Manuscript no. HAEMATOL/2012/074617 entitled "Identification and characterization of a novel murine allele of Tmprss6"

Authors: Thomas B. Bartnikas, Andrea U. Steinbicker, Dean R. Campagna, Sherika Blevins, Lanette S. Woodward, Carolina Herrera, Kenneth D. Bloch, Monica J. Justice and Mark D. **Fleming**

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:
- Thomas B. Bartnikas, Department of Pathology and Laboratory Medicine, Brown University, Providence, RI, USA, Thomas_bartnikas@brown.edu, bartnikt@gmail.com
- Mark D. Fleming, Department of Pathology, Children's Hospital, Boston, MA, USA, Mark.Fleming@childrens.harvard.edu

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: Thomas B. Bartnikas, Mark D. Fleming
- 3) Design & Methods. The following authors were responsible for specific investigations:
- Monica J. Justice was responsible for the design and methods of the ENU mutagenesis and identification of the hem8 founder mouse
- Thomas B. Bartnikas and Mark D. Fleming were responsible for design and methods of: mapping of the hem8 locus and identification of the mutation in Tmprss6 in the hem8 mouse (Fig. 1); characterization of the I286F substitution in Tmprss6 (Fig. 2); phenotypic characterization of the hem8 strain (Fig. 3) and allelism testing (Fig. 4); quantitative trait locus analysis in hem8 mice (Fig. 5)
- Thomas B. Bartnikas, Andrea U. Steinbicker, Kenneth D. Bloch and Mark D. Fleming were responsible for design and methods of pharmacological modulation of BMP signaling in mutant mice (Fig. 6)
- 4) Results. The following authors were responsible for specific portions of the results, including figures and tables:
- Lanette S. Woodward and Monica J. Justice were responsible for ENU mutagenesis and identification of the hem8 founder mouse
- Thomas B. Bartnikas, Dean R. Campagna, Sherika Blevins and Mark D. Fleming were responsible for mapping of the hem8 locus and identification of the mutation in Tmprss6 in the hem8 mouse (Fig. 1)
- Thomas B. Bartnikas and Mark D. Fleming were responsible for characterization of the I286F substitution in Tmprss6 (Fig. 2)
- Thomas B. Bartnikas, Carolina Herrera and Mark D. Fleming were responsible for phenotypic characterization of the hem8 strain (Fig. 3) and allelism testing (Fig. 4)

- Thomas B. Bartnikas and Mark D. Fleming were responsible for quantitative trait locus analysis in hem8 mice (Fig. 5)
- Thomas B. Bartnikas, Andrea U. Steinbicker, Kenneth D. Bloch and Mark D. Fleming were responsible for pharmacological modulation of BMP signaling in mutant mice (Fig. 6)

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

- Thomas B. Bartnikas and Mark D. Fleming wrote the manuscript
- Andrea U. Steinbicker and Kenneth D. Bloch critiqued and revised the manuscript
- 6) Contributors Listed in Acknowledgments: not applicable