Manuscript no. HAEMATOL/2012/077537 entitled "The PD-1/PD-L1 axis contributes to T cell dysfunction in chronic lymphocytic leukemia"

Authors: Davide Brusa, Sara Serra, Marta Coscia, Davide Rossi, Giovanni D'Arena, Luca Laurenti, Ozren Jaksic, Giorgio Fedele, Giorgio Inghirami, Gianluca Gaidano, Fabio Malavasi, Silvia Deaglio

Information about the contributions of each person named as having participated in the study

1) Guarantor(s), i.e., person(s) who is (are) responsible for the integrity of the work as a whole: • Silvia Deaglio, University of Turin, silvia.deaglio@unito.it

According to the International Committee of Medical Journal Editors (ICMJE) (http://www.icmje.org/ethical_1author.html): "Authorship credit should be based on: 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3 Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship".

The guarantors of this manuscript confirm that all persons designated as authors qualify for authorship, and that each author has participated sufficiently in the work to take public responsibility for appropriate portions of the content.

- 2) Authors who participated in the conception of the study: Davide Brusa, Sara Serra, Giorgio Fedele, Silvia Deaglio
- 3) Design & Methods. The following authors were responsible for specific investigations:
 - Davide Brusa: immunophenotype analyses, functional studies
 - Giorgio Fedele: functional studies
 - Sara Serra: immunohistochemistry with the supervision of Giorgio Inghirami
 - Davide Rossi: statistical analyses
 - Marta Coscia, Giovanni D'Arena, Luca Laurenti Gianluca Gaidano: provided patient samples
 - Ozren Jaksic and Giorgio Inghirami: provided lymph node samples
- 4) Results. The following authors were responsible for specific portions of the results, including figures and tables:
 - Davide Brusa: figures 1-2-3-6
 - Giorgio Fedele: figure 6
 - Sara Serra: figures 4 and 5 with the supervision of Giorgio Inghirami
- 5) Writing the manuscript. The following authors were responsible for writing the manuscript:
 - Silvia Deaglio: designed experiments, interpreted result and wrote the manuscript
 - Fabio Malavasi: critically reviewed the manuscript and interpreted results
 - Giorgio Inghirami: critically reviewed the manuscript and interpreted results
 - Gianluca Gaidano: critically reviewed the manuscript and interpreted results
- 6) Contributors Listed in Acknowledgments:
 - Maria Lamusta: helped in purifying cells
 - Katiuscia Gizzi: helped in staining cells