

All publications Marie-Emilie Terret

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Research articles (*co-first authors, *corresponding authors)

1. R. Bulteau⁺, L. Barbier⁺, G. Lamour, Y. Lemseffer, M.-H. Verlhac, N. Tessandier, E. Labrune, M. Lenz, **M.-É. Terret***, C. Campillo*, Atomic Force Microscopy reveals differences in mechanical properties linked to cortical structure in mouse and human oocytes. *Small*, e2500221 (2025).
2. L. Barbier⁺, R. Bulteau⁺, B. Rezaei, T. Panier, G. Letort, E. Labrune, M.-H. Verlhac, F. Vernerey, C. Campillo*, **M.-É. Terret***, Noninvasive characterization of oocyte deformability in microconstrictions. *Science Advances*, 11(8):eadr9869 (2025).
3. E. Nikalayevich, G. Letort, G. De Labbey, E. Todisco, A. Shihabi, H. Turlier, R. Voituriez, M. Yahiatene, X. Pollet-Villard, M. Innocenti, M. Schuh, **M.-É. Terret***, M.-H. Verlhac*, Aberrant cortex contractions impact mammalian oocyte quality. *Developmental Cell*, 59(7):841-852.e7 (2024).
4. F. Crozet, G. Letort, C. da Silva, A. Eichmuller, A.F. Tortorelli, M. Belle, J. Dumont, T. Piolot, A. Dauphin, F. Culpier, A. Chédotal, J.-L. Maître, M.-H. Verlhac, H.J. Clarke, **M.-É. Terret***, The filipodia-like protrusions of adjacent somatic cells shape the developmental potential of mouse oocytes. *Life Science Alliance*, 6(6):e202301963 (2023).
5. A. Al Jord*, G. Letort, S. Chanet, F.-C. Tsai, C. Antoniewski, A. Eichmuller, C. da Silva, J.-R. Huynh, N.S. Gov, R. Voituriez, **M.-É. Terret**, M.-H. Verlhac, Cytoplasmic forces functionally reorganize nuclear condensates in oocytes. *Nature Communications*, 13(1):5070 (2022).
6. S. Granados-Aparici, A. Volodarsky-Perel, Q. Yang, S. Anam, T. Tulandi, W. Buckett, W.-Y. Son, G. Younes, J.-T. Chung, S. Jin, **M.-E. Terret**, H. Clarke*, MYO10 promotes transzonal projection-dependent germ line-somatic contact during mammalian folliculogenesis. *Biology of Reproduction*, 107(2):474-487 (2022).
7. G. Letort*, A. Eichmuller, C. da Silva, E. Nikalayevich, F. Crozet, J. Salle, N. Minc, E. Labrune, J.-P. Wolf, **M.-E. Terret**, M.-H. Verlhac, An interpretable and versatile machine learning approach for oocyte phenotyping. *Journal of Cell Science*, 135(13):jcs260281 (2022).
8. F. Crozet, C. da Silva, M.-H. Verlhac*, **M.-E. Terret***, Myosin-X is dispensable for spindle morphogenesis and positioning in the mouse oocyte. *Development*, 148(7):dev199364 (2021).
9. I. Bennabi, F. Crozet⁺, E. Nikalayevich⁺, A. Chaigne, G. Letort, M. Manil-Ségalen, C. Campillo, C. Cadart, A. Othmani, R. Attia, A. Genovesio, M.-H. Verlhac*, **M.-E. Terret***, Artificially decreasing cortical tension generates aneuploidy in mouse oocytes. *Nature Communications*, 11(1):1649 (2020).
10. A. Colin, G. Letort, N. Razin, M. Almonacid, W. Ahmed, T. Betz, **M.-E. Terret**, N.S. Gov, R. Voituriez, Z. Gueroui*, M.-H. Verlhac*, Active diffusion in oocytes nonspecifically centers large objects during prophase I and meiosis I. *Journal of Cell Biology*, 219(3):e201908195 (2020).
11. G. Letort*, I. Bennabi, S. Dmitrieff, F. Nedelec, M.-H. Verlhac, **M.-E. Terret***, A computational model of the early stages of acentriolar meiotic spindle assembly. *Molecular Biology of the Cell*, 30(7):863-875 (2019).
12. I. Bennabi, I. Quéguiner, A. Kolano, T. Boudier, P. Mailly, M.-H. Verlhac*, **M.-E. Terret***, Shifting meiotic to mitotic spindle assembly in oocytes disrupts chromosome alignment. *EMBO Reports*, 19(2):368-381 (2018).
13. M. Manil-Ségalen, M. Łuksza, J. Kanaan, V. Marthiens, S.I.R. Lane, K.T. Jones, **M.-E. Terret**, R. Basto, M.-H. Verlhac*, Chromosome structural anomalies due to aberrant spindle forces exerted at gene editing sites in meiosis. *Journal of Cell Biology*, 217(10):3416-3430 (2018).
14. A. Chaigne, C. Campillo, R. Voituriez, N.S. Gov, C. Sykes, M.-H. Verlhac*, **M.-E. Terret***, F-actin mechanics control spindle centering in the mouse zygote. *Nature Communications*, 7:10253-10267 (2016).
15. A. Chaigne, C. Campillo, N.S. Gov, R. Voituriez, Sykes C, C. Sykes, M.-H. Verlhac*, **M.-E. Terret***, A narrow window of cortical tension guides asymmetric spindle positioning in the mouse oocyte. *Nature Communications*, 6: 6027-6037 (2015).
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17. J. Maciejowski, K.A. George, **M.-E. Terret**, C. Zhang, K.M. Shokat, P.V. Jallepalli*, Mps1 directs the assembly of Cdc20 inhibitory complexes during interphase and mitosis to control M phase timing and spindle checkpoint signaling *Journal of Cell Biology*, 190(1):89-100 (2010).
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20. S. Larochelle, KA. Merrick, [M.-E. Terret](#), L. Wohlbold, NM. Barboza, C. Zhang, KM. Shokat, PV. Jallepalli, RP. Fisher*, Requirements for Cdk7 in the assembly of Cdk1/cyclin B and activation of Cdk2 revealed by chemical genetics in human cells. **Molecular Cell**, 25(6):839-50 (2007).
21. J. Dumont, S. Petri, F. Pellegrin, [M.-E. Terret](#), MT. Bohnsack, P. Rassinier, V. Georget, P. Kalab, OJ. Gruss, M.-H. Verlhac*, A centriole- and RanGTP-independent spindle assembly pathway in meiosis I of vertebrate oocytes. **Journal of Cell Biology**, 176(3):295-305 (2007).
22. JM. Lemaître, S. Bocquet, [M.-E. Terret](#), M. Namdar, O. Aït-Ahmed, S. Kearsey, M.-H. Verlhac, M. Méchali *, The regulation of competence to replicate in meiosis by Cdc6 is conserved during evolution. **Molecular Reproduction & Development**, 69(1):94-100 (2004).
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24. [M.-E. Terret](#), C. Lefebvre, A. Djiane, P. Rassinier, J. Moreau, B. Maro, M.-H. Verlhac*, DOC1R: a MAP kinase substrate that control microtubule organization of metaphase II mouse oocytes. **Development**, 130(21):5169-77 (2003).
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27. E. Ledan, Z. Polanski, [M.-E. Terret](#), B. Maro*, Meiotic maturation of the mouse oocyte requires an equilibrium between cyclin B synthesis and degradation. **Developmental Biology**, 232(2):400-13 (2001).

Reviews and book chapters (*co-first authors, *corresponding authors)

1. M.-H. Verlhac*, [M.-E. Terret](#)*, editors of Mammalian Oocyte Development Methods and Protocols, **Methods in Molecular Biology**, Humana Press, (2025).
2. R. Bulteau, L. Barbier, G. Lamour, T. Piolot, E. Labrune, C. Campillo*, [M.-E. Terret](#)*, Mechanical characterization of murine oocytes by Atomic Force Microscopy. **Methods in Molecular Biology**, 2740:117-124 (2024).
3. E. Nikalayevich*, [M.-E. Terret](#), Meiosis: Actin and microtubule networks drive chromosome clustering in oocytes. **Current Biology**, 33(7):R272-R274 (2023).
4. Y. Lemseffer*, [M.-E. Terret](#), C. Campillo, E. Labrune, Methods for Assessing Oocyte Quality: A Review of Literature. **Biomedicines**, 10(9):2184 (2022).
5. I. Bennabi*, M.-H. Verlhac, [M.-E. Terret](#)*, Tension corticale de l'ovocyte et euploïdie: la juste mesure. **Médecine/Sciences**, 36(11):965-968 (2020).
6. M. Almonacid*, [M.-E. Terret](#), M.-H. Verlhac, Nuclear positioning as an integrator of cell fate. **Current Opinion in Cell Biology**, 56:122-129 (2019).
7. M. Almonacid*, [M.-E. Terret](#), M.-H. Verlhac, Control of nucleus positioning in mouse oocytes. **Seminars in Cell and Developmental Biology**, 82:34-40 (2018).
8. M.-H. Verlhac*, [M.-E. Terret](#)*, editors of Mouse Oocyte Development Methods and Protocols, **Methods in Molecular Biology**, Humana Press, (2018).
9. A. Chaigne, [M.-E. Terret](#), M.-H. Verlhac*. Asymmetries and symmetries in the mouse oocyte and zygote. Book Chapter in **Results and Problems in Cell Differentiation**, 61:285-299 (2017).
10. I. Bennabi*, [M.-E. Terret](#), M.-H. Verlhac *. Meiotic spindle assembly and chromosome segregation in oocytes. **Journal of Cell Biology**, 215: 611-619 (2016).
11. M.-H. Verlhac* & [M.-E. Terret](#)*. Oocyte Maturation and Development. **F1000Research**, 5 : 309-317 (2016).
12. A. Chaigne, M.-H. Verlhac, [M.-E. Terret](#)*. Cortex softening: a prerequisite for the asymmetry of oocyte first division. **Médecine/Sciences**, 30(1):18-21 (2014).
13. M. Almonacid, [M.-E. Terret](#), M.-H. Verlhac*. Actin-based spindle positioning: new insights from female gametes. **Journal of Cell Science**, 127(Pt 3):477-83 (2014).
14. [M.-E. Terret](#)*, Chaigne, M.-H. Verlhac*. Mouse oocyte, a paradigm of cancer cell. **Cell Cycle**, 12(21):3370-6 (2013).
15. A. Chaigne, M.-H. Verlhac, [M.-E. Terret](#)*. Spindle positioning in mammalian oocytes. **Experimental Cell Research**, 318(12):1442-7 (2012).
16. M.-H. Verlhac, [M.-E. Terret](#), L.Pintard. Control of the oocyte-to-embryo transition by the ubiquitin-proteolytic system in mouse and C. elegans. **Current Opinion in Cell Biolology**, 22(6):758-63 (2010).
17. [M.-E. Terret](#)*. Oogenesis: The Universal Process. **Wiley-Blackwell**, 313-341 (2010).
18. [M.-E. Terret](#)*, Cohesin acetylation: a sesame for replication forks to break free. **Médecine/Sciences**, 26(3):238-41 (2010).

19. E. Berdougou, [M.-E. Terret](#), PV. Jallepalli*, Functional dissection of mitotic regulators through gene targeting in human somatic cells. **Methods in Molecular Biology**, 545:21-37 (2009).
20. [M.-E. Terret](#), K. Wassmann*, Meiotic weakness: the first division. **Médecine/Sciences**, 24(2):197-203 (2008).
21. [M.-E. Terret](#), PV. Jallepalli*, Meiosis: separase strikes twice. **Nature Cell Biology**, 8(9):910-1 (2006).
22. M.-H. Verlhac, C. Lefebvre, [M.-E. Terret](#), G. Pahlavan, P. Rassinier, B. Maro*, Specificities of meiosis in the mouse oocyte. **Médecine/Sciences**, Vol. 17, N° 10; p.1046-52 (2001).

Patent (2018-2025, alphabetical order)

1. L. Barbier, R. Bulteau, C. Campillo, [M.-E. Terret](#), M.-H. Verlhac, 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).