

## **All Publications Marie-Emilie Terret**

(\* corresponding authors):

- Aberrant cortex contractions impact mammalian oocyte quality. Nikalayevich E, Letort G, De Labbey G, Todisco E, Shihabi A, Turlier H, Voituriez R, Yahiatene M, Pollet-Villard X, Innocenti M, Schuh M, Terret ME\*, Verlhac MH\*. *Developmental Cell* 59(7):841-852.e7 (2024).
- The filipodia-like protrusions of adjacent somatic cells shape the developmental potential of mouse oocytes. Crozet F, Letort G, Da Silva C, Eichmuller A, Tortorelli AF, Belle M, Dumont J, Piolot T, Dauphin A, Couplier F, Chédotal A, Maître JL, Verlhac MH, Clarke HJ, Terret ME\*. *Life Science Alliance* 6(6):e202301963 (2023).
- Cytoplasmic forces functionally reorganize nuclear condensates in oocytes. Al Jord A\*, Letort G, Chanet S, Tsai FC, Antoniewski C, Eichmuller A, Da Silva C, Huynh JR, Gov NS, Voituriez R, Terret ME, Verlhac MH. *Nature Commun* 13(1):5070 (2022).
- MYO10 promotes transzonal projection-dependent germ line-somatic contact during mammalian folliculogenesis. Granados-Aparici S, Volodarsky-Perel A, Yang Q, Anam S, Tulandi T, Buckett W, Son WY, Younes G, Chung JT, Jin S, Terret ME, Clarke HJ\*. *Biology of Reproduction*, 107(2):474–487 (2022).
- An interpretable and versatile machine learning approach for oocyte phenotyping. Letort G\*, Eichmuller A, Da Silva C, Nikalayevich E, Crozet F, Salle J, Minc N, Labrune E, Wolf JP, Terret ME, Verlhac MH. *J Cell Sci*. jcs.260281 (2022).
- Myosin-X is dispensable for spindle morphogenesis and positioning in mouse oocyte. Crozet F, Da Silva C, Verlhac MH\*, Terret ME\*. *Development* 148: dev199364 (2021).
- Artificially decreasing cortical tension generates aneuploidy in mouse oocytes. Bennabi I, Crozet F°, Nikalayevich E°, Chaigne A, Letort G, Manil-Ségalen M, Campillo C, Cadart C, Othmani A, Attia R, Sykes C, Genovesio A, Verlhac MH\*, Terret ME\*. *Nat Commun* 11: 1649-1663 (2020).
- Active diffusion in oocytes non-specifically centers large objects during Prophase I and Meiosis I. Colin A, Letort G, Razin N, Almonacid M, Ahmed W, Betz T, Terret ME, Gov NS, Voituriez R, Gueroui Z\*, Verlhac MH\*. *J Cell Biol* 219: e201908195 (2020).
- A computational model of the early stages of acentriolar meiotic spindle assembly. Letort G\*, Bennabi I, Dmitrieff S, Nedelec F, Verlhac MH, Terret ME\*. *Mol Biol Cell* 30:863-875 (2019).
- Chromosome structural anomalies due to aberrant spindle forces exerted at gene editing sites in meiosis. Manil-Ségalen M, Łuksza M, Kanaan J, Marthiens V, Lane SIR, Jones KT, Terret ME, Basto R, Verlhac MH. *J Cell Biol* 217: 3416-3430 (2018).
- Shifting meiotic to mitotic spindle assembly in oocytes disrupts chromosome alignment. Bennabi I, Quéguiner I, Kolano A, Boudier T, Mailly P, Verlhac MH\*, Terret ME\*. *EMBO Rep* 19: 368-381 (2018).
- F-actin mechanics control spindle centring in the mouse zygote. Chaigne A, Campillo C, Gov NS, Voituriez R, Sykes C, Verlhac MH\*, Terret ME\*. *Nat Commun*. 7:10253 (2016).

- A narrow window of cortical tension guides asymmetric spindle positioning in the mouse oocyte. Chaigne A, Campillo C, Gov NS, Voituriez R, Sykes C, Verlhac MH\*, Terret ME\*. *Nat Commun.* 6:6027 (2015).
- A soft cortex is essential for asymmetric spindle positioning in mouse oocytes. Chaigne A, Campillo C, Gov NS, Voituriez R, Azoury J, Umaña-Diaz C, Almonacid M, Queguiner I, Nassoy P, Sykes C, Verlhac MH\*, Terret ME\*. *Nat Cell Biol.* 15(8):958-66 (2013).
- Mps1 directs the assembly of Cdc20 inhibitory complexes during interphase and mitosis to control M phase timing and spindle checkpoint signaling. Maciejowski J, George KA, Terret ME, Zhang C, Shokat KM, Jallepalli PV\*. *J Cell Biol.* 190(1):89-100 (2010).
- Cohesin acetylation speeds the replication fork. Terret ME, Sherwood R, Rahman S, Qin J, Jallepalli PV\*. *Nature.* 462(7270):231-4 (2009).
- The SIOD disorder protein SMARCAL1 is an RPA-interacting protein involved in replication fork restart. Ciccio A, Bredemeyer AL, Sowa ME, Terret ME, Jallepalli PV, Harper JW, Elledge SJ\*. *Genes Dev.* 23(20):2415-25 (2009).
- Requirements for Cdk7 in the assembly of Cdk1/cyclin B and activation of Cdk2 revealed by chemical genetics in human cells. Laroche S, Merrick KA, Terret ME, Wohlbold L, Barboza NM, Zhang C, Shokat KM, Jallepalli PV, Fisher RP\*. *Mol Cell.* 25(6):839-50 (2007).
- A centriole- and RanGTP-independent spindle assembly pathway in meiosis I of vertebrate oocytes. Dumont J, Petri S, Pellegrin F, Terret ME, Bohnsack MT, Rassinier P, Georget V, Kalab P, Gruss OJ, Verlhac MH\*. *J Cell Biol.* 176(3):295-305 (2007).
- The regulation of competence to replicate in meiosis by Cdc6 is conserved during evolution. Lemaître JM, Bocquet S, Terret ME, Namdar M, Aït-Ahmed O, Kearsley S, Verlhac MH, Méchali M\*. *Mol Reprod Dev.* 69(1):94-100 (2004).
- The meiosis I-to-meiosis II transition in mouse oocytes requires separase activity. Terret ME°, Wassmann K°, Waizenegger I, Maro B, Peters JM, Verlhac MH\*. *Curr Biol.* 13(20):1797-802 (2003).
- DOC1R: a MAP kinase substrate that control microtubule organization of metaphase II mouse oocytes. Terret ME, Lefebvre C, Djiane A, Rassinier P, Moreau J, Maro B, Verlhac MH\*. *Development.* 130(21):5169-77 (2003).
- Meiotic spindle stability depends on MAPK-interacting and spindle-stabilizing protein (MISS), a new MAPK substrate. Lefebvre C, Terret ME, Djiane A, Rassinier P, Maro B, Verlhac MH\*. *J Cell Biol.* 157(4):603-13 (2002).
- RINGO efficiently triggers meiosis resumption in mouse oocytes and induces cell cycle arrest in embryos. Terret ME, Ferby I, Nebreda AR, Verlhac MH\*. *Biol Cell.* 93(1-2):89-97 (2001).
- Meiotic maturation of the mouse oocyte requires an equilibrium between cyclin B synthesis and degradation. Ledan E, Polanski Z, Terret ME, Maro B\*. *Dev Biol.* 232(2):400-13 (2001).

## **Reviews and book chapters Marie-Emilie Terret**

- Mechanical characterization of murine oocytes by Atomic Force Microscopy. Bulteau R, Barbier L, Lamour G, Piolot T, Labrune E, Campillo C\*, Terret ME\*. *Methods in Molecular Biology* 2740:117-124 (2024).
- Meiosis: Actin and microtubule networks drive chromosome clustering in oocytes. Nikalayevich E\*, Terret ME. *Current Biology*, 33(7):R272-R274 (2023).
- Methods for Assessing Oocyte Quality: A Review of Literature. Lemseffer Y\*, Terret ME, Campillo C, Labrune E. *Biomedicines*, 10(9):2184 (2022).
- Cortical tension of the oocyte and euploidy: the right balance. Bennabi I\*, Verlhac MH, Terret ME\*. *Med Sci* 36:965-968 (2020).
- Nuclear positioning as an integrator of cell fate. Almonacid M\*, Terret ME, Verlhac MH. *Current Opin Cell Biol* 56:122-129 (2019.)
- Book edition in *Methods in Molecular Biology at Springer Protocols* by Verlhac MH & Terret ME. [Doi.org/10.1007/978-1-4939-8603-3](https://doi.org/10.1007/978-1-4939-8603-3) (2018).
- Control of nucleus positioning in mouse oocytes. Almonacid M\*, Terret ME, Verlhac MH. *Semin Cell Dev Biol*. pii: S1084-9521(17)30358-0 (2017).
- Asymmetries and Symmetries in the Mouse Oocyte and Zygote. Chaigne A, Terret ME, Verlhac MH\*. *Results Probl Cell Differ*. 61:285-299 (2017).
- Meiotic spindle assembly and chromosome segregation in oocytes. Bennabi I\*, Terret ME, Verlhac MH\*. *J Cell Biol*. 215(5):611-619 (2016).
- Oocyte Maturation and Development. Verlhac MH\*, Terret ME. *F1000Research*. 5. pii: F1000 Faculty Rev-309 (2016).
- Cortex softening: a prerequisite for the asymmetry of oocyte first division. Chaigne A, Verlhac MH\*, Terret ME\*. *Med Sci (Paris)*. 30(1):18-21 (2014).
- Actin-based spindle positioning: new insights from female gametes. Almonacid M\*, Terret ME, Verlhac MH\*. *J Cell Sci*. 127(Pt 3):477-83 (2014).
- Mouse oocyte, a paradigm of cancer cell. Terret ME\*, Chaigne A, Verlhac MH\*. *Cell Cycle*. 12(21):3370-6 (2013).
- Spindle positioning in mammalian oocytes. Chaigne A, Verlhac MH\*, Terret ME\*. *Exp Cell Res*. 318(12):1442-7 (2012).
- Control of the oocyte-to-embryo transition by the ubiquitin-proteolytic system in mouse and *C. elegans*. Verlhac MH\*, Terret ME, Pintard L. *Curr Opin Cell Biol*. 22(6):758-63 (2010).
- Oogenesis: The Universal Process. Terret ME. Wiley-Blackwell 2010, 313-341.

- Cohesin acetylation: a sesame for replication forks to break free. Terret ME. Med Sci (Paris). 26(3):238-41 (2010).
- Functional dissection of mitotic regulators through gene targeting in human somatic cells. Berdougou E, Terret ME, Jallepalli PV\*. Methods Mol Biol. 545:21-37 (2009).
- Meiotic weakness: the first division. Terret ME, Wassmann K\*. Med Sci (Paris). 24(2):197-203 (2008).
- Meiosis: separate strikes twice. Terret ME, Jallepalli PV\*. Nat Cell Biol. 8(9):910-1 (2006).
- Specificities of meiosis in the mouse oocyte. Verlhac MH, Lefebvre C, Terret ME, Pahlavan G, Rassinier P, Maro B\*. Med Sci (Paris). Vol. 17, N° 10; p.1046-52 (2001).

**Patent (alphabetical order):**

- Barbier L, Bulteau R, Campillo C, Terret ME, Verlhac MH. Microfluidic device for use in a system for measuring at least one biomarker of at least one oocyte. European patent filed in 2023, PCT extension in 2024 (EP2024/059100).