Curriculum Vitae

Name: Scott Neal Keeney

Date of Birth: December 3, 1965

Place of Birth: Baltimore, Maryland

Nationality: USA

Office Address: RRL 1101B
1275 York Avenue/Box 97
New York, NY 10065

Tel.#: (212) 639-5182
E-mail: s-keeney@ski.mskcc.org
Fax #: (212) 717-3627

Education:

1987	Virginia Polytechnic Institute and State University B.S. Biochemistry, Blacksburg, VA
1993	University of California Ph.D. Biochemistry, Berkeley, CA Advisor: Prof. Stuart Linn

Postdoctoral Training:

1993-1997	Department of Molecular and Cellular Biology Harvard University, Cambridge, MA Advisor: Prof. Nancy Kleckner

Positions and Appointments:

Sept. 1997–present	Molecular Biology Program, Memorial Sloan-Kettering Cancer Center. Assistant Member (1997–2004), Associate Member (2004–2006), Member (2006–present).
Jan. 1998–present	Molecular Biology Program and Biochemistry and Structural Biology Program, Weill Graduate School of Medical Sciences, Cornell University. Assistant Professor (1998–2005), Associate Professor (2005–2007), Professor (2007–present), Co-Director, BCMB Allied Graduate Programs (2007–2010).
Sept. 2006–present	Gerstner Sloan-Kettering Graduate School of Biomedical Sciences. Associate Professor (9/2006–11/2006), Professor (11/2006–present).
Aug. 2008–present	Investigator, Howard Hughes Medical Institute

Honors and Awards:

1983	Marshall Hahn Scholarship
1983-1987	National Merit Award Scholarship
1986	Phi Beta Kappa
1987	James Lewis Howe Undergraduate Research Award, Blue Ridge Section of the American Chemical Society
1987	B.S., *summa cum laude*, in honors, Virginia Tech
1987-1988	University of California Regents Fellowship
1988-1991	National Science Foundation Graduate Fellowship
1994-1997	Fellow, Damon Runyon-Walter Winchell Foundation
1998-2001	Awardee, NY City Council Speaker's Fund for Biomedical Research
2004	Louise and Allston Boyer Young Investigator Award, MSKCC
2005-2010	Leukemia and Lymphoma Society Scholar
2007	Finalist, Blavatnik Young Scientist Award, NY Academy of Sciences

2008	Investigator, Howard Hughes Medical Institute
2012	Clayton S. White Endowed Lecture, Oklahoma Medical Research Foundation

Scientific Societies:
American Society for Biochemistry and Molecular Biology, American Society for Microbiology, Genetics Society of America, Harvey Society

Editorial Review:
Genetics (Associate Editor 2007–2011)
Genes to Cells (Associate Editor 2003–)
Chromosoma (Associate Editor 2006–)
Ad hoc reviewer (partial listing): *Cell, Chromosoma, Current Biology, Developmental Cell, EMBO Journal, Genetics, Genes & Development, Genome Research, International Journal of Andrology, Journal of Biological Chemistry, Journal of Cell Biology, Journal of Cell Science, Molecular Cell, Molecular and Cellular Biology, Nature, Nature Genetics, Nature Structural and Molecular Biology, Nucleic Acids Research, Proceedings of the National Academy of Science USA, Science, PLoS Biology, PLoS Genetics, Trends in Genetics*

Grant Reviews:
Genetic Mechanisms of Cancer peer review committee, American Cancer Society (6/2003–6/2007)
NIH Molecular Genetics A (MGA) study section (ad hoc 10/2007, regular member 10/2008–6/2012)
NIGMS Council, Ad Hoc Consultant, 5/2013
Ad hoc reviewer (partial listing): NIH Nuclear Dynamics and Transport study section (NDT, 6/2006, 2/2008), NSF, Israel Science Foundation, Marathon (Italy), Austrian Science Fund, Council for Chemical Sciences of the Netherlands Organisation for Scientific Research, Wellcome Trust (U.K.), Swiss National Science Foundation, New Jersey Commission on Cancer Research.

Invited Talks:
Conferences (partial listing, 2007–2013):
Meiosis Gordon Conference (New London, NH, 6/2008 (Chair), 6/2010, 6/2012)
EMBO Workshop on Recombination (Italy 5/2008; Italy 5/2010; Spain 5/2012)
FASEB Recombination Meeting (Colorado, 7/2007, 8/2009, 7/2011, 7/2013)
EMBO Meiosis Meetings (Japan, 9/2007; France, 9/2009; Italy, 9/2011; Germany 9/2013)
FASEB Yeast Chromosomes (AZ 6/2008, 8/2010; CO 7/2012 (Co-Organizer))
16th International Chromosome Conference (Amsterdam, 8/2007)
Keystone Genome Integrity Symposium (Taos, NM, 3/2009)
Cantoblanco Workshop on Genome Stability (Madrid, 5/2009)
IMP Symposium "Chromosome Dynamics" (Vienna, 9/2009)
"Chromosome Cycle and Genome Dynamics Symposium" (Japan, 11/2009)
XVIth European Testis Workshop (Italy, 5/2010)
Nucleic Acids Gordon Conference (Maine, 6/2011)
TOPO2011, Topoisomerase Meeting (Taipei, Taiwan 10/2011)
German Society for Cell Biology (Dresden, Germany 3/2012)
Royal Society International Meeting on Recombination (Chichely UK 11/2012)
3R Meeting (Member of foreign advisory board; Awaji Island Japan 11/2012)
Symposium in honor of Paul Burgoyne (London 1/2013)
North American Testis Workshop (San Antonio TX 4/2013)
Wenner-Gren Foundation Symposium on Mammalian Meiosis (Stockholm 8/2013)
Chromosome Dynamics Gordon Conference; Keynote speaker, Gordon Research Seminar (Il Ciocco Italy, 5/2013)

Seminars (partial listing, 2009–2013):
UT-Southwestern, 2/9/09; Univ. Arizona, BCMB Dept., 3/10/09; Fred Hutchinson Cancer Research Center, Basic Sciences Division, 4/14/09; Columbia University, Dept of Genetics &

Development, 4/28/09; Cancer Research UK, Clare Hall Laboratories, 9/14/2009; Genome Dynamics and Stability Centre, Univ. Sussex, Brighton, UK, 9/16/2009; CNRS Institute of Human Genetics, Montpellier, France, 9/18/2009; Emory University, Biology Dept., 10/22/09; Washington Univ. St. Louis, Siteman Cancer Center, 3/19/10; Drexel University School of Medicine, Philadelphia, 3/15/10; Rutgers Univ. Dept of Biology, 9/21/10; U. Penn. Ctr. Research on Reprod. & Women's Health, 9/29/10; Tsinghua University, Beijing, China, 11/2/10; Max Planck Institute, Dresden, Germany, 12/6/10; UC Santa Cruz, Dept of MC&DB, 1/24/11; McGill University, 3/14/11; Univ. Rome Tor Vergata, 9/16/11; National Inst. of Health, 10/5/11; Stanford University, 2/15/12; Oklahoma Medical Research Foundation, 3/8/12; University of Salamanca, Spain, 5/14/12; Hunter College, 11/12/12; UC San Diego, 2/14/13; Cornell Univ., Mol Bio & Genetics, 3/29/13; MD Anderson Smithville, 4/8/13; Havard Med. School Dept. of Genetics, 6/12/13.

Research Support:

Investigator, Howard Hughes Medical Institute, 8/1/2008–present

R01 GM058673 (Keeney, PI), 1/1/1999–3/31/2016, "Mechanism of meiotic recombination initiation in yeast."

R01 GM105421 (formerly HD40916; M. Jasin, mPI; Keeney, mPI), 8/15/2001–12/31/2016, "Role of Spo11 and recombination in mouse meiosis."

R01 HD053855, (Keeney, mPI; M. Jasin, mPI), 5/9/2009–4/30/2014, "Mechanism and distribution of meiotic recombination initiation in mouse."

Publications:

1. Nishida C, Choi SY, Kim J, Keeney S, and Linn S. (1988) DNA polymerase δ plus HeLa or human fibroblast cell-free extracts complement permeabilized xeroderma pigmentosum fibroblasts: Application for purification of repair factors, in: E.C. Friedberg and P.C. Hanawalt (Eds.), *Mechanisms and Consequences of DNA Damage Processing*, Liss, New York, pp.337-341.

2. Keeney S, and Linn S. (1990) A critical review of permeabilized cell systems for studying mammalian DNA repair. *Mutat. Res.* **236**:239-252.

3. Juan JY, Keeney SN, and Gregory EM. (1991) Reconstitution of the *Deinococcus radiodurans* aposuperoxide dismutase. *Arch. Biochem. Biophys*. **286**:257-263.

4. Keeney S, Wein H, and Linn S. (1992) Biochemical heterogeneity in xeroderma pigmentosum complementation group E. *Mutat. Res.* **273**:49-56.

5. Keeney S., Chang GJ, and Linn S. (1993) Characterization of a human DNA damage binding protein implicated in xeroderma pigmentosum E. *J. Biol. Chem*. **268**:21293-21300.

6. Reardon JT, Nichols AF, Keeney S, Smith CA, Taylor JS, Linn S, and Sancar A. (1993) Comparative analysis of binding of human damaged DNA-binding protein (XP-E) and *Escherichia coli* damage recognition protein (UvrA) to the major ultraviolet photoproducts: T[*c,s*]T, T[*t,s*]T, T[6,4]T, and T[Dewar]T. *J. Biol. Chem.* **268**:21301-21308.

7. Keeney S, Eker APM, Vermeulen W, Brody T, Hoeijmakers, JHJ, Bootsma D, and Linn S. (1994) Correction of the DNA repair defect in xeroderma pigmentosum E by injection of a DNA damage binding protein. *Proc. Natl. Acad. Sci. USA* **91**:4053-4056.

8. Dualan, R, Brody T, Keeney S, Nichols AF, Admon A, and Linn S. (1995) Chromosomal localization and cDNA cloning of the genes (DDB1 and DDB2) for the p127 and p48 subunits of a human damage-specific DNA binding protein. *Genomics* **29**:62-69.

9. Keeney S, and Kleckner N. (1995) Covalent protein-DNA complexes at the 5′ strand termini of meiosis-specific double-strand breaks in yeast. *Proc. Natl. Acad. Sci. USA* **92**:11274-11278.

10. Vaisman A, Keeney S, Nichols AF, Linn S, and Chaney SG. (1996) Cisplatin-induced alterations in the expression of the mRNAs for UV-damage recognition protein. *Oncol. Res.* **8**:7-12.

11. Keeney S, and Kleckner N. (1996) Communication between homologous chromosomes: genetic alterations at a nuclease-hypersensitive site can alter mitotic chromatin structure at that site both in *cis* and in *trans*. *Genes Cells* **1**:475-489.

12. Keeney S, Giroux CN, and Kleckner N. (1997) Meiosis-specific DNA double-strand breaks are catalyzed by Spo11, a member of a widely conserved protein family. *Cell* **88**:375-384.

13. *Keeney S, Baudat F, Angeles M, Zhou Z-H, Copeland NG, Jenkins NA, Manova K, and *Jasin M. (1999) A mouse homolog of the *Saccharomyces cerevisiae* meiotic recombination DNA transesterase Spo11p. *Genomics* **61**, 170-182. **Corresponding authors.*

14. Cha RS, Weiner BM, Keeney S, Dekker J, and Kleckner N (2000) Progression of meiotic DNA replication is modulated by interchromosomal interaction proteins, negatively by Spo11p and positively by Rec8p. *Genes Dev.* **14**, 493-503.

15. Keeney S (2000) Meiotic machinations (News and Views). *Nat. Genet.* **25**, 248.

16. Baudat F, Manova K, Yuen JP, *Jasin M, and *Keeney S (2000) Chromosome synapsis defects and sexually dimorphic meiotic progression in mice lacking Spo11. *Mol. Cell* **6**, 989-998. **Corresponding authors.*

17. Baudat F, and Keeney S. (2001) Meiotic recombination: Making and breaking go hand in hand. (Preview). *Curr. Biol.*, **11**: R45-R48.

18. Mahadevaiah SK, Turner JMA, Baudat F, Rogakou EP, de Boer P, Blanco-Rodriguez J, Jasin M, Keeney S, Bonner WM, and Burgoyne PS (2001) Recombinational DNA double strand breaks in mice precede synapsis. *Nat. Genet.* **27**, 271-276.

19. Keeney S (2001) Mechanism and control of meiotic recombination initiation. *Curr. Top. Dev. Biol.* **52**, 1-53.

20. Klein U, Esposito G, Baudat F, *Keeney S, and *Jasin M. (2002) Mice deficient for the topoisomerase II-like DNA transesterase Spo11 show normal immunoglobulin somatic hypermutation and class switching. *Eur. J. Immunol.* **32**, 316-321. **Corresponding authors.*

21. Kee K, and Keeney S. (2002) Functional interactions between *SPO11* and *REC102* during initiation of meiotic recombination in *Saccharomyces cerevisiae*. *Genetics* **160**, 111-122.

22. Diaz RL, Alcid AD, Berger JM, and Keeney S. (2002) Identification of residues in yeast Spo11p critical for meiotic DNA double-strand break formation. *Mol. Cell. Biol.* **22**, 1106-1115.

23. Martini E, Keeney S, and Osley MA (2002) A role for histone H2B during UV-induced DNA repair in *Saccharomyces cerevisiae*. *Genetics* **160**, 1375-1387.

24. Martini, E, and Keeney, S. (2002) Sex and the single (double-strand) break. (Preview) *Mol. Cell* **9**, 700-702

25. Arora C, Kee K, Maleki S, and Keeney S (2004) Antiviral protein Ski8 is a direct partner of Spo11 in meiotic double-strand break formation, independent of its cytoplasmic role in RNA metabolism. *Mol. Cell* **13**, 549-559.

26. Henderson KA, and Keeney S (2004) Tying synaptonemal complex initiation to the formation and programmed repair of DNA double-strand breaks. *Proc. Natl. Acad. Sci. USA* **101**, 4519-4524.

27. Kee K, Protacio RU, Arora C, and Keeney S (2004) Spatial organization and dynamics of the association of Rec102 and Rec104 with meiotic chromosomes. *EMBO J.* **23**, 1815-1824.

28. Kauppi L, Jeffreys AJ, and Keeney S (2004) Where the crossovers are: Recombination distributions in mammals. *Nature Rev. Genet.* **5**, 413-424.

29. Maleki S, and Keeney S (2004) Modifying histones and initiating meiotic recombination: New answers to an old question. (Preview) *Cell* **118**, 404-406.

30. Di Giacomo M, Barchi M, Baudat F, Edelmann W, *Keeney S, and *Jasin M (2005) Distinct DNA damage-dependent and independent responses drive the loss of oocytes in recombination-defective mouse mutants. *Proc. Natl. Acad. Sci. USA* **102**, 737-742. **Corresponding authors.* PMC545532

31. Okada T, and Keeney S (2005) Homologous recombination: Needing to have my say. (Dispatch) *Curr. Biol.***15**, R200-R202.

32. Ahn S-H, Henderson KA, Keeney S, and Allis CD (2005) H2B (Ser10) phosphorylation is induced during apoptosis and meiosis in S. cerevisiae. *Cell Cycle* **4**, 780-783.

33. Barchi M, Mahadevaiah S, Di Giacomo M, Baudat F, de Rooij DG, Burgoyne PS, *Jasin M, and *Keeney S (2005). Surveillance of different recombination defects in mouse spermatocytes yields distinct responses despite elimination at an identical developmental stage. *Mol. Cell. Biol*. **25**, 7203-7215. **Corresponding authors.* PMC1190256

34. Neale MJ, Pan J, and Keeney S (2005) Endonucleolytic processing of covalent protein-linked DNA double-strand breaks. *Nature* **436**, 1053-1057.

35. Henderson KA and Keeney S (2005) Synaptonemal complex formation: Where does it start? *Bioessays* **27**, 995-998.

36. Henderson K, Kee K, Maleki S, Santini PA, and Keeney S (2006) Cyclin-dependent kinase directly regulates initiation of meiotic recombination. *Cell* **125**, 1321-1332.

37. Neale MJ and Keeney S (2006) Clarifying the mechanics of DNA strand exchange in meiotic recombination. (Invited review). *Nature* **442**, 153-158.

38. Martini E, Diaz RL, Hunter N, and Keeney S (2006). Crossover homeostasis in yeast meiosis. *Cell* **126**, 285-295.

39. Keeney S and Neale MJ (2006) Initiation of meiotic recombination by formation of DNA double-strand breaks: mechanism and regulation. (Meeting proceedings). *Biochem. Soc. Trans.*, **34**, 523-525.

40. Liebe B, Pethukhova G, Barchi M, Bellani M, Braselmann H, Nakano T, Pandita MTK, Jasin M, Fornace A, Meistrich ML, Baarends WM, Schimenti J, de Lange T, Keeney S, Camerini-Otero RD, and Scherthan H (2006). Mutations that affect meiosis in male mice influence the dynamics of the mid-preleptotene and bouquet stages. *Exp. Cell Res*. **312**, 3768-3781.

41. Keeney S (2007) Spo11 and the formation of DNA double-strand breaks in meiosis. In *Genome Dynamics and Stability*, vol. 2, "Recombination and Meiosis: Crossing Over and Disjunction." R. Egel and D.-H. Lankenau, Eds., Springer, Berlin, pp. 81-123.

42. Maleki S, Neale MJ, Arora C, Henderson KA, and Keeney S (2007) Interactions between Mei4, Rec114, and other proteins required for meiotic DNA double-strand break formation in *Saccharomyces cerevisiae*. *Chromosoma* **116**, 471-486. PMC2084462

43. Kauppi L, Jasin M, and Keeney S (2007) Meiotic crossover hotspots contained in haplotype block boundaries of the mouse genome. *Proc. Natl. Acad. Sci. USA* **104**, 13396-13401. PMC1948908

44. Pan J and Keeney S (2007) Molecular cartography: Mapping the landscape of meiotic recombination. (Invited primer.) *PLoS Biology* **5**, 2775-2777. PMC2140090

45. Murakami H and Keeney S (2008) Regulating the formation of DNA double-strand breaks in meiosis. (Perspective article.) *Genes Dev*. **22**, 286-292. PMC2731648

46. Barchi M, Roig I, Cole F, Di Giacomo M, de Rooij DG, *Keeney S, and *Jasin M (2008) ATM promotes the obligate XY crossover and both crossover control and chromosome axis integrity on autosomes. *PLoS Genet*. **4**, e1000076. **Corresponding authors.* PMC2374915

47. Roig I and Keeney S (2008) Probing meiotic recombination decisions (preview). *Dev. Cell* **15**, 331-332. PMID: 18804427

48. Kniewel R and Keeney S (2009) Histone methylation sets the stage for meiotic DNA breaks (Minireview). *EMBO J*. **28**, 81-83. PMC2634739

49. Murakami H, Borde V, Nicolas A, and Keeney S (2009) Gel electrophoresis assays for analyzing DNA double-strand breaks in *Saccharomyces cerevisiae* at various spatial resolutions. *Methods Mol. Biol*. **557**, 117–142. PMC3157973

50. Neale MJ and Keeney S (2009) End-labeling and analysis of Spo11-oligonucleotide complexes in *Saccharomyces cerevisiae*. *Methods Mol. Biol*. **557**, 183–195. PMC3162315

51. Pan J and Keeney S (2009) Detection of SPO11-oligonucleotide complexes from mouse testes. *Methods Mol. Biol*. **557**, 197–207. PMC3157917

52. Keeney S (Editor) (2009) *Meiosis, Volume 1, Molecular and Genetic Methods.* Vol. 557 in the *Methods in Molecular Biology* series, Humana Press, New York. PMID: 19799171

53. Keeney S (Editor) (2009) *Meiosis, Volume 2, Cytological Methods.* Vol. 558 in the *Methods in Molecular Biology* series, Humana Press, New York. PMID: 19777686

54. Thacker D and Keeney S (2009) PCH'ing together an understanding of crossover control (minireview). *PLoS Genet.* **5**, e1000576. PMC2708908

55. Wojtasz L, Daniel K, Roig I, Bolcun-Filas E, Xu H, Boonsanay V, Eckmann CR, Cooke HJ, Jasin M, Keeney S, McKay MJ, and Toth A (2009) Mouse HORMAD1 and HORMAD2, two conserved meiotic chromosomal proteins, are depleted from synapsed chromosome axes with the help of TRIP13 AAA-ATPase. *PLoS Genet*. **5**, e1000702. PMC2758600

56. Kidane D, Jonason AS, Gorton TS, Mihaylov I, Pan J, Keeney S, de Rooij DG, Ashley T, Keh A, Liu Y, Banerjee U, Zelterman D, and Sweasy JB (2010) DNA polymerase beta is critical for mouse meiotic synapsis. *EMBO J.* **29**, 410-3423. PMC2824467.

57. Sasaki M, Lange J, and Keeney S (2010) Genome destabilization by homologous recombination in the germline. *Nature Rev. Mol. Cell. Biol.* **11**, 192-195. PMC3073813

58. Cole F, Keeney S, and Jasin M (2010) Evolutionary conservation of meiotic DSB proteins: More than just Spo11. (Invited review) *Genes Dev*. **24**, 1201-1207. PMC2885656.

59. Roig I, Dowdle JA, Toth A, de Rooij DG, *Jasin M, and *Keeney S (2010) Mouse TRIP13/PCH2 is required for recombination and normal higher-order chromosome

structure during meiosis. *PLoS Genet*. **6**, e1001062. **Corresponding authors.* PMC2920839

60. Cole F, *Keeney S, and *Jasin M (2010) Comprehensive, fine-scale dissection of homologous recombination outcomes at a hotspot in mouse meiosis. *Mol. Cell* **39**, 700-710. **Corresponding authors.* PMC3196603

61. Kauppi L, Barchi M, Baudat F, Romanienko PJ, *Keeney S, and *Jasin M (2011) Distinct properties of the XY pseudoautosomal region crucial for male meiosis. *Science* **331**, 916-920. **Corresponding authors.* PMC3151169

62. Dray E, Dunlop MH, Kauppi L, San Filippo J, Wiese C, Tsai M-S, Begovic S, Schild D, Jasin M, Keeney S, and Sung P (2011) Molecular basis for enhancement of the meiotic DMC1 recombinase by RAD51AP1. *Proc. Natl. Acad. Sci. USA* **108**, 3560-3565. PMC3048120

63. Pan J, Sasaki M, Kniewel R, Murakami H, Blitzblau HG, Tischfield ST, Zhu X, Neale MJ, Jasin M, Socci ND, Hochwagen A, and Keeney S (2011) A hierarchical combination of factors shapes the genome-wide topography of yeast meiotic recombination initiation. *Cell* **144**, 719-731. PMC3063416

64. Daniel K, Lange J, Hached K, Roig I, Anastassiadis K, Stewart AF, Wassmann K, Jasin M, Keeney S, and Toth A (2011) Meiotic homologue alignment and its quality check are controlled by mouse HORMAD1. *Nature Cell Biol.* **13**, 599-610. PMC3087846

65. Yin Y, Lin C, Kim ST, Roig I, Chen H, Liu L, Veith GM, Keeney S, Jasin M, Moley K, Zhou P, and Ma L (2011) The E3 Ubiquitin ligase Cullin 4A regulates meiotic progression in mouse spermatogenesis. *Dev. Biol. **356**, 51-62*. PMC3130830

66. Churchman ML, Roig I, Jasin M, Keeney S, and Sherr CJ (2011) Transient *Arf* expression in spermatogonia prevents p53-dependent elimination of spermatocytes during male germ cell development. *PLoS Genet.* **7**, e1002157. PMC3141002

67. Thacker D, Lam I, Knopp M, and Keeney S (2011) Exploiting spore-autonomous fluorescent protein expression to quantify meiotic chromosome behaviors in *Saccharomyces cerevisiae*. *Genetics* **189**, 423-439. PMC3189805

68. Lange J, Pan J, Cole F, Thelen MP, *Jasin M, and *Keeney S (2011) ATM controls meiotic double-strand break formation. *Nature* **479**, 237-240. **Corresponding authors.* PMC22002603

69. Cole F, Kauppi L, Lange J, Roig I, Wang R, *Keeney S, and *Jasin M (2012) Homeostatic control of recombination is implemented progressively in mouse meiosis. *Nature Cell Biol*. **14**, 424-430. **Corresponding authors.* PMC3319518

70. Tischfield SE and Keeney S (2012) The spatial correlation of yeast meiotic DNA breaks with histone H3 trimethylation is driven largely by independent colocalization at promoters. *Cell Cycle* **11**, 1496-1503. PMC3341227

71. Globus ST and Keeney S (2012) The joy of six: How to control your crossovers (Preview). Cell **149**, 11–12.

72. Kauppi L, Jasin M, and Keeney S (2012) The tricky path to recombining X and Y chromosomes in meiosis. *Annals NY Acad Sci.* **1267**, 18-23.

73. Cole F, Keeney S, Jasin M (2012) Preaching about the converted: How meiotic gene conversion influences genomic diversity. *Annals NY Acad Sci.* **1267**, 95-102.

74. De Boer E, Jasin M, and Keeney S (2013) Analysis of recombinants in female mouse meiosis. *Methods Mol Biol.* **957**, 19-45.

75. Kauppi L, Barchi M, Lange J, Baudat F, *Jasin M, and *Keeney S (2013) Numerical constraints and feedback control of double-strand breaks in mouse meiosis. *Genes Dev* **27**, 873-876. **Corresponding authors.* PMC3650225

76. Sasaki M, Tischfield SE, van Overbeek M, and Keeney S (2013) Meiotic recombination initiation in and around retrotransposable elements in *Saccharomyces cerevisiae*. *PLoS Genetics*, in press. PMC Journal—in process.

77. Kauppi L, Jasin M, and Keeney S (2013) How much is enough? Control of DNA double-strand break numbers in mouse meiosis. *Cell Cycle* **12**, 2719-2720.

78. Dowdle JA, Mehta M, Kass EM, Vuong BQ, Inagaki A, Egli D, Jasin M, and Keeney S (2013) Mouse BAZ1A (ACF1) is dispensable for double-strand break repair but is essential for averting improper gene expression during spermatogenesis. Under revision for PLoS Genetics.

79. Thacker D, Mohibullah N, Zhu X, and Keeney S (2013) Homolog engagement shapes the meiotic recombination landscape via feedback control of DNA break formation. Submitted.

80. Ontoso D, Kauppi L, Keeney S, and San-Segundo PA (2013) Dynamics of DOT1L localization and H3K79 methylation during meiotic prophase in mouse spermatocytes. Submitted.