

Haematologica
HAEMATOL/2019/232793
Version 4

The quiescent fraction of chronic myeloid leukemic stem cells depends on BMPR1B, Stat3 and BMP4-niche signals to persist in patients in remission

Sandrine Jeanpierre, Kawtar Arizkane, Supat Thongjuea, Elodie Grockowiak, Kevin Geistlich, Lea Barral, Thibault Voeltzel, Anissa Guillemain, Sandrine Gonin-Giraud, Olivier Gandrillon, Franck-Emmanuel Nicolini, Adam J. Mead, Véronique Maguer-Satta, and Sylvain Lefort

Disclosures: Fundings from: patients' association LMC France and her president Mrs Mina Daban; "Fondation de France" 2014-0047501 and 2017-00076282/Fondation Ramona Ehrman Amador, "Association Laurette Fugain" ALF2014-03, Ligue contre le Cancer (Haute Savoie, Loire, Puy de Dome and Rhone), "Association ALTE-SMP", PLASCAN grants to V.M-S; S.L. and/or F-E.N. PhD fellowship was obtained from "Ligue contre le cancer" (K.A).

Contributions: S.J, K.A, S.T, E.G, KG, and S.L. performed experiments and data analysis. T.V developed the LSC persistent model. F-E.N. provided CML patients and donor samples and related clinical follow-up. A.J.M. and S.T. designed protocols and data analysis for single cell RNA-Seq experiments. A.G., S.G-G. and O.G. designed protocols and data analysis for Fluidigm RNA quantification. S.L. and V.M.-S. designed the study, analyzed data and wrote the manuscript. All authors approved the final manuscript.