Claims

1. A therapeutic fusion protein for enhancing efferocytosis comprising an integrin binding domain, a phosphatidylserine (PS) binding domain and a solubilizing domain, wherein the solubilizing domain is inserted between the integrin binding domain and the PS binding domain, and wherein the PS binding domain is a truncated variant.

2. The fusion protein of claim 1, wherein the PS binding domain is a truncated variant of at least one PS binding domain listed in Table 2.

3. The fusion protein of claim 1 or claim 2, wherein the PS binding domain is a truncated variant of the PS binding motif of MFG-E8 or of EDIL3.

4. The fusion protein of claim 3, wherein the PS binding domain is a truncated variant of the PS binding motif of MFG-E8.

5. The fusion protein of claim 4, wherein the PS binding domain is a discoidin domain.

6. The fusion protein of any one of the preceding claims, wherein the PS binding domain is a C1 domain.

7. The fusion protein of any one of the preceding claims, wherein the PS binding domain does not comprise a C2 domain.

8. A fusion protein for enhancing efferocytosis comprising an integrin binding domain, a phosphatidylserine (PS) binding domain and a solubilizing domain, wherein the solubilizing domain is inserted between the integrin binding domain and the PS binding domain, and wherein the PS binding domain is a C1 domain.

9. The fusion protein of any one of the preceding claims, wherein the integrin binding domain binds to one or more intergins.

10. The fusion protein of claim 9, wherein the integrin binding domain binds to αvβ3 and/or αvβ5 and/or α8β1 integrin.

11. The fusion protein of any one of the preceding claims, wherein the integrin binding domain comprises a Arginine-Glycine-Aspartic acid (RGD) motif.

12. The fusion protein of any one of the preceding claims, wherein the solubilizing domain is linked directly to the integrin binding domain, to the PS binding domain or to both domains.

13. The fusion protein of any one of the preceding claims, wherein the solubilizing domain is linked indirectly to the integrin binding domain and/or the PS binding domain by a linker.

14. The fusion protein of any one of the preceding claims, wherein the integrin binding domain

has an amino acid sequence of SEQ ID NO: 2, or at least 90% sequence identity thereto.

15. A therapeutic fusion protein comprising MFG-E8 and a solubilizing domain, wherein the MFG-E8 comprises from N-terminal to C-terminal: an EGF-like domain, a C1 domain or a C2 domain, and comprises a sequence from wild-type human MFG-E8 (SEQ ID NO: 1) or a functional variant thereof.

16. The fusion protein of claim 17, wherein the solubilizing domain is inserted between the EGF-like domain and the C1 or C2 domain.

17. The fusion protein of any one of the preceding claims, wherein the solubilizing domain is HSA, HSA D3 or Fc-IgG, or a functional variant thereof.

18. The fusion protein of any one of the preceding claims wherein the solubilizing domain comprises human serum albumin (HSA), or a functional variant thereof.

19. The fusion protein of any one of preceding claims for use in the treatment or prevention of an inflammatory disorder or inflammatory organ injury in an individual in need thereof, wherein the inflammatory disorder or inflammatory organ injury is acute kidney injury, acute respiratory distress syndrome, acute liver injury, sepsis, myocardial infarction, stroke, burns, traumatic injury and inflammatory and organ injuries resulting from ischemia/reperfusion.

20. The fusion protein of any one of preceding claims for use in the treatment or, prevention, or amelioration of inhibiting or slowing blood coagulation, microbiome treatment, Inflammatory bowel disease (IBD), fatty acid uptake and/or decreasing gastric motility, microthrombi-dependent disorders, atherosclerosis, cardiac remodeling, tissue fibrosis, acute liver injury, chronic liver diseases, non-alcoholic steatohepatitis (NASH), vascular diseases, age-related vascular disorders, intestinal diseases, sepsis, bone disorders, cancer, Thalassemia, pancreatitis, hepatitis, endocarditis, pneumonia, acute lung injury, osteoarthritis, periodontitis, tissue trauma-induced inflammation, colitis, diabetes, hemorrhagic shock, transplant rejection, radiation-induced damage, splenomegaly, sepsis-induced AKI or multi-organ failure, acute burns, adult and pediatric respiratory distress syndrome, wound healing, tendon repair and neurological diseases

21. The fusion protein for use according to claim 19 or claim 20, wherein the fusion protein is administered in combination with another therapeutic agent, wherein the therapeutic agent is an immunosuppressive agent, an immunomodulating agent, an anti-inflammatory agent, an anti-oxidant, an anti-infective agent, a cytotoxic agent or an anti-cancer agent.