

Prof. Isabelle Vernos

ICREA Research Professor at the Center for Genomic regulation (CRG), Barcelona, Spain

Academic and Professional career:

Since 2023 Co-coordinator of the Quantitative Cell Biology Program, CRG

2005-2022:

2011-2019 Member of the Scientific Council of the ERC (European Research Council)
2008-2012 Associated teaching Professor at the UPF (Universitat Pompeu Fabra) Barcelona, Spain
2006-2007 Acting Coordinator of the Cell and Developmental Biology Program, CRG
since 2005 ICREA Research Professor (Institució Catalana de Recerca i Estudis Avançats) and Senior Principal Investigator at the Centre de Regulació Genòmica, CRG, Barcelona, Spain

1992-2005:

2001-2005 Team Leader at the European Molecular Biology Laboratory (EMBL), Cell Biology and Biophysics program, Heidelberg, Germany.
1996 -2001 Staff Scientist at the European Molecular Biology Laboratory (EMBL), Cell Biology and Biophysics program, Heidelberg, Germany.
1992-1996 Postdoctoral researcher, Cell Biology and Biophysics Program, European Molecular Biology Laboratory, EMBL, Heidelberg, Germany

1989-1992

Postdoctoral researcher, Wellcome/CRC Institute, Cambridge, UK.

1989

PhD in Biology, Universidad Autónoma, Madrid, Spain

1987-1989

Teaching research assistant, Universidad Autónoma, Madrid, Spain

1981

Bachelor degree in Biology, Universidad Complutense de Madrid, Spain

Fellowships:

1994-1996 Postdoctoral fellowship- Human Capital and Mobility program (EU)
1992-1994 Wellcome Trust traveling fellowship
1989-1990 FPI postdoctoral fellowship- Ministry of de Education and Science, Spain
1984-1986 PFPI predoctoral fellowship- Ministry of de Education and Science, Spain

Scientific productivity:

- Number of publications: 95
- Total citations: 10340
- H-Index: 49 (Google scholar)
- Citations: 10453 (2288 since 2019)
- Doctoral thesis director: 19 (completed), 3 (ongoing)

Honours, Awards and Memberships:

Since 2005	EMBO member (European Molecular Biology Organization)
2015	Narcis Monturiol medal
2013	Invited to join AcademiaNet , a german based database of excellent women scientists (http://www.academianet.de/artikel/1187363).
2012-2015	Member of the Advisory board for Science, Technology and Innovation of the Ministry of Economy , Spain
2005	Investigador Científico del CSIC (Consejo Superior de Investigaciones Científicas), Spain
1999	Científico Titular del CSIC (Consejo Superior de Investigaciones Científicas), Spain

Activities for the promotion of women in science

2013-2023	Chair of the Gender Balance Committee of the CRG (http://www.crg.eu/en/content/about-us/women-science)
2016-2022	FEBS/EMBO Women in Science Award Committee member
Since 2016	Member of the governing body and the scientific committee of the program Ellas investigan of the foundation Mujeres por Africa (www.mujiresporafrika.es/) that provides opportunities for training and scientific cooperation to top women African scientists.
Since 2015	Advisor for the gender equality panel of the IRB, Barcelona
2015-2019	Coordinator of the EU funded project LIBRA (http://www.eu-libra.eu)
2013-2019	Chair of the Gender Balance Working Group of the ERC (European research Council)
2013	Organizer of the ERC GBWG Workshop: On the way to the top: providing equal opportunities for men and women in science and technology
	Invited speaker at Gender summits (Washington 2013, Brussels 2015, 2016)
	Author of opinion articles: Nature 2013, El Pais 2017 (http://elpais.com/elpais/2017/02/09/ciencia/1486640970_178084.html)

Scientific Committees:

2023	Member of the Direction Board of the CRG
2011-2014	Member of the EMBO Course and Workshops Committee
2008-2010	Member of the Advisory Editorial Board for EMBO Journal and EMBO reports by invitation from the EMBO council
2007-2008:	Member of the HFSP Review Committee for postdoctoral Fellowships

2007-2011 Co-chair of the CRG Graduate program

Competitive funding:

2023-2025: LaCaixa IMPULSE- grant CI23-10420
2023-2024: Generalitat de Catalunya -Plan Complementario de Biotecnología aplicada a la salud en el marco del Plan de Recuperación, Transformación y Resiliencia, ACPCCOL013
2022-2025: Ministerio de Ciencia e Innovación, PID2021-128064NB-I00
2022-2024: Generalitat de Catalunya 2021 SGR 01221 G62426937
2019-2022: Ministerio de Ciencia e Innovación, PGC2018-096976-B-I00
2017-2019: Generalitat de Catalunya AGAUR 2017 SGR 478
2016-2020: Coordinator of ITN DiviDe, European Commission (H2020), MSCA-ITN-2015
2016-2018: Ministerio de Economía y Competitividad, BFU2012-37163
2015-2019: Coordinator of LIBRA, European Commission (H2020), ID: 665937
2015-2017: Ministerio de Economía y Competitividad, BFU2014-61919-EXP
2013-2015: Ministerio de Economía y Competitividad, BFU2012-37163
2010-2012: Ministerio de Ciencia e Innovación, BFU2009-10202
2009-2011: Generalitat de Catalunya ACC1Ó CIDEM-VALTEC08-2-0071
2009-2013: Generalitat de Catalunya AGAUR 2009 SGR 1089
2007-2009: Ministerio de Educación y Ciencia, BFU2006-04694
2006-2009: Ministerio de Educación y Ciencia, HF2006-0067
2006-2011: Ministerio de Educación y Ciencia, CSD2006-00023
2006-2009: Ministerio de Educación y Ciencia, BFU2005-24990-E
2004-2008: European Commission (RTN program), MRTN-CT-2004-512348
2004-2007: European Commission (STREP program), STREP 503568
2000-2004: Coordinator of the European Commission RTN1-1999-00107
1998-2001: European Commission (TMR program), ERB 4061 PL 97-0719

Others:

Director of 19 completed PhD thesis

Invited speaker at various research institutes and conferences in France, Germany, UK, USA, Portugal, Switzerland, Spain, Holland, Japan.

Referee of manuscripts for: Science; Nature; Nature Cell Biology; EMBO Journal; The Journal of Cell Biology; Oncogene; Experimental Cell Research; Trends in Cell Biology; Genes and Development; Molecular Biology of the Cell; BBA - Molecular Cell Research

Referee of projects presented to: Wellcome Trust, UK; The Biotechnology and Biological Sciences Research Council (BBSRC), UK; Deutsche Forschungsgemeinschaft (DFG), German Research Foundation, Alemania; The Netherlands Organisation for Scientific Research (NWO, the Dutch research council); Spanish ministry for research; Chile

Review panel member for: ETH, Zurich, Switzerland (2008) ; INSERM (Institut national de la santé et de la recherche médicale) (France)

Organizer of International Conferences: EMBO Conference on Centrosomes and Spindle Bodies, Barcelona (2011). CRG Symposium "Imaging Approaches to study Cytoskeleton

Dynamics”, Barcelona (2009). CRG Symposium “Mechanisms regulating cell growth and division”, Barcelona (2008). Conférence Jacques Monod-CNRS “Molecular machines in cell division”, Roscoff (2005). Conférence Jacques Monod-CNRS “The cell cycle and its checkpoints”, Roscoff (2002).

PUBLICATIONS

2023

Scrofani J., Ruhnaw F., Chew W., Normanno D., Nedelec F., Surrey T., **Vernos I.** Branched microtubule nucleation and dynein-mediated transport cooperate to organize RanGTP asters in *Xenopus laevis* egg extract (2023) **Mol Biol Cell**. doi: 10.1091/mbc.E23-10-0407. Epub 2023 Nov 22. PMID: 37991893

Garrido G., Aranguren A., Martínez-Jiménez F., Borràs E., Chiva C., Sabidó E., **Vernos I.** Novel insights into TPX2 mitotic functions through a BioID based approach. (in revision)

2022

Zadra I, Jimenez-Delgado S, Anglada-Girotto M, Segura-Morales C, Compton ZJ, Janke C, Serrano L, Ruprecht V, **Vernos I.** (2022) Chromosome segregation fidelity requires microtubule polyglutamylation by the cancer downregulated enzyme TLL11. **Nat Commun**. 2022 Nov 21;13(1):7147. doi: 10.1038/s41467-022-34909-y.

Laguillo-Diego A, Kiewisz R, Martí-Gómez C, Baum D, Müller-Reichert T, **Vernos I** (2022). MCRS1 modulates the heterogeneity of microtubule minus-end morphologies in mitotic spindles. **Mol Biol Cell**. 2022 Nov 9;mbcE22080306T. doi: 10.1091/mbc.E22-08-0306-T. Online ahead of print.

Timón Pérez K, Scrofani J, **Vernos I** (2022). NEDD1-S411 phosphorylation plays a critical function in the coordination of microtubule nucleation during mitosis. **Biol Open**. 2022 Nov 1;11(11):bio059474. doi: 10.1242/bio.059474. Epub 2022 Nov 17.

2021

Amargant F., Pujol A., Ferrer-Vaquero A, Durban M., Martínez M., Vassena R., **Vernos I.** (2021) The human sperm basal body is a complex centrosome important for embryo pre-implantation development. **Mol Hum Reprod**. 2021 Nov 2;27(11):gaab062. doi: 10.1093/molehr/gaab062

2020

Gungor S*, Oktay Y*, Hiz S*, Aranguren-Ibáñez A*, Kalafatçilar I, Yaramis A, Karaca E, Yis U, Sonmezler E, Ekinci B, Aslan M, Yilmaz E, Balaraju S, Szabo N, Laurie S, Beltran S, MacArthur DG, Hathazi D, Topf A, Roos A*, Lochmuller H*, **Vernos I*** and R. Horvath* (2020) Autosomal recessive variants in TUBGCP2 alter the γ -tubulin ring complex leading to neurodevelopmental disease. **iScience**, <https://doi.org/10.1016/j.isci.2020.101948>

*These authors contributed equally

Martin-Cofreces NB, Chichon FJ, Calvo E, Torralba D, Bustos-Moran E, Dosil SG, Rojas-Gomez A, Bonzon-Kulichenko E, Lopez JA, Otón J, Sorrentino A, Zabala JC, **Vernos I**, Vazquez J, Valpuesta JM, Sanchez-Madrid F. (2020) The chaperonin CCT controls T cell

receptor-driven 3D configuration of centrioles. **Sci Adv.** Dec 2;6(49):eabb7242. doi: 10.1126/sciadv.abb7242

Montalvo JG, Alimonti D, Reiland S and **I Vernos** (2020) Gender stereotype and the scientific career of women: Evidence from biomedical research centers
doi: <https://doi.org/10.1101/2020.10.29.360560>

2019

Moedas C, **Vernos I**, Kuster S, Nowotny H, Saltelli A, Mungiu-Pippidi A, Wouter Vasbinder J, Brooks DR, Cunningham P. (2019) Views from a continent in flux. **Nature.** May;569(7757):481-484. doi: 10.1038/d41586-019-01569-w.

Rosas-Salvans M, Scrofani J, Modol A, **Vernos I.** (2019) DnaJB6 is a RanGTP-regulated protein required for microtubule organization during mitosis. **J Cell Sci.** Jun 3;132(11). pii: jcs227033. doi: 10.1242/jcs.227033.

Valantine H, Travis E, El-Adhami W, **Vernos I**, Mosqueda L, Wayne E, Kearns-Zimmerman F, Bonfont L, Visweswariah SS, Akande-Sholabi W, Polka J. (2019) A giant leap for womankind. **Nat Med.** May;25(5):704-707. doi: 10.1038/s41591-019-0446-y.

Courthéoux T, Rebutier D, Vazeille T, Cremet JY, Benaud C, **Vernos I**, Prigent C. (2019) Microtubule nucleation during central spindle assembly requires NEDD1 phosphorylation on serine 405 by Aurora A. **J Cell Sci.** May 16;132(10). pii: jcs231118. doi: 10.1242/jcs.231118.

Amargant F, Barragan M, Vassena R, **Vernos I.** (2019) Insights of the tubulin code in gametes and embryos: from basic research to potential clinical applications in humans. **Biol Reprod.** 100(3):575-589. doi: 10.1093/biolre/iory203.

2018

Amargant F, García D, Barragán M, Vassena R, **Vernos I.** (2018) Functional Analysis of Human Pathological Semen Samples in an Oocyte Cytoplasmic Ex Vivo System. **Sci Rep.** 8(1):15348.

Rosas-Salvans M, Cavazza T, Espadas G, Sabido E, **Vernos I.** (2018) Proteomic Profiling of Microtubule Self-organization in M-phase. **Mol Cell Proteomics.** 10:1991-2004.

Eibes S, Gallisà-Suñé N, Rosas-Salvans M, Martínez-Delgado P, **Vernos I**, Roig J. (2018) Nek9 Phosphorylation Defines a New Role for TPX2 in Eg5-Dependent Centrosome Separation before Nuclear Envelope Breakdown. **Curr Biol.** 28(1):121-129.e4.

2017

Brouwers N, Mallol Martinez N, Vernos I. (2017) Role of Kif15 and its novel mitotic partner KBP in K-fiber dynamics and chromosome alignment. **PLoS One.** 12(4)

2016

Cavazza T, Peset I, **Vernos I.** (2016). From meiosis to mitosis - the sperm centrosome defines the kinetics of spindle assembly after fertilization in *Xenopus*. **J Cell Sci.** Jul 1;129(13):2538-47.

Meunier S, Timón K, **Vernos I.** (2016). Aurora-A regulates MCRS1 function during mitosis. **Cell Cycle.** Jul 2;15(13):1779-86.

Burgess SG, Oleksy A, Cavazza T, Richards MW, **Vernos I,** Matthews D, Bayliss R. Allosteric inhibition of Aurora-A kinase by a synthetic vNAR domain. **Open Biol.** 2016 Jul;6(7).

Cavazza T, Margaretti P, **Vernos I.** The sequential activation of the mitotic microtubule assembly pathways favors bipolar spindle formation. **Mol Biol Cell.** 2016 Oct 1;27(19):2935-45.

Sanchez-Pulido L, Perez L, Kuhn S, **Vernos I,** Andrade-Navarro MA. (2016) The C-terminal domain of TPX2 is made of alpha-helical tandem repeats. **BMC Struct Biol.** 16(1):17.

Meunier S, **Vernos I.** (2016). Acentrosomal Microtubule Assembly in Mitosis: The Where, When, and How. **Trends Cell Biol.** Feb;26(2):80-7. Review.

Cavazza T, **Vernos I.** (2016). The RanGTP Pathway: From Nucleo-Cytoplasmic Transport to Spindle Assembly and Beyond. **Front Cell Dev Biol.** Jan 11;3:82.

Garrido G, **Vernos I.** (2016). Non-centrosomal TPX2-Dependent Regulation of the Aurora A Kinase: Functional Implications for Healthy and Pathological Cell Division. **Front Oncol.** Apr 15;6:88. Review.

2015

Scrofani J., Sardon T., Meunier S. and I. Vernos (2015). Microtubule nucleation in mitosis by a RanGTP-dependent protein complex. **Current Biology** Jan 19;25(2):131-40. doi: 10.1016/j.cub.2014.11.025.

Burgess SG, Peset I., Joseph N., Cavazza T., Vernos I., Pfuhl M., Gergely F. and R. Bayliss (2015). Aurora-A-dependent control of TACC3 influences the rate of mitotic spindle assembly. **PLoS Genetics** Jul 2;11(7):e1005345.

Meunier S.*, Shvedunova M.*, Van Nguyen N., Avila L., Vernos I.¹ and A. Akhtar¹ (2015). An epigenetic regulator emerges as microtubule minus-end binding and stabilizing factor in mitosis. **Nature Comm** 6:7889.

¹ Corresponding authors

*These authors contributed equally to this work

2014

Lioutas A. and I. **Vernos** (2014). Aurora A: Working from dawn to dusk in mitosis. **Cell Cycle.** 2014 Jan 13;13(4).

Mortuza GB, Cavazza T, Garcia-Mayoral MF, Hermida D, Peset I, Pedrero JG, Merino N, Blanco FJ, Lyngsø J, Bruix M, Pedersen JS, **Vernos I,** Montoya G. (2014). XTACC3-

XMAP215 association reveals an asymmetric interaction promoting microtubule elongation. **Nat Commun.** Sep 29;5:5072.

2013

Pinyol R., Scroffani J. and **Vernos I.** (2013). The role of NEDD1 phosphorylation by Aurora A in chromosomal microtubule nucleation and spindle function. **Current Biology** 23(2):143-9.

Dos Santos HG, Abia D, Janowski R, Mortuza G, Bertero MG, Boutin M, Guarín N, Méndez-Giraldez R, Nuñez A, Pedrero JG, Redondo P, Sanz M, Speroni S, Teichert F, Bruix M, Carazo JM, Gonzalez C, Reina J, Valpuesta JM, **Vernos I.**, Zabala JC, Montoya G, Coll M, Bastolla U, Serrano L. (2013). Structure and non-structure of centrosomal proteins. **PLoS One.** 2013 May 9;8(5):e62633

Vernos I. (2013). Research management: Quotas are questionable. **Nature.** 495(7439):39. doi: 10.1038/495039a.

Lioutas A. and **I.Vernos** (2013). Aurora A kinase and its substrate TACC3 are required for central spindle assembly. **EMBO Rep.** Sep;14(9):829-36

2012

Meunier S. and **Vernos I.** (2012). Microtubule assembly during mitosis - from distinct origins to distinct functions? **J Cell Sci.** 2012 Jun 15;125(Pt 12):2805-14.

Sdelci S., Schütz M., Pinyol R., Bertran M.T., Regué L., Caelles C., **Vernos I.** and Roig J. (2012). Nek9 phosphorylation of NEDD1/GCP-WD contributes to Plk1 control of γ -tubulin recruitment to the mitotic centrosome. **Current Biology.** 2012 Aug 21;22(16):1516-23 PMID: 22818914

2011

Vanneste D, Ferreira V, **Vernos I.** (2011). Chromokinesins: localization-dependent functions and regulation during cell division. **Biochem Soc Trans.** 2011 Oct;39(5):1154-60.

Meunier S, **Vernos I.** (2011). K-fibre minus ends are stabilized by a RanGTP-dependent mechanism essential for functional spindle assembly. **Nat Cell Biol.** 2011 Nov 13. 13(12):1406-14 doi: 10.1038/ncb2372.

Commented in :

- **New and Views:** Petry S and Vale RD. A new cap for kinetochore fibre minus ends *Nature Cell Biology* 13,1389–1391(2011) doi:10.1038/ncb2387

- **'Research Highlights' in Nature Reviews Molecular Cell Biology:** Cytoskeleton: [A stabilizing influence for K-fibres.](#) Published online: 14 December 2011

2010

Sardon T, Pache RA, Stein A, Molina H, **Vernos I.**, Aloy P (2010). Uncovering new substrates for Aurora A kinase. **EMBO Rep.** 12:977-84.

2009

Sardon T., Cottin T., Xu J., Giannis A. and **I. Vernos** (2009), Development and Biological Evaluation of a novel Aurora A Kinase inhibitor. **ChemBioChem** 10(3):464-78

Evrard J.L., Pieuchot L., Vos J.W., **Vernos I.** and A.C. Schmit (2009). Plant TPX2 and related proteins. **Plant Signaling & Behavior** 4 (1): 69-72

Vanneste D., Takagi M., Imamoto N. and **I. Vernos** (2009). The role of Hk1p2 in the stabilization and maintenance of spindle bipolarity. **Current Biology** 19(20):1712-7.

2008

Eliscovich C., Peset I., **Vernos I.** and Mendez R. (2008). Localized CPE-mediated translation controls meiotic chromosome segregation. **Nature Cell Biology** 10(7):858-65

Bernasconi P, Cappelletti C, Navone F, Nessi V, Baggi F, **Vernos I**, Romaggi S, Confalonieri P, Mora M, Morandi L, Mantegazza R. (2008). The Kinesin Superfamily Motor Protein KIF4 Is Associated With Immune Cell Activation in Idiopathic Inflammatory Myopathies. **J Neuropathol Exp Neurol.** 2008 Jun;67(6):624-632.

Peset I and **Vernos I.** (2008). The TACC family of proteins: TACC-ling microtubule dynamics and centrosome function (2008). **Trends in Cell Biology** 18(8):379-88

Sardon T., Peset I., Petrova B. and **I. Vernos** (2008). Dissecting the role of Aurora a during spindle assembly. **EMBO J** 27(19):2567-79

Vernos I, Peters JM. (2008). Twenty years of cell-cycle conferences in Roscoff. **Nat Cell Biol.** 10(8):877-80

Vos J.W., Pieuchot L., Evrard J.L., Janski N., Bergdoll M., de Ronde D., Perez L.H., Sardon T., **Vernos I.** and A.C. Schmit (2008). The Plant TPX2 protein controls pro-spindle assembly before nuclear envelope breakdown. **Plant Cell** 20(10):2783-97

2006

Castoldi M. and **I.Vernos** (2006). Chromokinesin Xklp1 contributes to the regulation of microtubule density and organization during spindle assembly. **Biol Cell.** Mar;17(3):1451-60.

Christodoulou A., Lederer C.W., Surrey T., **Vernos I.** and N. Santama (2006). Motor protein KIFC5A interacts with Nubp1 and Nubp2 and is implicated in the regulation of centrosome duplication. **Cell Sci.** 119, 2035-2047

Brunet S., Zimmermann T., Reynaud E., **Vernos I.** E. Karsenti and R. Pepperkok (2006). Detection and quantification of protein-microtubules interactions using GFP photo-conversion. **Traffic**, 7: 1283-1289

Vernos I. (2006). Only one spindle, if you please ... **Cell Biol.** 2006 Sep;8(9):901-2.

Stauber T., Jeremy C. Simpson, Rainer Pepperkok and **Isabelle Vernos** (2006). A role for Kinesin-2 in COPI-dependent recycling between the ER and Golgi complex. **Current Biology** 16(22):2245-51.

2005

Young J., Stauber T., del Nery E., **Vernos I.**, Pepperkok R. and T. Nilsson. (2005). Regulation of microtubule-dependent recycling at the TGN by rab6A and rab6A'. **Mol Biol Cell.** 16(1):162-77

Gartner M., Sunder-Plassmann N., Seiler J., Utz M., **Vernos I.**, Surrey T, Giannis T. (2005). Development and Biological Evaluation of Potent and Specific Monastrol Analogues as Inhibitors of Mitotic Kinesin Eg5. *ChemBioChem*. 6(7):1173-7.

Peset I., Seiler J., Sardon T., Bejarano L.A., Rybina S. and **I. Vernos** (2005). Function and regulation of Maskin, a TACC family protein, in microtubule growth during mitosis. *Cell Biol*. Sep 26;170(7):1057-66.

Brown C.L., Maier K. C., Stauber T., Ginkel L. M., Wordeman L., **Vernos I.** and T. A. Schroer (2005). Kinesin II is a motor for late endosomes and lysosomes in vivo. *Traffic*. Dec;6(12):1114-24.

2004

Bayliss R, Sardon T, Ebert J., Lindner D., **Vernos I**, Conti E. (2004). Determinants for Aurora-A activation and Aurora-B discrimination by TPX2. *Cell Cycle* 3:404-407.

Betley J. Nicholas, Heinrich B., **Vernos I.**, Sardet C., Prodon F. and J.O.Deshler. (2004). Heterotrimeric Kinesin II mediates *Vg1* mRNA transport in *Xenopus* oocytes. *Curr.Biol*. 14:219-24.

Bringmann H., Skiniotis G., Spilker A., Kandels-Lewis S., **Vernos I.** and T. Surrey (2004). A kinesin-like motor inhibits microtubule dynamic instability. *Science* 303:1519-22.

Vernos. (2004). The chromosomal passenger complex takes center stage during mitosis. *Dev Cell*. 7(2):145-6.

Gruss O. and **I. Vernos.** (2004). The mechanism of spindle assembly: functions of Ran and its target TPX2. *J.Cell Biol*. 166(7):949-55

Brunet S., Sardon T., Zimmerman T., Wittmann T., Pepperkok R., Karsenti E., and **I. Vernos.** (2004). Characterization of the TPX2 domains involved in microtubule nucleation and spindle assembly in *Xenopus* egg extracts. *Mol. Biol. Cell* 15(12):5318-28.

Perez-Ferreiro C., **Vernos I.** and I. Correas. (2004). Protein 4.1R regulates interphase microtubule organization at the centrosome. *J. Cell Sci*. 117: 6197-6206

2003

Bayliss R, Sardon T, **Vernos I**, Conti E. (2003). Structural basis of Aurora-A activation by TPX2 at the mitotic spindle. *Mol Cell*. 12, 851-62.

Deacon S.W., Serpinskaya A.S., Vaughan P.S., Lopez Fanarraga M, **Vernos I.**, Vaughan K.T. and Gelfand V.I. (2003). Dynactin is required for bidirectional organelle transport. *J.Cell Biol*. 160, 297-301.

2002

Gruss, O. J., Wittmann, M., Yokoyama, H., Pepperkok, R., Kufer, T., Sillje, H., Karsenti, E., Mattaj, I. W. and **Vernos, I.** (2002). Chromosome-induced microtubule assembly mediated by TPX2 is required for spindle formation in HeLa cells. *Nat Cell Biol* 4, 871-879.

Perez, L. H., Antonio, C., Flament, S., **Vernos, I** and Nebreda, A. R. (2002). Xkid chromokinesin is required for the meiosis I to meiosis II transition in *Xenopus laevis* oocytes. **Nat Cell Biol** 4, 737-42.

2001

Brunet, S. and **Vernos, I.** (2001). Chromosome motors on the move. From motion to spindle checkpoint activity. **EMBO Rep** 2, 669-73.

De Marco V, Burkhard P, Le Bot N, **Vernos I**, Hoenger A. (2001). Analysis of heterodimer formation by Xklp3A/B, a newly cloned kinesin-II from *Xenopus laevis*. **EMBO J.** 20, 3370-3379. .

Gruss, O.J., Carazo-Salas, R.E., Schatz, C.A., Guarguaglini, G. , Kast, J., Wilm, M., Le Bot, N., **Vernos, I.**, Karsenti, E. and Mattaj, I.W. (2001). Ran Induces Spindle Assembly by Reversing the Inhibitory Effect of Importin on TPX2 Activity. **Cell**, 104, 83-93. .

Karsenti, E. and **Vernos, I.** (2001). The mitotic spindle: a self-made machine. **Science** 294, 543-7.

2000

Westerholm-Parvinen, A, **Vernos, I.** and Serrano, L. (2000). Kinesin Subfamily UNC104 Contains a FHA Domain: Boundaries and Physicochemical Characterization. **FEBS Let.** 486, 285-290.

Antonio, C., Ferby, I., Wilhelm, H., Jones, M., Karsenti, E., Nebreda, A. R., and **Vernos, I.** (2000). Xkid, a chromokinesin required for chromosome alignment on the metaphase plate. **Cell** 102, 425-35.

Wittmann, T., Wilm, M., Karsenti, E., and **Vernos, I.** (2000). TPX2, A novel *Xenopus* MAP involved in spindle pole organization. **J Cell Biol** 149, 1405-18.

Wittmann, T. and **Vernos, I.** (2000). A lesson from AMuNdsen on how NuMA can reach the pole. **The ELSO Gazette**: e-magazine of the European Life Scientist Organization (<http://www.the-elsogazette/magazines/issue1/mreviews/mreviews1.asp>), 2

1998

Le Bot, N., Antony, C., White, J., Karsenti, E. and **I. Vernos** (1998). Role of Xklp3, a subunit of the Kinesin II heterotrimeric complex, in Golgi dynamics. **J. Cell Biol.**, 143: 1559-1573.

Tuma, C.M., Zill, A., Le Bot, N., **Vernos, I.** and V. Gelfand (1998). Kinesin II is the microtubule motor protein responsible for pigment dispersion in *Xenopus* melanophores. **J. Cell Biol.**, 143: 1547-1558.

Wittmann, T, Boleti, H., Antony, C., Karsenti, E. and **I. Vernos** (1998). Localization of the kinesin-like protein Xklp2 to spindle poles requires a leucine zipper, a microtubule-associated protein and dynein. **J. Cell Biol.**, 143: 673-685.

Walczak, C.E., **Vernos, I.**, Mitchison, T.J., Karsenti, E. and R. Heald. (1998). Spindle assembly around chromatin beads in *Xenopus* egg extracts: The role of different microtubule-based motor proteins in establishing spindle bipolarity. **Curr. Biol.** , 8: 903-913.

1996

Vernos I and E.Karsenti (1996). Motors involved in spindle assembly and chromosome segregation. *Curr.Opin.Cell Biol.* 8: 4-9.

Boleti H., Karsenti E and **I.Vernos** (1996). Xklp2, a new *Xenopus* centrosomal kinesin-like protein required for centrosome separation during mitosis. *Cell*, 84: 49-59.

Karsenti E., Boleti H. and **I.Vernos** (1996). The role of microtubule dependent motors in centrosome movements and spindle assembly and chromosome segregation. *Sem.Dev.Cell. Biol.*, 7: 367-378.

Karsenti E.and **I.Vernos** (1996). Construire le squelette des cellules. *La Recherche*, 292: 34-36.

1995

Vernos I, Raats J., Hirano T., Heasman J., Karsenti E. and C.Wylie (1995). Xklp1, a chromosomal *Xenopus* kinesin-like protein essential for spindle organization and chromosome positioning. *Cell*, 81: 117-127.

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