CURRICULUM VITAE

Titia de Lange
Born: November 11, 1955 in Rotterdam, The Netherlands
Citizen of The Netherlands
Permanent resident USA

Address

Laboratory for Cell Biology and Genetics
The Rockefeller University
1230 York Avenue
New York NY 10065
Phone: (212) 327 8146
Fax: (212) 327 7147
email: delange@mail.rockefeller.edu

Education

1981	Master's equivalent: Doctoraal examen, highest honors. Univ. Amsterdam and NIMR, Mill Hill, UK. Thesis: Chromatin structure of the human ß-globin gene locus. Advisor: Richard A. Flavell
1981 - 1985	Ph.D. Biochemistry, cum laude. Univ. of Amsterdam and The Netherlands Cancer Institute, Amsterdam. Thesis: Activation and transcription of surface antigen genes in trypanosomes. Advisor: Piet Borst

Appointments

1981 - 1985	Graduate teaching assistant, Department of Biochemistry, Univ. of Amsterdam
1985 - 1990	Postdoctoral fellow with Harold E. Varmus at UCSF
1990 - 1991	University Fellow, Rockefeller University
1991 - 1994	Assistant Professor, Rockefeller University
1994 - 1997	Associate Professor, Rockefeller University
1997 -	Professor, Rockefeller University
1999 -	Leon Hess Professor, Rockefeller University
2006- 2011	Associate Director, Anderson Center for Cancer Research, Rockefeller University
2010-	American Cancer Society Research Professor
2011-	Director, Anderson Center for Cancer Research, Rockefeller University

Honors and Awards

1980	Dr. Catharine van Tussenbroek Award
1985 - 1987	Christiaan and Constantijn Huygens Award
1987 - 1995	Lucille P. Markey Trust Scholar Award
1993 - 1998	The Irma T. Hirschl - Monique Weill-Caulier Trust Award
1995 - 2000	Rita Allen Award
1997 - 2002	Burroughs Wellcome Toxicology Scholar Award
1997 - 1999	New York Community Trust Cancer Research Award
2000 - 2004	Ellison Medical Foundation Senior Scholar Award
2000 - 2001	President of the Harvey Society
2000	Elected Member and Correspondent of the Royal Dutch Academy of Sciences
2001	Elected Foreign Member of the European Molecular Biology Organization
2001	Paul Marks Prize for Cancer Research (with S. Elledge, W. Kaelin, and X. Wang)
2003	Honorary Degree, University of Utrecht, The Netherlands
2004	AACR Charlotte Friend Memorial Award

2005	NIH MERIT award (GM)
2005	Elected Fellow of the New York Academy of Sciences
2005	NIH Director Pioneer Award
2006	Elected Foreign Associate of the National Academy of Sciences, USA
2006	Elected Fellow of the American Society for Microbiology
2007	Elected Fellow of the American Academy for Arts and Sciences
2007	Elected Fellow of the American Association for the Advancement of Science
2007	Rockefeller University Award for Excellence in Teaching
2008	Third Annual Massachusetts General Hospital Cancer Center Prize
2010	AACR G.H.A. Clowes Memorial Award
2010	Elected into Institute of Medicine of the National Academy of Sciences, USA
2011	Vilcek Prize in Biomedical Sciences
2012	Rosalind E. Franklin Award, National Cancer Institute
2012	Vanderbilt Prize in Biomedical Science
2012	Dr. H.P. Heineken Prize for Biochemistry and Biophysics, Royal Netherlands Academy for Arts and Sciences
2013	Breakthrough Prize in Life Science
2013	Elected Foreign Member of the Koninklijke Hollandsche Maatschappij der Wetenschappen (the second Royal Dutch Academy)
2013	Katharine Berkan Judd Award, Memorial Sloan-Kettering Cancer Center
2013	Jill Rose Award, Breast Cancer Research Foundation
2014	Elected Fellow of the AACR Academy
2014	Canada Gairdner International Award
2015	Honorary Degree, University of Chicago

Keynote and named lectures

2000	Keynote, “Telomeres and Telomerase” meeting, Montreal, Canada
2001	Keynote, “ADPR 2001” meeting, NYC
2001	Keynote, “Genes and Cancer” meeting Warwick, UK
2002	Keynote, Fifth Annual Cell and Dev. Biol. Symp., U. Penn.
2004	Keynote, Dutch Tumor Biology Meeting
2004	Keynote, IMP meeting, Vienna
2004	Keynote, AACR meeting on Role of Telomeres and Telomerase in Cancer
2005	Reginal Harris Lecturer. CSH Symp. Quant. Biol.
2006	EMBO Lecture; Telomeres and the DNA damage response, Villars, Switzerland
2006	Tolmach Lecture; Telom`\eres and DNA repair Symposium Wash. U, St. Louis
2007	Keynote, Gordon Conference on Mammalian DNA Repair
2007	EMBO Lecture; 32nd Ann. FEBS Congress. Vienna
2007	Frederick Ruysch Lecture, Amsterdam Medical Center
2007	Mendel Lecture, Brno, Czech Republic
2008	Keynote, DNA Repair Symposium, Univ. Pittsburgh
2009	Keynote, Keystone Symposium on Genome Instability and DNA repair
2009	Rupert E. Billingham Lecture, UTSW
2009	Alexander Cruickshank Lecture, Gordon Conference on Chromosome Dynamics
2010	Harvey Lecture, Harvey Society, New York
2010	Osborne Lecture, Univ. Connecticut
2010	Marguerite Vogt Lecture, Salk Institute
2010	“Speaker of the year” lectures, Netherlands Soc. Biochem. Mol. Biol.
2011	Rose Winer Levin Lecture, Dana Farber Cancer Institute
2011	Keynote, Gordon Conference on Cell Growth and Proliferation
2012	Cancer Biology Distinguished Lecture, Rockefeller University
2012	Keynote, EMBO meeting on Telomeres and the DNA damage response
2012	Keynote, Gordon Conference on Mutagenesis
2013	Distinguished Cancer Researcher Lecture, USCF
2013	Cynthia and Alexander Tseng, Jr., MD Memorial Lecture, Stanford University

2014	Don W. Fawcett Lectures, Department Cell Biology, Harvard Medical School
2014	Nicholson Lecture, Nobel Forum, Karolinska Institute
2014	Jean Weigle Lecture, Univ. Geneva
2014	Keynote, EMBO meeting on Telomeres
2016	Cyma Rubin Lecture, Weill Cornell Medical School
2016	George Palade Lecture, Yale
2016	Keynote, Abcam meeting on Recombination
2016	Keynote, Boston Mitosis meeting, Whitehead Institute, MIT

Scientific advisory boards and selection committees

2001-	Board of Scientific Consultants of Memorial Sloan-Kettering Cancer Center
2001-	External Advisory Committee for the Endowed Scholars Program in Biomedical Sciences at UT Southwestern Medical School at Dallas
2002-2009	Trustee, Cold Spring Harbor Laboratory, LI
2002-2008	Scientific Advisory Board, Institute for Molecular Pathology, Vienna
2003-2011	Scientific Advisory Board, MIT Cancer Center
2003-2009	Paul Marks Award Selection Committee (Chair 2009)
2003-	Pearl Meister Greengard Prize Selection Committee
2004	Overseers' Committee for Dept. MCB at Harvard
2004	Search committee for Director of IMP, Vienna
2005-2012	Scientific Advisory Board, CRUK, Clare Hall and Lincoln's Inn Field (LRI)
2005-	Lasker Award Jury
2005-	Scientific Advisory Board, Dutch Cancer Institute
2006-	Executive Committee of the Starr Cancer Consortium
2008-	Advisory Council, Dep. Mol. Biol., Princeton University
2009	W.M. Keck Foundation, Subcommittee Evaluation Cell Biology
2010-2013	AACR Special Conference Committee
2011-2014	Scientific Advisory Committee, Ludwig Institute for Cancer Research
2011-	Selection Committee Vilcek Prize in Biomedical Sciences
2012-	Biomedical Scientific Advisory Board, Vanderbilt University
2012-	Executive Committee American Italian Cancer Foundation
2013	Search committee for Director of IMP, Vienna
2013	External advisor, search committee for Director of SKI, MSKCC
2013-	Wiley Prize Jury
2014-	Selection Committee NAS Award in Molecular Biology
2015-	Board member, Vilcek Foundation

Editorial Boards

1997-	Molecular and Cellular Biology
2000-	Trends in Biological Science
2004 -2007	PLoS Biology
2008 -	Genes and Development
2009-	Nucleus
2010-	Journal of Cell Biology
2011-	Current Opinion in Genetics and Development

BIBLIOGRAPHY (Reviews, book chapters, and commentaries in italics.)

1. S. Hueting, **T. de Lange** , D. Tempest (1978) Properties and regulation of synthesis of the glycerol dehydrogenase present in *Klebsiella aerogenes* NCTC 418, growing in chemostat culture. FEMS 4: 195-198.
2. S. Hueting, **T. de Lange**, D.W. Tempest (1979) Energy requirement for maintenance of the transmembrane potassium gradient in *Klebsiella aerogenes* NCTC 418: a continuous culture study. Arch. Microbiol. 123: 183-188.
3. F. van der Mark, **T. de Lange**, H.F. Bienfait (1981) The role of ferritin in developing primary bean leaves under various light conditions. Planta 153: 338-342.
4. **T. de Lange** and P. Borst (1982) Genomic environment of the expression-linked extra copies of genes for surface antigens of *Trypanosoma brucei* resembles the end of the chromosome. Nature 299: 451-453.
5. L.H.T. van der Ploeg, D. Valerio, **T. de Lange**, A. Bernards. P. Borst, F.G. Grosveld (1982) An analysis of cosmid clones of nuclear DNA from *Trypanosoma brucei* shows that the genes for Variant Surface Glycoprotein are clustered in the genome. Nucl. Acids Res. 10: 5905-5923.
6. L.H.T. van der Ploeg, A.Y.C. Liu, P.A.M. Michels, **T. de Lange**, P. Borst, H.K. Majumder, H. Weber, G.H. Veeneman, J.C. van Boom (1982) RNA splicing is required to make the messenger RNA for a Variant Surface Glycoprotein in trypanosomes. Nucl. Acids Res. 10: 3591-3604.
7. **T. de Lange**, A.Y.C. Liu, L.H.T. van der Ploeg, P. Borst, M.C. Tromp, J.C. van Boom (1983)Tandem repetition of the 5' mini-exon of Variant Surface Glycoprotein genes. Cell 34: 891-900.
8. **T. de Lange**, J.M. Kooter, P.A.M. Michels, P. Borst (1983) Telomere conversion in trypanosomes. Nucl. Acids Res. 11: 8149-8165.
9. *P. Borst, A. Bernards, L.H.T. van der Ploeg, P.A. Michels, A.Y. Liu, **T. de Lange**, J.M. Kooter (1983) The control of variant surface antigen synthesis in trypanosomes. Eur. J. Biochem. 137: 383-389.*
10. D. Kioussis, D. Vanin, **T. de Lange**, R.A.F. Flavell, F.G. Grosveld (1983) β-globin gene inactivation by DNA translocation in γ/β-thalassemia. Nature 306: 662-666.
11. A. Bernards, **T. de Lange**, P.A.M. Michels, M.J. Huisman, P. Borst (1984) Two modes of activation of a single surface antigen gene of *Trypanosoma brucei*. Cell 36: 163-170.
12. **T. de Lange**, P.A.M. Michels, H.J.G. Veerman, A.W.C.A. Cornelissen, P. Borst (1984) Many trypanosome messenger RNAs share a common 5' terminal sequence. Nucl. Acids Res. 12: 3777-3790.
13. J.M. Kooter, **T. de Lange**, P. Borst (1984) Discontinuous transcription in trypanosomes. EMBO J. 3: 2387-2392.
14. T. de Lange, T.M. Berkvens, H.G. Veerman, A.C.C. Frasch, J.D. Barry, P. Borst (1984) Comparison of the genes coding for the common 5' terminal sequence of messenger RNAs in three trypanosome species. Nucl. Acids Res. 12: 4431-4443.
15. **T. de Lange**, J.M. Kooter, J. Luirink, P. Borst (1985) Transcription of a transposed trypanosome surface antigen gene starts upstream of the transposed segment. EMBO J. 4: 3299-3306.
16. A. Bernards, L.H.T. van der Ploeg, W.C. Gibson, P. Leegwater, F. Eijgenraam, **T. de Lange**, P. Weyers, J. Calafat, P. Borst (1986). Rapid change of the repertoire of Variant Surface Glycoprotein genes in trypanosomes by gene duplication and deletion. J. Mol. Biol. 190: 1-10.
17. M. Imboden, B. Blum, **T. de Lange**, R. Braun, T. Seebeck (1986) The tubulin mRNAs of T*rypanosoma brucei.* J. Mol. Biol. 188: 393-402.
18. ***T. de Lange** (1986) The molecular biology of antigenic variation in trypanosomes: Gene rearrangements and discontinuous transcription. Intern. Rev. Cytol. 99: 85-113.*
19. M. Timmers, **T. de Lange**, J.M. Kooter, P. Borst (1987) Coincident multiple activations of the same surface antigen gene in *Trypanosoma brucei.* J. Mol. Biol. 194: 81-90.
20. J. Stone, **T. de Lange**, G. Ramsay, E. Jacobovits, J.M. Bishop, H.E. Varmus, W.M.F. Lee (1987) Definition of regions in human c-myc that are involved in transformation and nuclear localization. Mol. Cell. Biol. 7: 1697-1709.

21. **T. de Lange**, L. Shiue, R.M. Myers, D.R. Cox, S.L. Naylor, A.M. Killery, H.E. Varmus (1990) Structure and variability of human chromosome ends. Mol. Cell. Biol. 10: 518-527.
22. M. Burmeister, S.W. Kim, E.R. Price, **T. de Lange**, U. Tantravahi, R.M. Myers, D.R. Cox (1991) A map of the distal long arm of human chromosome 21, constructed by using radiation hybrids and pulsed field gel electrophoresis. Genomics 9: 19-30.
23. **T. de Lange** (1992) Human telomeres are attached to nuclear matrix. EMBO J. 11: 717-724.
24. Z. Zhong, L. Shiue, S. Kaplan, T. de Lange (1992) A mammalian factor that binds telomeric TTAGGG repeats in vitro. Mol. Cell. Biol. 12: 4834-4843.
25. D. Saltman, R. Morgan, M. Cleary, **T. de Lange** (1993) Telomeric structure in cells with chromosome end associations. Chromosoma 102: 121-128.
26. M.E. Cardenas, A. Bianchi, **T. de Lange** (1993) A Xenopus egg factor with DNA-binding properties characteristic of terminus-specific telomeric proteins. Genes and Development. 7: 883-894.
27. H. Tommerup, A. Dousmanis, **T. de Lange** (1994) Unusual chromatin in human telomeres. Mol. Cell. Biol. 14: 5777-5785.
*28. **T. de Lange** (1994) Activation of telomerase in a human tumor. Proc. Natl. Acad. Sci. USA 91: 2882-2885.*
29. J.P. Hanish, J. Yanowitz, **T. de Lange** (1994) Stringent sequence requirements for telomere formation in human cells. Proc. Natl. Acad. Sci. USA 91: 8861-8865.
30. D. Broccoli, J.W. Young, **T. de Lange** (1995) Telomerase activity in normal and malignant hematopoietic cells. Proc. Natl. Acad. Sci. USA 92: 9082-9086.
31. L. Chong, B. van Steensel, D. Broccoli, H. Erdjument-Bromage, J. Hanish, P. Tempst, **T. de Lange** (1995) A human telomeric protein. Science 270: 1663-1667.
*32. **T. de Lange** (1995) Telomere dynamics and genome instability in human cancer. In: Telomeres. E.H. Blackburn and C.W. Greider, eds. CSH press, pp. 265-293.*
33. D. Broccoli, L.A. Godley, L.A. Donehower, H.E. Varmus, **T. de Lange** (1996) Telomerase activation in mouse mammary tumors: lack of telomere shortening and evidence for regulation of telomerase RNA with cell proliferation. Mol. Cell. Biol. 16: 3765-3772.
34. M.E.E. Ludérus, B. van Steensel, L. Chong, O.C.M. Sibon, F.F.M. Cremers, T. de Lange (1996) Structure, subnuclear distribution, and nuclear matrix association of the mammalian telomeric complex. J. Cell Biol. 135: 867-883.
35. T. de Lange (1996) In search of vertebrate telomeric proteins. Sem. in Cell Biol. 7: 23-29.
36. D. Broccoli, L. Chong, S. Oelmann, A.A. Fernald, N. Marziliano, B. van Steensel, D. Kipling, M.M. Le Beau, **T. de Lange** (1997) Comparison of the human and mouse genes encoding the telomeric protein, TRF1: chromosomal localization, expression, and conserved protein domains. Human Mol. Genet. 6: 69-76.
37. A. Bianchi, S. Smith, L. Chong, P. Elias, **T. de Lange** (1997) TRF1 is a dimer and bends telomeric DNA. EMBO J. 7: 1785-1794.
38. S. Smith and T. de Lange (1997) TRF1, a mammalian telomeric protein. TIG 13: 21-26. (85)
39. B. van Steensel and **T. de Lange** (1997) Control of telomere length by the human telomeric protein TRF1. Nature 385: 740-744.
40. D. Broccoli, A. Smogorzewska, L. Chong, **T. de Lange** (1997) Human telomeres contain two distinct Myb-related proteins, TRF1 and TRF2. Nature Genet. 17: 231-235.
*41. **T. de Lange** (1998) Ending up with the right partner. Nature 392: 753-754.*
42. J. Griffith, A. Bianchi, **T. de Lange** (1998) TRF1 promotes parallel pairing of telomeric DNA in vitro. J. Mol. Biol. 278: 79-88.
43. B. van Steensel, A. Smogorzewska, **T. de Lange** (1998) TRF2 protects human telomeres from end-to-end fusions. Cell 92: 401-413.
*44. **T. de Lange** (1998) Telomeres and senescence: ending the debate. Science 279: 334-335.*
45. X. Dong, M.A. Michelis, J. Wang, R. Bose, **T. de Lange**, W.H. Reeves (1998) Autoantibodies to DEK oncoprotein in a patient with systemic lupus erythematosus and sarcoidosis. Arthritis Rheum. 41:1505-1510.
46. S. Smith, I. Giriat, A. Schmitt, **T. de Lange** (1998) Tankyrase, a poly(ADP-ribose)polymerase at human telomeres. Science 282: 1484-1488.

47. L. Zhu, S. Smith, **T. de Lange**, M. F. Seldin. (1999) Chromosomal mapping of the Tankyrase gene in human and mouse. Genomics 57: 320-321.
*48. **T. de Lange** and R. DePinho (1999) Unlimited mileage from telomerase? Science 283: 947-949.*
49. J. Karlseder, D. Broccoli, Y. Dai, S. Hardy, **T. de Lange** (1999) p53- and ATM-dependent apoptosis induced by telomeres lacking TRF2. Science 283: 1321-1325.
50. J. D. Griffith, L. Comeau, S. Rosenfield, R. Stansel, A. Bianchi, H. Moss, **T. de Lange** (1999) Mammalian telomeres end in a large duplex loop. Cell 97: 503-514. (cover)
51. A. Bianchi and **T. de Lange** (1999) Ku binds telomeric DNA in vitro. J. Biol. Chem. 274: 21223-21227.
52. S. Smith and **T. de Lange** (1999) Cell cycle dependent localization of a telomeric PARP, tankyrase, to centrosomes and nuclear pore complexes. J. Cell Sci. 112: 3649-3656.
*53. **T. de Lange** and T. Jacks (1999) For better or worse? Telomerase inhibition and cancer. Cell 98: 273-275.*
54. A. Bianchi, R. M. Stansel, L. Fairall, J. D. Griffith, D. Rhodes, **T. de Lange** (1999) TRF1 binds a bipartite telomeric site with extreme spatial flexibility. EMBO J. 18: 5735-5744.
55. A. Smogorzewska, B. van Steensel, A. Bianchi, G. Schnapp, M. R. Schaefer, S. Oelmann, **T. de Lange** (2000) Control of human telomere length by TRF1 and TRF2. Mol. Cell Biol. 20: 1659-1668.
56. B. Li, S. Oestreich, and **T. de Lange** (2000) Identification of Human Rap1: Implications for Telomere Evolution. Cell 101: 471-483.
57. X.-D. Zhu, B. Küster, M. Mann, J.H.J. Petrini, **T. de Lange** (2000) Cell cycle regulated association of the Rad50/Mre11/Nbs1 complex with TRF2 and human telomeres. Nature Genet. 25: 347-352.
*58. **T. de Lange** and J.H.J. Petrini. (2000) A new connection at human telomeres: association of the Mre11 complex with TRF2. CSH Symp. Quant. Biol.Vol LXV: 265-273.*
59. S. Smith and **T. de Lange** (2000) Tankyrase promotes telomere elongation. Curr. Biol.10: 1299-1302.
60. H. Scherthan, M. Jerratsch, B. Li, S. Smith, M. Hulten, T. Lock, **T. de Lange** (2000). Mammalian meiotic telomeres: protein composition and their redistribution in relation to nuclear pores. Mol. Biol. Cell 11: 4189-4203.
61. J. L. Munoz-Jordan, G .A. M. Cross, T. de Lange, and J. D. Griffith. (2001) T-loops at trypanosome telomeres. EMBO J. 20: 579-588.
*62. **T. de Lange** (2001) Telomere capping: one strand fits all. Science 292:1075-1076.*
63. L. Fairall, L. Chapman, H. Moss, **T. de Lange**, D. Rhodes (2001). Structure of the TRFH dimerization Domain of the Human Telomeric Proteins TRF1 and TRF2. Mol. Cell 8: 351-361.
64. S. Hanaoka, A. Nagadoi, S. Yoshimura, S. Aimoto, B. Li, **T. de Lange**, Y. Nishimura (2001) NMR structure of the hRap1 Myb motif reveals a canonical three helix bundle lacking the positive surface charge typical of Myb DNA binding domains. J. Mol. Biol. 312: 167-175.
65. R. Stansel, **T. de Lange**, J. D. Griffith (2001) T-loop assembly in vitro involves binding of TRF2 near the 3' telomeric overhang. EMBO J. 20: 5532-5540.
*66. **T. de Lange** (2002) Protection of mammalian telomeres. Oncogene 21: 532-540.*
67. J Karlseder, A. Smogorzewska, **T. de Lange** (2002) Senescence induced by altered telomere state, not telomere loss. Science 295: 2446-2449.
68. A. Smogorzewska and **T. de Lange** (2002). Different telomere damage signaling pathways in human and mouse cells. EMBO J. 21: 4338-4348.
69. A. Smogorzewska, J. Karlseder, A. Jauch, **T. de Lange** (2002) DNA ligase IV dependent NHEJ of deprotected human telomeres in G1 and G2. Curr. Biol. 12: 1634-1644.
70. D. Loayza and **T. de Lange** (2003) POT1 as a terminal transducer of TRF1 telomere length control. Nature 423: 1013-1018. Epub 2003 May 25.
71. H. Takai, A. Smogorzewska, **T. de Lange** (2003) DNA damage foci at dysfunctional telomeres. Curr. Biol. 13: 1549-1556.
72. J. Karlseder, L. Kachatrian, H. Takai, K. Mercer, S. Hingorani, T. Jacks, **T. de Lange** (2003) Targeted deletion reveals an essential function for the telomere length regulator Trf1. Mol. Cell. Biol. 23: 6533-6541.

*73. **T. de Lange** (2003) Protection and maintenance of human telomeres. Encyclopedia of the Human Genome. D. Cooper, editor. Nature Publishing group. McMillan press.*
74. B. Li and **T. de Lange** (2003) Rap1 affects the length and heterogeneity of human telomeres. Mol. Biol. Cell 14: 5060-5068. Epub 2003 Oct 17.
75. X.-D. Zhu, L. Niedernhofer, B. Kuster, M. Mann, J. H. J. Hoeijmakers, **T. de Lange** (2003) ERCC1/XPF removes the 3' overhang from uncapped telomeres and represses formation of telomeric DNA containing double minute chromosomes. Mol. Cell 6: 1489-1498.
76. D. Loayza*, H. Parsons*, J. Donigian, L. Hoke, **T. de Lange** (2004) DNA binding features of human POT1: A nonamer 5'-TAGGGTTAG-3' minimal binding site, sequence specificity, and internal binding to multimeric sites. J. Biol. Chem. 279: 13241-13248. Epub 2004 Jan 7.
77. J. Z.-S. Ye and **T. de Lange** (2004) TIN2 is a tankyrase 1 PARP-modulator in the TRF1 telomere length control complex. Nature Genet. 36: 618-623. Epub 2004 May 9.
*78. A. Smogorzewska and **T. de Lange** (2004) Regulation of telomerase by telomeric proteins. Ann. Rev. Biochem. 73: 177-208.*
*79. **T. de Lange** (2004) T-loops and the origin of telomeres. Nature Rev. Mol. Cell Biol. 5: 323-329.*
*80. D. Loayza and **T. de Lange** (2004) Telomerase regulation at the telomere: a binary switch. Cell 117: 279-280.*
81. J. Z.-S. Ye, D. Hockemeyer, A. Krutchinsky, D. Loayza, S. Hooper, B. Chait, **T. de Lange** (2004) POT1 Interacting Protein PIP1: a telomere length regulator that recruits POT1 to the IN2/TRF1 complex. Genes and Development 18: 1649-1654. Epub 2004 Jul 1.
82. J. Karlseder, K. Hoke, O. Mirzoeva, C. Bakkenist, M. Kastan, J.H.J. Petrini, **T. de Lange** (2004) The telomeric protein TRF2 binds the ATM kinase and can inhibit the ATM-dependent DNA damage response. PLoS Biology 2: 1150-1157. Epub 2004 Aug 17.
83. J. Silverman, H. Takai, S.B.C. Buonomo, F. Eisenhaber, **T. de Lange** (2004) Human Rif1, ortholog of a yeast telomeric protein, is regulated by ATM and 53BP1 and functions in the S-phase checkpoint. Genes and Development 18: 2108-2119.
84. J.Z.-S. Ye*, J. Donigian*, M. van Overbeek*, D. Loayza, B. Chait, A. Krutchinsky, **T. de Lange** (2004) TIN2 binds TRF1 and TRF2 simultaneously and stabilizes the TRF2 complex on telomeres. J. Biol. Chem., 279: 47264-47271. Epub 2004 Aug 17.
85. R. Wang, A. Smogorzewska, **T. de Lange** (2004) Homologous recombination generates t-loop sized deletions at human telomeres. Cell 119: 355-368. (cover)
86. J.J.L. Jacobs and **T. de Lange** (2004) Significant role for $p16^{INK4a}$ in p53-independent telomere-directed senescence. Curr. Biol. 14: 1-20.
87. D. Hockemeyer, A. J. Sfeir, J.W. Shay, W.E. Wright, **T. de Lange** (2005) POT1 protects telomeres from a transient DNA damage response and determines how human chromosomes end. EMBO J. 24: 2667-2678. Epub 2005 Jun 23.
88. G. Celli and **T. de Lange** (2005) DNA processing not required for ATM activation or the telomere damage response after conditional deletion of mouse TRF2. Nature Cell Biol 7: 712-718. (cover) Epub 2005 Jun 19.
*89. **T. de Lange** (2005). Shelterin: the protein complex that shapes and safe-guards human telomeres. Genes and Development 19: 2100-2110.*
*90. **T. de Lange** (2005) Mammalian telomeres. In "Telomeres" T. de Lange, V. Lundblad, and E.H. Blackburn eds., CSH press.*
*91. J.J.L. Jacobs and **T. de Lange** (2005) p16INK4as a second effector of the telomere damage response. Cell Cycle 4: 1364-1368. Epub 2005 Oct 17.*
*92. **T. de Lange** (2005) Telomere-related genome instability in cancer. CSH Symp. Quant. Biol. 70: 197-204.*
93. G.B. Celli, E. Lazzerini Denchi, **T. de Lange** (2006) Ku70 stimulates fusion of dysfunctional telomeres yet protects chromosome ends from homologous recombination. Nature Cell Biol. 8: 855-862. Epub 2006 July 16.
94. M. van Overbeek and **T. de Lange** (2006) Apollo, an Artemis related nuclease, interacts with TRF2 and protects human telomeres in S phase. Curr. Biol. 16: 1295-1302. Epub 2006 May 25.
95. D. Hockemeyer, J.-P. Daniels, H. Takai, **T. de Lange** (2006) Recent expansion of the telomeric complex in rodents: two distinct POT1 proteins protect mouse telomeres. Cell 126: 63-77.

96. E. Lazzerini Denchi, G.B. Celli, **T. de Lange** (2006) Hepatocytes with extensive telomere deprotection and fusion remain viable and regenerate liver mass through endoreduplication. Genes and Development 20: 2648-2653.
97. N. Dimitrova and **T. de Lange** (2006) MDC1accelerates nonhomologous end-joining of dysfunctional telomeres. Genes and Development 20: 3238-3243.
98. T. de Lange (2006) Lasker Laurels for Telomerase. Cell 126: 1017-1020.
99. B. Liebe, G. Petukhova, M. Barchi, M. Bellani, H. Braselmann, T. Nakano, M.T.K. Pandita, M. Jasin, A. Fornace, M.L. Meistrich, W. M. Baarends, J. Schimenti, **T. de Lange**, S. Keeney, R.D. Camerini-Otero, H. Scherthan. (2006) Mutations that affect meiosis in male mice influence the dynamics of mid-preleptotene and bouquet stages. Exp. Cell Res. 312: 3768-3781. Epub 2006 Aug 2.
100. D. Hockemeyer, W. Palm, T. Else, J.-P. Daniels, K. Takai, J. Z.-S. Ye, **T. de Lange**, G. Hammer (2007) Telomere protection by mammalian POT1 requires interaction with TPP1. Nature Struct. Mol. Biol. 8: 754-761. Epub 2007 Jul 15.
101. J. R. Donigian and **T. de Lange** (2007) The role of tankyrase1 in telomere length control by TRF1. J. Biol. Chem. 282: 22662-22667. Epub 2007 Jun 8.
102. E. Lazzerini Denchi and **T. de Lange** (2007) Protection of telomeres through independent control of ATM and ATR by TRF2 and POT1. Nature 448: 1068-1071. Epub 2007 Aug 8.
103. H. Takai, R. C. Wang, K.K. Takai, H. Yang, **T. de Lange** (2007) Tel2 regulates the stability of PI3K-related protein kinases. Cell 131: 1248-1259.
104. Y. Chen, Y. Yang, M. van Overbeek, J.R. Donigian, P. Baciu, **T. de Lange**, M. Lei (2008) A shared docking motif in TRF1 and TRF2 used for differential recruitment of telomeric proteins. Science 319: 1092-1096. Epub 2008 Jan 17.
105. A. Konishi and **T. de Lange** (2008) Cell cycle control of telomere protection and NHEJ revealed by a ts mutation in the DNA binding domain of TRF2. Genes and Development 22: 1221-1230.
*106. W. Palm and **T. de Lange** (2008) How shelterin protects mammalian telomeres. Ann. Rev. Genetics 42: 301-334. Epub 2007 Aug 4.*
107. D. Hockemeyer, W. Palm, S.S. Couto, **T. de Lange** (2008) Engineered telomere degradation models dyskeratosis congenita. Genes and Development 22: 1773-17785. Epub 2008 Jun 11.
108. P. Wu and **T. de Lange** (2008) No overt nucleosome eviction at damaged telomeres. Mol. Cell Biol. 28: 5724-5735. Epub 2008 Jul 14.
109. N. Dimitrova, Y.C. Chen, D.L. Spector, **T. de Lange** (2008) 53BP1 promotes NHEJ at telomeresby increasing chromatin mobility. Nature 456: 524-528. Epub 2008 Oct 19.
110. W. Palm, D. Hockemeyer, T. Kibe, **T. de Lange** (2009) Functional dissection of human and mouse POT1 proteins. Mol. Cell. Biol. 29: 471-482. Epub 2008 Oct 27.
111. A. Sfeir, S.T. Kosiyatrakul, D. Hockemeyer, S. L. MacRae, J. Karlseder, C.L. Schildkraut, and **T. de Lange** (2009) Mammalian telomeres resemble fragile sites and require TRF1 for efficient replication. Cell 138: 90-103. (cover)
112. P. Wu and T. de Lange (2009) Human telomerase caught in the act. Cell 138: 432-434.
113. N. Dimitrova and **T. de Lange** (2009) Cell cycle dependent role of MRN at dysfunctional telomeres: ATM signaling-dependent induction of NHEJ in G1 and resection-mediated inhibition of NHEJ in G2. Mol. Cell. Biol. 20: 5552-5563. (cover) Epub 2009 Aug 10.
*114. **T. de Lange** (2009) How telomeres solve the end-protection problem. Science 326: 948-952.*
115. S.B.C. Buonomo, Y. Wu, D. Ferguson, **T. de Lange** (2009) Mammalian Rif1 contributes to replication stress survival and homology directed repair. J. Cell Biol. 187: 385-398. Epub 2009 Nov 2.
116. K.K. Takai, S. Hooper, S. Blackwood, R. Gandhi, **T. de Lange** (2010) In vivo stoichiometry of shelterin components. J. Biol. Chem. 285: 1457-1467. Epub 2009 Oct 28.
117. T. Kibe, G.A. Osawa, C.E. Keegan, **T. de Lange** (2010) Telomere protection by TPP1 is mediated by POT1a and POT1b. Mol. Cell. Biol. 30: 1059-1066. Epub 2009 Dec 7.
118. T. Davoli, E. Lazzerini Denchi, **T. de Lange** (2010) Persistent telomere damage induces by-pass of mitosis and tetraploidy. Cell 141: 81-93. (featured article video; highlighted in F1000)
119. A. Sfeir*, S. Kabir*, M. van Overbeek, G.B. Celli, **T. de Lange** (2010) Loss of Rap1 induces telomere recombination in absence of NHEJ or DNA damage signaling. Science 327: 1657-1661.

120. P. Wu*, M. van Overbeek*, S. Rooney, **T. de Lange** (2010) Apollo contributes to G-overhang maintenance and protects leading-end telomeres. Mol. Cell 39: 606-617. Epub 2010 Jul 9.
*121. **T. de Lange** (2010) Telomere Biology and DNA Repair: Enemies with benefits. FEBS Letters* 584: 3673-3674. Epub 2010 Jul 24.
122. H. Takai*, Y. Xiey*, **T. de Lange****, N.P. Pavletich** (2010) Tel2 structure and function in the Hsp90-dependent maturation of mTOR and ATR complexes. Genes and Development 24: 2019-2030. Epub 2010 Aug 27.
123. S. Horesji, H. Takai, S. Collins, H. Flynn, S. Maslen, J.M. Skehel, **T. de Lange**, S. Boulton (2010) CK2 phospho-dependent binding of R2TP complex to Tel2 is essential for mTOR and SMG1 stability. Mol Cell 39: 839-850.
*124. S. Kabir, A. Sfeir, **T. de Lange** (2010) Taking apart Rap1: an adaptor protein with telomeric and non-telomeric functions. Cell Cycle 9: 4061-4067. Epub 2010 Oct 10.*
125. Y. Gong and **T. de Lange** (2010) A Shld1-controlled POT1a provides support for repression of ATR signaling at telomeres through RPA exclusion. Mol. Cell 40: 377-387.
*126. **T. de Lange** (2010) How shelterin solves the telomere end-protection problem. 75th CSH Symp. Quant. Biol.,75: 167-177. E pub. Jan 5.*
127. H. Scherthan, A. Sfeir, **T. de Lange** (2011) Rap1-independent telomere attachment and bouquet formation in mammalian meiosis. Chromosoma 120: 151-157. Epub 2010 Oct 7.
*128. T. Davoli and **T. de Lang**e (2011) The Causes and Consequences of Polyploidy in Normal Development and Canccer. Ann Rev Cell Dev. Biol. 27: 585-610. Epub 2011 July 21.*
129. K. K. Takai, T. Kibe, J.R. Donigian, D. Frescas, **T. de Lange** (2011) Telomere protection by TPP1/POT1 requires tethering to TIN2. Mol Cell 44: 647-659.
130. A. Sfeir and **T. de Lange** (2012) Removal of shelterin reveals the telomere end-protection problem. Science 336: 593-597.
131. T. Davoli and **T. de Lange** (2012) Telomere-driven tetraploidization occurs in human cells undergoing crisis and promotes transformation in mouse cells. Cancer Cell 21: 765-776. Epub 2012 June 11.
132. P. Wu, H. Takai, **T. de Lange** (2012) Telomeric 3' overhangs derive from resection by Exo1 and Apollo and fill-in by POT1b-associated CST. Cell 150: 1-14. Epub 2012 June 28.
133. N. Bosco and **T. de Lange** (2012) A TRF1-controlled common fragile site containing interstitial telomeric sequences. Chromosoma 121: 465-474. Epub 2012 July 13.
134. C.A. Lovejoy, W. Li, S. Reisenweber, S. Thongthip, J. Bruno, **T. de Lange***, S. De, J.H.J. Petrini, P.A. Sung, M. Jasin, J. Rosenbluh, Y. Zwang, B.A. Weir, C. Hatton, E. Ivanova, L. Macconaill, M. Hanna, W.C. Hahn, N.F. Lue, R.R. Reddel, Y. Jiao, K. Kinzler, B. Vogelstein, N. Papadopoulos, A.K. Meeker. For the ALT Starr Cancer Consortium. (2012) Loss of ATRX, genome instability, and an altered DNA damage response are hallmarks of the Alternative Lengthening of Telomeres pathway. PLoS Genetics 8(7): e1002772. Epub 2012 July 19. *corresponding author.
135. M. Zimmermann, F. Lottersberger, S. Buonomo, A. Sfeir, **T. de Lange** (2013) 53BP1 regulates DSB repair using Rif1 to control 5' end resection. Science 339: 700-704. Epub 2013 Jan 10.
136. F. Lottersberger**, A. Bothmer**, D.F. Robbiani, M. Nussenzweig*, **T. de Lange*** (2013) The role of 53BP1 oligomerization in regulating DSB repair. Proc. Natl. Acad. Sci. USA 110: 2146-2151. Epub 2013 Jan 23. **equal contribution. *corresponding authors.
*137. M. Zimmermann and **T. de Lange** (2013) 53BP1: Pro Choice in DNA repair. Trends in Cell Biology 24: 108-117. Epub 2013 Oct 3.*
138. Y. Doksani*, J. Wu*, **T. de Lange**** and X. Zhuang** (2013) Super-resolution fluorescence imaging of telomeres reveals TRF2-dependent t-loop formation. Cell 155: 345-356. *equal contribution, **corresponding authors.
139. D. Frescas and **T. de Lange** (2014) A TIN2 dyskeratosis congenita mutation causes telomerase-independent telomere shortening in mice. Genes and Development 28: 153-166.
140. D. Frescas and **T. de Lange** (2014) TRF2-tethered TIN2 can mediate telomere protection by TPP1/POT1. Mol. Cell Biol. 34: 1349-1362. Epub 2014 Jan 27
141. D. Frescas and **T. de Lange** (2014) Binding of TPP1 to TIN2 is required for POT1a,b-mediated telomere protection. J. Biol. Chem. 289: 24180-24187. Epub 2014 July 23

142. Y. Doksani & T. De Lange (2014.) The role of double-strand break repair pathways at functional and dysfunctional telomeres. in Cold Spring Harb Perspect Biol 6. Epub 2014 Sept 16
143. S. Kabir, D. Hockemeyer, and **T. de Lange** (2014) TALEN gene knockouts reveal no requirement for the conserved human shelterin protein Rap1 in telomere protection and length regulation. Cell Reports 9: 1273-1280. Epub Oct 2014
144. M. Zimmermann, T. Kibe, S. Kabir, and **T. de Lange** (2014) TRF1 negotiates TTAGGG repeat associated replication problems by recruiting the BLM helicase and the TPP1/POT1 repressor of ATR signaling. Genes and Development 28: 2477-2491. Epub 2014 Oct 24
145. **T. de Lange** (2015) A loopy view of telomere evolution. Front. Genet. 6:321
146. F. Lottersberger, R.A. Karssemeijer, N. Dimitrova, **T. de Lange** (2015) 53BP1 and the LINC Complex Promote Microtubule-Dependent DSB Mobility and DNA Repair. Cell 163: 880-893.
147. A.S. Tong, J.L. Stern, A. Sfeir, M. Kartawinata, **T. de Lange**, X.-D. Zhu, T.M. Bryan (2015) ATM and ATR signaling regulate the recruitment of telomerase to telomeres. Cell Reports 13: 1633-1646.
148. J. Maciejowski, Y. Li, N. Bosco, P.J. Campbell, **T. de Lange** (2015.) Chromothripsis and Kataegis Induced by Telomere Crisis. Cell 163: 1641-1654.
149. T. Kibe, M. Zimmermann, **T. de Lange** (2016.) TPP1 Blocks an ATR-Mediated Resection Mechanism at Telomeres. Mol Cell 61: 236-246.
150. H. Takai, E. Jenkinson, S. Kabir, R. Babul-Hirji, N. Najm-Tehrani, D.A. Chitayat, Y.J. Crow & **T. de Lange** (2016.) A POT1 mutation implicates defective telomere end fill-in and telomere truncations in Coats plus. Genes Dev 30: 812-826.

Thomson Reuters Web of Science data

24,000 citations (without self-citations); h-index: 82.
15 publications with >500 citations: