CLAIMS

1. Use of a composition comprising a population of culture expanded, cryopreserved and thawed mesenchymal lineage precursor or stem cells (MLPSCs) in the manufacture of a medicament for treating Acute Respiratory Distress Syndrome (ARDS) in a human subject in need thereof, in which the subject has an elevated circulating C-reactive protein (CRP), in which the ARDS is caused by COVID-19, and in which the subject has an improvement in one or more of the following after administration of the medicament:

- Forced expiratory volume in one second (FEV1);
- Forced vital capacity (FVC);
- FEV1/FVC; and
- 6 minute walk test.

2. Use according to Claim 1, in which the subject has an initial circulating CRP level of at least 2mg/ml.

3. Use according to Claim 1, in which the subject has an initial circulating CRP level of at least 3mg/ml, preferably at least 4mg/ml.

4. Use according to Claim 1, 2 or 3, in which the MLPSCs are culture expanded, from an intermediate cryopreserved MLPSCs population.

5. Use according to any preceding claim, in which the MLPSCs are culture expanded for at least about 5 passages.

6. Use according to any preceding claim, in which the composition is to be administered intravenously.

7. Use according to any preceding claim, in which the MLPSCs are mesenchymal stem cells (MSCs).

8. Use according to any preceding claim, in which the MLPSCs are allogeneic.

9. Use according to any preceding claim, in which between 1×10^7 and 2×10^8 cells per dose are to be administered.

10. Use according to any preceding claim, in which about 1 x 10^8 cells per dose are to be administered.

11. Use according to Claim 9 or 10, in which a dose is to be administered at baseline followed by 3 subsequent doses monthly over 90 days.

12. Use according to any preceding claim, in which the subject has an FEV1 change from baseline of at least 0.02, or at least 0.05, within 120 days of administration of the medicament.

13. Use according to any preceding claim, in which the subject has an FVC change from baseline of at least 0.05, or at least 0.1, within 120 days of administration of the medicament.

14. Use according to any preceding claim, in which the subject has an FEV1/FVC change from baseline of at least 0.01, or at least 0.015, within 120 days of administration of the medicament.

15. Use according to any preceding claim, in which the subject shows an improvement in the 6 minute walk test of at least 40 meters, or at least 50 meters, within 60 days or within 120 days of administration of the medicament.

16. Use according to any preceding claim, in which the composition further comprises Plasma-Lyte A, dimethyl sulfoxide (DMSO), human serum albumin (HSA).

17. Use according to any of Claims 1 to 15, in which the composition further comprises Plasma-Lyte A (70%), DMSO (10%), HSA (25%) solution, the HSA solution comprising 5% HSA and 15% buffer.

18. Use according to any preceding claim, in which the composition comprises greater than 6.68x10^6 viable cells/mL.