

CURRICULUM VITAE

Revised: November, 2014

Name: JAN VIJG

Education:

1980	B.A.	State University of Leiden, Leiden, The Netherlands
1982	M.Sc.	State University of Leiden, Leiden, The Netherlands
1987	Ph.D.	State University of Leiden, Leiden, The Netherlands

Academic Appointments:

1982-1987	Research Associate, TNO Institute for Experimental Gerontology, Rijswijk, The Netherlands
1987-1990	Head, Department of Molecular Biology, TNO Institute for Experimental Gerontology, Rijswijk, The Netherlands
1990-1996	Lecturer on Medicine, Harvard Medical School, Division on Aging, Boston, Massachusetts
1993-1998	Director, Molecular Genetics Section, Gerontology Division, Department of Medicine, Beth Israel Hospital, Boston, MA.
1996-1998	Associate Professor of Medicine, Harvard Medical School, Boston, Massachusetts
1998-2006	Professor of Physiology, University of Texas Health Science Center at San Antonio
1998-2000	Director of Basic Research, CTRC Institute for Drug Development, San Antonio, Texas
2006-2008	Professor, Buck Institute for Research on Aging, Novato, CA
2008-	Professor and Chairman, Department of Genetics, Albert Einstein College of Medicine, Bronx, NY, USA.
2013-	Adjunct Professor, Department of New Biology, Daegu Gyeongbuk Institute of Science and Technology, Daegu, Republic of Korea.

Other Professional Appointments:

1990-1993	Scientific Director, Ingeny B.V., Leiden, The Netherlands
1993-1995	Founding Scientific Adviser, Ingeny B.V., Leiden, The Netherlands
1996-1999	Member Scientific Advisory Board AlphaGene Inc., Woburn, MA
1996-1998	Chairman Scientific Advisory Board Aeiveos Sc. Gr., Seattle, WA
2000 - 2005	Chairman Scientific Advisory Board Accelerated Genomics Inc., San Antonio, TX.
2003 - 2005	Scientific Advisory Board Chronogen Inc., Montreal, Canada.
2008-	Scientific Advisory Board, Retrotope Inc., Delaware, US.

Awards and Honors:

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| 1987 | Schreuder Award of the Netherlands Society of Gerontology |
| 1987 | Second Award of the European Committee of the Sandoz Foundation for Gerontological Research |
| 1994 | Nathan Shock New Investigator Award of The Gerontological Society of America |
| 2012 | Irving Wright Award of Distinction of the American Federation for Aging Research |
| 2014 | AAAF Fellow |

Major Committee Assignments (National and Regional):

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| 1985-1990 | Founder and Chairman of the Board (since 1987), Biomedical Study Group on the Etiology of Aging, the Dutch Organization MEDIGON (Foundation of Medical and Health Research). |
| 1987-1990 | Founder and Project Manager of the EC “EURAGE Molecular Biology Research Group” |
| 1991 | Chairman WHO Committee “Principles for evaluating chemical effects on the aged population”, Geneva, 9-13 Dec. 1991. |
| 1996 | Member NASA panel, “Future of Animal Experimentation in Space Explorations”. |
| 2004-2008 | Member CMAD NIH study section |
| 2013- | Member NIMB NIH study section |
| 2013- | Chairman of the Board of Scientific Counselors of the National Institute on Aging’s Intramural Research Program |

Editorial Boards:

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| 1988-1996 | Managing Editor, <i>Mutation Research</i> , Section DN Aging |
| 1989-present | Member Editorial Board <i>Aging Clin Exp Res</i> |
| 1993- | Member Editorial Board <i>Mechanisms Ageing Development</i> . |
| 1996-present | Member Editorial Board <i>Mutation Research</i> . |
| 2000-present | Member Editorial Board <i>Aging Research Reviews</i> |
| 1999-2006 | Editor for the Americas, <i>Mechanisms of Aging and Development</i> |
| 2009- | Member Editorial Board <i>AGING</i> |
| 2010- | Member Editorial Board <i>GERONTOLOGY</i> |
| 2010- | Member Editorial Board <i>Aging Cell</i> |
| 2015- | Editor in Chief <i>Mutation Research</i> |

Major Research Interests:

1. Molecular genetics of aging and cancer
2. Genome instability, transcriptional regulation and human disease
3. Molecular evolution and comparative genomics
4. Personalized genomics

Symposia:

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| 1987 | Co-organizer of the Symposium “Cell Biological Basis of Aging”, Veldhoven, The Netherlands. |
| 1988 | Organizer of the EURAGE Symposium “Molecular Biology of Aging”, Crete, Greece. |
| 1989 | Organizer of the workshop “The Identification, Isolation and Characterization of Aging and Longevity Genes: Strategies, Technology and Funding”, Nerja, Spain. |
| 1991 | Co-Organizer of the New York Academy of Sciences Meeting “Cellular Defence Systems and Aging”, Modena, Italy. |
| 1995 | Organizing Committee 7 th Int. Conf. Environ. Mutagens, Toulouse, France. |
| 1998 | Co-Organizer 1 st Annual Meeting on Rodent Models in Modern Risk Assessment, Bar Harbor, Maine. |
| 1998 | Co-Organizer Keystone Symposium on Aging: Genetic and Environmental Influences on Life Span, Durango, Colorado. |
| 2002 | Co-Organizer International Symposium on “Functional Genomics of Aging”, April 24-27, 2002, Seville, Spain. |
| 2004 | Co-Organizer “Second International Symposium on Functional Genomics of Ageing”, April 28-May 1, 2004, Hersonissos, Crete, Greece. |
| 2006 | Co-Organizer “Third International Symposium on Functional Genomics of Ageing”, March 29 – April 1, 2006, Palermo, Sicily, Italy. |
| 2007 | Co-Organizer ‘Nutrient Signaling and Aging, November 12-14, Novato, CA, USA. |
| 2009 | Co-Organizer ‘New Insights into Healthspan and Diseases of Aging: From Molecular to Functional Senescence’, January 31-February 5, 2009, Granlibakken Resort, Tahoe City, CA. |
| 2013 | Co-Organizer Cold Spring Harbor Asia conference on “Molecular basis of aging and disease, September 9-13, 2013. |
| 2015 | Co-Organizer Cold Spring Harbor Asia conference on “Molecular basis of aging and disease, September 14-18, 2015. |

Research Support (in the US, since 1993/1994):

1. PI for Cystic Fibrosis Foundation grant G836; total direct costs: \$ 60,000; active: 1994-1996
2. PI for studies on “Mutational Mechanisms in Cancer” supported by Ingeny B.V.; total direct costs: \$ 49,990; active: 1994-1995
3. PI for Project no. 1 of NIA grant PO1 1801 AG10829-01; total direct costs: \$ 406,330; active: 1994-1998
4. PI for studies on “Genetics of Aging and Longevity” supported by Toyobo Co., Ltd.; total direct costs: \$91,515; active: 1994-1997
5. PI for Massachusetts Dept. of Public Health grant DPH3408699D006; total direct costs: \$216,378; active: 1996-1999
6. Subcontract on NIH/NCI grant P50-CA 72712; total direct costs: \$36,382; active: 1999-2000.
7. Subcontract on NIH/NCI grant P30 CA 54174-08; total direct costs: \$1,900,776; active: 1998-2002.
8. PI for NIH/NIA grant 1 P30 AG13314-01; total direct costs: \$1,064,860; active: 1996-1999.
9. PI for NIH/NCI grant 1 RO1 ES/CA 08797-01; total direct costs: \$631,967; active: 1997-2000
10. PI for NIH/NIA Program Project Grant PO1 AG17242; total direct costs: \$3,124,445; active: 1999-2019
11. Subcontract on NIH NIA grant 1 RO1 CA 78564 (PI: Frederick Li); total direct costs: \$150,000; active: 1999-2003.
12. Co-PI for NIH NIA grant 5 P30 AG 13319-06; total direct costs: \$3,500,000; active: 2000-2005.
13. PI for NIH/NIA grant 1 RO1 AG18923-01; total direct costs: \$800,000; active: 1999-2010.
14. PI for NIH/NIEHS grant 1UO1ES11044; total direct costs: \$3,538,686; active: 2001-2006
15. Subcontract on European CEFIC-LRI grant; total direct costs:\$716,750; active: 2001-2004.
16. Ellison Medical Foundation Senior Scholar in Aging grant; total direct costs: \$450,000; active: 2006-2010.
17. PI for NIH/NIA grant 1R21AG030567; total direct costs: \$275,000; active: 2007-2009.
18. PI for component 5 (RO1) of NIH grant 1 U54 RR024346 01; total direct costs: \$875,000; active: 2007-2012.
19. PI for SENS Foundation grant ‘Stochastic, epigenomic changes in the aging brain’. Total direct costs: \$450,000. Active: 2008-2011.
20. PI for NIH grant R01 AG034421 ‘Single-cell functional genomics’. Total direct costs: \$800,000. Active: 2009-2013.
21. Subcontract on NSF grant MCB1021720 (PI: Promislow) ‘The Genetic Architecture of Somatic Mutation Rate’. Active: 2010–2013.
22. Subcontract on NIH grant R01 NS041142 (PI: Swanson) ‘Mechanisms of PARP and PARG Mediated Cell Death’. Active: 2010–2015.
23. PI for NIH grant R21 ES019520 ‘Direct Somatic Mutation Analysis Through Sequencing’. Active: 2011-2012.

24. Co-Investigator for NIH grant 5P30AG038072, Nathan Shock Center of Excellence in Basic Biology of Aging. Active: 2010-2015.
25. Co-Project Leader The Paul F. Glenn Center for the Biology of Human Aging. Active: 2013-2016
26. PI for NIH grant R01CA180126-01, Age-cancer interplay of genome and epi-genome in human lung. Active: 2013-2017.
27. Co-Investigator R01CA174432 (Augenlicht), 04/01/14-03/31/19. Age and Diet: Major interacting factors that drive sporadic intestinal cancer.
28. Co-Investigator (Director, Single-Cell Genomics Core) NYSTEM C029154 (Frenette) 04/01/14-03/31/18. Shared Facilities for Stem Cell Research.

Students and postdocs

Student	Level	Training	Institute	Degree	Title of Research Project	Current Position
Erik Mullaart	Predoc	1987-1990	U. Leiden	Ph.D.	DNA damage and aging	Senior Scientist
André Uitterlinden	Predoc	1987-1992	U. Leiden	Ph.D.	Genetics of Alzheimer disease	Professor
Jan Gossen	Predoc	1987-1992	U. Leiden	Ph.D.	Genomic instability	Division Chief
Eline Slagboom	Predoc	1988-1993	U. Leiden	Ph.D.	Genomic instability	Professor
Michael Boerigter	Predoc	1988-1994	U. Leiden	Ph.D.	Oxidative stress and DNA damage	CEO
Nathalie van Orsouw	Predoc	1994-1999	U. Groningen	Ph.D.	Genetic screening methods	Senior Scientist
Martijn Dolle	Predoc	1994-1999	U. Leiden	Ph.D.	Mutation analysis and aging	Senior Scientist
Hans Jorg Martus	Postdoc	1994-1999	Harvard Med Sch	Ph.D.	Mutations and genotoxic stress	Senior Scientist
Heidi Giese	Postdoc	1994-1999	Harvard Med Sch	Ph.D.	Mutations and DNA repair defects	Senior Scientist
Rita Busuttill	Predoc	2000-2004	U. Melbourne	Ph.D.	Mutations and oxidative stress	Junior scientist
Ana Maria Garcia	Postdoc	2002-2006	UTHSCSA	Ph.D.	Caloric restriction and mutations	Teacher
Lola MacRae	Predoc	2011-	Einstein	B.A.	Single cell aging studies	Student
Silvia Gravina	Postdoc	2008-	Einstein	Ph.D.	Single-cell epigenomics	Postdoc
Brandon Milholland	Student	2011-	Einstein	B.A.	Systems genomics of aging	Student
Ryan White	Student	2012-	Einstein	B.A.	DNA damage and aging	Student

Bibliography:

Peer-Reviewed Papers

1. Schaap GH, Verkerk AS, Vijg J, Jongkind JF. Flow sorting in the study of cell-cell interaction. *Cytometry* 1983;3:408-413.
2. Vijg J, Mullaart E, van der Schans GP, Lohman PHM, Knook DL. Kinetics of ultraviolet induced DNA excision repair in rat and human fibroblasts. *Mutation Res* 1984;132:129-138.
3. Vijg J, Mullaart E, Lohman PHM, Knook DL. UV-induced unscheduled DNA synthesis in fibroblasts of aging inbred rats. *Mutation Res* 1985;146:197-204.
4. Uitterlinden AG, Vijg J, Giphart MJ, Knook DL. Variation in restriction fragment length and methylation pattern of rat MHC class I genes. *Expl Clin Immunogenet* 1985;2:215-222.
5. Vijg J, Mullaart E, Roza L, Baan RA, Lohman PHM. Immunochemical detection of DNA in alkaline sucrose gradient fractions. *J Immunol Methods* 1986;91:53-58.
6. Vijg J, Mullaart E, Berends F, Lohman PHM, Knook DL. UV-induced DNA excision repair in rat fibroblasts during immortalization and terminal differentiation in vitro. *Exp Cell Res* 1986;167:517-530.
7. Gravekamp C, van den Bulck LP, Vijg J, van de Griend RJ, Bolhuis RLH. C-myc gene expression and interleukin-2 receptor levels in cloned human CD2⁺, CD3⁺ and CD3⁻ lymphocytes. *Nat Immun Cell Growth Regul* 1987;6:28-36.
8. Mullaart E, Lohman PHM, Vijg J. Differences in DNA repair between rat skin cells in vitro and in vivo. *J Invest Dermatol* 1988;90:346-349.
9. Gossen JA, Vijg J. E. coli C: a convenient host strain for rescue of highly methylated DNA. *Nucleic Acids Res* 1988;16:9343.
10. Mullaart E, Boerrigter METI, Brouwer A, Vijg J. Age-dependent accumulation of alkali-labile sites in DNA of post-mitotic but not in that of mitotic rat liver cells. *Mech Ageing Dev* 1988;45:41-49.
11. Mullaart E, Buytenhek M, Brouwer A, Lohman PHM, Vijg J. Genotoxic effects of intragastrically administered benzo(a)pyrene in rat liver and intestinal cells. *Carcinogenesis* 1989;10:393-395.
12. Boerrigter METI, Mullaart E, van der Schans GP, Vijg J. Quiescent human peripheral blood lymphocytes do not contain a sizable amount of pre-existent DNA single-strand breaks. *Exp Cell Res* 1989;180:569-573.
13. Gille JJP, Mullaart E, Vijg J, Leyva AL, Arwert F, Joenje H. Chromosomal instability in an oxygen-tolerant variant of Chinese hamster ovary cells. *Mutation Res* 1989;219:17-28.
14. Mullaart E, Roza L, Lohman PHM, Vijg J. The removal of UV-induced pyrimidine dimers from DNA of rat skin cells in vitro and in vivo in relation to aging. *Mech Ageing Dev* 1989;47:253-264.

15. Gille JJP, van Berkel CGM, Mullaart E, Vijg J, Joenje H. Effects of lethal exposure to hyperoxia and to hydrogen peroxide on NAD(H) and ATP pools in Chinese hamster ovary cells. *Mutation Res* 1989;214:89-97.
16. Mullaart E, Boerrigter METI, Lohman PHM, Vijg J. Age-related induction and disappearance of carcinogen-DNA-adducts in livers of rats exposed to low levels of 2-acetylaminofluorene. *Chem Biol Interact* 1989;69:373-384.
17. Uitterlinden AG, Vijg J. Two-dimensional DNA typing. *Trends in Biotechnol* 1989;7:336-342.
18. Uitterlinden AG, Slagboom P, Knook DL, Vijg J. Two-dimensional DNA fingerprinting of human individuals. *Proc Natl Acad Sci USA* 1989;86:2742-2746.
19. Gossen JA, de Leeuw WJF, Tan CHT, Lohman PHM, Berends F, Knook DL, Zwarthoff EC, Vijg J. Efficient rescue of integrated shuttle vectors from transgenic mice: A new model for studying mutations in vivo. *Proc Natl Acad Sci USA* 1989;86:7971-7975.
20. De Leeuw WJF, Slagboom PE, Vijg J. Quantitative comparison of mRNA levels in mammalian tissues: 28S ribosomal RNA level as an accurate internal control. *Nucleic Acids Res* 1989;17:10137-10138.
21. Uitterlinden AG, Slagboom PE, Johnson TE, Vijg J. The *C. elegans* genome contains monomorphic minisatellites and simple sequence motifs. *Nucleic Acids Res* 1989;17:9527-9530.
22. Boerrigter METI, Mullaart E, van der Schans GP, Vijg J. Illusory DNA breaks in quiescent lymphocytes? *Exp Cell Res* 1990;188:1.
23. Mullaart E, Boerrigter METI, Boer GJ, Vijg J. Spontaneous DNA breaks in the rat brain during development and aging. *Mutation Res* 1990;237:9-15.
24. Uitterlinden AG, Vijg J. Denaturing gradient gel electrophoretic analysis of the human cHa-ras1 proto-oncogene. *Appl Theoret Electrophoresis* 1990;1:175-179.
25. Slagboom PE, DeLeeuw WJF, Vijg J. Messenger RNA levels and methylation patterns of GAPDH and β -actin genes in rat liver, spleen and brain in relation to aging. *Mech Ageing Dev* 1990;53:243-257.
26. Mullaart E, Boerrigter METI, Ravid R, Swaab DF, Vijg J. Increased levels of DNA breaks in cerebral cortex of Alzheimer's disease patients. *Neurobiol of Aging* 1990;11:169-173.
27. Slagboom PE, DeLeeuw WJF, Vijg J. Messenger RNA levels and methylation patterns of liver-specific genes in aging inbred rats. *FEBS Letters* 1990;269:128-130.
28. Uitterlinden AG, Vijg J. Locus-specific electrophoretic migration patterns of minisatellite alleles in denaturing gradient gels. *Electrophoresis* 1991;12:12-16.
29. Boerrigter METI, Mullaart E, Vijg J. Induction and repair of DNA strand breaks in human peripheral blood lymphocytes and fibroblasts treated with methyl methanesulfonate. *Exp Cell Res* 1991;192:61-66.
30. Boerrigter METI, Mullaart E, Vijg J. Induction and repair of DNA strand breaks in human lymphocytes exposed to N-ethyl-N-nitrosourea. *Carcinogenesis* 1991;12:77-82.
31. Slagboom PE, Uitterlinden AG, Vijg J. Methylation status of cKi-ras and MHC genes in rat pituitary glands during aging and tumorigenesis. *Aging* 1991;3:141-146.

32. Slagboom PE, Mullaart E, Droog S, Vijg J. Somatic mutations and cellular aging: two-dimensional DNA typing of rat fibroblast clones. *Mutation Res* 1991;256:311-321.
33. Boerrigter METI, van Duyn CM, Mullaart E, Eikelenboom P, van der Togt CMA, Knook DL, Hofman A, Vijg J. Decreased DNA repair capacity in familial, but not in sporadic Alzheimer's disease. *Neurobiology of Aging* 1991;12:367-370.
34. Boerrigter METI, Vijg J. Induction and disappearance of DNA single-strand breaks in human B and T lymphocytes after exposure to ethylnitrosourea. *Mutation Res* 1991;255:49-55.
35. Gossen JA, de Leeuw WJF, Verwest AM, Vijg J. High somatic mutation frequencies in a lacZ transgene integrated on the mouse X chromosome. *Mutat Res* 1991;250:423-429.
36. Huppes W, DeGroot CJA, Ostendorf RH, Bauman JGJ, Gossen JA, Smit V, Vijg J, Dijkstra CD. Detection of migrated allogeneic oligodendrocytes throughout the galactocerebrosidase-deficient twitcher brain. *J Neurocytology* 1992;21:129-136.
37. Boerrigter METI, Vijg J. Single-strand break disappearance in quiescent and phytohemagglutinin-stimulated human peripheral blood lymphocytes exposed to a single, low dose of gamma-radiation. *Int J Radiat Biol* 1992;61:95-101.
38. Gossen JA, Molijn A, Douglas GR, Vijg J. Application of galactose-sensitive E. coli strains as selective hosts for LacZ⁻ plasmids. *Nucleic Acids Res* 1992;20:3254.
39. Boerrigter METI, Yin Y, Vijg J, Wei JY. DNA repair in congenic mice: possible influence of a chromosome 4 genetic region on the rate of BaP-induced DNA adduct removal. *J Gerontol* 1993;48:B11-B16.
40. Gossen JA, Vijg J. A selective system for LacZ⁻ phage using a galactose-sensitive E. coli host. *Biotechniques* 1993;14:326,330.
41. Meulenbelt I, Wapenaar M, Patterson D, Vijg J, Uitterlinden AG. Region-specific isolation of chromosome 21 sequences using a probe for RTVL-H retrovirus-like elements. *Genomics* 1993;15:492-499.
42. Trommelen GJM, den Daas JHG, Vijg J, Uitterlinden AG. Identity and paternity testing in cattle: application of a deoxyribonucleic acid profiling protocol. *J Dairy Sci* 1993;76:1403-1411.
43. Gossen JA, de Leeuw WJF, Bakker AQ, Vijg J. DNA sequence analysis of spontaneous mutations at a LacZ transgene integrated on the mouse X-chromosome. *Mutagenesis* 1993;8:243-247.
44. Gossen JA, de Leeuw WJF, Molijn A, Vijg J. Plasmid rescue from transgenic mouse DNA using LacI repressor protein conjugated to magnetic beads. *BioTechniques* 1993;14:624-629.
45. Hoorn AJW, Custer LL, Myhr BC, Brusick D, Gossen JA, Vijg J. Detection of chemical mutagens using MutaRMouse: a transgenic mouse model. *Mutagenesis* 1993;8:7-10.
46. Hovig E, Mullaart E, Borresen A-L, Uitterlinden AG, Vijg J. Genome scanning of human breast carcinomas using micro- and minisatellite core probes. *Genomics* 1993;17:67-73.
47. Trommelen GJJM, den Daas JMG, Vijg J, Uitterlinden AG. DNA profiling of cattle using micro- and minisatellite core probes. *Anim. Genet.* 1993;24:235-241.
48. Mullaart E, de Vos GJ, te Meerman GJ, Uitterlinden AG, Vijg J. Parallel genome analysis by two-dimensional DNA typing. *Nature* 1993;365:469-471.

49. te Meerman GJ, Mullaart E, van der Meulen MA, den Daas JMG, Uitterlinden AG, Vijg J. Linkage analysis by two-dimensional DNA typing. *Am J Hum Genet* 1993;53:1289-1297.
50. Boerrigter METI, Franceschi C, Arrigoni-Martelli E, Wei JY, Vijg J. The effect of L-carnitine and acetyl-L-carnitine on the disappearance of DNA single-strand breaks in human peripheral blood lymphocytes. *Carcinogenesis* 1993;14:2131-2136.
51. Gossen JA, Vijg J. Transgenic mice as model systems for studying gene mutations in vivo. *Trends in Genetics* 1993;9:27-31.
52. Mientjes EJ, van Delft JHM, op't Hof BM, Gossen JA, Vijg J, Lohman PHM, Baan RA. An improved selection method for lambda-lazZ-phages based on galactose sensitivity. *Transgenic Research* 1994;3:67-69.
53. Verwest AM, de Leeuw WJM, Moliijn AC, Anderson TI, Borresen A-L, Uitterlinden AG, Vijg J. Genome scanning of breast cancers by two-dimensional DNA typing. *Br J Cancer* 1994;69:84-92.
54. Xiao S, Li D, Vijg J, Sugarbaker DJ, Corson JM, Fletcher JA. Codeletion of p15 and p16 in primary malignant mesothelioma. *Oncogene* 1995;11:511-515.
55. Xiao S, Li D, Vijg J, Fletcher JA. Codeletion of p15 and p16 genes in primary non-small cell lung carcinoma. *Cancer Res.* 1995;55:2968-2971.
56. Gossen JA, Martus HJ, Wei JY, Vijg J. Spontaneous and X-ray-induced deletion mutations in a lacZ plasmid-based transgenic mouse model. *Mutat Res* 1995;331:89-97.
57. Boerrigter METI, Wei JY, Vijg, J. Induction and repair of benzo[a]pyrene-DNA adducts in C57Bl/6 and BALB/c mice: association with aging and longevity. *Mech. Ageing Dev.* 1995;82:31-50.
58. Mullaart E, Verwest AM, Borglum AD, Uitterlinden AG, te Meerman GJ, Kruse TA, Vijg J. Two-dimensional DNA typing of human pedigrees: spot pattern characterization and segregation. *Genomics* 1995; 29:641-646.
59. Boerrigter METI, Dollé MET, Martus H-J, Gossen JA, Vijg J. Plasmid-based transgenic mouse model for studying in vivo mutations. *Nature* 1995;377:657-659.
60. Borglum AD, Mullaart E, Kvistgaard AB, Uitterlinden AG, Vijg J, Kruse TA. Two-dimensional DNA typing as a genetic marker system in humans. *Cytogenet Cell Genet.* 1995;71:260-265.
61. Wu Y, Scheffer H, Uitterlinden AG, Mullaart E, Buys CHCM, Vijg J. Comprehensive and accurate mutation scanning of the CFTR-gene by two-dimensional DNA electrophoresis. *Human Mutation* 1996;8:160-167.
62. Dollé M, Martus HJ, Gossen JA, Boerrigter METI, Vijg J. Evaluation of a plasmid-based transgenic mouse model for detecting in vivo mutations. *Mutagenesis* 1996;11:111-118.
63. Li D, Vijg J. Multiplex co-amplification of 24 retinoblastoma gene exons after pre-amplification by long-distance PCR. *Nucleic Acids Res.* 1996;24:538-539.
64. van Orsouw N, Li D, van der Vlies P, Scheffer H, Eng C, Buys CHCM, Li FP, Vijg J. Mutational scanning of large genes by extensive PCR multiplexing and two-dimensional electrophoresis: application to the RB1 gene. *Human Mol. Genet.* 1996;5:755-761.
65. Van Orsouw N, Li D, Vijg J. Denaturing gradient gel electrophoresis (DGGE) increases resolution and informativity of Alu-directed inter-repeat PCR. *Mol Cell Probes* 1997; 11:95-101.

66. Boerrigter METI, Vijg J. Sources of variability in mutant frequency determinations in different organs of lacZ plasmid-based transgenic mice: experimental features and statistical analysis. *Env Mol Mutagen* 1997;29:221-229.
67. Borglum AD, Nyegaard M, Kvistgaard AB, Mullaart E, Uitterlinden AG, Vijg J, Kruse TA Mapping of 34 minisatellite loci resolved by two-dimensional DNA typing. *Cytogenet Cell Genet* 1997;79:248-256.
68. Dollé MET, Giese H, Hopkins CL, Martus H-J, Hausdorff JM, Vijg J. Rapid accumulation of genome rearrangements in liver but not in brain of old mice. *Nature Genetics* 1997;17:431-434.
69. Marsh DJ, Roth S, Lunetta KL, Sistonen P, Dahia PLM, Hemminki A, Zheng Z, Caron S, van Orsouw NJ, Bodmer W, Cottrel SE, Dunlop MG, Eccles D, Hodgson SV, Jarvinen H, Kellokumpu I, Markie D, Neale K, Phillips R, Rosen P, Syngal S, Vijg J, Tomlinson IPM, Aaltonen L, Eng C. Exclusion of PTEN/MMAC1/TEP1 and 10q22-24 as the susceptibility locus for juvenile polyposis syndrome (JPS). *Cancer Res.* 1997;57:5017-5021.
70. De Vries A, Dollé MET, Broekhof JLM, Muller JJA, Dinant E, Kroese ED, Van Kreijl CF, Capel PJA, Vijg J, Van Steeg H. Induction of DNA adducts and mutations in spleen, liver and lung of XPA-deficient/lacZ transgenic mice after oral treatment with benzo[a]pyrene: correlation with tumour development. *Carcinogenesis* 1997;18:2327-2332.
71. Rines DR, van Orsouw NJ, Sigalas I, Li FP, Eng C, Vijg J. Comprehensive mutational scanning of the p53 coding region by two-dimensional gene scanning. *Carcinogenesis* 1998;19:979-984.
72. Van Orsouw NJ, Dhanda RK, Rines RD, Smith WM, Sigalas I, Eng C, Vijg J. Rapid design of denaturing gradient-based two-dimensional electrophoretic gene mutational scanning tests. *Nucleic Acids Res.* 1998;26:2398-2406.
73. Perls TT, Bubrick E, Wager CG, Vijg J, Kruglyak L. Siblings of centenarians live longer. *Lancet* 1998;351:1560.
74. Smith WM, Van Orsouw NJ, Fox EA, Kolodner RD, Vijg J, Eng C. Accurate, high throughput “snapshot” detection of hMLH1 mutations by two-dimensional DNA electrophoresis. *Genet Testing* 1998;2:43-53.
75. Dhanda RK, Van Orsouw NJ, Sigalas I, Eng C, Vijg J. Critical factors in the performance and costs of two-dimensional gene scanning: RB1 as a model. *BioTechniques* 1998;25:664-675.
76. Dhanda RK, Smith W, Scott CB, Eng C, Vijg J. A simple system for automated two-dimensional electrophoresis: applications to genetic testing. *Genet Testing* 1998;2:67-70.
77. Van Orsouw NJ, Zhang X, Wei JY, Johns DR, Vijg J. Mutational scanning of mitochondrial DNA by two-dimensional electrophoresis. *Genomics* 1998;52:27-36.
78. Dabora SL, Sigalas I, Hall F, Eng C, Vijg J, Kwiatkowski DJ. Comprehensive mutation analysis of TSC1 using two-dimensional DNA electrophoresis with DGGE. *Ann. Hum. Genet.* 1998;62:491-504.
79. Giese H, Dollé MET, Hezel A, van Steeg H, Vijg J. Accelerated accumulation of somatic mutations in mice deficient in the nucleotide excision repair gene XPA. *Oncogene* 1999;18:1257-1260.

80. van Orsouw NJ, Dhanda RK, Xu S-H, Elhaji Y, Narod SA, Li FP, Eng C, Vijg J. A highly accurate, low-cost test for mutations in BRCA1. 1999, *J. Med. Genet.* 1999;36:747-753.
81. Dollé MET, Novak M, Martus H-J, Vijg J. Characterization of color mutants in lacZ plasmid-based transgenic mice, as detected by positive selection. *Mutagenesis* 1999;14:287-293.
82. Khrapko K, Bodyak N, Thilly WG, van Orsouw NJ, Zhang X, Collier HA, Perls TT, Upton M, Vijg J, Wei JY. Cell-by-Cell scanning of whole mitochondrial genomes in aged human heart reveals a significant fraction of myocytes with clonally expanded deletions. *Nucleic Acids Res* 1999;27:2434-2441.
83. Vijg J, van Orsouw N. Two-dimensional gene scanning: exploring human genetic variability. *Electrophoresis* 1999;20:1239-1249.
84. Dollé MET, Snyder WK, van Orsouw NJ, Vijg J. Background mutations and polymorphisms in lacZ-plasmid transgenic mice. *Env Molec Mutagen*, 1999;34:112-120.
85. van Oostrom CT, Boeve M, van Den Berg J, de Vries A, Dolle ME, Beems RB, van Kreijl CF, Vijg J, van Steeg H. Effect of heterozygous loss of p53 on benzo[a]pyrene-induced mutations and tumors in DNA repair-deficient XPA mice. *Environ Mol Mutagen* 1999;34:124-130.
86. Yeh JJ, Lunetta KL, van Orsouw NJ, Moore FD Jr, Mutter GL, Vijg J, Dahia PL, Eng C. Somatic mitochondrial DNA (mtDNA) mutations in papillary thyroid carcinomas and differential mtDNA sequence variants in cases with thyroid tumours. *Oncogene*. 2000;19:2060-2066.
87. van Steeg H, Mullenders LH, Vijg J. Mutagenesis and carcinogenesis in nucleotide excision repair-deficient XPA knock out mice. *Mutat Res* 2000;450:167-180.
88. Dollé, MET, Snyder WK, Gossen JA, Lohman PHM, Vijg J. Distinct spectra of somatic mutations accumulated with age in mouse heart and small intestine. *Proc. Natl. Acad. Sci. USA*, 2000;97:8403-8408.
89. Schriener SE, Ogburn CE, Smith AC, Newcomb TG, Ladiges WC, Dollé MET, Vijg J, Fukuchi K-I, Martin GM. Levels of DNA damage are unaltered in mice overexpressing human catalase in nuclei. *Free Rad Biol Med*, 2000;29:664-673.
90. E. C. Hadley, W. K. Rossi, S. M. Albert, J. Bailey-Wilson, J. Baron, R. Cawthon, J. C. Christian, E. H. Corder, C. Franceschi, B. Kestenbaum, L. Kruglyak, D. S. Lauderdale, J. Lubitz, G. M. Martin, G. E. McClearn, M. McGue, T. Miles, G. Mineau, G. Ouellette, N. L. Pedersen, S. H. Preston, W. F. Page, M. Province, F. Schächter, N. J. Schork, J. W. Vaupel, J. Vijg, R. Wallace, E. Wang, E. M. Wijsman, Genetic epidemiologic studies on age-specified traits. *Am. J. Epidemiol.* 152, 1003-1008 (2000)
91. Martin SL, Hopkins CL, Naumer A, Dollé MET, Vijg J. Mutation frequency and type during ageing in mouse seminiferous tubules. *Mech. Ageing Dev.* 2001;122:1321-1331.
92. Dollé ME, Snyder WK, Vijg J. Genotyping the Prop-1 mutation in Ames dwarf mice.. *Mech Ageing Dev.* 2001;122:1915-1918.
93. Guo Z, Van Remmen H, Yang H, Chen X, Mele J, Vijg J, Epstein CJ, Ho YS, Richardson A. Changes in expression of antioxidant enzymes affect cell-mediated LDL oxidation and oxidized LDL-induced apoptosis in mouse aortic cells. *Arterioscler Thromb Vasc Biol* 2001;21:1131-1138.

94. McGrath SB, Bounpheng M, Torres L, Calavetta M, Scott CB, Suh, Y Rines D, van Orsouw N, Vijg J. High-speed, multi-color fluorescent two-dimensional gene scanning. *Genomics* 2001;78:83-90.
95. Suh Y, Lee K-A, Kim W-H, Han B-G, Vijg J, Park SC. Aging alters the apoptotic response to genotoxic stress. *Nat. Med.*, 2002;8:3-4.
96. Dollé MET, Snyder WK, Dunson DB, Vijg J. Mutational fingerprints of aging. *Nucl. Acids Res*, 2002;30:545-549.
97. Giese H, Snyder WK, van Oostrom C, van Steeg H, Dolle ME, Vijg J. Age-related mutation accumulation at a lacZ reporter locus in normal and tumor tissues of Trp53-deficient mice. *Mutat Res* 2002;514:153-163.
98. Eng C, Brody LC, Wagner TM, Devilee P, Vijg J, Szabo C, Tavtigian SV, Nathanson KL, Ostrander E, Frank TS; Steering Committee of the Breast Cancer Information Core (BIC) Consortium. Interpreting epidemiological research: blinded comparison of methods used to estimate the prevalence of inherited mutations in BRCA1. *J Med Genet* 2001;38:824-833.
99. Andrulis IL, Anton-Culver H, Beck J, Bove B, Boyd J, Buys S, Godwin AK, Hopper JL, Li F, Neuhausen SL, Ozelik H, Peel D, Santella RM, Southey MC, Van Orsouw NJ, Venter DJ, Vijg J, Whittemore AS. Comparison of DNA- and RNA-Based Methods for Detection of Truncating BRCA1 Mutations. *Hum Mutat* 2002;20:65-73
100. Nekhaeva E, Bodyak ND, Kraytsberg Y, McGrath SB, Van Orsouw NJ, Pluzhnikov A, Wei JY, Vijg J, Khrapko K. Clonally expanded mtDNA point mutations are abundant in individual cells of human tissues. *Proc Natl Acad Sci U S A* 2002;99:5521-5526
101. Dollé MET, Vijg J. Genome dynamics in aging mice. *Genome Res.*, 2002;12:1732-1738
102. Hasty P, Campisi J, Hoeijmakers J, van Steeg H, Vijg J. Aging and genome maintenance: lessons from the mouse? *Science* 2003;299:1355-1359.
103. Bounpheng M, McGrath S, Macias D, van Orsouw N, Suh Y, Rines D, Vijg J. Rapid, inexpensive scanning for all possible BRCA1 and BRCA2 gene sequence variants in a single assay: implications for genetic testing. *J Med Genet* 2003;40:e33.
104. Hoogervorst EM, de Vries A, Beems RB, van Oostrom CT, Wester PW, Vos JG, Bruins W, Roodbergen M, Cassee FR, Vijg J, van Schooten FJ, van Steeg H. Combined oral benzo[a]pyrene and inhalatory ozone exposure have no effect on lung tumor development in DNA repair-deficient Xpa mice. *Carcinogenesis* 2003;24:613-619.
105. Chen X, Mele J, Giese H, Van Remmen H, Dolle ME, Steinhilper M, Richardson A, Vijg J. A strategy for the ubiquitous overexpression of human catalase and CuZn superoxide dismutase genes in transgenic mice. *Mech Ageing Dev* 2003;124:219-227.
106. Yang H, Shi M, VanRemmen H, Chen X, Vijg J, Richardson A, Guo Z. Reduction of pressor response to vasoconstrictor agents by overexpression of catalase in mice. *Am J Hypertens* 2003;16:1-5.
107. Yang H, Shi M, Richardson A, Vijg J, Guo Z. Attenuation of leukocyte-endothelium interaction by antioxidant enzymes. *Free Radic Biol Med.* 2003;35:266-276.
108. Busuttil RA, Rubio M, Dollé MET, Campisi J, Vijg J. Oxygen accelerates the accumulation of mutations during the senescence and immortalization of murine cells in culture. *Aging Cell* 2003;2:287-294.

109. Chen X, Liang H, Van Remmen H, Vijg J, Richardson A. Catalase transgenic mice: characterization and sensitivity to oxidative stress. *Arch Biochem Biophys.* 2004;422:197-210.
110. Vijg J. Impact of genome instability on transcription regulation of aging and senescence. *Mech Ageing Dev.* 2004;125:747-753.
111. McCammon MT, Gillette GS, Thomas DP, Ramaswamy SV, Rosas II, Graviss EA, Vijg J, Quitugua TN. Detection by denaturing gradient gel electrophoresis of pncA mutations associated with pyrazinamide resistance in Mycobacterium tuberculosis isolates from the United States-Mexico border region. *Antimicrobial Agents and Chemotherapy* 2005;49:2210-2217
112. McCammon MT, Gillette GS, Thomas DP, Ramaswamy SV, Graviss EA, Kreiswirth BN, Vijg J, Quitugua TN. Detection of rpoB mutations associated with rifampin resistance in Mycobacterium tuberculosis using denaturing gradient gel electrophoresis. *Antimicrobial Agents and Chemotherapy* 2005;49:2200-2209.
113. Wijnhoven SW, Beems RB, Roodbergen M, van den Berg J, Lohman PH, Diderich K, van der Horst GT, Vijg J, Hoeijmakers JH, van Steeg H. Accelerated aging pathology in ad libitum fed Xpd(TTD) mice is accompanied by features suggestive of caloric restriction. *DNA Repair* 2005;4:1314-1324.
114. Vijg J, Hasty P. Aging and p53: getting it straight - A commentary on a recent paper by Gentry and Venkatachalam. *Aging Cell* 2005;4:331-333.
115. Busuttil RA, Garcia AM, Cabrera C, Rodriguez A, Suh Y, Kim WH, Huang T-T, Vijg J. Organ-specific increase in mutation accumulation and apoptosis rate in CuZnSOD-deficient mice. *Cancer Res.* 2005;65:11271-11275.
116. Dollé MET, Busuttil RA, Garcia A.M., Wijnhoven S, van Drunen A, Niedernhofer LJ, van der Horst G, Hoeijmakers JHJ, van Steeg H, Vijg J. Increased genomic instability is not a prerequisite for shortened life span in DNA repair deficient mice. *Mutation Research* 2006;596:22-35.
117. Busuttil RA, Rubio M, Dolle ME, Campisi J, Vijg J. Mutant frequencies and spectra depend on growth state and passage number in cells cultured from transgenic lacZ-plasmid reporter mice. *DNA Repair* 2006;5:52-60.
118. Bahar R, Hartmann CH, Rodriguez KA, Denny AD, Busuttil RA, Dollé MET, Calder RB, Chisholm GB, Pollock BH, Klein CA, Vijg J. Increased cell-to-cell variation in gene expression in aging mouse heart. *Nature* 2006;441:1011-1014. PMID:16791200
119. Cabelof DC, Ikeno Y, Nyska A, Busuttil RA, Anyangwe N, Vijg J, Matherly L, Tucker J, Wilson S, Richardson A, Heydari A. Haploinsufficiency in DNA polymerase β increases cancer risk with age and alters mortality rate. *Cancer Res.* 2006;66: 7460-7465.
120. Niedernhofer LJ, Garinis GA, Raams A, Lalai AS, Robinson AR, Appeldoorn E, Odijk H, Oostendorp R, Ahmad A, van Leeuwen W, Theil AF, Vermeulen W, van der Horst GT, Meinecke P, Kleijer WJ, Vijg J, Jaspers NG, Hoeijmakers JH. A new progeroid syndrome reveals that genotoxic stress suppresses the somatotroph axis. *Nature* 2006;444:1038-1043.
121. Garcia AM, Derventzi A, Busuttil R, Calder RB, Perez Jr E, Chadwell L, Dollé MET, Lundell M, Vijg J. A model system for analyzing somatic mutations in *Drosophila melanogaster*. *Nat. Meth.* 2007;4:401-403. PMID:17435764

122. Calder RB, Beems RB, van Steeg H, Mian IS, Lohman PH, Vijg J. MPHASYS: A mouse phenotype analysis system. *BMC Bioinformatics* 2007;8:183.
123. Busuttil RA, Garcia AM, Reddick RL, Dollé MET, Calder RB, Nelson JF. Vijg J. Intra-organ variation in age-related mutation accumulation in the mouse *PLoS ONE* 2007;2:e876.
124. Melis JP, Wijnhoven SW, Beems RB, Roodbergen M, van den Berg J, Moon H, Friedberg E, van der Horst GT, Hoeijmakers JH, Vijg J, van Steeg H. Mouse models for xeroderma pigmentosum group A and group C show divergent cancer phenotypes. *Cancer Res.* 2008;68:1347-1353.
125. Busuttil RA, Lin Q, Stambrook PJ, Kucherlapati R, Vijg J. Mutation frequencies and spectra in DNA polymerase eta-deficient mice. *Cancer Res.* 2008;68:2081-2084.
126. Park JY, Cho MO, Leonard S, Calder B, Mian IS, Kim WH, Wijnhoven S, van Steeg H, Mitchell J, van der Horst GT, Hoeijmakers J, Cohen P, Vijg J, Suh Y. Homeostatic imbalance between apoptosis and cell renewal in the liver of premature aging Xpd mice. *PLoS ONE.* 2008;3:e2346.
127. Ouchida R, Ukai A, Mori H, Kawamura K, Dollé ME, Tagawa M, Sakamoto A, Tokuhisa T, Yokosuka T, Saito T, Yokoi M, Hanaoka F, Vijg J, Wang JY. Genetic analysis reveals an intrinsic property of the germinal center B cells to generate A:T mutations. *DNA Repair (Amst).* 2008;7:1392-1398.
128. Garcia AM, Busuttil RA, Calder RB, Dollé ME, Diaz V, McMahan CA, Bartke A, Nelson J, Reddick R, Vijg J. Effect of Ames dwarfism and caloric restriction on spontaneous DNA mutation frequency in different mouse tissues. *Mech Ageing Dev.* 2008;129:528-533.
129. Vijg J, Campisi J. Puzzles, promises and a cure for ageing. *Nature.* 2008;454:1065-1071. [PMC2774752](#)
130. Busuttil RA, Muñoz DP, Garcia AM, Rodier F, Kim WH, Suh Y, Hasty P, Campisi J, Vijg J. Effect of Ku80 deficiency on mutation frequencies and spectra at a LacZ reporter locus in mouse tissues and cells. *PLoS ONE.* 2008;3(10):e3458.
131. Longo VD, Lieber MR, Vijg J. Turning anti-ageing genes against cancer. *Nat Rev Mol Cell Biol.* 2008;9:903-190.
132. Garinis GA, van der Horst GT, Vijg J, Hoeijmakers JH. DNA damage and ageing: new-age ideas for an age-old problem. *Nat Cell Biol.* 2008;10:1241-1247.
133. Holcomb VB, Rodier F, Choi Y, Busuttil RA, Vogel H, Vijg J, Campisi J, Hasty P. Ku80 deletion suppresses spontaneous tumors and induces a p53-mediated DNA damage response. *Cancer Res.* 2008;68:9497-9502.
134. Wang G, Carbajal S, Vijg J, DiGiovanni J, Vasquez KM. DNA structure-induced genomic instability in vivo. *J Natl Cancer Inst.* 2008;100:1815-7.
135. Busuttil RA, Muñoz DP, Garcia AM, Rodier F, Kim WH, Suh Y, Hasty P, Campisi J, Vijg J. Effect of Ku80 deficiency on mutation frequencies and spectra at a LacZ reporter locus in mouse tissues and cells. *PLoS ONE.* 2008;3:e3458.
136. Pérez VI, Van Remmen H, Bokov A, Epstein CJ, Vijg J, Richardson A. The overexpression of major antioxidant enzymes does not extend the lifespan of mice. *Aging Cell.* 2009;8:73-5.

137. Khrapko K, Vijg J. Mitochondrial DNA mutations and aging: devils in the details? *Trends Genet.* 2009 Feb;25(2):91-8.
138. Edman U, Garcia AM, Busuttill RA, Sorensen D, Lundell M, Kapahi P, Vijg J. Lifespan extension by dietary restriction is not linked to protection against somatic DNA damage in *Drosophila melanogaster*. *Aging Cell.* 2009;8:331-338.
139. Maslov AY, Metrikin M, Vijg J. A dual-activation, adenoviral-based system for the controlled induction of DNA double-strand breaks by the restriction endonuclease *SacI*. *Biotechniques* 2009;47:847-854.
140. Rae MJ, Butler RN, Campisi J, de Grey AD, Finch CE, Gough M, Martin GM, Vijg J, Perrott KM, Logan BJ. The demographic and biomedical case for late-life interventions in aging. *Sci Transl Med.* 2010;2:40cm21. PMID: 20630854
141. Garcia AM, Calder RB, Dollé ME, Lundell M, Kapahi P, Vijg J. Age- and temperature-dependent somatic mutation accumulation in *Drosophila melanogaster*. *PLoS Genet.* 2010;6:e1000950.
142. Dollé MET, Kuiper RV, Roodbergen M, Robinson J, de Vlught S, Wijnhoven SWP, Beems RB, de la Fonteyne L, de With P, van der Pluijm I, Niedernhofer LJ, Hasty P, Vijg J, Hoeijmakers JHJ, van Steeg H. Broad segmental progeroid changes in short-lived *Ercc1^{-Δ7}* mice. *Pathobiology of Aging & Age-related Diseases* 2011;1:7219.
143. Gundry M, Li W, Maqbool SB, Vijg J. Direct, genome-wide assessment of DNA mutations in single cells. *Nucleic Acids Res.* 2012;40:2032-40. PMC3237897
144. Li W, Vijg J. Measuring genome instability in aging - a mini-review. *Gerontology.* 2012;58:129-138. PMID: 22156741
145. Gundry M, Vijg J. Direct mutation analysis by high-throughput sequencing: From germline to low-abundant, somatic variants. *Mutat Res.* 2012;729:1-15. PMC3237897
146. Garcia AM, Salomon RN, Witsell A, Liepkalns J, Calder RB, Lee M, Lundell M, Vijg J, McVey M. Loss of the Bloom Syndrome helicase increases DNA ligase 4-independent genome rearrangements and tumorigenesis in aging *Drosophila*. *Genome Biol.* 2011;12:R121. PMID: 22183041
147. Maslov AY, Lee M, Gundry M, Gravina S, Stroganova N, Tazearslan C, Bendebury A, Suh Y, Vijg J. 5-Aza-2'-deoxycytidine-induced genome rearrangements are mediated by DNMT1. *Oncogene* 2012;31:5172-5179. PMID:22349820
148. Kim TM, Ko JH, Hu L, Kim SA, Bishop AJ, Vijg J, Montagna C, Hasty P. RAD51 Mutants Cause Replication Defects and Chromosomal Instability. *Mol Cell Biol.* 2012;32:3663-80. PMC3430192
149. Gombar S, Jung HJ, Dong F, Calder B, Atzmon G, Barzilai N, Tian XL, Pothof J, Hoeijmakers JH, Campisi J, Vijg J, Suh Y. Comprehensive microRNA profiling in B-cells of human centenarians by massively parallel sequencing. *BMC Genomics.* 2012;13:353. PMID: 22846614
150. Faggioli F, Wang T, Vijg J, Montagna C. Chromosome-specific accumulation of aneuploidy in the aging mouse brain. *Hum Mol Genet.* 2012;21:5246-53. PMC3510757
151. Beltrami E, Ruggiero A, Busuttill R, Migliaccio E, Pelicci PG, Vijg J, Giorgio M. Deletion of p66Shc in mice increases the frequency of size-change mutations in the *lacZ* transgene. *Aging Cell.* 2013;12:177-183. PMID:23237310

152. Maslov AY, Ganapathi S, Westerhof M, Quispe W, White RR, Van Houten B, Reiling E, Dollé ME, van Steeg H, Hasty P, Hoeijmakers JH, Vijg J. DNA damage in normally and prematurely aged mice. *Aging Cell*. 2013 12:467-477. PMID:23496256.
153. Vijg J, Suh Y. Genome Instability and Aging. *Annual Review of Physiology* 2013;75:645-668. PMID:23398157
154. Jonker MJ, Melis JP, Kuiper RV, van der Hoeven TV, Wackers PF, Robinson J, van der Horst GT, Dollé ME, Vijg J, Breit TM, Hoeijmakers JH, van Steeg H. Life spanning murine gene expression profiles in relation to chronological and pathological aging in multiple organs. *Aging Cell* 2013 Jun 25. doi: 10.1111/accel.12118. [Epub ahead of print] PMID:23795901
155. Garagnani P, Giuliani C, Pirazzini C, Olivieri F, Bacalini MG, Ostan R, Mari D, Passarino G, Monti D, Bonfigli AR, Boemi M, Ceriello A, Genovese S, Sevini F, Luiselli D, Tieri P, Capri M, Salvioli S, Vijg J, Suh Y, Delledonne M, Testa R, Franceschi C. Centenarians as super-controls to assess the biological relevance of genetic risk factors for common age-related diseases: A proof of principle on type 2 diabetes. *Aging (Albany NY)*. 2013 May;5(5):373-85. PMID:23804578
156. Gravina S, Dollé ME, Wang T, van Steeg H, Hasty P, Hoeijmakers J, Vijg J. High preservation of CpG Cytosine methylation patterns at imprinted gene Loci in liver and brain of aged mice. *PLoS One*. 2013;8(9):e73496. PMID:24039963
157. Greer C, Lee M, Westerhof M, Milholland B, Spokony R, Vijg J, Secombe J. Myc-dependent genome instability and lifespan in *Drosophila*. *PLoS One* 2013;8:e74641. PMID:24040302
158. Quispe-Tintaya W, White RR, Popov VN, Vijg J, Maslov AY. Fast mitochondrial DNA isolation from mammalian cells for next-generation sequencing. *Biotechniques* 2013;55:133-136. PMID:24003945
159. Vijg J. Aging genomes: A necessary evil in the logic of life. *Bioessays* 2014;36:282-292. PMID:24464418
160. Choi YJ, Li H, Son MY, Wang XH, Fornsgaglio JL, Sobol RW, Lee M, Vijg J, Imholz S, Dollé ME, van Steeg H, Reiling E, Hasty P. Deletion of Individual Ku Subunits in Mice Causes an NHEJ-Independent Phenotype Potentially by Altering Apurinic/Apyrimidinic Site Repair. *PLoS One* 2014;9:e86358. PMID:24466051
161. Reiling E, Dollé ME, Youssef SA, Lee M, Nagarajah B, Roodbergen M, de With P, de Bruin A, Hoeijmakers JH, Vijg J, van Steeg H, Hasty P. The Progeroid Phenotype of Ku80 Deficiency Is Dominant over DNA-PKCS Deficiency. *PLoS One*. 2014;9:e93568. PMID:24740260.
162. Vijg J, de Grey AD. Innovating Aging: Promises and Pitfalls on the Road to Life Extension. *Gerontology*. 2014 [Epub ahead of print] PMID:24732067
163. Faggioli F, Vijg J, Montagna C. Four-color FISH for the detection of low-level aneuploidy in interphase cells. *Methods Mol Biol*. 2014;1136:291-305. PMID:24633803
164. Akman K, Haaf T, Gravina S, Vijg J, Tresch A. Genome-wide quantitative analysis of DNA methylation from bisulfite sequencing data. *Bioinformatics*. 2014;30:1933-1934 PMID:24618468
165. Furgason JM, Li W, Milholland B, Cross E, Li Y, McPherson CM, Warnick RE, Rixe O, Stambrook PJ, Vijg J, Bahassi EM. Whole genome sequencing of glioblastoma

- multiforme identifies multiple structural variations involved in EGFR activation. *Mutagenesis* 2014;29:341-350. PMID:25103728
166. Gorbunova V, Seluanov A, Zhang Z, Gladyshev VN, Vijg J. Comparative genetics of longevity and cancer: insights from long-lived rodents. *Nat Rev Genet.* 2014;15:531-540. PMID:24981598
 167. Wessendorf P, Vijg J, Nussenzweig A, Digweed M. Deficiency of the DNA repair protein nibrin increases the basal but not the radiation induced mutation frequency in vivo. *Mutation Res.* 769;2014:11–16.
 168. Demaria M, Ohtani N, Youssef SA, Rodier F, Toussaint W, Mitchell JR, Laberge RM, Vijg J, Van Steeg H, Dollé ME, Hoeijmakers JH, de Bruin A, Hara E, Campisi J. An Essential Role for Senescent Cells in Optimal Wound Healing through Secretion of PDGF-AA. *Dev Cell:* 2014;31:722-733. PMID:25499914
 169. Vijg J. Somatic mutations, genome mosaicism, cancer and aging. *Curr Opin Genet Dev.* 2014;26C:141-149. PMID: 25282114

Non-peer-reviewed articles, book chapters etc.

1. Vijg J, Uitterlinden AG, Knook DL. Arrangement and methylation state of ras oncogenes in liver hyperplastic nodules. In: van Bezooijen CFA, ed. *Pharmacological, Morphological and Physiological Aspects of Liver Aging*. EURAGE: Rijswijk, 1983:49-55.
2. Vijg J, Mullaart E, Lohman PHM, Knook DL. DNA excision repair in aging inbred rats. In: *Molecular Basis of Aging*. Roy AK, Chatterjee B, eds. Orlando: Academic Press, 1984:65-93.
3. Hollander CF, van Zwieten MJ, Zurcher C, Vijg J. Measuring ageing. In: *Promoting the Well-Being of the Elderly*. London: International Health Evaluation Association, 1984:2-3.
4. Uitterlinden AG, Vijg J, Knook DL. Variation in restriction fragment length and methylation pattern of rat major histocompatibility complex class I genes. *Transplantation Proceedings*, Vol. XVII, 1985:1805-1807.
5. Vijg J, Uitterlinden AG, Mullaart E, Lohman PHM, Knook DL. Processing of DNA damage during aging: the induction of genetic alteration. In: *Molecular Biology of Aging: Gene Stability and Gene Expression*. Sohal RS, et al. eds. New York: Raven Press, 1985:155-182.
6. Brouwer A, Vijg J, Knook DL. Medisch-biologisch onderzoek van het verouderingsproces. In: Abma E, van Bekkum DW, Doorman-Degens M, et al. eds.: *Ouderdom. Cahiers Bio-Wetenschappen en Maatschappij*, 11, nr. 3, Roosendaal, Van Poll, 1986. p. 9-15.
7. Vijg J, Roza L, Mullaart E, Lohman PHM. Species specificity in the induction and repair of DNA damage. In: *Genetic Toxicology of Environmental Chemicals, Part A: Basic Principles and Mechanisms of Action*. Ramel C, Lambert B, Magnussen J, eds. New York: Alan R. Liss, Inc., 1986:179-187
8. Slagboom P, Uitterlinden AG, Vijg J. (1986). Screening for age-related changes in gene expression in the rat liver. In: *Liver, Drugs and Aging*. van Bezooijen CFA, Miglio F, Knook DL, eds. Rijswijk: EURAGE, 1986:127-133.
9. Vijg J, Mullaart E, Lohman PHM, Knook DL. Age and species specific variation in DNA excision repair. In: *Radiation Carcinogenesis and DNA Alterations*. Burns FJ, et al. eds. New York: Plenum Press, 1986:523-537.
10. Lohman PHM, Vijg J, Uitterlinden AG, Slagboom P, Gossen JA, Berends F. DNA methods for detecting and analyzing mutations in vivo. *Mutation Res* 1987;181:227-234.
11. Vijg J, Uitterlinden AG. A search for DNA alterations in the aging mammalian genome: an experimental strategy. *Mech Ageing Dev* 1987;41:47-63.
12. Gossen JA, Vijg J. Transgene muizen als modelsysteem voor de detectie en karakterisering van mutaties tijdens veroudering. In: *Kennis Over Ouder*. Kuper-Carrière EGJ, ed. SOOM werkdokument nr. 14 Nijmegen, 1987:41-48.
13. Vijg J, Knook DL. DNA repair in relation to the aging process. *J Am Ger Soc* 1987;35:532-541.
14. Vijg J, Roza L, Mullaart E, Berends F. DNA repair in relation to skin aging. *G It Chir Derm Onc* 1987;2:300-311.

15. Vijg J. Introduction to recombinant DNA technology. In: *New Developments in Biosciences: Their Implications for Laboratory Animal Science*. Beynen, AC, Solleveld HA, eds. Dordrecht: Martinus Nijhoff, 1988:133-143.
16. Beyreuther KT, Cerutti PA, Clark BFC, Delabar JM, Esser K, Franceschi C, Kirkwood TBL, Rattan SIS, Treton JA, Uitterlinden AG, Vandenberghe AM, Vijg J. *Molecular Biology of Ageing: Research Programme of the EURAGE Molecular Biology Group*. Rijswijk: EURAGE, 1988.
17. Franceschi C, Setlow RB, Sugimura T, Vijg J. About an old problem, new approaches, a new section [Editorial]. *Mutation Res* 1989;219:83-85.
18. Vijg J. Molecular gerontology needs coordination [Editorial]. *Mutation Res* 1989;219:87-88.
19. Slagboom P, Vijg J. Genetic instability and aging: theories, facts and future perspectives. *Genome* 1989;31:373-385.
20. Mullaart E, Vijg J. DNA damage and repair in relation to aging and Alzheimer's disease. In: *The Future of Psychogeriatrics*. Sipsma DH, Punt LM, eds. Noordbergum: Nieuw Toutenburg, 1989:89-122.
21. Vijg J. Biologische achtergronden van het verouderingsproces. In: *Handboek Ouder Worden*, afl.3. Deventer: Van Loghum Slaterus, 1989:1-19.
22. Vijg J, Horbach GJMJ. Ageing at the molecular level: implications for clinical practice. In: *Gerontology: Approaches to Biomedical and Clinical Research*. Horan MA, Brouwer A, eds. London: Edward Arnold, 1990:66-84.
23. Vijg J, Gossen JA, Slagboom PE, Uitterlinden AG. New methods for the detection of DNA sequence variation: Applications in molecular genetic studies on aging. In: *Molecular Biology of Aging*. Finch CE, Johnson TE, eds. New York: Liss, 1990:103-119.
24. Vijg J, Mullaart E, Boerrigter METI. Changes in DNA repair with ageing and its influence on genotoxicity. In: *Basic Science in Toxicology*. Volans GN, Sims J, Sullivan FM, Turner P, eds. London: Taylor and Francis, 1990:390-404.
25. Vijg J, Gossen JA. Transgene muizen als testsysteem voor potentieel kankerverwekkende stoffen. *Tijdschrift Kanker* 1990;14:24-26.
26. Vijg J. Levensverlenging: wenselijk, maar is het ook mogelijk? *Senior* 1990;36:144-152.
27. Gossen JA, Vijg J. Transgenic mice as a model to study gene mutations: application as a short-term mutagenicity assay. In: *Prog Clin Biol Res* 1990;340A:347-354.
28. Vijg J, Papaconstantinou J. Aging and longevity genes: strategies for identifying DNA sequences controlling life span. *J Gerontol* 1990;45:B179-182.
29. Mullaart E, Lohman PHM, Berends F, Vijg J. DNA damage metabolism and aging. *Mutation Res* 1990;237:189-210.
30. Uitterlinden AG, Slagboom EP, Mullaart E, Meulenbelt I, Vijg J. Genome scanning by two-dimensional DNA typing: The use of repetitive DNA sequences for rapid mapping of genetic traits. *Electrophoresis* 1991;12:119-134.
31. Vijg J. DNA sequence changes in aging: how frequent, how important? *Aging* 1990;2:105-123.

32. Vijg J, Gossen JA, de Leeuw WJF, Mullaart E, Slagboom P, Uitterlinden AG. New methods for detecting DNA sequence variation in relation to aging. In: *Molecular Mechanisms of Aging*. Beyreuther K, Schettler G, eds. Springer-Verlag 1990:77-88.
33. Vijg J. Levensverlenging: de apotheose van de moleculaire biomedische wetenschappen? *Ned Tdschr Gerontol Geriatr* 1990;21:199-204.
34. Vijg, J. Searching for the molecular basis of aging: the need for life extension models. *Aging* 1990;2:227-229.
35. Vijg, J. Ouder worden nu: een kwestie van genen? In: Knipscheer CPM, Michels JJM, Ribbe MW, eds. *Ouder Worden Nu'90*. Almere: Versluys Uitgeverij, 1990:262-270.
36. Natarajan AT, Vlasblom SE, Manca A, Lohman PH, Gossen JA, Vijg J, Beermann F, Hummler E, Hansmann I. Transgenic mouse—an in vivo system for detection of aneugens. In: *Prog Clin Biol Res* 1990;340B:295-299.
37. Vijg J, Gossen JA, de Leeuw WJF, Mullaart E, Slagboom PE, Uitterlinden AG. DNA processing, aging and cancer: The impact of new technology. In: Pierpaoli W, Fabris N, eds. *Physiological senescence and its postponement. Theoretical approaches and rational interventions*. *Ann N Y Acad Sci* 1991;621:53-65.
38. Vijg J. New methods for the detection of genetic variation. *Ann Ist Super Sanita* 1991;27:123-126.
39. Uitterlinden AG, Mullaart E, Morolli B, Vijg J. Genome scanning of higher eukaryotes by two-dimensional DNA typing using micro- and minisatellite core probes. *Methods: A Companion to Methods in Enzymology* 1991;3:83-90.
40. Gossen JA, de Leeuw WJ, Verwest M, Vijg J. Analysis of spontaneous and induced mutation frequencies in transgenic mice using a lambda shuttle vector system. In: *Prog Clin Biol Res* 1991;372:313-318.
41. Slagboom PE, Vijg J. The dynamics of genome organization and expression during the aging process. In: Fabris N, et al. eds. *Physiopathological processes of aging, towards a multicausal interpretation*. *Ann N Y Acad Sci* 1992;673:58-70.
42. Boerrigter METI, Wei JY, Vijg J. DNA repair and Alzheimer's disease: A review. *J Gerontol* 1992;47:B177-B184.
43. Vijg J, de Leeuw WJF, Douglas GR, Gossen JA. Transgenic mice and age-related mutations. In: Franceschi C, et al. eds. *Aging and Cellular Defense Mechanisms*. *Ann N Y Acad Sci* 1992;663:26-35.
44. Boerrigter METI, Vijg J. Studies on DNA repair defects in degenerative brain disease. *Age and Ageing* 1993;22:S44-52.
45. Vijg J., Gossen JA. Somatic mutations and cellular aging. *Comp Biochem Physiol* 1993;104B:429-437.
46. Boerrigter METI, Vijg J. DNA damage and repair in human lymphocytes: relationship to Alzheimer's disease. In: Licastro F, Caldarera M, eds. *Biomarkers of Aging: Expression and Regulation*. Bologna: CLUEB, 1993.
47. Boerrigter METI, Vijg J. Défauts de réparation de l'ADN et étiologie de la maladie d'Alzheimer (DNA repair deficiencies and the etiology of Alzheimer's disease). *Alzheimer Actualities*, 1993;Sept.:4-9.
48. Boerrigter METI, Vijg J. Studies on DNA repair defects in degenerative brain disease. *Clinical Digest Series*, 1993;Dec.:188.

49. Vijg J. Moleculaire gerontologie: Toekomstperspectieven. Tijdschr voor Geneeskunde 1993;49:1635-1641.
50. Gossen JA, Vijg J. LacZ transgenic mouse models: their application in genetic toxicology. Mutat. Res. 1994;307:451-459.
51. Vijg J, Wu Y, Uitterlinden AG, Mullaart E. Two-dimensional DNA electrophoresis in mutation detection. Mutat. Res. 1994; 308:205-214.
52. Vijg J. Detecting individual genetic variation. BioTechnology 1995;13:137-139.
53. Vijg J, Wei JY. Understanding the biology of aging: the key to prevention and therapy? J Am Ger Soc 1995;43:426-434.
54. Vijg J. Two-dimensional DNA typing: a cost-effective way of analyzing complex mixtures of DNA fragments for sequence variations. Molec. Biotech. 1995;4:275-295.
55. Martus HJ, Dollé M, Gossen JA, Boerrigter METI, Vijg J. Use of transgenic mouse models for studying somatic mutations in aging. Mutation Res. 1995;338:203-213.
56. Vijg J, Douglas GR. Transgenic mice for mutagenesis studies. In: Pfeifer GP, ed, Technologies for Detection of DNA Damage and Mutations, part II. 1996, 391-410.
57. Li D, van Orsouw N, Huang C, Vijg J. Two-dimensional gene scanning. In: Pfeifer GP, ed, Technologies for Detection of DNA Damage and Mutations, part II. 1996, 291-305.
58. Vijg J. DNA and Gene Expression. In: Encyclopedia of Gerontology. 1996;1:441-453.
59. Eng C, Vijg J. Genetic testing: The problems and the promise. Nature Biotechnology 1997;15:422-426.
60. Vijg J, Dollé MET, Martus H-J, Boerrigter METI. Transgenic mouse models for studying mutations in vivo: applications in aging research. Mech Ageing Dev. 1997;98:189-202.
61. Romano-Spica V, Vijg J. Two-dimensional DNA electrophoresis: state of the art and applications. Biotechnology Annual Review, 3, 1-30, 1997.
62. Vijg J, Boerrigter METI, Dollé MET. A transgenic mouse model for studying mutations in vivo. In: Yu BP (ed), Methods in Aging Research: Section D, CRC Press, Boca Raton, pp. 621-635, 1999.
63. Vijg J. Somatic DNA alterations and aging. In: Morley J, Armbrecht HJ, Coe RM, Vellas B (eds), The Science of Geriatrics, Serdi Publisher, 2000.
64. Vijg J, van Steeg H. Transgenic assays for mutations and cancer: current status and future perspectives. Mutation Research 1998;400:337-354.
65. Van Orsouw, N.J., and Vijg, J. Design and application of 2-D DGGE-based gene mutational scanning tests. Genetic Analysis (Biomolecular Engineering) 1999;14:205-213.
66. Vijg J. Molecular genetics of aging. South West Cancer News 1998;2:4-6.
67. Vijg J. Genetics of aging, Meeting report. Biochim Biophys Acta 1998;1423;R1-R12.
68. Dollé M.E.T., Giese H., van Steeg H., Vijg J. Organ-specific mutation accumulation in aging mice with defined defects in genome stability systems. Adv Gerontol 1998;2:59-66.
69. Vijg J. Editorial – Profiling aging by gene arrays. Mech Ageing Dev. 1999;112:1-4.
70. Vijg J. Somatic mutations and aging: a re-evaluation. Mut. Res. 2000;447:117-135.
71. Dollé MET., Giese H, van Steeg H, Vijg J Mutation accumulation in vivo and the importance of genome stability in aging and cancer. In: The Molecular Genetics of Aging, Hekimi S. (ed.) Springer, 2000, pp. 165-178.

72. van Orsouw NJ, McGrath SB, Dhanda RK, Scott CB, Vijg J. Gene typing: Two-dimensional electrophoresis. In: Encyclopedia of Separation Science, 2000, pp. 2939-2948.
73. Vijg J, Giese H, Dollé MET. Models for studying genomic instability during aging. In: The Role of DNA Damage and Repair in Cell Aging, Gilchrest BA, Bohr VA (eds), Elsevier, Amsterdam, 2001, pp. 73-90.
74. Vijg J, Perls, T, Franceschi C, van Orsouw NJ. BRCA1 gene sequence variation in centenarians. *Ann N Y Acad Sci.* 2001;928;85-96.
75. Vijg J, Dollé MET. Instability of the nuclear genome and the role of DNA repair. In: Masoro EJ, Austad SN (eds), Handbook of the Biology of Aging, fifth edition, Academic Press, 2001, pp. 84-105.
76. Vijg J. Somatic mutations and genome instability. In: Encyclopedia of Aging. Maddox G et al. (Eds.) New York: Springer Publishing Co., 2001, 970-973.
77. Vijg J, van Orsouw N. Searching for genetic determinants of human aging and longevity: opportunities and challenges. *Mech Ageing Dev* 2002;123:195-205.
78. Vijg J On key lesions and all that: a tribute to Paul Lohman. *Mutat Res* 2002 Feb 20;499(2):121-34
79. Hasty P, Vijg J. Genomic priorities in aging. *Science* 2002;296:1250-1251.
80. Vijg J, Dollé ME. Large genome rearrangements as a primary cause of aging. *Mech Ageing Dev* 2002;123:907-915
81. Vijg J, Suh Y. Functional genomics of ageing. *Mech Ageing Dev* 2003;124:3-8.
82. Vijg J. Surviving aging. *Nat Genet.* 2003;34:237-238.
83. Busuttil R, Rubio M, Dollé MET, Campisi J, Vijg J. Oxidative damage, somatic mutations and cellular aging. In: Aging at the Molecular Level, von Zglinicki T (ed), Kluwer, 2003, pp. 79-90.
84. Busuttil RA, Dollé M, Campisi J, Vijg J. Genomic instability, aging, and cellular senescence. *Ann N Y Acad Sci.* 2004;1019:245-255.
85. Hasty P, Vijg J. Accelerating aging by mouse reverse genetics: a rational approach to understanding longevity. *Aging Cell* 2004;3:55-65.
86. Hasty P, Vijg J. Rebuttal to Miller: 'Accelerated aging': a primrose path to insight? *Aging Cell* 2004;3:67-69.
87. Vijg J, Calder B. Transcripts of Ageing. *Trends in Genetics* 2004;20:221-224.
88. Vijg J, Suh Y. Functional Genomics of Aging. *Encyclopedia of Endocrine Diseases* 2004;2:81-87.
89. Vijg J, Suh Y. Genetics of Longevity and Aging. *Annu Rev Med.* 2005;56:193-212.
90. Vijg, J. and Suh, Y. Screening for mutations in cancer predisposition genes. In R. A Eeles, B. SA. J. Ponder, D. F. Easton and A. Horwich (eds). Genetic Predisposition to Cancer, 2nd Edition. London: Chapman & Hall, pp. 48-60. 2004.
91. Vijg, J. and Suh, Y. Two-dimensional gene scanning. In G.P. Patrinos and W. Ansorge (editors). *Molecular Diagnostics*, Elsevier, pp. 95-105, 2005.
92. Suh Y, Vijg J. SNP discovery in associating genetic variation with human disease phenotypes. *Mutat Res.* 2005;573:41-53.
93. Vijg J, Busuttil RA, Bahar R, Dolle ME. Aging and genome maintenance. *Ann N Y Acad Sci.* 2005;1055:35-47.

94. Vijg J, Suh Y. Ageing: chromatin unbound. *Nature* 2006;440:874-875.
95. Mele J, Van Remmen H, Vijg J, Richardson A. Characterization of transgenic mice that overexpress both copper zinc superoxide dismutase and catalase. *Antioxid Redox Signal*. 2006;8:628-638.
96. Suh Y, Vijg J. Maintaining genetic integrity in aging: a zero sum game. *Antioxid Redox Signal*. 2006;8:559-571.
97. Finkel T, Vijg J, Shay JW. Time, tumours and telomeres. *Meeting on Cancer and Aging. EMBO Rep*. 2006;7:479-483.
98. Vijg J, Hasty P. Mouse models of accelerated aging. In: *Handbook of Models for Human Aging*, Conn PM (ed), Elsevier, 2006, San Diego.
99. Khrapko K, Vijg J. Mitochondrial DNA mutations and aging: a case closed? *Nat Genet*. 2007;39:445-446.
100. Busuttill R, Bahar R, Vijg J. Genome dynamics and transcriptional deregulation in aging. *Neuroscience*. 2007;145:1341-1347.
101. Vijg J, Dollé ME. Genome instability: Cancer or aging? *Mech Ageing Dev*. 2007;128:466-468.
102. Garcia AM, Busuttill RA, Rodriguez A, Cabrera C, Lundell M, Dollé ME, Vijg J. Detection and analysis of somatic mutations at a lacZ reporter locus in higher organisms: application to *Mus musculus* and *Drosophila melanogaster*. *Methods Mol Biol*. 2007;371:267-287.
103. Vijg J, Suh Y. Aging: A Genetic Balancing Act. In: *Ann. Rev. Gerontol. Geriatr., Vol. 27*, Poon LW, Perls TT (Eds), Springer, 2007, New York.
104. Vijg J. The role of DNA damage and repair in aging: new approaches to an old problem. *Mech Ageing Dev*. 2008;129:498-502. PMID:18394680
105. Vijg J, Maslov AY, Suh Y. Aging: a sirtuin shake-up? *Cell*. 2008;135:797-8.
106. Campisi J, Vijg J. Does damage to DNA and other macromolecules play a role in aging? If so, how? *J Gerontol A Biol Sci Med Sci*. 2009;64:175-178. PMC2655027
107. Maslov AY, Vijg J. Genome instability, cancer and aging. *Biochim Biophys Acta*. 2009;1790:963-969. PMID: 19344750
108. Geiger H, Schleimer D, Nattamai KJ, Vijg J. Quantification of genomic mutations in murine hematopoietic cells. In: Baum C. (Ed), *Methods in Molecular Biology, Methods and Protocols*, vol 506, Chapter 28, pp. 423-436, Humana, 2009.
109. Kapahi P, Vijg J. Aging--lost in translation? *N Engl J Med*. 2009;361:2669-2670. PMID: 20042759
110. Vijg J. SNP'ing for longevity. *Aging* 2009;1:442-443. PMC2806028
111. Gravina S, Vijg J. Epigenetic factors in aging and longevity. *Pflugers Arch*. 2010;459:247-258. PMID: 19768466
112. Suh Y, Vijg J. The long and short of fertility and longevity. *Cell Metab*. 2010;12:209-210.
113. Vijg J., Garcia AM, Calder B., Dollé MET. Comparative genomics of aging. In: Wolf NS (ed), *The Comparative Biology of Aging*, Springer, 2010, New York.
114. Faggioli F, Vijg J, Montagna C. Chromosomal aneuploidy in the aging brain. *Mech Ageing Dev*. 2011;132: 429-436. PMC3168579

115. Melis JP, Jonker MJ, Vijg J, Hoeijmakers JH, Breit TM, van Steeg H. Aging on a different scale--chronological versus pathology-related aging. *Aging* 2013;5:782-788.
116. McMurray CT, Vijg J. Editorial overview: Molecular and genetic bases of disease: The double life of DNA. *Curr Opin Genet Dev* 2014;26:v-vii. PMID: 25282314

Books and Monographs

1. Vijg J. (1987). DNA repair and the aging process [Dissertation]. Pasmans, 's-Gravenhage, 1987.
2. Franceschi C, Crepaldi, G., Cristofalo, V.J., Vijg, J. eds. Aging and Cellular Defense Mechanisms. *Ann N Y Acad Sci* 1992;663
3. Anisimov, V.N. et al. IPCS Environmental Health Criteria 144, Principles for Evaluating Chemical Effects on the Aged Population. World Health Organization, Geneva, 1993.
4. Uitterlinden AG, Vijg J. (1994). Two-dimensional DNA typing: A Parallel Approach to Genome Analysis. Ellis Horwood PTR Prentice Hall Biotechnology Series, Chichester, Englewood Cliffs.
5. Bissell, M.J. et al. Modeling Human Risk: Cell & Molecular Biology in Context. Space Radiation Health Program NASA. Report Number: LBNL-40278, June, 1997.
6. Vijg J. Aging of the Genome. Oxford University Press, 2007, New York.
7. Vijg J. The American Technological Challenge: Stagnation and Decline in the 21st Century. Algora, 2011, New York.

Patents

1. J. Vijg and A.G. Uitterlinden: A method for the simultaneous determination of DNA sequence variations at a large number of sites, and a kit suitable therefor (US patent 345887).
2. J. Vijg and J.A. Gossen: Process for the rescue of DNA and for detecting mutations in marker genes (US patent 013198).
3. J. Vijg and J.A. Gossen: A process for the cloning of DNA. (European patent EP 93200367.6).
4. J.A. Gossen and J. Vijg: Process for detecting mutations, transgenic mammal, transgenic mammalian cell, and process for testing agents or conditions for mutagenic properties (US patent 5,602,300)
5. E. Mullaart, A.G. Uitterlinden and J. Vijg: Two-dimensional electrophoresis apparatus and electrophoresis unit therefor (International PCT nr. NL93/00191).
6. J. Vijg and D. Li: Method of and apparatus for diagnostic DNA testing (US patent 5814491; 9/29/98).

7. J. Vijg and M.E.T.I. Boerrigter: Method of and test kit for mutagenesis testing (US patent 5,817,290).
8. J. Vijg: Method of computer aided automated diagnostic DNA test design, and apparatus therefor (US patent 6,007,231).
9. J. Vijg, W. Li, M. Gundry: Method for measuring somatic DNA mutational profiles (provisional application).
10. J.Vijg, S. Gravina: Method for measuring DNA methylation profiles (provisional application No. 61/817,910).