

Manuscript no.HAEMATOL/2011/057372 entitled “CD20 positive cells are undetectable in the majority of multiple myeloma cell lines and are not associated with a cancer stem cell phenotype”

Authors: Teresa Paíno, Enrique M Ocio, Bruno Paiva, Laura San-Segundo , Mercedes Garayoa , Norma C Gutierrez, María E Sarasquete, Atanasio Pandiella, Alberto Orfao, Jesús F San-Miguel

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:

- Teresa Paíno, Centro de Investigación del Cáncer, Instituto de Biología Molecular y Celular del Cáncer/Centro de Superior de Investigaciones Científicas-Universidad de Salamanca, Salamanca. tpaino@usal.es
- Jesús F San-Miguel, Hospital Universitario de Salamanca, Salamanca, Spain. sanmiguel@usal.es

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**: Jesús F. San-Miguel, Alberto Orfao, Atanasio Pandiella and Teresa Paíno conceived the idea and designed the study

3) **Design & Methods**. The following authors were responsible for specific investigations (please detail):

- Teresa Paíno and Bruno Paiva were responsible for flow cytometry design.
- María E Sarasquete was responsible for the designing of qRT-PCR and the study of VDJH and IGκ rearrangements
- Norma C Gutiérrez was responsible for the analysis of the gene expression arrays.
- Teresa Paíno designed the colony assays.
- Teresa Paíno, Enrique M Ocio, Laura San-Segundo and Mercedes Garayoa designed the in vivo experiments.
- Teresa Paíno performed the statistical analysis.

4) **Results**. The following authors were responsible for specific portions of the results, including figures and tables (please indicate the person responsible for each figure and each table):

- Teresa Paíno and Bruno Paiva were responsible for the immunophenotypic analysis of the cell lines (Figure 1A, 1C and 1E).
- Teresa Paíno was responsible for the morphology study (May-Grünwald-Giemsa staining) (Figure 1D)
- María E Sarasquete was responsible for the qRT-PCR analysis of CD20 in sorted CD20dim+ and CD20- RPMI8226 cells (Figure 1B) and also for the study of VDJH and IGκ rearrangements in sorted CD20dim+ and CD20- RPMI8226 cells.
- Norma C Gutiérrez was responsible to analyze the gene expression profile of sorted CD20dim+ and CD20- RPMI8226 cells (Table 1)

- Teresa Paíno was responsible to perform the serial colony assays and the immunophenotyping of colonies and tumors (Figure 2A, 2B and 2E).
- Teresa Paíno and Laura San-Segundo studied the tumorigenic capacity of sorted CD20dim+ and CD20- RPMI8226 cells (Figure 2C and 2D).

5) **Writing the manuscript.** The following authors were responsible for writing the manuscript:

- Teresa Paíno drafted and wrote the final version of the manuscript.
- Enrique M Ocio corrected and made important improvements in the text.
- Bruno Paiva corrected and made important improvements in the text.
- Jesús F San-Miguel corrected and made important improvements in the text.
- Alberto Orfao corrected and made important improvements in the text.
- And all authors reviewed and approved the manuscript

6) **Contributors Listed in Acknowledgments:**

Acknowledgments We are grateful to Dr W. Dalton for providing the RPMI-8226 and U266 cell lines, to Dr S. T. Rosen for providing the MM1S and MM1R cell lines, to Dr J. Teixidó for providing the NCI-H929 cell line and to Dr K.C. Anderson for providing the RPMI-LR5, U266-LR7 and U266-Dox4 cell lines.

Funding This work was supported by the Cooperative Research Thematic Network (RTICs; RD06/0020/0006), the “Junta de Castilla y León. Consejería de Sanidad” (GRS 391/B/09), the “Ministerio de Ciencia e Innovación” (PS09/01897) and the “Fundación Memoria D. Samuel Solórzano Barruso” (FS/2-2010).