

1: Kang J, Lienhard M, Pastor WA, Chawla A, Novotny M, Tsagaratou A, Lasken RS, Thompson EC, Surani MA, Koralov SB, Kalantry S, Chavez L, Rao A. Simultaneous deletion of the methylcytosine oxidases Tet1 and Tet3 increases transcriptome variability in early embryogenesis. *Proc Natl Acad Sci U S A*. 2015 Aug 4;112(31):E4236-45. doi: 10.1073/pnas.1510510112. Epub 2015 Jul 21. PubMed PMID: 26199412; PubMed Central PMCID: PMC4534209.

2: Hiramuki Y, Sato T, Furuta Y, Surani MA, Sehara-Fujisawa A. *Mest but Not MiR-335 Affects Skeletal Muscle Growth and Regeneration*. *PLoS One*. 2015 Jun 22;10(6):e0130436. doi: 10.1371/journal.pone.0130436. eCollection 2015. PubMed PMID: 26098312; PubMed Central PMCID: PMC4476715.

3: Tang WW, Dietmann S, Irie N, Leitch HG, Floros VI, Bradshaw CR, Hackett JA, Chinnery PF, Surani MA. *A Unique Gene Regulatory Network Resets the Human Germline Epigenome for Development*. *Cell*. 2015 Jun 4;161(6):1453-67. doi: 10.1016/j.cell.2015.04.053. PubMed PMID: 26046444; PubMed Central PMCID: PMC4459712.

4: Surani MA. *Human Germline: A New Research Frontier*. *Stem Cell Reports*. 2015 Jun 9;4(6):955-60. doi: 10.1016/j.stemcr.2015.04.014. Epub 2015 May 28. Review. PubMed PMID: 26028529; PubMed Central PMCID: PMC4471826.

5: Irie N, Weinberger L, Tang WW, Kobayashi T, Viukov S, Manor YS, Dietmann S, Hanna JH, Surani MA. *SOX17 is a critical specifier of human primordial germ cell fate*. *Cell*. 2015 Jan 15;160(1-2):253-68. doi: 10.1016/j.cell.2014.12.013. Epub 2014 Dec 24. PubMed PMID: 25543152; PubMed Central PMCID: PMC4310934.

6: Kim S, Günesdogan U, Zylicz JJ, Hackett JA, Cougot D, Bao S, Lee C, Dietmann S, Allen GE, Sengupta R, Surani MA. *PRMT5 protects genomic integrity during global DNA demethylation in primordial germ cells and preimplantation embryos*. *Mol Cell*. 2014 Nov 20;56(4):564-79. doi: 10.1016/j.molcel.2014.10.003. Epub 2014 Nov 6. PubMed PMID: 25457166; PubMed Central PMCID: PMC4250265.

7: Günesdogan U, Magnúsdóttir E, Surani MA. *Primordial germ cell specification: a*

context-dependent cellular differentiation event [corrected]. *Philos Trans R Soc Lond B Biol Sci.* 2014 Dec 5;369(1657). pii: 20130543. doi: 10.1098/rstb.2013.0543. Review. Erratum in: *Philos Trans R Soc Lond B Biol Sci.* 2014 Dec 19;369(1658):20140314. PubMed PMID: 25349452; PubMed Central PMCID: PMC4216466.

8: Hackett JA, Surani MA. Regulatory principles of pluripotency: from the ground state up. *Cell Stem Cell.* 2014 Oct 2;15(4):416-30. doi: 10.1016/j.stem.2014.09.015. Review. PubMed PMID: 25280218.

9: Singer ZS, Yong J, Tischler J, Hackett JA, Altinok A, Surani MA, Cai L, Elowitz MB. Dynamic heterogeneity and DNA methylation in embryonic stem cells. *Mol Cell.* 2014 Jul 17;55(2):319-31. doi: 10.1016/j.molcel.2014.06.029. PubMed PMID: 25038413; PubMed Central PMCID: PMC4104113.

10: Magnúsdóttir E, Surani MA. How to make a primordial germ cell. *Development.* 2014 Jan;141(2):245-52. doi: 10.1242/dev.098269. Review. PubMed PMID: 24381195.

11: Hackett JA, Dietmann S, Murakami K, Down TA, Leitch HG, Surani MA. Synergistic mechanisms of DNA demethylation during transition to ground-state pluripotency. *Stem Cell Reports.* 2013 Dec 17;1(6):518-31. doi: 10.1016/j.stemcr.2013.11.010. eCollection 2013. PubMed PMID: 24371807; PubMed Central PMCID: PMC3871394.

12: Leitch HG, Nichols J, Humphreys P, Mulas C, Martello G, Lee C, Jones K, Surani MA, Smith A. Rebuilding pluripotency from primordial germ cells. *Stem Cell Reports.* 2013 Jun 4;1(1):66-78. doi: 10.1016/j.stemcr.2013.03.004. eCollection 2013. PubMed PMID: 24052943; PubMed Central PMCID: PMC3757743.

13: Gillich A, Bao S, Surani MA. Reversion of mouse postimplantation epiblast stem cells to a naïve pluripotent state by modulation of signalling pathways. *Methods Mol Biol.* 2013;1074:15-29. doi: 10.1007/978-1-62703-628-3_2. PubMed PMID: 23975802.

14: Barrios F, Irie N, Surani MA. Perceiving signals, building networks, reprogramming germ cell fate. *Int J Dev Biol.* 2013;57(2-4):123-32. doi:

10.1387/ijdb.130132fb. Review. PubMed PMID: 23784822.

15: Grabole N, Tischler J, Hackett JA, Kim S, Tang F, Leitch HG, Magnúsdóttir E, Surani MA. Prdm14 promotes germline fate and naive pluripotency by repressing FGF signalling and DNA methylation. *EMBO Rep.* 2013 Jul;14(7):629-37. doi: 10.1038/embor.2013.67. Epub 2013 May 14. PubMed PMID: 23670199; PubMed Central PMCID: PMC3701237.

16: Hackett JA, Surani MA. Beyond DNA: programming and inheritance of parental methylomes. *Cell.* 2013 May 9;153(4):737-9. doi: 10.1016/j.cell.2013.04.044. PubMed PMID: 23663772; PubMed Central PMCID: PMC4338575.

17: Leitch HG, Tang WW, Surani MA. Primordial germ-cell development and epigenetic reprogramming in mammals. *Curr Top Dev Biol.* 2013;104:149-87. doi: 10.1016/B978-0-12-416027-9.00005-X. Review. PubMed PMID: 23587241.

18: Leitch HG, McEwen KR, Turp A, Encheva V, Carroll T, Grabole N, Mansfield W, Nashun B, Knezovich JG, Smith A, Surani MA, Hajkova P. Naive pluripotency is associated with global DNA hypomethylation. *Nat Struct Mol Biol.* 2013 Mar;20(3):311-6. doi: 10.1038/nsmb.2510. Epub 2013 Feb 17. PubMed PMID: 23416945; PubMed Central PMCID: PMC3591483.

19: Hackett JA, Sengupta R, Zylicz JJ, Murakami K, Lee C, Down TA, Surani MA. Germline DNA demethylation dynamics and imprint erasure through 5-hydroxymethylcytosine. *Science.* 2013 Jan 25;339(6118):448-52. doi: 10.1126/science.1229277. Epub 2012 Dec 6. PubMed PMID: 23223451; PubMed Central PMCID: PMC3847602.

20: Surani MA. Cellular reprogramming in pursuit of immortality. *Cell Stem Cell.* 2012 Dec 7;11(6):748-50. doi: 10.1016/j.stem.2012.11.014. PubMed PMID: 23217420.

21: Hackett JA, Surani MA. DNA methylation dynamics during the mammalian life cycle. *Philos Trans R Soc Lond B Biol Sci.* 2013 Jan 5;368(1609):20110328. doi: 10.1098/rstb.2011.0328. Review. PubMed PMID: 23166392; PubMed Central PMCID: PMC3539357.

22: Tischler J, Surani MA. Investigating transcriptional states at single-cell-resolution. *Curr Opin Biotechnol.* 2013 Feb;24(1):69-78. doi: 10.1016/j.copbio.2012.09.013. Epub 2012 Oct 17. Review. PubMed PMID: 23084076.

23: Pasque V, Radzisheuskaya A, Gillich A, Halley-Stott RP, Panamarova M, Zernicka-Goetz M, Surani MA, Silva JC. Histone variant macroH2A marks embryonic differentiation in vivo and acts as an epigenetic barrier to induced pluripotency. *J Cell Sci.* 2012 Dec 15;125(Pt 24):6094-104. doi: 10.1242/jcs.113019. Epub 2012 Oct 17. PubMed PMID: 23077180; PubMed Central PMCID: PMC3585521.

24: Magnúsdóttir E, Gillich A, Grabole N, Surani MA. Combinatorial control of cell fate and reprogramming in the mammalian germline. *Curr Opin Genet Dev.* 2012 Oct;22(5):466-74. doi: 10.1016/j.gde.2012.06.002. Epub 2012 Jul 12. Review. PubMed PMID: 22795169.

25: Bao S, Leitch HG, Gillich A, Nichols J, Tang F, Kim S, Lee C, Zwaka T, Li X, Surani MA. The germ cell determinant Blimp1 is not required for derivation of pluripotent stem cells. *Cell Stem Cell.* 2012 Jul 6;11(1):110-7. doi: 10.1016/j.stem.2012.02.023. PubMed PMID: 22770244; PubMed Central PMCID: PMC3391686.

26: Sengupta R, Surani MA. Untangling the mysteries of maternal inheritance with polycomb. *EMBO J.* 2012 Jun 29;31(13):2837-8. doi: 10.1038/emboj.2012.140. Epub 2012 May 11. PubMed PMID: 22580829; PubMed Central PMCID: PMC3395094.

27: Gillich A, Bao S, Grabole N, Hayashi K, Trotter MW, Pasque V, Magnúsdóttir E, Surani MA. Epiblast stem cell-based system reveals reprogramming synergy of germline factors. *Cell Stem Cell.* 2012 Apr 6;10(4):425-39. doi: 10.1016/j.stem.2012.01.020. PubMed PMID: 22482507; PubMed Central PMCID: PMC3343665.

28: Hackett JA, Zylicz JJ, Surani MA. Parallel mechanisms of epigenetic reprogramming in the germline. *Trends Genet.* 2012 Apr;28(4):164-74. doi: 10.1016/j.tig.2012.01.005. Epub 2012 Mar 3. Review. PubMed PMID: 22386917.

29: Ber S, Lee C, Voiculescu O, Surani MA. Dedifferentiation of foetal CNS stem cells to mesendoderm-like cells through an EMT process. *PLoS One.*

2012;7(1):e30759. doi: 10.1371/journal.pone.0030759. Epub 2012 Jan 20. PubMed PMID: 22276221; PubMed Central PMCID: PMC3262838.

30: Tang F, Barbacioru C, Nordman E, Bao S, Lee C, Wang X, Tuch BB, Heard E, Lao K, Surani MA. Deterministic and stochastic allele specific gene expression in single mouse blastomeres. *PLoS One*. 2011;6(6):e21208. doi: 10.1371/journal.pone.0021208. Epub 2011 Jun 23. PubMed PMID: 21731673; PubMed Central PMCID: PMC3121735.

31: Tang F, Lao K, Surani MA. Development and applications of single-cell transcriptome analysis. *Nat Methods*. 2011 Apr;8(4 Suppl):S6-11. doi: 10.1038/nmeth.1557. Review. PubMed PMID: 21451510; PubMed Central PMCID: PMC3408593.

32: Tee WW, Pardo M, Theunissen TW, Yu L, Choudhary JS, Hajkova P, Surani MA. Prmt5 is essential for early mouse development and acts in the cytoplasm to maintain ES cell pluripotency. *Genes Dev*. 2010 Dec 15;24(24):2772-7. doi: 10.1101/gad.606110. PubMed PMID: 21159818; PubMed Central PMCID: PMC3003195.

33: Surani MA, Hajkova P. Epigenetic reprogramming of mouse germ cells toward totipotency. *Cold Spring Harb Symp Quant Biol*. 2010;75:211-8. doi: 10.1101/sqb.2010.75.010. Epub 2010 Dec 7. PubMed PMID: 21139069.

34: Hanina SA, Mifsud W, Down TA, Hayashi K, O'Carroll D, Lao K, Miska EA, Surani MA. Genome-wide identification of targets and function of individual MicroRNAs in mouse embryonic stem cells. *PLoS Genet*. 2010 Oct 21;6(10):e1001163. doi: 10.1371/journal.pgen.1001163. PubMed PMID: 20975942; PubMed Central PMCID: PMC2958809.

35: Hajkova P, Jeffries SJ, Lee C, Miller N, Jackson SP, Surani MA. Genome-wide reprogramming in the mouse germ line entails the base excision repair pathway. *Science*. 2010 Jul 2;329(5987):78-82. doi: 10.1126/science.1187945. PubMed PMID: 20595612; PubMed Central PMCID: PMC3863715.

36: Leitch HG, Blair K, Mansfield W, Ayetey H, Humphreys P, Nichols J, Surani MA, Smith A. Embryonic germ cells from mice and rats exhibit properties consistent

with a generic pluripotent ground state. *Development*. 2010 Jul;137(14):2279-87.
doi: 10.1242/dev.050427. Epub 2010 Jun 2. PubMed PMID: 20519324; PubMed Central
PMCID: PMC2889601.

37: Tang F, Barbacioru C, Nordman E, Li B, Xu N, Bashkirov VI, Lao K, Surani MA.
RNA-Seq analysis to capture the transcriptome landscape of a single cell. *Nat Protoc*. 2010 Mar;5(3):516-35. doi: 10.1038/nprot.2009.236. Epub 2010 Feb 25.
PubMed PMID: 20203668; PubMed Central PMCID: PMC3847604.

38: Bao S, Tang F, Li X, Hayashi K, Gillich A, Lao K, Surani MA.
Epigenetic reversion of post-implantation epiblast to pluripotent embryonic stem cells.
Nature. 2009 Oct 29;461(7268):1292-5. doi: 10.1038/nature08534. PubMed PMID:
19816418; PubMed Central PMCID: PMC3863718.

39: Yeap LS, Hayashi K, Surani MA. ERG-associated protein with SET domain (ESET)-Oct4 interaction regulates pluripotency and represses the trophectoderm lineage. *Epigenetics Chromatin*. 2009 Oct 7;2(1):12. doi: 10.1186/1756-8935-2-12.
PubMed PMID: 19811652; PubMed Central PMCID: PMC2763847.

40: Hayashi K, Surani MA. Self-renewing epiblast stem cells exhibit continual delineation of germ cells with epigenetic reprogramming in vitro. *Development*. 2009 Nov;136(21):3549-56. doi: 10.1242/dev.037747. Epub 2009 Sep 30.
PubMed PMID:
19793888; PubMed Central PMCID: PMC2761105.

41: Hayashi K, Surani MA. Resetting the epigenome beyond pluripotency in the germline. *Cell Stem Cell*. 2009 Jun 5;4(6):493-8. doi: 10.1016/j.stem.2009.05.007.
Review. PubMed PMID: 19497276.

42: Tang F, Barbacioru C, Wang Y, Nordman E, Lee C, Xu N, Wang X, Bodeau J, Tuch BB, Siddiqui A, Lao K, Surani MA. mRNA-Seq whole-transcriptome analysis of a single cell. *Nat Methods*. 2009 May;6(5):377-82. doi: 10.1038/nmeth.1315. Epub 2009 Apr 6. PubMed PMID: 19349980.

43: Surani MA, Durcova-Hills G, Hajkova P, Hayashi K, Tee WW. Germ line, stem

cells, and epigenetic reprogramming. *Cold Spring Harb Symp Quant Biol.* 2008;73:9-15. doi: 10.1101/sqb.2008.73.015. Epub 2008 Nov 6. Review. PubMed PMID: 19022742.

44: Durcova-Hills G, Tang F, Doody G, Tooze R, Surani MA. Reprogramming primordial germ cells into pluripotent stem cells. *PLoS One.* 2008;3(10):e3531. doi: 10.1371/journal.pone.0003531. Epub 2008 Oct 27. PubMed PMID: 18953407; PubMed Central PMCID: PMC2567847.

45: Hayashi K, Lopes SM, Tang F, Surani MA. Dynamic equilibrium and heterogeneity of mouse pluripotent stem cells with distinct functional and epigenetic states. *Cell Stem Cell.* 2008 Oct 9;3(4):391-401. doi: 10.1016/j.stem.2008.07.027. PubMed PMID: 18940731; PubMed Central PMCID: PMC3847852.

46: Lange UC, Adams DJ, Lee C, Barton S, Schneider R, Bradley A, Surani MA. Normal germ line establishment in mice carrying a deletion of the Ifitm/Fragilis gene family cluster. *Mol Cell Biol.* 2008 Aug;28(15):4688-96. doi: 10.1128/MCB.00272-08. Epub 2008 May 27. PubMed PMID: 18505827; PubMed Central PMCID: PMC2493357.

47: Tang F, Hajkova P, O'Carroll D, Lee C, Tarakhovsky A, Lao K, Surani MA. MicroRNAs are tightly associated with RNA-induced gene silencing complexes in vivo. *Biochem Biophys Res Commun.* 2008 Jul 18;372(1):24-9. doi: 10.1016/j.bbrc.2008.04.137. Epub 2008 May 12. PubMed PMID: 18474225.

48: Hajkova P, Ancelin K, Waldmann T, Lacoste N, Lange UC, Cesari F, Lee C, Almouzni G, Schneider R, Surani MA. Chromatin dynamics during epigenetic reprogramming in the mouse germ line. *Nature.* 2008 Apr 17;452(7189):877-81. doi: 10.1038/nature06714. Epub 2008 Mar 19. PubMed PMID: 18354397; PubMed Central PMCID: PMC3847605.

49: Tang F, Hayashi K, Kaneda M, Lao K, Surani MA. A sensitive multiplex assay for piRNA expression. *Biochem Biophys Res Commun.* 2008 May 16;369(4):1190-4. doi: 10.1016/j.bbrc.2008.03.035. Epub 2008 Mar 17. PubMed PMID: 18348866; PubMed Central PMCID: PMC3855189.

50: Hayashi K, Chuva de Sousa Lopes SM, Kaneda M, Tang F, Hajkova P, Lao K, O'Carroll D, Das PP, Tarakhovsky A, Miska EA, Surani MA. MicroRNA biogenesis is required for mouse primordial germ cell development and spermatogenesis. *PLoS One.* 2008 Mar 5;3(3):e1738. doi: 10.1371/journal.pone.0001738. PubMed PMID: 18320056; PubMed Central PMCID: PMC2254191.

51: Chuva de Sousa Lopes SM, Hayashi K, Shovlin TC, Mifsud W, Surani MA, McLaren A. X chromosome activity in mouse XX primordial germ cells. *PLoS Genet.* 2008 Feb;4(2):e30. doi: 10.1371/journal.pgen.0040030. PubMed PMID: 18266475; PubMed Central PMCID: PMC2233679.

52: de Sousa Lopes SM, Hayashi K, Surani MA. Proximal visceral endoderm and extraembryonic ectoderm regulate the formation of primordial germ cell precursors. *BMC Dev Biol.* 2007 Dec 20;7:140. PubMed PMID: 18096072; PubMed Central PMCID: PMC2231376.

53: Surani MA. Germ cells: the eternal link between generations. *C R Biol.* 2007 Jun-Jul;330(6-7):474-8. Epub 2007 May 9. Review. PubMed PMID: 17631440.

54: Hayashi K, de Sousa Lopes SM, Surani MA. Germ cell specification in mice. *Science.* 2007 Apr 20;316(5823):394-6. Review. PubMed PMID: 17446386.

55: Tang F, Hajkova P, Barton SC, O'Carroll D, Lee C, Lao K, Surani MA. 220-plex microRNA expression profile of a single cell. *Nat Protoc.* 2006;1(3):1154-9. PubMed PMID: 17406397.

56: Tang F, Kaneda M, O'Carroll D, Hajkova P, Barton SC, Sun YA, Lee C, Tarakhovsky A, Lao K, Surani MA. Maternal microRNAs are essential for mouse zygotic development. *Genes Dev.* 2007 Mar 15;21(6):644-8. PubMed PMID: 17369397; PubMed Central PMCID: PMC1820938.

57: Surani MA, Hayashi K, Hajkova P. Genetic and epigenetic regulators of pluripotency. *Cell.* 2007 Feb 23;128(4):747-62. Review. PubMed PMID: 17320511.

58: Maldonado-Saldivia J, van den Bergen J, Krouskos M, Gilchrist M, Lee C, Li R,

Sinclair AH, Surani MA, Western PS. Dppa2 and Dppa4 are closely linked SAP motif genes restricted to pluripotent cells and the germ line. *Stem Cells*. 2007 Jan;25(1):19-28. Epub 2006 Sep 21. PubMed PMID: 16990585.

59: Durcova-Hills G, Hajkova P, Sullivan S, Barton S, Surani MA, McLaren A. Influence of sex chromosome constitution on the genomic imprinting of germ cells. *Proc Natl Acad Sci U S A*. 2006 Jul 25;103(30):11184-8. Epub 2006 Jul 17. PubMed PMID: 16847261; PubMed Central PMCID: PMC1544062.

60: Durcova-Hills G, Adams IR, Barton SC, Surani MA, McLaren A. The role of exogenous fibroblast growth factor-2 on the reprogramming of primordial germ cells into pluripotent stem cells. *Stem Cells*. 2006 Jun;24(6):1441-9. PubMed PMID: 16769760.

61: Ancelin K, Lange UC, Hajkova P, Schneider R, Bannister AJ, Kouzarides T, Surani MA. Blimp1 associates with Prmt5 and directs histone arginine methylation in mouse germ cells. *Nat Cell Biol*. 2006 Jun;8(6):623-30. Epub 2006 May 14. PubMed PMID: 16699504.

62: van der Weyden L, Arends MJ, Chausiaux OE, Ellis PJ, Lange UC, Surani MA, Affara N, Murakami Y, Adams DJ, Bradley A. Loss of TSLC1 causes male infertility due to a defect at the spermatid stage of spermatogenesis. *Mol Cell Biol*. 2006 May;26(9):3595-609. PubMed PMID: 16611999; PubMed Central PMCID: PMC1447413.

63: Miyoshi N, Barton SC, Kaneda M, Hajkova P, Surani MA. The continuing quest to comprehend genomic imprinting. *Cytogenet Genome Res*. 2006;113(1-4):6-11. PubMed PMID: 16575156.

64: Payer B, Chuva de Sousa Lopes SM, Barton SC, Lee C, Saitou M, Surani MA. Generation of stella-GFP transgenic mice: a novel tool to study germ cell development. *Genesis*. 2006 Feb;44(2):75-83. PubMed PMID: 16437550.

65: Tang F, Hajkova P, Barton SC, Lao K, Surani MA. MicroRNA expression profiling of single whole embryonic stem cells. *Nucleic Acids Res*. 2006 Jan 24;34(2):e9.

PubMed PMID: 16434699; PubMed Central PMCID: PMC1351374.

66: Surani MA. Nuclear reprogramming by human embryonic stem cells. *Cell*. 2005 Sep 9;122(5):653-4. Review. PubMed PMID: 16143098.

67: Surani MA, Ancelin K, Hajkova P, Lange UC, Payer B, Western P, Saitou M. Mechanism of mouse germ cell specification: a genetic program regulating epigenetic reprogramming. *Cold Spring Harb Symp Quant Biol*. 2004;69:1-9. Review. PubMed PMID: 16117627.

68: Sansom SN, Hébert JM, Thammongkol U, Smith J, Nisbet G, Surani MA, McConnell SK, Livesey FJ. Genomic characterisation of a Fgf-regulated gradient-based neocortical protomap. *Development*. 2005 Sep;132(17):3947-61. Epub 2005 Aug 3. PubMed PMID: 16079153.

69: Curley JP, Pinnock SB, Dickson SL, Thresher R, Miyoshi N, Surani MA, Keverne EB. Increased body fat in mice with a targeted mutation of the paternally expressed imprinted gene Peg3. *FASEB J*. 2005 Aug;19(10):1302-4. Epub 2005 May 31. PubMed PMID: 15928196.

70: Hajkova P, Surani MA. Development. Programming the X chromosome. *Science*. 2004 Jan 30;303(5658):633-4. PubMed PMID: 14752149.

71: Payer B, Saitou M, Barton SC, Thresher R, Dixon JP, Zahn D, Colledge WH, Carlton MB, Nakano T, Surani MA. Stella is a maternal effect gene required for normal early development in mice. *Curr Biol*. 2003 Dec 2;13(23):2110-7. PubMed PMID: 14654002.

72: Saitou M, Payer B, Lange UC, Erhardt S, Barton SC, Surani MA. Specification of germ cell fate in mice. *Philos Trans R Soc Lond B Biol Sci*. 2003 Aug 29;358(1436):1363-70. PubMed PMID: 14511483; PubMed Central PMCID: PMC1693230.

73: Erhardt S, Su IH, Schneider R, Barton S, Bannister AJ, Perez-Burgos L, Jenuwein T, Kouzarides T, Tarakhovsky A, Surani MA. Consequences of the depletion of zygotic and embryonic enhancer of zeste 2 during preimplantation mouse

development. *Development*. 2003 Sep;130(18):4235-48. PubMed PMID: 12900441.

74: Lange UC, Saitou M, Western PS, Barton SC, Surani MA. The *fragilis* interferon-inducible gene family of transmembrane proteins is associated with germ cell specification in mice. *BMC Dev Biol*. 2003 Mar 19;3:1. Epub 2003 Mar 19. PubMed PMID: 12659663; PubMed Central PMCID: PMC153542.

75: Saitou M, Barton SC, Surani MA. A molecular programme for the specification of germ cell fate in mice. *Nature*. 2002 Jul 18;418(6895):293-300. PubMed PMID: 12124616.

76: Arney KL, Bao S, Bannister AJ, Kouzarides T, Surani MA. Histone methylation defines epigenetic asymmetry in the mouse zygote. *Int J Dev Biol*. 2002 May;46(3):317-20. PubMed PMID: 12068953.

77: Drewell RA, Arney KL, Arima T, Barton SC, Brenton JD, Surani MA. Novel conserved elements upstream of the H19 gene are transcribed and act as mesodermal enhancers. *Development*. 2002 Mar;129(5):1205-13. PubMed PMID: 11874916.

78: Drewell RA, Goddard CJ, Thomas JO, Surani MA. Methylation-dependent silencing at the H19 imprinting control region by MeCP2. *Nucleic Acids Res*. 2002 Mar;30(5):1139-44. PubMed PMID: 11861904; PubMed Central PMCID: PMC101245.

79: Barton SC, Arney KL, Shi W, Niveleau A, Fundele R, Surani MA, Haaf T. Genome-wide methylation patterns in normal and uniparental early mouse embryos. *Hum Mol Genet*. 2001 Dec 15;10(26):2983-7. PubMed PMID: 11751680.

80: Surani MA. Reprogramming of genome function through epigenetic inheritance. *Nature*. 2001 Nov 1;414(6859):122-8. Review. PubMed PMID: 11689958.

81: Ferguson-Smith AC, Surani MA. Imprinting and the epigenetic asymmetry between parental genomes. *Science*. 2001 Aug 10;293(5532):1086-9. PubMed PMID: 11498578.

82: John RM, Aparicio SA, Ainscough JF, Arney KL, Khosla S, Hawker K, Hilton KJ, Barton SC, Surani MA. Imprinted expression of neuronatin from modified BAC

transgenes reveals regulation by distinct and distant enhancers. *Dev Biol.* 2001 Aug 15;236(2):387-99. PubMed PMID: 11476579.

83: John RM, Ainscough JF, Barton SC, Surani MA. Distant cis-elements regulate imprinted expression of the mouse p57(Kip2) (Cdkn1c) gene: implications for the human disorder, Beckwith-Wiedemann syndrome. *Hum Mol Genet.* 2001 Jul 15;10(15):1601-9. PubMed PMID: 11468278.

84: Arima T, Drewell RA, Arney KL, Inoue J, Makita Y, Hata A, Oshimura M, Wake N, Surani MA. A conserved imprinting control region at the HYMAI/ZAC domain is implicated in transient neonatal diabetes mellitus. *Hum Mol Genet.* 2001 Jul 1;10(14):1475-83. PubMed PMID: 11448939.

85: Arney KL, Erhardt S, Drewell RA, Surani MA. Epigenetic reprogramming of the genome--from the germ line to the embryo and back again. *Int J Dev Biol.* 2001;45(3):533-40. Review. PubMed PMID: 11417896.

86: Hiby SE, Lough M, Keverne EB, Surani MA, Loke YW, King A. Paternal monoallelic expression of PEG3 in the human placenta. *Hum Mol Genet.* 2001 May 1;10(10):1093-100. PubMed PMID: 11331620.

87: Ledgerwood EC, O'Rahilly S, Surani MA. The imprinted gene Peg3 is not essential for tumor necrosis factor alpha signaling. *Lab Invest.* 2000 Oct;80(10):1509-11. PubMed PMID: 11045567.

88: Georgiades P, Watkins M, Surani MA, Ferguson-Smith AC. Parental origin-specific developmental defects in mice with uniparental disomy for chromosome 12. *Development.* 2000 Nov;127(21):4719-28. PubMed PMID: 11023874.

89: Ainscough JF, John RM, Barton SC, Surani MA. A skeletal muscle-specific mouse Igf2 repressor lies 40 kb downstream of the gene. *Development.* 2000 Sep;127(18):3923-30. PubMed PMID: 10952890.

90: Arima T, Drewell RA, Oshimura M, Wake N, Surani MA. A novel imprinted gene, HYMAI, is located within an imprinted domain on human chromosome 6 containing ZAC. *Genomics.* 2000 Aug 1;67(3):248-55. PubMed PMID: 10936046.

91: Szeto IY, Li LL, Surani MA. Ocat, a paternally expressed gene closely linked

and transcribed in the opposite direction to Peg3. *Genomics*. 2000 Jul 15;67(2):221-7. PubMed PMID: 10903847.

92: Drewell RA, Brenton JD, Ainscough JF, Barton SC, Hilton KJ, Arney KL, Dandolo L, Surani MA. Deletion of a silencer element disrupts H19 imprinting independently of a DNA methylation epigenetic switch. *Development*. 2000 Aug;127(16):3419-28. PubMed PMID: 10903168.

93: John RM, Surani MA. Genomic imprinting, mammalian evolution, and the mystery of egg-laying mammals. *Cell*. 2000 Jun 9;101(6):585-8. Review. PubMed PMID: 10892645.

94: Russ AP, Wattler S, Colledge WH, Aparicio SA, Carlton MB, Pearce JJ, Barton SC, Surani MA, Ryan K, Nehls MC, Wilson V, Evans MJ. Eomesodermin is required for mouse trophoblast development and mesoderm formation. *Nature*. 2000 Mar 2;404(6773):95-9. PubMed PMID: 10716450.

95: Ainscough JF, Dandolo L, Surani MA. Appropriate expression of the mouse H19 gene utilises three or more distinct enhancer regions spread over more than 130 kb. *Mech Dev*. 2000 Mar 1;91(1-2):365-8. PubMed PMID: 10704866.

96: Li LL, Szeto IY, Cattanach BM, Ishino F, Surani MA. Organization and parent-of-origin-specific methylation of imprinted Peg3 gene on mouse proximal chromosome 7. *Genomics*. 2000 Feb 1;63(3):333-40. PubMed PMID: 10704281.

97: John RM, Hodges M, Little P, Barton SC, Surani MA. A human p57(KIP2) transgene is not activated by passage through the maternal mouse germline. *Hum Mol Genet*. 1999 Nov;8(12):2211-9. PubMed PMID: 10545601.

98: Surani MA. Reprogramming a somatic nucleus by trans-modification activity in germ cells. *Semin Cell Dev Biol*. 1999 Jun;10(3):273-7. Review. PubMed PMID: 10441539.

99: Brenton JD, Drewell RA, Viville S, Hilton KJ, Barton SC, Ainscough JF, Surani MA. A silencer element identified in *Drosophila* is required for imprinting of H19 reporter transgenes in mice. *Proc Natl Acad Sci U S A*. 1999 Aug 3;96(16):9242-7. PubMed PMID: 10430927; PubMed Central PMCID: PMC17764.

100: Li L, Keverne EB, Aparicio SA, Ishino F, Barton SC, Surani MA. Regulation of maternal behavior and offspring growth by paternally expressed Peg3. *Science*. 1999 Apr 9;284(5412):330-3. PubMed PMID: 10195900.

101: Kato Y, Rideout WM 3rd, Hilton K, Barton SC, Tsunoda Y, Surani MA. Developmental potential of mouse primordial germ cells. *Development*. 1999 May;126(9):1823-32. PubMed PMID: 10101117.

102: Ainscough JF, John RM, Surani MA. Mechanism of imprinting on mouse distal chromosome 7. *Genet Res*. 1998 Dec;72(3):237-45. PubMed PMID: 10036981.

103: Lefebvre L, Viville S, Barton SC, Ishino F, Keverne EB, Surani MA. Abnormal maternal behaviour and growth retardation associated with loss of the imprinted gene Mest. *Nat Genet*. 1998 Oct;20(2):163-9. PubMed PMID: 9771709.

104: Brenton JD, Ainscough JF, Lyko F, Paro R, Surani MA. Imprinting and gene silencing in mice and Drosophila. *Novartis Found Symp*. 1998;214:233-44; discussion 244-50. Review. PubMed PMID: 9601021.

105: Surani MA. Imprinting and the initiation of gene silencing in the germ line. *Cell*. 1998 May 1;93(3):309-12. Review. PubMed PMID: 9590162.

106: Tada T, Tada M, Hilton K, Barton SC, Sado T, Takagi N, Surani MA. Epigenotype switching of imitable loci in embryonic germ cells. *Dev Genes Evol*. 1998 Feb;207(8):551-61. PubMed PMID: 9510550.

107: Narasimha M, Barton SC, Surani MA. The role of the paternal genome in the development of the mouse germ line. *Curr Biol*. 1997 Nov 1;7(11):881-4. PubMed PMID: 9382800.

108: Tada M, Tada T, Lefebvre L, Barton SC, Surani MA. Embryonic germ cells induce epigenetic reprogramming of somatic nucleus in hybrid cells. *EMBO J*. 1997 Nov 3;16(21):6510-20. PubMed PMID: 9351832; PubMed Central PMCID: PMC1170256.

109: Ainscough JF, Koide T, Tada M, Barton S, Surani MA. Imprinting of Igf2 and

H19 from a 130 kb YAC transgene. *Development.* 1997 Sep;124(18):3621-32.
PubMed
PMID: 9342054.

110: Kikyo N, Williamson CM, John RM, Barton SC, Beechey CV, Ball ST, Cattanach BM, Surani MA, Peters J. Genetic and functional analysis of neuronatin in mice with maternal or paternal duplication of distal Chr 2. *Dev Biol.* 1997 Oct 1;190(1):66-77. PubMed PMID: 9331332.

111: Lefebvre L, Viville S, Barton SC, Ishino F, Surani MA. Genomic structure and parent-of-origin-specific methylation of Peg1. *Hum Mol Genet.* 1997 Oct;6(11):1907-15. PubMed PMID: 9302270.

112: Kikyo N, Tada M, Tada T, Surani MA. Mapping of the eukaryotic initiation factor eIF-1A gene, Eif1a, to mouse chromosome 12D-E by FISH. *Mamm Genome.* 1997 May;8(5):376. PubMed PMID: 9107689.

113: Kikyo N, Rideout WM 3rd, Tada T, Tada M, Surani MA. Mapping of the Fas-associated factor 1 gene, Faf1, to mouse chromosome 4C6 by FISH. *Mamm Genome.* 1997 Mar;8(3):224-5. PubMed PMID: 9069128.

114: John RM, Surani MA. Imprinted genes and regulation of gene expression by epigenetic inheritance. *Curr Opin Cell Biol.* 1996 Jun;8(3):348-53. Review. PubMed PMID: 8743885.

115: Keverne EB, Fundele R, Narasimha M, Barton SC, Surani MA. Genomic imprinting and the differential roles of parental genomes in brain development. *Brain Res Dev Brain Res.* 1996 Mar 29;92(1):91-100. PubMed PMID: 8861727.

116: Andermarcher E, Surani MA, Gherardi E. Co-expression of the HGF/SF and c-met genes during early mouse embryogenesis precedes reciprocal expression in adjacent tissues during organogenesis. *Dev Genet.* 1996;18(3):254-66. PubMed PMID: 8631159.

117: Sasaki H, Ferguson-Smith AC, Shum AS, Barton SC, Surani MA. Temporal and spatial regulation of H19 imprinting in normal and uniparental mouse embryos. *Development.* 1995 Dec;121(12):4195-202. PubMed PMID: 8575319.

118: Viville S, Surani MA. Towards unravelling the Igf2/H19 imprinted domain. Bioessays. 1995 Oct;17(10):835-8. Review. PubMed PMID: 7487965.

119: Brenton JD, Viville S, Surani MA. Genomic imprinting and cancer. Cancer Surv. 1995;25:161-71. Review. PubMed PMID: 8718517.

120: Koide T, Ainscough J, Wijgerde M, Surani MA. Comparative analysis of Igf-2/H19 imprinted domain: identification of a highly conserved intergenic DNase I hypersensitive region. Genomics. 1994 Nov 1;24(1):1-8. PubMed PMID: 7896263.

121: Allen ND, Barton SC, Hilton K, Norris ML, Surani MA. A functional analysis of imprinting in parthenogenetic embryonic stem cells. Development. 1994 Jun;120(6):1473-82. PubMed PMID: 8050357.

122: Surani MA. Genomic imprinting: control of gene expression by epigenetic inheritance. Curr Opin Cell Biol. 1994 Jun;6(3):390-5. Review. PubMed PMID: 7917330.

123: Pascall IC, Surani MA, Barton SC, Vaughan TJ, Brown KD. Directed expression of simian virus 40 T-antigen in transgenic mice using the epidermal growth factor gene promoter. J Mol Endocrinol. 1994 Jun;12(3):313-25. PubMed PMID: 7916970.

124: Reik W, Römer I, Barton SC, Surani MA, Howlett SK, Klose J. Adult phenotype in the mouse can be affected by epigenetic events in the early embryo. Development. 1993 Nov;119(3):933-42. PubMed PMID: 8187648.

125: Ferguson-Smith AC, Sasaki H, Cattanach BM, Surani MA. Parental-origin-specific epigenetic modification of the mouse H19 gene. Nature. 1993 Apr 22;362(6422):751-5. PubMed PMID: 8469285.

126: Surani MA, Sasaki H, Ferguson-Smith AC, Allen ND, Barton SC, Jones PA, Reik W. The inheritance of germline-specific epigenetic modifications during development. Philos Trans R Soc Lond B Biol Sci. 1993 Feb 27;339(1288):165-72. Review. PubMed PMID: 8097048.

127: Sasaki H, Allen ND, Surani MA. DNA methylation and genomic imprinting in mammals. EXS. 1993;64:469-86. Review. PubMed PMID: 8418956.

128: Barton SC, Surani MA. Manipulations of genetic constitution by nuclear transplantation. Methods Enzymol. 1993;225:732-44. PubMed PMID: 8231882.

129: Sasaki H, Jones PA, Chaillet JR, Ferguson-Smith AC, Barton SC, Reik W, Surani MA. Parental imprinting: potentially active chromatin of the repressed maternal allele of the mouse insulin-like growth factor II (Igf2) gene. Genes Dev. 1992 Oct;6(10):1843-56. PubMed PMID: 1383088.

130: Barton SC, Ferguson-Smith AC, Fundele R, Surani MA. Influence of paternally imprinted genes on development. Development. 1991 Oct;113(2):679-87. PubMed PMID: 1782874.

131: Surani MA. Genomic imprinting: developmental significance and molecular mechanism. Curr Opin Genet Dev. 1991 Aug;1(2):241-6. Review. PubMed PMID: 1822272.

132: Kothary R, Barton SC, Franz T, Norris ML, Hettle S, Surani MA. Unusual cell specific expression of a major human cytomegalovirus immediate early gene promoter-lacZ hybrid gene in transgenic mouse embryos. Mech Dev. 1991 Aug;35(1):25-31. PubMed PMID: 1659441.

133: Ferguson-Smith AC, Cattanach BM, Barton SC, Beechey CV, Surani MA. Embryological and molecular investigations of parental imprinting on mouse chromosome 7. Nature. 1991 Jun 20;351(6328):667-70. PubMed PMID: 2052093.

134: Boehm T, Spillantini MG, Sofroniew MV, Surani MA, Rabbitts TH. Developmentally regulated and tissue specific expression of mRNAs encoding the two alternative forms of the LIM domain oncogene rhombotin: evidence for thymus expression. Oncogene. 1991 May;6(5):695-703. PubMed PMID: 2052354.

135: Brüggemann M, Spicer C, Buluwela L, Rosewell I, Barton S, Surani MA, Rabbitts TH. Human antibody production in transgenic mice: expression from 100 kb of the human IgH locus. Eur J Immunol. 1991 May;21(5):1323-6. PubMed PMID: 1903709.

136: Surani MA. Influence of genome imprinting on gene expression, phenotypic variations and development. *Hum Reprod.* 1991 Jan;6(1):45-51. Review. PubMed PMID: 1874955.

137: Brüggemann M, Williams GT, Caskey HM, Teale C, Spicer C, Surani MA, Neuberger MS. Construction, function and immunogenicity of recombinant monoclonal antibodies. *Behring Inst Mitt.* 1990 Dec; (87):21-4. Review. PubMed PMID: 2096817.

138: Meyer KB, Sharpe MJ, Surani MA, Neuberger MS. The importance of the 3'-enhancer region in immunoglobulin kappa gene expression. *Nucleic Acids Res.* 1990 Oct 11;18(19):5609-15. PubMed PMID: 2120679; PubMed Central PMCID: PMC332290.

139: Allen ND, Keverne EB, Surani MA. A position-dependent transgene reveals patterns of gene expression in the developing brain. *Brain Res Dev Brain Res.* 1990 Sep 1;55(2):181-90. PubMed PMID: 2253321.

140: Sharpe MJ, Neuberger M, Pannell R, Surani MA, Milstein C. Lack of somatic mutation in a kappa light chain transgene. *Eur J Immunol.* 1990 Jun;20(6):1379-85. PubMed PMID: 2115000.

141: Allen ND, Norris ML, Surani MA. Epigenetic control of transgene expression and imprinting by genotype-specific modifiers. *Cell.* 1990 Jun 1;61(5):853-61. PubMed PMID: 2111735.

142: Greenberg JM, Boehm T, Sofroniew MV, Keynes RJ, Barton SC, Norris ML, Surani MA, Spillantini MG, Rabbitts TH. Segmental and developmental regulation of a presumptive T-cell oncogene in the central nervous system. *Nature.* 1990 Mar 8;344(6262):158-60. PubMed PMID: 2106626.

143: Surani MA, Allen ND, Barton SC, Fundele R, Howlett SK, Norris ML, Reik W. Developmental consequences of imprinting of parental chromosomes by DNA methylation. *Philos Trans R Soc Lond B Biol Sci.* 1990 Jan 30;326(1235):313-27. PubMed PMID: 1968667.

144: Fundele RH, Norris ML, Barton SC, Fehlau M, Howlett SK, Mills WE, Surani MA.

Temporal and spatial selection against parthenogenetic cells during development of fetal chimeras. *Development*. 1990 Jan;108(1):203-11. PubMed PMID: 2351065.

145: Ferguson-Smith AC, Reik W, Surani MA. Genomic imprinting and cancer. *Cancer Surv.* 1990;9(3):487-503. Review. PubMed PMID: 2101722.

146: Reik W, Howlett SK, Surani MA. Imprinting by DNA methylation: from transgenes to endogenous gene sequences. *Dev Suppl*. 1990:99-106. PubMed PMID: 2090437.

147: Surani MA, Kothary R, Allen ND, Singh PB, Fundele R, Ferguson-Smith AC, Barton SC. Genome imprinting and development in the mouse. *Dev Suppl*. 1990:89-98. Review. PubMed PMID: 2090435.

148: Brüggemann M, Caskey HM, Teale C, Waldmann H, Williams GT, Surani MA, Neuberger MS. A repertoire of monoclonal antibodies with human heavy chains from transgenic mice. *Proc Natl Acad Sci U S A*. 1989 Sep;86(17):6709-13. PubMed PMID: 2505258; PubMed Central PMCID: PMC297915.

149: Fundele R, Norris ML, Barton SC, Reik W, Surani MA. Systematic elimination of parthenogenetic cells in mouse chimeras. *Development*. 1989 May;106(1):29-35. PubMed PMID: 2627886.

150: Neuberger MS, Caskey HM, Pettersson S, Williams GT, Surani MA. Isotype exclusion and transgene down-regulation in immunoglobulin-lambda transgenic mice. *Nature*. 1989 Mar 23;338(6213):350-2. PubMed PMID: 2493585.

151: Howlett SK, Reik W, Barton SC, Norris ML, Surani MA. Genomic imprinting in the mouse. *Dev Biol (N Y)*. 1989;6:59-77. Review. PubMed PMID: 2696496.

152: Howlett SK, Barton SC, Surani MA. Effects of the number, stage and parental origin of nuclei in reconstructed mouse eggs. *J Reprod Fertil Suppl*. 1989;38:99-105. Review. PubMed PMID: 2677353.

153: Pettersson S, Sharpe MJ, Gilmore DR, Surani MA, Neuberger MS. Cellular selection leads to age-dependent and reversible down-regulation of transgenic immunoglobulin light chain genes. *Int Immunol.* 1989;1(5):509-16. PubMed PMID: 2489040.

154: Allen ND, Cran DG, Barton SC, Hettle S, Reik W, Surani MA. Transgenes as probes for active chromosomal domains in mouse development. *Nature.* 1988 Jun 30;333(6176):852-5. PubMed PMID: 3386733.

155: Surani MA, Barton SC, Howlett SK, Norris ML. Influence of chromosomal determinants on development of androgenetic and parthenogenetic cells. *Development.* 1988 May;103(1):171-8. PubMed PMID: 3197628.

156: Howlett SK, Barton SC, Surani MA. Nuclear cytoplasmic interactions following nuclear transplantation in mouse embryos. *Development.* 1987 Dec;101(4):915-23. PubMed PMID: 3503704.