

Publications de l'équipe *Nuclear Organization and Post-Translational Control in Physio-Pathology*

2008-2022

Selected Publications:

- Sahin, U., de Thé, H., and Lallemand-Breitenbach, V. (2022). Sumoylation in Physiology, Pathology and Therapy. *Cells* 11, 814.
- Wu, H.-C., Rerolle, D., Berthier, C., Hleihel, R., Sakamoto, T., Quentin, S., Benhenda, S., Morganti, C., Wu, C., Conte, L., Rimsky, S., Sebert, M., Clappier, E., Souquere, S., Gachet, S., Soulier, J., Durand, S., Trowbridge, J.J., Benit, P., Rustin, P., El Hajj, H., Raffoux, E., Ades, L., Itzykson, R., Dombret, H., Fenaux, P., Espeli, O., Kroemer, G., Brunetti, L., Mak, T.W., Lallemand-Breitenbach, V., Bazarbachi, A., Falini, B., Ito, K., Martelli, M.P., de Thé, H., (2021). Actinomycin D targets NPM1c-primed mitochondria to restore PML-driven senescence in AML therapy. *Cancer Discov* candisc.0177.2021.
- Wu, H.C., Rérolle, D., and de Thé, H. (2021). PML/RARA destabilization by hyperthermia: a new model for oncogenic fusion protein degradation? *Blood Cancer Discov* 2, 300–301.
- Hleihel, R., El Hajj, H., Wu, H.-C., Berthier, C., Zhu, H.-H., Massoud, R., Chakhachiro, Z., El Sabban, M., De Thé, H., and Bazarbachi, A. (2021). A Pin1/PML/P53 axis activated by retinoic acid in NPM-1c-acute myeloid leukemia. *Haematologica*.
- Geoffroy, M.-C., Esnault, C., and de Thé, H. (2021). Retinoids in haematology : a timely revival? *Blood*.
- Esnault, C., Rahmé, R., and de Thé, H. (2021). [Arsenic: The gold standard for acute promyelocytic leukaemia with FLT3-ITD mutation]. *Med Sci (Paris)* 37, 544–546.
- Esnault, C., Rahmé, R., Rice, K.L., Berthier, C., Gaillard, C., Quentin, S., Maubert, A.-L., Kogan, S., and de Thé, H. (2019). FLT3-ITD impedes retinoic acid, but not arsenic, responses in murine acute promyelocytic leukemias. *Blood* 133, 1495–1506.
- Wang, L., Gao, S., Wang, H., Xue, C., Liu, X., Yuan, H., Wang, Z., Chen, S., Chen, Z., de Thé, H., et al. (2019). Interferon regulatory factor 2 binding protein 2b regulates neutrophil versus macrophage fate during zebrafish definitive myelopoiesis. *Haematologica*.
- De Thé, H. (2018). Differentiation therapy revisited. *Nat. Rev. Cancer* 18, 117–127.

- Lehmann-Che, J., Bally, C., Letouzé, E., Berthier, C., Yuan, H., Jollivet, F., Ades, L., Cassinat, B., Hirsch, P., Pigneux, A., Mozziconacci, M.-J., Kogan, S., Fenaux, P., de Thé, H., (2018). Dual origin of relapses in retinoic-acid resistant acute promyelocytic leukemia. *Nat Commun* 9, 2047.
- Lallemand-Breitenbach, V., and de Thé, H. (2018). PML nuclear bodies: from architecture to function. *Curr. Opin. Cell Biol.* 52, 154–161.
- Wang, P., Benhenda, S., Wu, H., Lallemand-Breitenbach, V., Zhen, T., Jollivet, F., Peres, L., Li, Y., Chen, S.-J., Chen, Z., et al. (2018). RING tetramerization is required for nuclear body biogenesis and PML sumoylation. *Nat Commun* 9, 1277.
- Niwa-Kawakita, M., Ferhi, O., Soilihi, H., Le Bras, M., Lallemand-Breitenbach, V., and de Thé, H. (2017). PML is a ROS sensor activating p53 upon oxidative stress. *J. Exp. Med.*
- de Thé, H., Pandolfi, P. P., and Chen, Z. (2017). Acute Promyelocytic Leukemia: A Paradigm for Oncoprotein-Targeted Cure. *Cancer Cell* 32, 552–560.
- Sahin, U., Ferhi, O., Jeanne, M., Benhenda, S., Berthier, C., Jollivet, F., Niwa-Kawakita, M., Faklaris, O., Setterblad, N., de Thé, H., et al. (2014). Oxidative stress-induced assembly of PML nuclear bodies controls sumoylation of partner proteins. *J. Cell Biol.* 204, 931–945.
- Sahin, U., Ferhi, O., Carnec, X., Zamborlini, A., Peres, L., Jollivet, F., Vitaliano-Prunier, A., de Thé, H., and Lallemand-Breitenbach, V. (2014). Interferon controls SUMO availability via the Lin28 and let-7 axis to impede virus replication. *Nat Commun* 5, 4187.
- Ablain, J., Rice, K., Soilihi, H., de Reynies, A., Minucci, S., and de Thé, H. (2014). Activation of a promyelocytic leukemia-tumor protein 53 axis underlies acute promyelocytic leukemia cure. *Nat. Med.* 20, 167–174.
- Lehmann-Che, J., Bally, C., and de Thé, H. (2014). Resistance to therapy in acute promyelocytic leukemia. *New England Journal of Medicine* 371, 1170–1172.
- Lo-Coco, F., Avvisati, G., Vignetti, M., Thiede, C., Orlando, S. M., Iacobelli, S., Ferrara, F., Fazi, P., Cicconi, L., Di Bona, E., et al. (2013). Retinoic Acid and Arsenic Trioxide for Acute Promyelocytic Leukemia. *New England Journal of Medicine* 369, 111–121.
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- Lallemand-Breitenbach, V., and de Thé, H. (2010). PML nuclear bodies. *Cold Spring Harb Perspect Biol* 2, a000661.
- de Thé, H., and Chen, Z. (2010). Acute promyelocytic leukaemia: novel insights into the mechanisms of cure. *Nat. Rev. Cancer* 10, 775–783.
- Zhang, X.-W., Yan, X.-J., Zhou, Z.-R., Yang, F.-F., Wu, Z.-Y., Sun, H.-B., Liang, W.-X., Song, A.-X., Lallemand-Breitenbach, V., Jeanne, M., Zhang Q.-Y., Yang H.-Y., Huang Q.-H., Zhou G. B., Tong J. H., Zhang Y., Wu J. H., Hu H. Y., de Thé H., Chen S. J., Chen Z. (2010). Arsenic trioxide controls the fate of the PML-RAR α oncoprotein by directly binding PML. *Science* 328, 240–243.

- Lallemand-Breitenbach, V., Jeanne, M., Benhenda, S., Nasr, R., Lei, M., Peres, L., Zhou, J., Zhu, J., Raught, B., and de Thé, H. (2008). Arsenic degrades PML or PML-RARalpha through a SUMO-triggered RNF4/ubiquitin-mediated pathway. *Nat. Cell Biol.* 10, 547–555.
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