What is claimed is:

1. Use of a kidney and a porcine hematopoietic stem cell (HSC) in the manufacture of a medicament for preventing or reducing the severity of proteinuria in a kidney transplant recipient, wherein glomeruli of the kidney express human CD47 at levels sufficient to prevent or reduce the severity of proteinuria in the recipient, the porcine HSC expresses human CD47, and the kidney and the porcine HSC are obtained from an alpha-1,3 galactosyltransferase-deficient miniature swine.

2. The use of claim 1, 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.

3. The use of claim 2, wherein the glomeruli of the kidney express human CD47 at a level 2 times to 10 times higher than the level of human CD47 expression in the tubules of the kidney.

4. The use of any one of claims 1 to 3, wherein the alpha-1,3 galactosyltransferase-deficient miniature swine is a MHC-inbred Columbia/Sachs miniature swine.

5. The use of any one of claims 1 to 4, wherein the level of human CD47 expression is measured by real-time polymerase chain reaction.

6. The use of any one of claims 1 to 5, wherein the recipient is a mammal.

7. The use of claim 6, wherein the recipient is a human.

8. The use of any one of claims 1 to 7, wherein the porcine HSC is obtained from bone marrow, peripheral blood, umbilical cord blood, or fetal liver cells.

9. The use of any one of claims 1 to 8, wherein the human CD47 is expressed under the same regulatory elements as the endogenous porcine CD47.

10. The use of any one of claims 1 to 9, wherein the human CD47 replaces an endogenous porcine CD47 in the alpha-1,3 galactosyltransferase-deficient miniature swine.

11. The use of any one of claims 1 to 10, wherein the human CD47 is expressed under a glomerulus-specific promoter.

12. The use of claim 11, wherein the glomerulus-specific promoter is nephrin.

13. The use of any one of claims 1 to 12, wherein the proteinuria is renal proteinuria.

14. The use of any one of claims 1 to 13, wherein the proteinuria is reduced to less than 3 g per 24 hours.

15. The use of any one of claims 1 to 13, wherein the proteinuria is reduced to 500 mg per 24 hours.

16. The use of any one of claims 1 to 13, wherein the proteinuria is reduced to 300 mg per 24 hours.

17. The use of any one of claims 1 to 13, wherein the proteinuria is reduced to 150 mg per 24 hours.

18. The use of any one of claims 1 to 17, wherein the proteinuria resolves within two weeks of the transplant.

19. The use of any one of claims 1 to 17, wherein the proteinuria resolves within one month of the transplant.

20. The use of any one of claims 1 to 17, wherein the proteinuria resolves within two months of the transplant.

21. The use of any one of claims 1 to 17, wherein the proteinuria resolves within four months of the transplant.

22. The use of any one of claims 1 to 21, wherein the kidney is a thymokidney.

23. A kidney 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.

24. The kidney of claim 23, wherein the glomeruli of the kidney express human CD47 at a level 2 times to 10 times higher than the level of human CD47 expression in the tubules of the kidney.

25. The kidney of claim 23 or 24, wherein the level of human CD47 expression is measured by real-time polymerase chain reaction.

26. The kidney of any one of claims 23 to 25, wherein the human CD47 is expressed under the same regulatory elements as the endogenous porcine CD47.

27. The kidney of any one of claims 23 to 26, wherein the human CD47 is expressed under a glomerulus-specific promoter.

28. The kidney of claim 27, wherein the glomerulus-specific promoter is nephrin.

29. The kidney of any one of claims 23 to 28, wherein the kidney is a thymokidney.

30. The kidney of any one of claims 23 to 29, wherein the miniature swine is an alpha-1,3 galactosyltransferase-deficient miniature swine.

31. The kidney of claim 30, wherein the alpha-1,3 galactosyltransferase-deficient miniature swine is a MHC-inbred Columbia/Sachs miniature swine.

32. A xenograft from a non-human species, wherein the xenograft comprises:

(a) a kidney; and

(b) islet of Langerhans cells,

wherein the kidney comprises glomeruli that express human CD47 at a level higher than the level of human CD47 expression in the tubules of the kidney.

33. The xenograft of claim 32, wherein the glomeruli of the kidney express human CD47 at a level 2 times to 10 times higher than the level of human CD47 expression in the tubules of the kidney.

34. The xenograft of claims 32 or 33, wherein the level of human CD47 expression is measured by real-time polymerase chain reaction.

35. The xenograft of any one of claims 33 to 34, wherein the human CD47 is expressed under the same regulatory elements as the endogenous porcine CD47.

36. The xenograft of any one of claims 32 to 35, wherein the human CD47 is expressed under a glomerulus-specific promoter.

37. The xenograft of claim 36, wherein the glomerulus-specific promoter is nephrin.

38. The xenograft of any one of claims 32 to 37, wherein the kidney is a thymokidney.