

Haematologica  
HAEMATOL/2018/205385  
Version 3

Hematopoietic niche drives FLT3-ITD acute myeloid leukemia  
resistance to quizartinib via STAT5- and hypoxia- dependent  
up-regulation of AXL

Pierre-Yves Dumas, Cécile Naudin, Séverinne Martin-Lannerée,  
Brigitte Izac, Luana Casetti, Olivier Mansier, Benoît Rousseau,  
Alexandre Artus, Mélody Dufossée, Alban Giese, Pierre Dubus, Arnaud  
Pigneux, Vincent Praloran, Audrey Bidet, Arnaud Villacreces, Amélie V  
Guitart, Noël Milpied, Olivier Kosmider, Isabelle Vigon, Vanessa  
Desplat, Isabelle Dusanter-Fourt, and Jean-Max Pasquet

Disclosures: We thank Mrs. Bernadette De Buhan and her family for their generous support. We thank the Cytometry, Immunobiology and Genomic Facilities of Institut Cochin / Inserm U1016 for performing cell sorting and microarray screenings, respectively. We thank the Cytometry Facility, Vectoriology Facility, Animals Facility and Histology Facility of FR TransBioMed, Bordeaux University. We thank the Obstetric Unit from Orsay Hospital, and Cell Therapy Center from St-Louis hospital (Paris, France) for providing us CB samples. P.-Y.D. was a recipient of the SIRIC Brio for research fellowship for one year, then the MD-PhD program from the University Hospital of Bordeaux for two years. C.N. and S.M-L. were fellows of the “Association pour la recherche contre le Cancer”, “Ligue Nationale contre le Cancer” and Région Ile de France DIM-Biothérapies. A.G. was funded by the SIRIC Brio (grant INCa-DGOS-Inserm 6046) for his work at the UMS 005 TBM Core histopathology platform. A.P. has served in an advisory role for Daiichi Sankyo. This work was supported by grants from the Institut National de la Santé et de la Recherche Médicale (INSERM), Centre National de la Recherche Scientifique (CNRS), Paris-Descartes University, Agence Nationale de Recherche (ANR-2011-RPIB-009-04), Ligue Nationale contre le Cancer (RS13/75-6; EL2014-3), Ligue Régionale contre le Cancer (Comité Pyrénées Atlantique et comité Ile de Paris) and Cancéropôle Grand Sud-Ouest (2015-0389). We thank the data management unit of Toulouse University Hospital and the CAPTOR (Cancer Pharmacology of Toulouse Oncopole and Region) project (ANR-11-PHUC-001) for his financial support enabling e-CRF for AML database. We thank David Galeazzi for the accurate data collection concerning patients of Bordeaux University Hospital. We thank the Centre de Ressources Biologiques Cancer, Bordeaux Biothèques Santé (BB-0033-00036) of the Bordeaux University Hospital as well as CRBP of Hematology unit at Cochin Hospital (CPP: 2015-08-11 DC) for providing biological material. The funders had no role in study design, data collection or analysis, decision to publish or preparation of the manuscript. We thank Pr D. Bouscary, Dr P. Auburger and Dr E. Lauret for their critical reading of the manuscript.

Contributions: Designed research and analyzed data, P.-Y.D., C.N., I.D.-F. and J.-M.P.; Performed experiments, P.-Y.D., C.N., V.D., S.C., S.M.-L., B.I., A.V., A.A.; Animal experiments, P.-Y.D., J.-M.P., O.M. and B.R.; Primary AML samples, conditioning, delivery, T.L., A.B., O.K.; Original Draft P.-Y.D., J.-M.P. + I.D.F.; Histology A.G and P.D.; Comments on the research direction and edition of the manuscript A.P., V.P., N.M., A.G. and I.V.; Writing – Review & Edition, P.-Y.D., J.-M.P., I.D.F.; Made Figures, P.-Y.D. and C.N.; Funding, P.-Y.D., I.D.-F. and J.-M.P.