CLAIMS

1. A pharmaceutical preparation comprising a fraction that is enriched for human platelet lysate derived extracellular vesicles for use in medicine.

2. A pharmaceutical preparation comprising a fraction that is enriched for human platelet lysate derived extracellular vesicles for use in the prevention and/or treatment of inflammatory driven diseases, neurodegenerative diseases, immune/autoimmune diseases, cardiovascular diseases, dermatologic diseases, infectious diseases, transplant rejections, stroke, ischemia or Graft-versus-Host Disease.

3. A preparation for use according to Claim 1 or 2, in which the preparation is cell-free.

4. A preparation for use according to Claim 1, 2 or 3, in which the enriched fraction of human platelet lysate derived extracellular vesicles is the essential pharmaceutically active ingredient in the preparation.

5. A preparation for use according to any preceding claim, in which the extracellular vesicles of the enriched fraction have a size of between 10-1000 nm, particularly a size of between 50 to 200 nm preferably between 70 to 140 nm.

6. A preparation for use according to any preceding claim, in which the extracellular vesicles of the enriched fraction are positive for at least one of the cellular exosome markers consisting of the group: CD9, CD41a, CD41b, CD42b, CD61, CD 62P, CD63 and Syntenin.

7. A preparation for use according to any preceding claim, in which the extracellular vesicles of the enriched fraction are negative for at least one of the cellular exosome markers consisting of the group CD 81, CD3, CD4, CD19, CD20, CD2, CD8, CD11a and CD25.

8. A preparation for use according to any preceding claim for antimicrobiological applications, in which the extracellular vesicles of the enriched fraction are positive for the cytokine RANTES or the cytokine NAP-2 or for both.

9. A preparation for use according to any preceding claim, in which the protein content of the pharmaceutical preparation is higher than 0.5 mg/ml.

10. A preparation for use according to any preceding claim, in which the human platelet lysate originates from single or pooled donor-donated platelets.

11. A preparation for use according to any preceding claim, in which the human platelet lysate originates from buffy-coat extracted platelet concentrates or from platelet apheresis.

12. A preparation for use according to any preceding claim, in which the extracellular vesicles comprise biological factors, such as genetic material such as mRNA, microRNA (miRNA), small amounts of DNA, lipids and proteins including transcription factors, cytokines, growth factors.

13. A preparation for use according to any preceding claim, in which the preparation comprises a pharmaceutical acceptable carrier, preferably a pharmaceutical acceptable polymer.

14. A preparation for use according to any preceding claim, in which the preparation is suitable for intravenous administration or infusion, for intraperitoneal injection, subcutaneous injection, intra bone injection, intracerebroventricular injection, intra muscular injection, intraocular injection or for topical administration.