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(71) Applicant: **THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK** [US/US]; 412 Low Memorial Library, 535 West 116th Street, New York, New York 10027 (US).

(72) Inventors: **SYKES, Megan**; c/o Columbia University, 650 W. 168th Street, BB 15-1512, New York, NY 10032 (US).
HAWLEY, Robert J.; c/o Columbia University, 650 W. 168th Street, BB 15-1512, New York, NY 10032 (US).

YAMADA, Kazuhiko; c/o Columbia University, 650 W. 168th Street, P&S Building, 17th floor, Room 17-402, New York, NY 10032 (US). **SACHS, David H.**; 77 Studio Rd., Auburndale, MA 02466 (US).

(74) Agent: **MARTINEK, Sebastian** et al.; Jones Day, 250 Vesey Street, New York, NY 10281-1047 (US).

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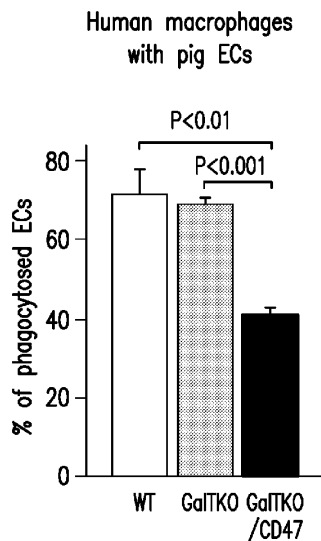


FIG. 1A

(57) Abstract: Provided herein are recombinant miniature swine expressing human CD47 in a tissue specific fashion. Also provided are kidneys isolated from a miniature swine, wherein the glomeruli of the kidney express human CD47 at a level higher than the level of human CD47 expression in the tubules of the kidney. Furthermore, provided herein are methods of transplanting such swine kidneys with glomeruli-specific expression of human CD47 from recombinant miniature swine into human recipients. In certain aspects, provided herein are methods of transplantation comprising transplanting hematopoietic stem cells expressing human CD47 from a first donor animal (e.g., a miniature swine) and a kidney expressing human CD47 in the glomeruli from a second donor animal (e.g., a miniature swine) to a recipient (e.g., a human recipient).

[Continued on next page]

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