

Curriculum Vitae: Scott Neal Keeney

Contact: Howard Hughes Medical Institute
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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), Frederick R. Adler Chair (2017–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., <i>summa cum laude</i> , 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
2013	Keynote Speaker, University of Iowa Genetics PhD Program Retreat
2014	Keynote Speaker, Abcam Recombination Meeting celebrating the 50 th anniversary of the Holliday model
2014	Elected, Fellow of the American Academy of Microbiology
2017	Elected, Fellow of the American Academy of Arts and Sciences
2017-2019	Harvey Society Vice President (2017-18) and President (2018-19)
2017-present	Frederick R. Adler Chair, MSKCC
2020	Elected to National Academy of Sciences

Scientific Societies

National Academy of Sciences, American Academy of Arts and Sciences, American Academy of Microbiology, Genetics Society of America, American Society for Biochemistry and Molecular Biology, American Society for Microbiology, Harvey Society, NY Academy of Sciences

Mentoring

PhD Students:

Completed dissertations in my laboratory (current position indicated) (13 total):

- Kehkooi Kee (Associate Professor, Department of Basic Medical Sciences, Tsinghua University School of Medicine, Beijing)
- Charanjit Arora (Chief Intellectual Property Officer, UCLA)
- Kiersten Henderson (Senior Data Scientist, ioCurrents, Seattle)
- James Dowdle (Medical Science Liaison, QED Therapeutics)
- Mariko Sasaki (Research Associate, Tokyo University, Japan)
- Drew Thacker (staff scientist, Zymergen Inc.)
- Ryan Kniewel (postdoc, Spanish National Research Council (CSIC))
- Sam Globus (Vice President, North American Operations, Eagle Genomics Ltd.)
- Xuan Zhu (Data Scientist, Amazon)
- Isabel Lam (postdoc, Harvard Medical School)
- Sam Tischfield (postdoc, MSKCC)
- Mehmet Erman Karasu (postdoc, ETH Zurich)
- Xiaojing Mu (postdoc, MSKCC)

Current (2 total): Pei-Ching Huang, Jiaqi Xu

Postdoctoral Fellows:

Past (current position indicated) (20 total):

Shohreh Maleki PhD (Senior Lab Manager, Karolinska Instit., Stockholm, Sweden (retired))
Emmanuelle Martini PhD (Researcher (permanent position), CEA, France)
Monica DiGiacomo PhD (Staff Scientist, EMBL Rome)
Takashi Okada MD PhD (Asst. Prof., Dept of Urology, Ijinkai-Takeda General Hospital, Kyoto, Japan)
Matthew Neale PhD (Royal Society Fellow, Genome Stability Centre; Reader, Univ Sussex, UK)
Jing Pan PhD (Senior Lecturer, University of Texas, Dallas)
Ignasi Roig PhD (Associate Prof., Univ. Auton. Barcelona, Spain)
Viji Subramanian PhD (Assistant Professor, Dept. of Biology, Indian Institute of Science, IISER, Tirupati, Andhra Pradesh, India)
Esther de Boer PhD (position unknown)
Liisa Kauppi PhD (Academy Research Fellow, Assistant Professor, Univ. Helsinki)
Megan van Overbeek PhD (Director of Mammalian Cell Biology at Inscripta, Inc.)
Monika Mehta PhD (R&D Scientist, Frederick National Laboratory, NCI)
Neeman Mohibullah PhD (Manager of R&D, Center for Molecular Oncology and Integrated Genomics Operation, MSKCC)
Julian Lange PhD (Senior Manager of Diversity & Inclusion, Analytics & Visualization, Charter Communications, Stamford, CT; Adjunct Faculty, Parsons School of Design, New York, NY)
Seoyoung Kim PhD (Technical Product Manager, BD Bioscience)
Elena Mimitou PhD (Senior Research Scientist, NY Genome Center)
George Chung PhD (Postdoc, NYU)
Michiel Boekhout PhD (Postdoc, UMC Utrecht, Netherlands)
Corentin Claeys Bouuaert PhD (Group Leader, Louvain Inst of Biomolecular Science and Technology, Belgium)
Shintaro Yamada PhD (Assistant Professor, Kyoto University)

Current (graduate institution and postdoctoral fellowship information indicated) (12 total):

Laurent Acquaviva PhD (Aix-Marseille University, France; Lalor Foundation Fellowship)
Devanshi Jain PhD (London Res. Inst. CRUK; Human Frontiers Sci Prog Fellowship)
Soonjong Kim PhD (Univ Texas Southwestern)
Hajime Murakami PhD (Saitama University, Japan)
David Ontoso Picon PhD (Univ. of Salamanca, Spain)
Tao Li PhD (Univ. of Science and Technology of China, Hefei; Lalor Fellowship)
Marina Marcet-Ortega (Univ. Auton. Barcelona)
Meret Arter (ETH Zurich; EMBO Long-Term Fellowship)
Kaixian Liu (Johns Hopkins University; Damon Runyon Fellowship)
Min Lu (Life Sciences Institute, Zhejiang University, Hangzhou, China)
Manoj Thakur (Indian Institute of Science, Bangalore)
Thierry N'Tumba-Byn (Paris 11 Univ., Orsay)

Undergraduates (16 total):

Often via the MSKCC Summer Undergraduate Research Program or HHMI EXROP
(Subsequent training and last known position indicated)

Marc Waase, Cornell University, 1999 (MD PhD, Cornell/Rockefeller; Residency: Internal Medicine, NY Presbyterian Hospital; Cardiology Fellow, NYPH; Assistant Prof. of Medicine, Columbia)

Steven Quatela, Haverford College, 1999 (MD PhD, NYU; Clinical Fellow in Pediatric Hematology/Oncology, MSKCC; currently in private practice)
 Zareen Gauhar, Mount Holyoke College, Springfield MA, 2000 (PhD, Yale Med; Senior Vice President, Access Medical LLC)
 Jennie Hann, Stanford University, 2002 (PhD student, English, Johns Hopkins University)
 Tara Berman, University of Pennsylvania, 2004, 2005 (MD Tel Aviv Univ; Medical Oncology Fellow, NCI)
 Alanna Li, Cornell University, 2007 (DDS 2014, Columbia Dental School; in private practice)
 Meredith Spadaccia, University of Maryland, 2008 (Nurse Practitioner, Mt Sinai)
 Adolfo Cuesta, Haverford College, 2009 (MD PhD student, UCSF)
 Leslie Higuaita-Montoya, Furman University, 2011 (MPH program, Mt Sinai)
 Danté Johnson, Louisiana State University, 2013 (PhD student, Pharmaceutical Sciences, University of Maryland, Baltimore)
 Tomás Rodriguez, UC Davis, 2014 (MD PhD program, UMass Worcester)
 Satoshi Senmatsu, Tokyo Metropolitan Univ., 2016 (PhD student, Tokyo Metropolitan)
 Linda Ho, UCLA, 2017 (Master's program in Public Policy, Georgia Tech; Health Specialist, NIH Office of Rare Disease Research)
 Hisashi Kamido, Kyoto University, 2017 (medical student, Kyoto Univ)
 Kaku Maekawa, Kyoto University, 2018 and 2019 (medical student, Kyoto Univ)
 Takaaki Yakushigawa, Kyoto University, 2019 (medical student, Kyoto Univ)

Institutional Service

MSKCC:

1998–2006	Molecular Biology Seminar Committee
2008–2013	MSKCC Committee on Appointments and Promotions
2008–2014	Sloan Kettering Institute Committee on Appointments and Promotions
2009–present	Postdoc/Faculty Forum, “Chalk Talk Tips”
2010–present	Oversight Committee, Integrated Genomics Operation
2011	Chair, MSKCC Task Force on Genomics and Proteomics
2013–2016	Chair, Oversight Committee, Proteomics Core Facility
2014–2019	Executive Committee, Functional Genomics Initiative
2017–present	Institutional Animal Care and Use Committee (IACUC); Chair, 2019–present
2017–present	Advisory Committee, Center of Comparative Medicine and Pathology
2018–present	Leadership Committee, SKI Research Computing Cluster
2018–present	Advisory Committee, Mouse Genetics Core Facility

Graduate Education:

2003–2007	BCMB first year advisor
2007–2010	Co-Director, Biochemistry and Cell & Molecular Biology (BCMB) Allied Programs
GSK First Year Mentor: Eric Alonso, Elizabeth Wasmuth, Yvonne Gruber, Chong Luo, Miguel Roman	

Teaching:

2005–2008	Weill BCMB, Molecular Genetics Course Director
1998–present	Weill BCMB, Molecular Genetics Course, 2–3 lectures per year
1998–2005	Weill BCMB, Gene Structure and Function (2 lectures per year)
1998, 2000, 2002	Weill BCMB, Nucleic Acids Enzymology (3–6 lectures per year)
2006	Weill BCMB Focus Group, “Meiosis”

2006–present GSK Core Course, 2-6 lectures per year

Committees:

1997–2007	Weill BCMB Retreat Committee
1999–2003, 2006	Weill BCMB ACE Committee
2004–2010	Weill BCMB Curriculum Committee
2007–2012	Weill BCMB Admissions Committee
2013	Search Committee, Weill Graduate School Dean
2014–present	GSK Graduate Admissions Committee
2017	Co-Chair, intramural review committee, Weill Immunology and Microbial Pathogenesis Program

Thesis and thesis-defense committees:

Weill/Cornell: (partial listing from **> 30 total**) Pearl Chang, Liwei Xu, Karen Lee, Jale Refik-Rogers, Ligeng Tian, Chonghui Chen, Chunling Gong, Rob Gillespie, Ryan Heller, Yun Jiang, Hilary Gerber, Claudio Alarcon, Kelly Yule George, Carrie Adelman, Jan Theunissen, Borko Amulic, Ram Madabhushi, Jennifer Lee, Jaclyn Gareau, Sohini Sanyal, Yu-Hung (Jeff) Chen, Cristina Ghenoiu, Ryo Hayama, Zhenjian Cai, Emily Bauer, Ying Liu, Min Hsu, Zhicheng (Ray) Qiu, Sujan Devbhandari, James Bellush, Erika Buechelmaier, Jaclyn Bonner, Gillian Lin, Helen Hoxie

GSK (**8 total**): Muge Akpinar, Sadia Rahman, Elizabeth Wasmuth, Lei Wei, Weiran Feng, Rui Gao, George Vaisey, Ella Melnick

MD/PhD Program (**4 total**): Tom Nguyen, Josh Silverman, Isaac Klein, Xiao Peng

External (**8 total**): Angelique Girard (Greg Hannon lab, Cold Spring Harbor); Tracy Callender (Nancy Hollingsworth lab, Stony Brook University); Huei-Mei Chen (Janet Leatherwood lab, Stony Brook University); Boubou Diagouraga (Bernard de Massy lab, IGH Montpellier, France); Jonna Heldrich (Andreas Hochwagen lab, NYU); Mina Kojima (David Page lab, Whitehead Institute and MIT); Zachary Baker (Molly Przeworski lab, Columbia Univ.); Andrew Ziesel (Nancy Hollingsworth lab, Stony Brook University)

Extramural Service

Editorial Review:

Genetics (Associate Editor 2007–2011)

Genes to Cells (Associate Editor 2003–present)

Chromosoma (Associate Editor 2006–present)

Journal of Cell Biology (Editorial Board 2015–present)

PLoS Biology (Editorial Board, 2017–present)

Ad hoc reviewer (partial listing): *Annual Reviews in Genetics, 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*

Conference Organization:

Meiosis Gordon Conference (vice-Chair 2006; Chair 2008)

FASEB Yeast Chromosomes Conference (co-Organizer 2012)

3R Meeting, Japan (Member of foreign advisory board 2012, 2014, 2016, 2020)
Wenner-Gren Foundation Symposium on Mammalian Meiosis, Organizing Committee, 2013
NY Academy of Sciences Genome Integrity Discussion Group (co-Organizer, 2014–present)
Mini-symposium co-organizer, 2016 ASCB Meeting, San Francisco
Keystone Symposium on Replication and Recombination (co-Organizer, 2017)
FASEB Conference on Genetic Recombination and Genome Rearrangements (vice-Chair 2017;
Chair 2019)
Fifth Symposium on Frontiers in Reproductive Biology, Beijing (co-Organizer 2018)
85th Cold Spring Harbor Laboratory Symposium on Quantitative Biology (member of organizing
committee, 2020)

Grant Reviews:

Genetic Mechanisms of Cancer 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,
ad hoc 10/2015)
Ad hoc on NIH study sections (R15, P01, K99, etc): 6/2006 and 2/2008 (NDT); 3/2015; 6/2015;
2/2016; 3/2016; 9/2016; 3/2017; 12/2017; 6/2018; 2/2019; 11/2019
Other ad hoc reviewer (partial listing): European Research Council; Cancer Research UK (Review
Panel Member, 9/2014); 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; Leukemia and Lymphoma Society.

Other:

NAGMS Council, Ad Hoc Consultant, 5/2013
Scientific Advisory Committee, Basic Sciences Division, Fred Hutch Cancer Center (ad hoc
11/2017; standing member 2/2020 – present)

Invited Talks

Conferences (partial listing: 2015–present):

Joint Keystone Symposia on DNA Replication and Recombination/Genomic Instability and DNA
Repair (Whistler, Canada, 3/2015)
80th Cold Spring Harbor Laboratory Symposium on Quantitative Biology (CSHL, 5/2015)
Ramon Areces Foundation Symposium on Meiosis (Salamanca, Spain, 6/2015)
Gordon Research Conference on Chromosome Dynamics (New Hampshire 6/2015)
FASEB Recombination Meeting (Steamboat Springs, CO, 7/2015)
EMBO Meiosis Meeting (Oxford UK, 9/2015)
10th Quinquennial Conf. on Responses to DNA Damage (Egmond aan Zee, Netherlands, 4/2016)
Abcam Recombination Meeting (Alicante Spain, 5/2016)
Meiosis Gordon Conference (New London, NH, 6/2016)
Topoisomerase Gordon Conference (Sunday River, ME, 8/2016)
Workshop on the Molecular and Physical Biology of Chromosomes (Woods Hole MA, 9/2016)
Fourth SKLRB Symposium on Frontiers in Reproductive Biology (Beijing, 10/2016)
3R Meeting (Member of foreign advisory board; Matsue Japan, 11/2016)
Chromosome Stability Meeting (Trivandrum Kerala, India, 12/2016)
Keystone Replication and Recombination Meeting (Santa Fe, NM, 4/2017)
Meiosis Conference (Fondation des Treilles, France, 5/2017)
Chromosome Dynamics Gordon Conference (Il Ciocco, Italy, 5/2017)

Cold Spring Harbor Laboratory Symposium on Quantitative Biology (CSHL, 6/2017)
FASEB Recombination Meeting (Steamboat Springs, CO, 7/2017)
EMBO Meiosis Meeting (Hvar, Croatia, 8/2017)
Univ Penn Genome Integrity Group Symposium (Philadelphia, 5/2018)
Stanford Chromosome Dynamics Meeting (Palo Alto CA, 5/2018)
Abcam Recombination Meeting (London UK, 5/2018)
British Meiosis Meeting (Sussex UK, 5/2018, keynote speaker)
Cambridge 3R Club (Gurdon Institute, Cambridge UK, 5/2018)
Meiosis Gordon Conference (New London, NH, 6/2018)
Fifth Symposium on Frontiers in Reproductive Biology (Beijing, 11/2018, co-Organizer)
3R+3C Meeting (Kanazawa Japan, 11/2018)
Chromosome Stability Meeting (Bangalore, India, 12/2018)
Joint SKI-Crick-IFOM Meeting (Sardinia, Italy; 5/2019)
Chromosome Dynamics Gordon Conference (Discussion Leader; Sunday River, ME, 6/2019)
FASEB Recombination Meeting (Chair; Steamboat Springs CO; 7/2019)
EMBO Meiosis meeting (La Rochelle, France, 8/2019)
Symposium on Recombination (Hong Kong, 9/2019)
Origins of Yeast Research (CSHL, 10/2019)
Chromosome Dynamics Graduate Program Symposium (Vienna, 2/2020)
4D Genome Symposium (Heidelberg, Germany, 3/2020) (held remotely)
Meiosis in Quarantine online meeting (4/2020)
Abcam Recombination Meeting (Cambridge UK, 5/2020 (postponed))
Cold Spring Harbor Symposium (5/2020 (postponed))
Meiosis Gordon Conference (New London, NH, 6/2020 (postponed))
Spanish Meiosis Meeting (Salamanca, Spain, 7/2020 (postponed))
3R+3C Meeting (Member of foreign advisory board; Chiba Japan, 11/2020 (postponed))

Future: EMBO Meiosis Meeting (Austria, 6/2021); Chromosome Dynamics Gordon Conference (Il Ciocco, Italy, 6/2021); FASEB Recombination Meeting (Steamboat Springs CO; 8/2021); 3R+3C Meeting (Member of foreign advisory board; Chiba Japan, 11/2022)

Seminars (partial listing: 2015–present): Institut Curie, Paris, 9/7/15; NIH NIDDK, 10/20/15; ETH Zurich, 11/9/15; FMRI Basel, 11/10/15; CEA Fontenay Aux Roses, France, 12/14/15; IGH Montpellier, France, 12/16/15; INSERM Marseille, 12/17/15; Johns Hopkins Biochem and Mol Bio, 9/26/16; Tsinghua Univ, Beijing 10/24/16; Univ. Illinois Urbana Cell and Dev. Biol., 2/1/17; Ohio State Univ. Comprehensive Cancer Center, 9/6/17; Univ. Michigan Dept of Human Genetics, 9/18/17; UC Davis Molecular and Cellular Biology, 10/12/17; MIT Biology Colloquium, 1/9/18; UCLA Molecular Biology Institute, 2/1/18; Stowers Institute, 3/21/18; MD Anderson Cancer Center Smithville, 4/11/18; UT Austin Div. Pharmacology/Toxicology 4/12/18; Univ. Copenhagen 5/28/18; Rockefeller University Postdoc Retreat (Keynote), 9/6/18; Yale School of Medicine, 9/25/18; Columbia Irving Medical Center 1/23/19; Osaka University, 9/27/2019; Washington St Univ Center for Reproductive Biology Symposium (Keynote Speaker), 10/2019; Max Planck Institute of Biochemistry Distinguished Visitor Lecture Series (3/2/2020); Institute for Research in Biomedicine, Belinzona Switzerland (3/4/2020); ETH Zurich Switzerland (3/6/2020 (canceled)); Max Planck Institute for Plant Breeding Research, Cologne Germany (4/2/2020 (postponed)); Seminars in Oncology Lecture Series, Dana-Farber Cancer Institute (4/14/2020 (postponed))

Future: Lawrence Berkeley National Laboratory, 2021 (TBD)

Current Research Support

Howard Hughes Medical Institute, Investigator, 8/1/2008–10/31/2025

R35 GM118092 (Keeney, PI), 5/1/2016–4/30/2021, “Mechanism and regulation of meiotic recombination.”

Basic Research Innovation Award (BRIA), Memorial Sloan Kettering Cancer Center (Keeney and Patel, co-PIs), 9/1/2019–8/31/2021, “Elucidating the structural and functional principles of germline genome transmission.”

Starr Cancer Consortium (co-PIs: Tyler, Keeney, Chaudhuri, Imelinski), 1/1/2019–12/31/2020, “Genomic instability in the chromosomal context of physiological DNA double-strand break formation.”

Publications

NCBI bibliography: <https://www.ncbi.nlm.nih.gov/myncbi/scott.keeney.1/bibliography/public/>



* Corresponding author(s), † Equal contribution

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* apossuperoxide 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.
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.

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.
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. *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. PMC545532
31. Okada T and ***Keeney S** (2005) Homologous recombination: Needing to have my say. *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. 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.
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