Levin JZ, Buenrostro JD, **Ziller MJ**#, Arlotta P#. Temporally divergent regulatory mechanisms govern neuronal diversification and maturation in the mouse and marmoset neocortex. *Nat Neurosci*. 2022 Aug;25(8):1049-1058. doi: 10.1038/s41593-022-01123-4. Epub 2022 Aug 1. PubMed PMID: 35915179; PubMed Central PMCID: PMC9343253.
5. **Ziller MJ**, Ortega JA, Quinlan KA, Santos DP, Gu H, Martin EJ, Galonska C, Pop R, Maidl S, Di Pardo A, Huang M, Meltzer HY, Gnirke A, Heckman CJ, Meissner A, Kiskinis E. Dissecting the Functional

- Consequences of De Novo DNA Methylation Dynamics in Human Motor Neuron Differentiation and Physiology. *Cell Stem Cell*. 2018 Apr 5;22(4):559-574.e9. doi: 10.1016/j.stem.2018.02.012. Epub 2018 Mar 15. PubMed PMID: 29551301; PubMed Central PMCID: PMC6535433.
6. **Ziller MJ**, Stamenova EK, Gu H, Gnirke A, Meissner A. Targeted bisulfite sequencing of the dynamic DNA methylome. *Epigenetics Chromatin*. 2016;9:55. doi: 10.1186/s13072-016-0105-1. eCollection 2016. PubMed PMID: 27980681; PubMed Central PMCID: PMC5135789.
 7. Galonska C*, **Ziller MJ***, Karnik R, Meissner A. Ground State Conditions Induce Rapid Reorganization of Core Pluripotency Factor Binding before Global Epigenetic Reprogramming. *Cell Stem Cell*. 2015 Oct 1;17(4):462-70. doi: 10.1016/j.stem.2015.07.005. Epub 2015 Jul 30. PubMed PMID: 26235340; PubMed Central PMCID: PMC4592414.
 8. Cacchiarelli D*, Trapnell C*, **Ziller MJ***, Soumillon M, Cesana M, Karnik R, Donaghey J, Smith ZD, Ratanasirintrao S, Zhang X, Ho Sui SJ, Wu Z, Akopian V, Gifford CA, Doench J, Rinn JL, Daley GQ, Meissner A, Lander ES, Mikkelsen TS. Integrative Analyses of Human Reprogramming Reveal Dynamic Nature of Induced Pluripotency. *Cell*. 2015 Jul 16;162(2):412-424. doi: 10.1016/j.cell.2015.06.016. PubMed PMID: 26186193; PubMed Central PMCID: PMC4511597.
 9. **Ziller MJ**, Hansen KD, Meissner A, Aryee MJ. Coverage recommendations for methylation analysis by whole-genome bisulfite sequencing. *Nat Methods*. 2015 Mar;12(3):230-2, 1 p following 232. doi: 10.1038/nmeth.3152. Epub 2014 Nov 2. PubMed PMID: 25362363; PubMed Central PMCID: PMC4344394.
 10. **Ziller MJ**, Edri R, Yaffe Y, Donaghey J, Pop R, Mallard W, Issner R, Gifford CA, Goren A, Xing J, Gu H, Cacchiarelli D, Tsankov A, Epstein C, Rinn JR, Mikkelsen TS, Kohlbacher O, Gnirke A, Bernstein BE, Elkabetz Y, Meissner A. Dissecting neural differentiation regulatory networks through epigenetic footprinting. *Nature*. 2015 Feb 19;518(7539):355-359. doi: 10.1038/nature13990. Epub 2014 Dec 24. PubMed PMID: 25533951; PubMed Central PMCID: PMC4336237.
 11. **Ziller MJ**, Gu H, Müller F, Donaghey J, Tsai LT, Kohlbacher O, De Jager PL, Rosen ED, Bennett DA, Bernstein BE, Gnirke A, Meissner A. Charting a dynamic DNA methylation landscape of the human genome. *Nature*. 2013 Aug 22;500(7463):477-81. doi: 10.1038/nature12433. Epub 2013 Aug 7. PubMed PMID: 23925113; PubMed Central PMCID: PMC3821869.
 12. Gifford CA*, **Ziller MJ***, Gu H, Trapnell C, Donaghey J, Tsankov A, Shalek AK, Kelley DR, Shishkin AA, Issner R, Zhang X, Coyne M, Fostel JL, Holmes L, Meldrim J, Guttman M, Epstein C, Park H, Kohlbacher O, Rinn J, Gnirke A, Lander ES, Bernstein BE, Meissner A. Transcriptional and epigenetic dynamics during specification of human embryonic stem cells. *Cell*. 2013 May 23;153(5):1149-63. doi: 10.1016/j.cell.2013.04.037. Epub 2013 May 9. PubMed PMID: 23664763; PubMed Central PMCID: PMC3709577.
 13. **Ziller MJ**, Müller F, Liao J, Zhang Y, Gu H, Bock C, Boyle P, Epstein CB, Bernstein BE, Lengauer T, Gnirke A, Meissner A. Genomic distribution and inter-sample variation of non-CpG methylation across human cell types. *PLoS Genet*. 2011 Dec;7(12):e1002389. doi: 10.1371/journal.pgen.1002389. Epub 2011 Dec 8. PubMed PMID: 22174693; PubMed Central PMCID: PMC3234221.

Co-authored primary research paper

14. Froehlich AS, Gerstner N, Gagliardi M, Ködel M, Yusupov N, Matosin N, Czamara D, Sauer S, Roeh S, Murek V, Chatzinakos C, Daskalakis NP, Knauer-Arloth J, **Ziller MJ** & Binder EB. Single-nucleus transcriptomic profiling of human orbitofrontal cortex reveals convergent effects of aging and psychiatric disease, *Nature Neuroscience* 2024, doi: 10.1038/s41593-024-01742-z. Online ahead of print. PMID: 39227716
15. Penner-Goeke S, Bothe M, Rek N, Kreitmaier P, Pöhlchen D, Kühnel A, Glaser LV, Kaya E, Krontira AC, Röh S, Czamara D, Ködel M, Monteserin-Garcia J, Diener L, Wölfel B, Sauer S, Rummel C, Riesenberg S, Arloth-Knauer J, **Ziller MJ**, Labeur M, Meijsing S, Binder EB. High-throughput screening of glucocorticoid-induced enhancer activity reveals mechanisms of stress-related psychiatric disorders. *Proc Natl Acad Sci U S A*. 2023 Dec 5;120(49):e2305773120. doi: 10.1073/pnas.2305773120. Epub 2023 Nov 27. PubMed PMID: 38011552; PubMed Central PMCID: PMC10710077.
16. Kearns NA, Lobo M, Genga RMJ, Abramowitz RG, Parsi KM, Min J, Kernfeld EM, Huey JD, Kady J, Hennessy E, Brehm MA, **Ziller MJ**, Maehr R. Generation and molecular characterization of human pluripotent stem cell-derived pharyngeal foregut endoderm. *Dev Cell*. 2023 Sep 25;58(18):1801-1818.e15. doi: 10.1016/j.devcel.2023.08.024. PubMed PMID: 37751684; PubMed Central PMCID: PMC10637111.
17. Matosin N, Arloth J, Czamara D, Edmond KZ, Maitra M, Fröhlich AS, Martinelli S, Kaul D, Bartlett R, Curry AR, Gassen NC, Hafner K, Müller NS, Worf K, Rehawi G, Nagy C, Halldorsdottir T, Cruceanu C, Gagliardi M, Gerstner N, Ködel M, Murek V, **Ziller MJ**, Scarr E, Tao R, Jaffe AE, Arzberger T, Falkai P, Kleinmann JE, Weinberger DR, Mechawar N, Schmitt A, Dean B, Turecki G, Hyde TM, Binder EB. Associations of psychiatric disease and ageing with FKBP5 expression converge on superficial layer neurons of the neocortex. *Acta Neuropathol*. 2023 Apr;145(4):439-459. doi: 10.1007/s00401-023-02541-9. Epub 2023 Feb 2. PubMed PMID: 36729133; PubMed Central PMCID: PMC10020280.
18. Cesana M, Tufano G, Panariello F, Zampelli N, Ambrosio S, De Cegli R, Mutarelli M, Vaccaro L, **Ziller MJ**, Cacchiarelli D, Medina DL, Ballabio A. EGR1 drives cell proliferation by directly stimulating TFEB transcription in response to starvation. *PLoS Biol*. 2023 Mar;21(3):e3002034. doi: 10.1371/journal.pbio.3002034. eCollection 2023 Mar. PubMed PMID: 36888606; PubMed Central PMCID: PMC9994711.
19. Chang S, Fermani F, Lao CL, Huang L, Jakovcevski M, Di Giaimo R, Gagliardi M, Menegaz D, Hennrich AA, **Ziller MJ**, Eder M, Klein R, Cai N, Deussing JM. Tripartite extended amygdala-basal ganglia CRH circuit drives locomotor activation and avoidance behavior. *Sci Adv*. 2022 Nov 18;8(46):eabo1023. doi: 10.1126/sciadv.abo1023. Epub 2022 Nov 16. PubMed PMID: 36383658; PubMed Central PMCID: PMC9668302.
20. Schmidt S, Luecken MD, Trümbach D, Hembach S, Niedermeier KM, Wenck N, Pflügler K, Stautner C, Böttcher A, Lickert H, Ramirez-Suastegui C, Ahmad R, **Ziller MJ**, Fitzgerald JC, Ruf V, van de Berg WDJ, Jonker AJ, Gasser T, Winner B, Winkler J, Vogt Weisenhorn DM, Giesert F, Theis FJ, Wurst W. Primary cilia and SHH signaling impairments in human and mouse models of Parkinson's disease. *Nat Commun*. 2022 Aug 16;13(1):4819. doi: 10.1038/s41467-022-32229-9. PubMed PMID: 35974013; PubMed Central PMCID: PMC9380673.

21. Raabe FJ, Stephan M, Waldeck JB, Huber V, Demetriou D, Kannaiyan N, Galinski S, Glaser LV, Wehr MC, **Ziller MJ**, Schmitt A, Falkai P, Rossner MJ. Expression of Lineage Transcription Factors Identifies Differences in Transition States of Induced Human Oligodendrocyte Differentiation. *Cells*. 2022 Jan 11;11(2). doi: 10.3390/cells11020241. PubMed PMID: 35053357; PubMed Central PMCID: PMC8773672.
22. Genga RMJ, Kernfeld EM, Parsi KM, Parsons TJ, **Ziller MJ**, Maehr R. Single-Cell RNA-Sequencing-Based CRISPRi Screening Resolves Molecular Drivers of Early Human Endoderm Development. *Cell Rep*. 2019 Apr 16;27(3):708-718.e10. doi: 10.1016/j.celrep.2019.03.076. PubMed PMID: 30995470; PubMed Central PMCID: PMC6525305.
23. Giulitti S, Pellegrini M, Zorzan I, Martini P, Gagliano O, Mutarelli M, **Ziller MJ**, Cacchiarelli D, Romualdi C, Elvassore N, Martello G. Direct generation of human naive induced pluripotent stem cells from somatic cells in microfluidics. *Nat Cell Biol*. 2019 Feb;21(2):275-286. doi: 10.1038/s41556-018-0254-5. Epub 2018 Dec 31. PubMed PMID: 30598530.
24. Sheng C, Jungverdorben J, Wiethoff H, Lin Q, Flitsch LJ, Eckert D, Hebisch M, Fischer J, Kesavan J, Weykopf B, Schneider L, Holtkamp D, Beck H, Till A, Wüllner U, **Ziller MJ**, Wagner W, Peitz M, Brüstle O. A stably self-renewing adult blood-derived induced neural stem cell exhibiting patternability and epigenetic rejuvenation. *Nat Commun*. 2018 Oct 2;9(1):4047. doi: 10.1038/s41467-018-06398-5. PubMed PMID: 30279449; PubMed Central PMCID: PMC6168501.
25. Cacchiarelli D, Qiu X, Srivatsan S, Manfredi A, **Ziller MJ**, Overbey E, Grimaldi A, Grimsby J, Pokharel P, Livak KJ, Li S, Meissner A, Mikkelsen TS, Rinn JL, Trapnell C. Aligning Single-Cell Developmental and Reprogramming Trajectories Identifies Molecular Determinants of Myogenic Reprogramming Outcome. *Cell Syst*. 2018 Sep 26;7(3):258-268.e3. doi: 10.1016/j.cels.2018.07.006. Epub 2018 Sep 5. PubMed PMID: 30195438.
26. Ahmad R, Sportelli V, **Ziller MJ**, Spengler D, Hoffmann A. Tracing Early Neurodevelopment in Schizophrenia with Induced Pluripotent Stem Cells. *Cells*. 2018 Sep 17;7(9). doi: 10.3390/cells7090140. Review. PubMed PMID: 30227641; PubMed Central PMCID: PMC6162757.
27. Charlton J, Downing TL, Smith ZD, Gu H, Clement K, Pop R, Akopian V, Klages S, Santos DP, Tsankov AM, Timmermann B, Ziller MJ, Kiskinis E, Gnirke A, Meissner A. Global delay in nascent strand DNA methylation. *Nat Struct Mol Biol*. 2018 Apr;25(4):327-332. doi: 10.1038/s41594-018-0046-4. Epub 2018 Mar 12. PubMed PMID: 29531288; PubMed Central PMCID: PMC5889353.
28. Hoffmann A, Sportelli V, **Ziller MJ**, Spengler D. From the Psychiatrist's Couch to Induced Pluripotent Stem Cells: Bipolar Disease in a Dish. *Int J Mol Sci*. 2018 Mar 8;19(3). doi: 10.3390/ijms19030770. Review. PubMed PMID: 29517996; PubMed Central PMCID: PMC5877631.
29. Galonska C, Charlton J, Mattei AL, Donaghey J, Clement K, Gu H, Mohammad AW, Stamenova EK, Cacchiarelli D, Klages S, Timmermann B, Cantz T, Schöler HR, Gnirke A, **Ziller MJ**, Meissner A. Genome-wide tracking of dCas9-methyltransferase footprints. *Nat Commun*. 2018 Feb 9;9(1):597. doi: 10.1038/s41467-017-02708-5. PubMed PMID: 29426832; PubMed Central PMCID: PMC5807365.
30. Donaghey J, Thakurela S, Charlton J, Chen JS, Smith ZD, Gu H, Pop R, Clement K, Stamenova EK, Karnik R, Kelley DR, Gifford CA, Cacchiarelli D, Rinn JL, Gnirke A, **Ziller MJ**, Meissner A. Genetic

- determinants and epigenetic effects of pioneer-factor occupancy. *Nat Genet*. 2018 Feb;50(2):250-258. doi: 10.1038/s41588-017-0034-3. Epub 2018 Jan 22. PubMed PMID: 29358654; PubMed Central PMCID: PMC6517675.
31. Yu VWC, Yusuf RZ, Oki T, Wu J, Saez B, Wang X, Cook C, Baryawno N, **Ziller MJ**, Lee E, Gu H, Meissner A, Lin CP, Kharchenko PV, Scadden DT. Epigenetic Memory Underlies Cell-Autonomous Heterogeneous Behavior of Hematopoietic Stem Cells. *Cell*. 2016 Nov 17;167(5):1310-1322.e17. doi: 10.1016/j.cell.2016.10.045. PubMed PMID: 27863245.
 32. Libertini E, Heath SC, Hamoudi RA, Gut M, **Ziller MJ**, Herrero J, Czyz A, Ruotti V, Stunnenberg HG, Frontini M, Ouwehand WH, Meissner A, Gut IG, Beck S. Saturation analysis for whole-genome bisulfite sequencing data. *Nat Biotechnol*. 2016 Jul;34(7):691-693. doi: 10.1038/nbt.3524. Epub 2016 Jun 27. PubMed PMID: 27347755.
 33. Libertini E, Heath SC, Hamoudi RA, Gut M, **Ziller MJ**, Czyz A, Ruotti V, Stunnenberg HG, Frontini M, Ouwehand WH, Meissner A, Gut IG, Beck S. Information recovery from low coverage whole-genome bisulfite sequencing. *Nat Commun*. 2016 Jun 27;7:11306. doi: 10.1038/ncomms11306. PubMed PMID: 27346250; PubMed Central PMCID: PMC4931220.
 34. Shea JM, Serra RW, Carone BR, Shulha HP, Kucukural A, **Ziller MJ**, Vallaster MP, Gu H, Tapper AR, Gardner PD, Meissner A, Garber M, Rando OJ. Genetic and Epigenetic Variation, but Not Diet, Shape the Sperm Methylome. *Dev Cell*. 2015 Dec 21;35(6):750-8. doi: 10.1016/j.devcel.2015.11.024. PubMed PMID: 26702833; PubMed Central PMCID: PMC4691283.
 35. Liao J, Karnik R, Gu H, **Ziller MJ**, Clement K, Tsankov AM, Akopian V, Gifford CA, Donaghey J, Galonska C, Pop R, Reyon D, Tsai SQ, Mallard W, Joung JK, Rinn JL, Gnirke A, Meissner A. Targeted disruption of DNMT1, DNMT3A and DNMT3B in human embryonic stem cells. *Nat Genet*. 2015 May;47(5):469-78. doi: 10.1038/ng.3258. Epub 2015 Mar 30. PubMed PMID: 25822089; PubMed Central PMCID: PMC4414868.
 36. Edri R, Yaffe Y, **Ziller MJ**, Mutukula N, Volkman R, David E, Jacob-Hirsch J, Malcov H, Levy C, Rechavi G, Gat-Viks I, Meissner A, Elkabetz Y. Analysing human neural stem cell ontogeny by consecutive isolation of Notch active neural progenitors. *Nat Commun*. 2015 Mar 23;6:6500. doi: 10.1038/ncomms7500. PubMed PMID: 25799239; PubMed Central PMCID: PMC4383005.
 37. Tsankov AM, Gu H, Akopian V, **Ziller MJ**, Donaghey J, Amit I, Gnirke A, Meissner A. Transcription factor binding dynamics during human ES cell differentiation. *Nature*. 2015 Feb 19;518(7539):344-9. doi: 10.1038/nature14233. PubMed PMID: 25693565; PubMed Central PMCID: PMC4499331.
 38. Kundaje A, Meuleman W, Ernst J, Bilenky M, Yen A, Heravi-Moussavi A, Kheradpour P, Zhang Z, Wang J, **Ziller MJ**, Amin V, Whitaker JW, Schultz MD, Ward LD, Sarkar A, Quon G, Sandstrom RS, Eaton ML, Wu YC, Pfenning AR, Wang X, Claussnitzer M, Liu Y, Coarfa C, Harris RA, Shores N, Epstein CB, Gjonjeska E, Leung D, Xie W, Hawkins RD, Lister R, Hong C, Gascard P, Mungall AJ, Moore R, Chuah E, Tam A, Canfield TK, Hansen RS, Kaul R, Sabo PJ, Bansal MS, Carles A, Dixon JR, Farh KH, Feizi S, Karlic R, Kim AR, Kulkarni A, Li D, Lowdon R, Elliott G, Mercer TR, Neph SJ, Onuchic V, Polak P, Rajagopal N, Ray P, Sallari RC, Siebenthall KT, Sinnott-Armstrong NA, Stevens M, Thurman RE, Wu J, Zhang B, Zhou X, Beaudet AE, Boyer LA, De Jager PL, Farnham PJ, Fisher SJ, Haussler D, Jones SJ, Li W, Marra MA, McManus MT, Sunyaev S, Thomson JA, Tlsty TD, Tsai LH, Wang W, Waterland RA, Zhang MQ, Chadwick LH, Bernstein BE, Costello JF, Ecker JR, Hirst M, Meissner A, Milosavljevic A, Ren B, Stamatoyannopoulos JA, Wang T, Kellis M. Integrative analysis

- of 111 reference human epigenomes. *Nature*. 2015 Feb 19;518(7539):317-30. doi: 10.1038/nature14248. PubMed PMID: 25693563; PubMed Central PMCID: PMC4530010.
39. Landau DA, Clement K, **Ziller MJ**, Boyle P, Fan J, Gu H, Stevenson K, Sougnez C, Wang L, Li S, Kotliar D, Zhang W, Ghandi M, Garraway L, Fernandes SM, Livak KJ, Gabriel S, Gnirke A, Lander ES, Brown JR, Neuberg D, Kharchenko PV, Hacohen N, Getz G, Meissner A, Wu CJ. Locally disordered methylation forms the basis of intratumor methylome variation in chronic lymphocytic leukemia. *Cancer Cell*. 2014 Dec 8;26(6):813-825. doi: 10.1016/j.ccell.2014.10.012. PubMed PMID: 25490447; PubMed Central PMCID: PMC4302418.
 40. Ichida JK, Tcw J, Williams LA, Carter AC, Shi Y, Moura MT, **Ziller MJ**, Singh S, Amabile G, Bock C, Umezawa A, Rubin LL, Bradner JE, Akutsu H, Meissner A, Eggan K. Notch inhibition allows oncogene-independent generation of iPS cells. *Nat Chem Biol*. 2014 Aug;10(8):632-639. doi: 10.1038/nchembio.1552. Epub 2014 Jun 22. PubMed PMID: 24952596; PubMed Central PMCID: PMC4310751.
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 42. Kearns NA, Genga RM, **Ziller MJ**, Kapinas K, Peters H, Brehm MA, Meissner A, Maehr R. Generation of organized anterior foregut epithelia from pluripotent stem cells using small molecules. *Stem Cell Res*. 2013 Nov;11(3):1003-12. doi: 10.1016/j.scr.2013.06.007. Epub 2013 Jun 29. PubMed PMID: 23917481.
 43. Keller R, Dörr A, Tabira A, Funahashi A, **Ziller MJ**, Adams R, Rodriguez N, Le Novère N, Hiroi N, Planatscher H, Zell A, Dräger A. The systems biology simulation core algorithm. *BMC Syst Biol*. 2013 Jul 5;7:55. doi: 10.1186/1752-0509-7-55. PubMed PMID: 23826941; PubMed Central PMCID: PMC3707837.
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 46. Zhang F, Weggler S, **Ziller MJ**, Ianeselli L, Heck BS, Hildebrandt A, Kohlbacher O, Skoda MW, Jacobs RM, Schreiber F. Universality of protein reentrant condensation in solution induced by multivalent metal ions. *Proteins*. 2010 Dec;78(16):3450-7. doi: 10.1002/prot.22852. Epub 2010 Sep 24. PubMed PMID: 20872851.

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Reviews

48. Hoffmann A, **Ziller MJ**, Spengler D. Focus on Causality in ESC/iPSC-Based Modeling of Psychiatric Disorders. *Cells.* 2020 Feb 5;9(2). doi: 10.3390/cells9020366. Review. PubMed PMID: 32033412; PubMed Central PMCID: PMC7072492.
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