
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:
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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: Yukari Muguruma, Hiromichi Matsushita, and Kiyoshi Ando

3) Design & Methods. The following authors were responsible for specific investigations (please detail):
   • Yukari Muguruma was responsible for designing whole experiments.
   • Hiromichi Matsushita was responsible for analyzing patients’ data.
   • Takashi Yahata was responsible for cell transplantation.
   • Shizu Yumino was responsible for Immunohistochemical staining.
   • Yumiko Tanaka and Hayato Miyachi were responsible for human cell analysis.
   • Yoshiaki Ogawa, Hiroshi Kawada, and Kiyoshi Ando were responsible for recruiting patients.
   • Mamoru Ito was responsible for development of experimental animal.

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):
   • Yukari Muguruma, Hiromichi Matsushita, and Yumiko Tanaka were responsible for Figure1.
   • Yukari Muguruma, Takashi Yahata, and Shizu Yumino were responsible for Figure2.
   • Yukari Muguruma, Takashi Yahata, and Shizu Yumino were responsible for Figure3.
   • Yukari Muguruma was responsible for Table1.
   • Hiromichi Matsushita was responsible for Supplementary Table1, 2, and 3.
   • Yukari Muguruma was responsible for Supplementary Table4.

5) Writing the manuscript. The following authors were responsible for writing the manuscript:
   • Yukari Muguruma was responsible for writing the manuscript.

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