Hugues de Thé
Born January 18, 1959 in Marseille,
French citizen, married, 4 children
INSERM/CNRS UMR 944 Paris 7 UMR 7212 Hospital St Louis
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Degrees
- MD: University of Paris V (1989)
- PhD: University of Paris VI (1990)
- H index : 72, over 20 000 citations.

Professional experience
- Residency Paris Hospitals, Medical Research (1984-1988)
- MD/PhD student, post-doc (INSERM U163) P. Tiollais, Pasteur Institute (1985-1991)
- Assistant professor, CNRS UPR 043, Hospital St. Louis, Paris (1991-1993)
- Associate professor, University of Paris, Hospital St. Louis, Paris (1993-1995)
- Head, CNRS/University of Paris VII Research Unit, Hospital St. Louis, Paris (1995-)
- Professor of molecular biology, University of Paris (1995-2014)
- Attending physician, St. Louis Hospital, Paris (1995-)
- Professor at the Collège de France (2014)

Scientific advisory boards (selected)
- Adviser to the director of INSERM (1997-2001)
- President scientific council of ARC (2003-2005)
- Bettencourt Schuller foundation, president of the scientific advisory board (2014-)

Honours and awards (selected)
- Prix R. Mandé (French Academy of Medicine) 1996
- Prix Rosen (Fondation for Medical Research) 1999
- Prix Mergier-Bourdeix (French Academy of Science) 2004
- Member of EMBO (2004)
- Prix Griffuel, ARC (2010)
- Prix Claude Bernard, City of Paris (2010)
- French Legion of Honour (2010)
- Senior grant European Research Council (ERC) 2011
- Member French Academy of Science (2011)
- Foreign cooperation award, Chinese Office Science & Technology Awards (2011)
- Ernest Beutler award, American Society of Hematology (2016)
- Sjoberg Prize, Swedish Royal Academy of Sciences (2018)
- Senior grant European Research Council (ERC) 2018

Hugues de Thé M.D. Ph.D. is Professor of molecular oncology at the Collège de France and physician at Hospital St. Louis, Paris. After making significant contributions to Retinoic Acid signaling during his MD/PhD training, he played a key role in the discovery of the PML/RARA oncoprotein, the driver of acute promyelocytic leukemia. Since, he investigated how PML/RARA drives leukemogenesis and the mechanisms underlying the exquisite clinical response to RA and arsenic. This led him to address issues of transcriptional control, cell biology, proteolysis and mouse modeling. In particular, he established the key role of therapy-induced PML/RARA degradation and PML nuclear bodies in APL response, crafting the physio-pathological bases for definitive curative regimens, first established in mice and subsequently in patients.

Key APL publications

de Thé, H., Chomienne, C., Lanotte, M., Degos, L. and Dejean, A. (1990). The t(15;17) translocation of acute promyelocytic leukemia fuses the retinoic acid receptor alpha gene to a novel transcribed locus. **Nature** 347, 558-561.

de Thé, H., Lavau, C., Marchio, A., Chomienne, C., Degos, L. and Dejean A. (1991) The PML-RARA fusion mRNA generated by the t(15,17) translocation in acute promyelocytic leukaemia encodes an altered retinoic acid receptor. **Cell,** 66 675-684.

Zhu, J., Koken, M., Quignon, F., Chelbi-Alix, M., Degos,L., Wang,Z.Y., Chen, Z., de Thé,H. (1997) Arsenic-induced PML targeting onto nuclear bodies, implications for the treatment of acute promyelocytic leukemia. **PNAS** 94, 3978-3983.

Lallemand, V. Guillemin, M.C., Janin, A., Daniel, M.T., Degos, L., Kogan, S., Bishop, M. and de Thé, H. (1999) Retinoic acid and arsenic synergize to eradicate leukemic cells in a mouse model of acute promyelocytic leukemia. **J. Exp. Med.** 189, 1043-1052.

Lallemand, V., Zhu, J., Puvion, F., Koken, M., Honoré, N., Doubeikovski, A., Duprez, E., Pandolfi, P.P., Puvion, E., Freemont, P., de Thé, H. (2001) Role of PML sumolation in nuclear body formation, 11S proteasome recruitment and As2O3-induced PML or PML/RARa degradation. **J. Exp. Med.** 193, 1361-1371.

Lallemand-Breitenbach V., Jeanne M., Benhenda S. and H. de Thé (2008) Arsenic degrades PML or PML-RARα through a SUMO-triggered RNF4/ubiquitin-mediated pathway **Nature Cell Biology** 10:547-555

R. Nasr, L., M.C. Guillemin, O. Ferhi, H. Soihili, L. Peres, F., C. Berthier, P. Rousselot, V. Lallemand, B. Gourmel, D. Vitoux, P.P. Pandolfi, C. Rochette-Egly, J. Zhu, H. de Thé (2008) APL leukemia initiating cell eradication through cooperative RA- and arsenic-triggered PML/RARA degradation **Nature Medicine** 14:1333-1342.

Jeanne, M., Lallemand-Breitenbach, V., Ferhi, O., Koken, M., Le Bras, M., Duffort, S., Peres, L., Berthier, C., Soilihi, H., Raught, B., and de Thé, H. (2010). PML/RARA oxidation and arsenic-binding initiate the anti-leukemia response of As2O3. **Cancer Cell 18**(1): 88-98.

de Thé H., Chen, Z. (2010) APL: novel insights into the mechanisms of cure **Nature Reviews Cancer** 10, 775-83.

Ablain, J., Leiva, M., Peres, L., Fonsart, J., Anthony, E., and de The, H. (2013). Uncoupling RARA transcriptional activation and degradation clarifies the bases for APL response to therapies. **J Exp Med** 210, 647-653.

Ablain, J., Rice, K., Soilihi, H., de Reynies, A., Minucci, S., and de The, H. (2014). Activation of a promyelocytic leukemia-tumor protein 53 axis underlies acute promyelocytic leukemia cure. **Nature Medicine** 20, 167-74.

Lehmann-Che, J., C. Bally and H. de The (2014). Therapy resistance in APL."**N. Engl. J. Med.** 371, 1170-2

de The, H., P.P. Pandolfi, and Z. Chen, Acute promyelocytic leukemia: a paradigm for oncoprotein- targeted cure. **Cancer Cell**, (2017) 32, 552-60.