

Geert J.P.L. Kops, PhD

18 April 1974, Dongen, The Netherlands

Professor of Molecular Tumor Cell Biology

Hubrecht Institute for Developmental Biology and Stem Cell Research
Uppsalalaan 8, 3584CT, Utrecht, The Netherlands

Academic Positions

2015- present	Senior group leader Hubrecht Institute for Developmental Biology and Stem Cell Research.
2011- present	Professor Molecular Tumor Cell Biology, UMC Utrecht
8/2014 – 7/2015	Visiting Professor, Fred Hutchinson Cancer Research Center, Seattle, USA
2011- 2014	Head of Laboratory of Medical Oncology, Department of Medical Oncology & Department of Molecular Cancer Research, UMC Utrecht
2007-2011	Associate Professor at the Department of Physiological Chemistry (now Molecular Cancer Research), UMC Utrecht
2005- 2006	Assistant Professor at the Department of Medical Oncology, Laboratory of Experimental Oncology of the UMC Utrecht
2002- 2004	Postdoctoral fellow at the Ludwig Institute for Cancer Research, Dept. of Cell Biology, La Jolla, CA, USA. PI: Prof. Dr. Don W. Cleveland
2001	Postdoctoral researcher at Department of Physiological Chemistry (now Molecular Cancer Research) of the UMC Utrecht. PI: Prof. Dr. Ir. Boudewijn M. T. Burgering

Education

1997-2001	PhD (<i>cum laude</i>) from the department of Physiological Chemistry, Utrecht University Promotor: Prof. Dr. J. L. Bos Co-promotor: Prof. Dr. Ir. B. M. T. Burgering
1992-1997	MSc (doctorandus, Drs.) in Biology at the Utrecht University

Awards & Honourable mentions

2016	Runner-up PhD Supervisor of the Year, Utrecht Life Sciences
2014	Gold Medal of the Royal Dutch Chemistry Society (KNCV)
2013	Best Masters course of the Utrecht Graduate School of Life Sciences, for the course 'Chromosome segregation, aneuploidy and cancer' of the CS&D program
2013	Elected to the Young Academy of Europe (YAE)
2011	Runner-up Best Masters course of the Utrecht Graduate School of Life Sciences, for the course 'Chromosome segregation, aneuploidy and cancer' of the CS&D program
2006	Von Freyburg Medal (Catharijne Foundation)
2004	NVBMB prize (of the Netherlands Society for Biochemistry and Molecular Biology)
2000	Research stimulation prize for fundamental research, UMC Utrecht
1999	Keystone Symposia Travel Award

Grants

2017	KWF Kankerbestrijding Project Grant (630 k€) Stichting Sasha Swarttouw Stichting stipend (25 k€)
2016	KWF Kankerbestrijding Project Grant (560 k€) NWO-ALW-Open (260 k€)
2014	EU-FP7-Marie Curie Innovative Training Network (ITN). Co-applicant. (280 k€ share)
2013	NWO-Vici (1500 k€) NWO-ALW-Open (260 k€) KWF Kankerbestrijding Project Grant (540 k€)
2012	NWO Zwaartekracht ('Gravitation') grant Cancer Genomics Center Netherlands' Co-applicant (480 k€ share) TiPharma Value Creation (with NTRC & NKI/AVL) (320 k€) KWF Kankerbestrijding Project Grant (540 k€)
2011	NWO Large-scale research facilities: Proteins@work. Co-applicant (1000 k€ share)
2009	ERC (European Research Council) Starting Independent Researcher Grant (1570 k€) KWF Kankerbestrijding Project Grant (520 k€)
2008	NPCII grant, from the Netherlands Proteomics Center (280 k€)
2006	NWO-Vidi (600 k€) KWF Kankerbestrijding Project Grant (520 k€)
2001	KWF Kankerbestrijding fundamental and (pre)clinical cancer research fellowship
1996	KWF Kankerbestrijding undergraduate scholarship

PhD Supervisor

Present	Joris Treep (expected graduation 2021) Sjoerd Klaasen (expected graduation 2021) Ana Bolhaqueiro (expected graduation 2020) Bas de Wolf (expected graduation 2019) Timo Kuijt (expected graduation 2019) Spiros Pachis (expected graduation 2019) Wilma Hoevenaar (expected graduation 2019) Jolien van Hooff (expected graduation 2018) Richard van Jaarsveld (expected graduation 2018)
Past	Banafsheh Etemad (expected graduation date: 12 dec 2017) Eelco Tromer (expected graduation date: 12 dec 2017) Mathijs Vleugel (graduated 8 dec 2014) Wilco Nijenhuis (graduated 28 jan 2014) Tale Sliedrecht (graduated 3 dec 2013) Aniek Jansen (graduated <i>cum laude</i> 20 december 2012) Saskia Suijkerbuijk (graduated 19 june 2012) Nannette Jelluma (graduated 10 june 2010)

Courses & Trainings

- 2013: Academic leadership training and coaching program, Eva Wiltingh agency
- 2011: Valorisation (knowledge utilization) workshop of Utrecht University & UMC Utrecht

Other Academic Activities

Organising Committees

- 2018 Lorentz workshop on Evolution of Biomolecular Networks: Rules of the Game (Leiden, NL). Co-organizer, with Liedewij Laan, Michael Lynch, Juliette Azimzadeh and Erwin Frey.
- 2018 EMBO Conference series on Cellular Signaling & Molecular Medicine (Cavtat, Croatia). Co-organizer, with Maria Sibilica and Fiona Watt
- 2016 Cancer Genomics Netherlands meeting on Genomic instability in cancer (Amsterdam, NL). Co-organizer, with René Medema and Puck Knipscheer
- 2013 EMBO Workshop on 'Chromosome Segregation and Aneuploidy' (Breukelen, NL). Co-organizer, with Susanne Lens
- 2010-2013 Annual 2-day International Masterclass of the CS&D graduate program
- 2009 1st Dynamic Kinetochore Workshop (London, UK). Co-founder and co-organizer, with Andrew McAINSH and Patrick Meraldi
- 2005 NVBMB Spring Symposium (Utrecht, NL)

Board/Committee Memberships and Chairs

- Editorial board Molecular and Cellular Biology (2017-present)
- Member Scientific Council Dutch Cancer Society (KWF Kankerbestrijding) (2013-present)
- Member grant panel Netherlands Organisation for Scientific Research (NWO) ALW Open grants (2017-present)
- Member Protein Research study group of NWO Chemical Sciences (2017-present)
- Chair, U/Select Jury, Utrecht University (2017-present)
- Advisory board Focus Program Cancer (Speerpunt Kanker), UMC Utrecht (2015-present)
- Member UU advisory committee ERC StG/CoG grant applicants (2011-present)
- Member Steering committee Hubrecht Imaging Center (2015-present)
- Cancer Research UK Science Committee Expert Review Panel (2017)
- Executive Board Member of the Netherlands Proteomics Center (NPC) (2011-2015)
- Member of selection committee for Associate Directorship IRB, South Korea (2016)
- Member of tenure committee University of Copenhagen (2016)
- Member Grant Panel Norwegian Research Council (2013, 2015, 2016)
- Chair of Seminar Committee of the graduate program 'Cancer, Stem Cells and Developmental Biology' (CS&D) of Utrecht University: www.csnd.nl (2009-2012)
- Advisory board IT services, Division Biomedical Genetics, UMC Utrecht (2012-2013)
- Committee member Alexander Suerman program stipend (2012-2014)
- Various local advisory committees (Hubrecht Institute, UMC Utrecht, UU)
- Member of selection committee for awardance of NVBMB prize (2005, 2006)
- Member of committees advising and supervising PhD projects

Teaching

- Organizer of annual course on chromosome segregation, aneuploidy and cancer for the MSc program 'Cancer Genomics and Developmental Biology' of Utrecht University. *Prize for Best Master Course of the Utrecht Graduate School of Life Sciences, 2013. Nominated in 2011.*
- Lecturer and coordinator of 'Biochemistry A' course, section 'Moleculen' (Molecules) for the BSc program Biomedical Sciences of Utrecht University (2009-2014)
- Lecturer of 'Molecular Mechanisms of Cancer' course, for the BSc program Biomedical Sciences of Utrecht University (2011-2014)
- Lecturer of 'Gezonde en Zieke Cellen I' course for BSc program Medicine of Utrecht University (2010-2013).
- Guest Lecturer for NVvO Basiscursus Oncologie (2011-2013)
- Guest Lecturer for 'Signaling and Techniques in Immunology' of the MSc program 'Infections and Immunology' of Utrecht University (2010-2014)
- Guest lecturer for various national and international MSc and PhD courses

Science Outreach

- Co-developer of teaching material on molecular mechanisms in cancer for high school level ('bovenbouw VWO'), together with the science education and communication company 'De Praktijk' (2014)
<http://www.allesoverdna.nl/de-gemene-deler.html>
- Interview BBC Newsday Radio of the BBC World Services (2017)
- Jury Junior Science Agenda (Junior wetenschapsagenda), Life Sciences (2016)
- Participant 'Meet the Professor' day for elementary schools (2017)
- Co-organiser/presenter of four Science Workshops for elementary school Annefrankschool, Bunnik, NL (2016)
- Author of essay 'Cancer's Chromosomal Chaos', published by Atomium Culture, the European Institute for Science, Media and Democracy: <http://www.atomium-culture.ilssole24ore.com/?p=212>
- Lecturer at the 4th national day of the DNA-labs (2013)
- Lecturer for 'KWF vrijwilligers dag' in UMC Utrecht (2013 – 2014)
- Lecturer for 'Moleculen in Leven' (Molecules of Life) course of Junior College Utrecht (2008-2013) and for U-Talent course on Tumor Biology (2016, 2017)
- Expert panel member during Dag van DNA (Day of DNA), 100.000th student of the DNA labs (2012)
- Workshop Scientist for 'De Jonge Akademie on Wheels' (the Young Academy on Wheels), an initiative of the Royal Dutch Academy of Sciences (KNAW) that brings Science to high schools (2012)
- Co-creator of the educational film 'Spying on Cancer, of the Cancer Genomics Center (2012)
http://www.youtube.com/watch?v=uo_YfqdUkbY
- Guest-teacher Oosterlicht College, Nieuwegein. Theme: 'Life in the lab of a cancer researcher' (2009)
- Guestspeaker Career Speed Dating event during 'The Dynamic Cell' meeting, Edinburgh, UK (2009)
- Expert for webquest 'Kraak de code' (Break the Code) during symposium 'Het Genoom in Nederland' (The Genome in The Netherlands), oktober kennismaand (2008)

Other

- Research sabbatical at Fred Hutchinson Cancer Research Center, Seattle, USA (aug 2014 – jul 2015)
- Research Theme Leader (Cancer Proteomics Theme) of the Netherlands Proteomics Centre (NPC), part of the Netherlands Genomics Initiative. (2009-2013)
- Peer reviewer for various international journals (Nature, Science, Cell, Nat Cell Biol, Nat Struct Mol Biol, Mol Cell, Dev Cell, Cancer Discov, Curr Biol, MBoC, MCB, FEBS Lett, PNAS, J Cell Biol, EMBO J, others)
- Peer reviewer for various (inter)national grant foundations (e.g. NWO, FTP, MRC, ETH, NRC, ERC)

Examiner International PhD theses

- 2012 Alicja Sochaj (Hardwick lab), University of Edinburgh, UK
- 2011 Ines Ferreira (Bettencourt-Dias lab), Gulbenkian, Lisbon, Portugal
- 2011 Hanna Schutz (Peters lab), IMP, Vienna, Austria
- 2011 Alexandra Bezler (Gonczy lab), EPFL, Lausanne, Switzerland

Teaching at foreign universities

- 2016 - PhD course, Wellcome Trust Center for Cell Biology, UK
- 2013 - PhD course, Gulbenkian, Lisbon, Portugal
PhD course, Karolinska Institute, Stockholm, Sweden
- 2012 - PhD course, University of Konstanz, Germany
- 2011 - PhD course, IBMC, Porto, Portugal

Invited Lectures

International

- 2019 EMBO Mitosis workshop, Heidelberg, Germany

- 2018 EMBO/Royal Society meeting 'Using Genomic Comparisons to Understand Cellular Complexity in our Ancient Ancestors', Buckinghamshire, UK.
Seminar at IBMC, Porto, Portugal
- 2017 5th Dynamic Kinetochore workshop, Edinburgh, Scotland
EMBO Conference series on DNA damage response, Cape Sounio, Greece
'Advances in biomedical research' conference, Split, Croatia
Jaques Monod conference on the cell cycle, Roscoff, France
Europhosphatases (declined)
Seminar, Chromosome Biology Interest Group, Francis Crick Institute, UK
- 2016 Dynamics of the cytoskeleton workshop, Zagreb, Croatia
EMBO Workshop on Chromosome Segregation and Aneuploidy, Galway, Ireland
EMBO Conference Series 'Cellular Signaling & Molecular Medicine', Cavtat, Croatia
"Causes and consequences of aneuploidy", *Fondation des Treilles*, France (declined)
IBS symposium, Daejeon, Korea
Seminar at MPI Dortmund, Germany
Seminar, PhD program of the Wellcome Trust Center for Cell Biology, Edinburgh, UK
Seminar Cancer Research UK Manchester Institute, Manchester, UK
- 2015 FASEB Conference on "Mitosis: Spindle Assembly and Function", Big Sky, USA
4th Dynamic Kinetochore workshop, Copenhagen, Denmark (declined)
"Chromatin and Cell Fate" Conference, Essen, Germany
Seminar at Memorial Sloan Kettering Cancer Center, New York City, USA
Seminar at University of Pennsylvania, Philadelphia, USA
Seminar at University of Virginia, Charlottesville, USA
- 2014 "The mechanisms and regulatory circuits mediating chromosome segregation", *Fondation des Treilles*, France
CSHL meeting "The Cell Cycle", CSHL, USA
Seminar at Fred Hutchinson Cancer Research Center, Seattle, USA
Seminar at the Institute for Cancer Research, Sutton/London, UK.
Seminar at University of Oxford, UK
- 2013 108th International Titisee Conference on "Causes and Consequences of Aneuploidy", Titisee, Germany
The EMBO meeting, Amsterdam, NL
"Meiosis and chromosome segregation - a mammalian perspective", Stockholm, Sweden
FEBS advances lecture course "Molecular Mechanisms in Signal Transduction and Cancer", Spetses, Greece
3rd Dynamic Kinetochore workshop, Porto, Portugal
CNIO Frontiers Meeting "Chromosome instability and aneuploidy in cancer: from mechanisms to therapeutics", Madrid, Spain
Biochem Society Conference 'Exploring kinomes: Pseudokinases and Beyond', Cambridge, UK
Seminar at University of Warwick, UK
Seminar, Karolinska Institute, Stockholm, Sweden
Seminar at Gulbenkian Institute of Science, Lisbon, Portugal
- 2012 Jacques Monod Conference 'Cell division: from single molecule mechanics to multicellular organisms', Roscoff, France
EMBO Workshop on Structure, Function and Regulation of Centromeres and Kinetochores, Barcelona, Spain
EMBO Conference Series 'Cellular Signaling & Molecular Medicine', Cavtat, Croatia
Seminar at University of Edinburgh, UK
Seminar at University of Konstanz, Germany
- 2011 'Cell Cycle Regulators/Inhibitors and Cancer' Conference, Vienna, Austria
2nd Dynamic Kinetochore Workshop, Vienna, Austria
Annual Meeting of the German Society for Cell Biology (DGZ), Bonn, Germany
'Cell Cycle & Proliferation' Workshop, Helsinki, Finland

- (feb) Seminar at Gulbenkian Institute of Science, Lisbon, Portugal
 (dec) Seminar at Gulbenkian Institute of Science, Lisbon, Portugal
 Seminar at EPFL, Lausanne, Sui
 Seminar at VTT, Turku, Finland
 Seminar at IBMC, Porto, Portugal
 Seminar at IMP, Vienna, Austria
- 2010 CGC Meeting on 'Molecular Mechanisms of Signal Transduction and Cancer' Amsterdam, NL
 'Targeted Cancer Therapy' Symposium, Heidelberg, Germany
 ISCO Congress of the International Society for Cellular Oncology, Dresden, Germany
 EMBO Workshop on Chromosome Segregation and Aneuploidy, Edinburgh, UK
 Jacques Monod Conference 'Cell division: Space and Time', Roscoff, France
 Seminar at Mayo Clinic, Rochester, MN, USA
 Seminar at Harvard Systems Biology Cambridge, MA, USA
 Seminar at Whitehead Inst, Cambridge, USA
 Seminar at Oslo University Hospital, Oslo, Norway
- 2009 'The Dynamic Cell', Joint Meeting of the Biochemical Society and the British Society for Cell
 Biology, University of Edinburgh, UK
 1st Dynamic Kinetochore Workshop, London, UK
 'Mitosis and Cancer' Symposium, Amsterdam, NL
 Seminar at BRIC, Copenhagen, DK
- 2008 XX International Congress of Genetics, Berlin, Germany
 ISCO Congress 2008 of the International Society for Cellular Oncology, Amsterdam, NL
 Seminar at Cancer Research UK, London, UK
 Seminar at Friedrich Miescher Institute, Tübingen, Germany
- Prior to 2008 7th International Chromosome Segregation and Aneuploidy Workshop, Turku, Finland
 Seminar at Max Planck Institute, Martinsried, Germany
 Seminar at CNRS, Montpellier, France
 1st Young Investigator Recruitment Symposium (YIRS), IRIC, Montreal, Canada.
 Seminar at Dept of Pathology and Cell Biology, University of Montreal, Montreal, Canada
 Seminar at Nervianoms, Milan, Italy
 Nature Biotech Winter Symposium 'The Cell Cycle, Chromosomes and Cancer', Miami, USA
 ISREC conference: 'Cancer and the cell cycle', Lausanne, Switzerland
 Salk 16th annual meeting on oncogenes, La Jolla, USA
 NATO/FEBS Workshop 'Molecular Mechanisms of Signal Transduction', Spetses, Greece

National

- 2017 Bionanoscience department seminar, TU Delft
 Aneuploidy symposium, ERIBA, Groningen
- 2016 Enovate symposium, UMC Utrecht
 RIMLS Seminar, Radboud University Nijmegen
- 2015 Van Leeuwenhoek lecture, Leiden University
 Hidden stories in DNA symposium, Utrecht University
- 2014 CHAINS (NWO chemical sciences meeting), Velthoven
 NVvO symposium, Utrecht
 Cancer Genomics Netherlands Kick-off meeting
- 2013 Molecular Medicine seminar, ERIBA, Groningen
 Oncology Seminars, AMC, Amsterdam
 NKI Seminar, NKI-AvL, Amsterdam
 CS&D Masterclass, Doorwerth
- 2010 NPC progress meeting, Utrecht
- 2009 CBG Progress meeting, Amsterdam

- 2008 Pathology Seminar, UMC Utrecht
Biomolecular Mass Spectrometry seminar, Utrecht
- 2007 Life Sciences Seminar, Utrecht
- 2006 NKI-AvL Seminar, NKI, Amsterdam
OOB Seminar, Hubrecht Institute, Utrecht
AMC Amsterdam
- 1999 NWO-CW meeting, Lunteren
- 1999 2nd growth control and membrane signaling meeting, Utrecht

Publications

- 2017 72. Yost S, De Wolf B, Hanks S, Zachariou A, Marcozz C, Clarke M, De Voer RM, Etemad B, Uijttewaal E, Ramsay E, Wylie H, Elliott A, Picton S, Smith A, Smithson S, Seal S, Ruark E, Houge G, Pines J, **Kops GJPL***, Rahman N*. Biallelic *TRIP13* mutations predispose to Wilms tumor and chromosome missegregation. *Nat Genet.* **49** (2017), 1148-1151.
**joint senior authors and co-correspondence.*
71. Van Hooff J, Tromer E, Van Wijk LM, Snel B, **Kops GJPL**. Evolutionary dynamics of the kinetochore network in eukaryotes as revealed by comparative genomics. *EMBO Reports* **18** (2017), 1559-1571.
70. Van Hooff J, Snel B, **Kops GJPL**. Unique phylogenetic distributions of the Ska and Dam1 complexes support functional analogy and indicate multiple parallel displacements of Ska by Dam1. *Genome Biol Evol* **9** (2017), 1295-1303.
69. De Wolf B and **Kops GJPL**. Kinetochore malfunction in human pathologies. *Adv Exp Med Biol* **1002** (2017), 69-91.
- 2016 68. Tromer E, Bade D, Snel B, **Kops GJPL**. Phylogenomics-guided discovery of a novel conserved cassette of short linear motifs in BubR1 essential for the spindle checkpoint. *Open Biol.* **6** (2016). 160315.
67. Van Jaarsveld R, **Kops GJPL**. Difference makers: Chromosomal instability versus aneuploidy in cancer. *Trends Cancer* **2** (2016), 561-571.
66. Saurin AT, **Kops GJPL**. Studying kinetochore kinases. *Methods Mol Biol* **1413** (2016), 333-47.
65. Wang J, Wang Z, Yu T, Yang H, Virshup DM, **Kops GJPL**, Lee SH, Zhou W, Li X, Xu W, Rao Z. Crystal structure of a PP2A B56-BubR1 complex and its implications for PP2A substrate recruitment and localization. *Protein Cell* **7** (2016), 516-26.
64. Etemad B, **Kops GJPL**. Attachment issues: kinetochore transformations and spindle checkpoint silencing. *Curr Opin Cell Biol* **39** (2016), 101-8.
- 2015 63. Hiruma, Y, Sacristan C, Pachis ST, Adamopoulos A, Kuijt T, Ubbink M, Von Castelmur E, Perrakis A, **Kops GJPL**. Competition between MPS1 and microtubules at kinetochores regulates spindle checkpoint signaling. *Science* **348** (2015), 1264-67.
62. Etemad B, Kuijt T, **Kops GJPL**. Kinetochore-spindle attachment is sufficient to satisfy the human spindle assembly checkpoint. *Nat Commun* **6** (2015), 8987.
61. Drost J, Van Jaarsveld RH, Ponsioen B, Zimmerlin C, Van Boxtel R, Buijs A, Sachs N, Overmeer RM, Offerhaus GJ, Schwank G, Begthel H, Korving J, Logtenberg M, Cuppen E, Snippert HJ, Medema JP, **Kops GJPL**, Clevers H. Sequential cancer mutations in cultured human intestinal stem cells. *Nature* **521** (2015), 43-7.

60. Vleugel M, Omerzu M, Groenewold V, Hadders MA, Lens SM, **Kops GJPL**. Sequential multisite phospho-regulation of KNL1-BUB3 interfaces at mitotic kinetochores. *Mol Cell* **57** (2015), 824-35.
59. Tromer E, Snel B, **Kops GJPL**. Widespread recurrent patterns of rapid repeat evolution in the kinetochore scaffold KNL1. *Genome Biol Evol* **7** (2015), 2383-93.
58. Vleugel M, Hoek TA, Tromer E, Sliedrecht T, Groenewold V, Omerzu M, **Kops GJPL**. Dissecting the roles of human BUB1 in the spindle assembly checkpoint. *J Cell Sci* **128** (2015), 2975-82.
57. Von Schubert C, Cubizolles F, Bracher JM, Sliedrecht T, **Kops GJPL**, Nigg EA. Plk1 and Mps1 Cooperatively Regulate the Spindle Assembly Checkpoint in Human Cells. *Cell Rep* **12** (2015), 66-78.
56. Overlack K, Primorac I, Vleugel M, Krenn V, Maffini S, Hoffmann I, **Kops GJPL**, Musacchio A. A molecular basis for the differential roles of Bub1 and BubR1 in the spindle assembly checkpoint. *Elife* **4** (2015), e05269.
55. Sacristan C, **Kops GJPL**. Joined at the hip: kinetochores, microtubules, and spindle assembly checkpoint signaling. *Trends Cell Biol* **25** (2015), 21-8.
54. Maia AR, de Man J, Boon U, Janssen A, Song JY, Omerzu M, Sterrenburg JG, Prinsen MB, Willemsen-Seegers N, de Roos JA, van Doornmalen AM, Uitdehaag JC, **Kops GJPL**, Jonkers J, Buijsman RC, Zaman GJ, Medema RH. Inhibition of the spindle assembly checkpoint kinase TTK enhances the efficacy of docetaxel in a triple-negative breast cancer model. *Ann Oncol* **26** (2015), 2180-92.
53. Kloet SL, Baymaz HI, Makowski M, Groenewold V, Jansen PW, Berendsen M, Niazi H, **Kops GJPL**, Vermeulen M. Towards elucidating the stability, dynamics and architecture of the nucleosome remodeling and deacetylase complex by using quantitative interaction proteomics. *FEBS J.* **282** (2015), 1774-85.
- 2014
52. Nijenhuis W, Vallardi G, Teixeira A, **Kops GJPL***, Saurin AT*. Negative feedback at kinetochores underlies a responsive spindle checkpoint signal. *Nat Cell Biol* **16** (2014), 1257-64.
*joint senior authors and co-correspondence.
51. Jelluma N and **Kops GJPL**. Collateral genome instability by DNA damage in mitosis. *Cancer Discov.* **4** (2014), 1256-8.
50. Shaltiel IA, Aprelia M, Saurin AT, Chowdhury D, **Kops GJPL**, Voest EE, Medema RH. Distinct phosphatases antagonize the p53 response in different phases of the cell cycle. *Proc Natl Acad Sci USA.* **111** (2014), 7313-8.
49. Kuijt TE, Omerzu M, Saurin AT, **Kops GJPL**. Conditional targeting of MAD1 to kinetochores is sufficient to reactivate the spindle assembly checkpoint in metaphase. *Chromosoma* **123** (2014) 471-80.
48. **Kops GJPL**. Cell division: SACing the anaphase problem. *Curr Biol.* **24** (2014), R224-6.
47. Akopyan K, Silva Cascales H, Hukasova E, Saurin AT, Müllers E, Jaiswal H, Hollman DA, **Kops GJPL**, Medema RH, Lindqvist A. Assessing kinetics from fixed cells reveals activation of the mitotic entry network at the S/G2 transition. *Mol Cell.* **53** (2014), 843-53.
- 2013
46. Vleugel M, Tromer E, Omerzu M, Groenewold V, Nijenhuis W, Snel B, **Kops GJPL**. Arrayed BUB-recruitment modules in the kinetochore scaffold KNL1 promote accurate chromosome segregation. *J Cell Biol* **203** (2013), 943-55.
45. Van de Pasch LA, Miles AJ, Nijenhuis W, Brabers NA, van Leenen D, Lijnzaad P, Brown MK, Ouellet J, Barral Y, **Kops GJPL**, Holstege FC. Centromere binding and a conserved role in chromosome stability for SUMO-dependent ubiquitin ligases. *PLoS One* **8** (2013), e65628.

44. Earnshaw WC, [24 authors], **Kops GJPL**, [31 authors], Cleveland DW. Esperanto for histones: CENP-A, not CenH3, is the centromeric histone H3 variant. *Chromosome Res* **21** (2013), 101-6.
43. Nijenhuis W, Von Castelmuur E, Littler D, Valeria De Marco, Tromer E, Vleugel M, Van Osch MHJ, Snel B, Perrakis A, **Kops GJPL**. A TPR domain-containing N-terminal module of MPS1 is required for its kinetochore localization by Aurora B. *J Cell Biol* **201** (2013), 217-31.
42. Hennrich ML, Marino F, Groenewold V, **Kops GJPL**, Mohammed S, Heck AJ. Universal quantitative kinase assay based on diagonal SCX chromatography and stable isotope dimethyl labeling provides high-definition kinase consensus motifs for PKA and human Mps1. *J Proteome Res* **12** (2013), 2214-24.
- 2012
41. Suijkerbuijk SJE, Vleugel M, Teixeira A, **Kops GJPL**. Integration of kinase and phosphatase activities by BUBR1 ensures formation of stable kinetochore-microtubule attachments. *Dev Cell* **23** (2012), 745-755.
40. Vleugel M, Hoogendoorn E, Snel B, **Kops GJPL**. Evolution and function of the mitotic checkpoint. *Dev Cell* **23** (2012), 239-50.
39. Suijkerbuijk SJE, Van Dam TJP, Karagöz GE, Von Castelmuur E, Hubner NC, Duarte AMS, Vleugel M, Perrakis A, Rüdiger SGD, Snel B, **Kops GJPL**. The vertebrate mitotic checkpoint protein BUBR1 is an unusual pseudokinase. *Dev Cell* **22** (2012), 1321-9.
38. **Kops GJPL*** and Shah JV*. Connecting up and clearing out: How kinetochore attachment silences the spindle assembly checkpoint. *Chromosoma* **121** (2012), 509-25.
*corresponding authors
37. Van der Waal, MS, Saurin AT, Vromans, MJM, Vleugel M, Wurzenberger C, Gerlich DW, Medema RH, **Kops GJPL**, Lens SMA. Mps1 promotes rapid centromere accumulation of Aurora B. *EMBO Rep* **13** (2012), 847-54.
- 2011
36. Janssen A, Van der Burg, M, Suzhai, K, **Kops GJPL***, Medema RH*. Chromosome segregation errors as a cause of DNA damage and structural chromosome aberration. *Science* **333** (2011), 1895-8.
*corresponding authors
35. Hennrich ML, Groenewold V, **Kops GJPL**, Heck AJ, Mohammed S. Improving Depth in Phosphoproteomics by Using a Strong Cation Exchange-Weak Anion Exchange-Reversed Phase Multidimensional Separation Approach. *Anal Chem* **83** (2011), 7137-43.
34. Saurin AT, van der Waal MS, Medema RH, Lens SM, **Kops GJPL**. Aurora B potentiates Mps1 activation to ensure rapid checkpoint establishment at the onset of mitosis. *Nat Commun* **2** (2011) #316.
33. Avo Santos M, van de Werken C, de Vries M, Jahr H, Vromans MJ, Laven JS, Fauser BC, **Kops GJPL**, Lens SM, Baart EB. A role for Aurora C in the chromosomal passenger complex during human preimplantation embryo development. *Hum Reprod* **26** (2011), 1868-81.
32. Janssen A, **Kops GJPL**, Medema RH. Targeting the mitotic checkpoint to kill tumor cells. *Horm Cancer* **2** (2011), 113-6.
- 2010
31. Jelluma N, Dansen TB, Sliedrecht T, Kwiatkowski NP, **Kops GJPL**. Release of Mps1 from kinetochores is crucial for timely anaphase onset. *J Cell Biol* **191** (2010), 281-90.
30. Varier RA, Outchkourov NS, de Graaf P, van Schaik FM, Ensing HJ, Wang F, Higgins JM, **Kops GJPL**, Timmers HT. A phospho/methyl switch at histone H3 regulates TFIIID association with mitotic chromosomes. *EMBO J* **29** (2010), 3967-78.

29. Suijkerbuijk SJE, Van Osch MHJ, Bos FL, Hanks S, Rahman N, **Kops GJPL**. Molecular Causes for BUBR1 Dysfunction in the Human Cancer Predisposition Syndrome Mosaic Variegated Aneuploidy. *Cancer Res* **70** (2010), 4891-4900.
28. Sliedrecht T, Zhang C, Shokat KM, **Kops GJPL**. Chemical Genetic Inhibition of Mps1 in Stable Human Cell Lines Reveals Novel Aspects of Mps1 Function in Mitosis. *PLoS ONE* **5(4)** (2010) e10251.
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