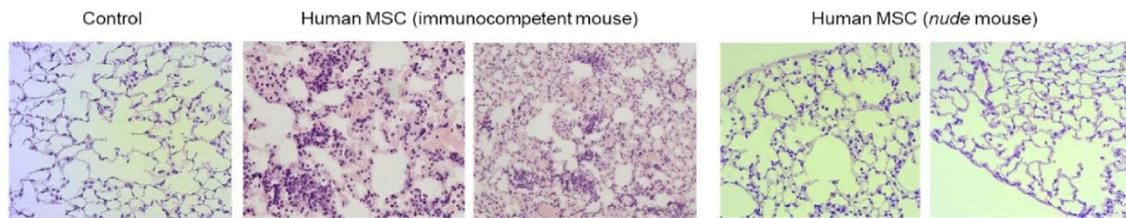


Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/ijms24065813/s1>, Figure S1: Administration of human MSC induced mild inflammation in immunocompetent but not in immunodeficient mice lungs; Figure S2: Intravenous (i.v.) and intratracheal (i.t.) are the most efficient routes to deliver human MSC in the mouse lung; Figure S3: Pre-stained AD-MSC signal is found distributed preferable in the lung when applied i.v. whereas it remains locally at the zone the i.p. application; Figure S4: Human mitochondria are found in the murine lungs after UC-MSC administrations.

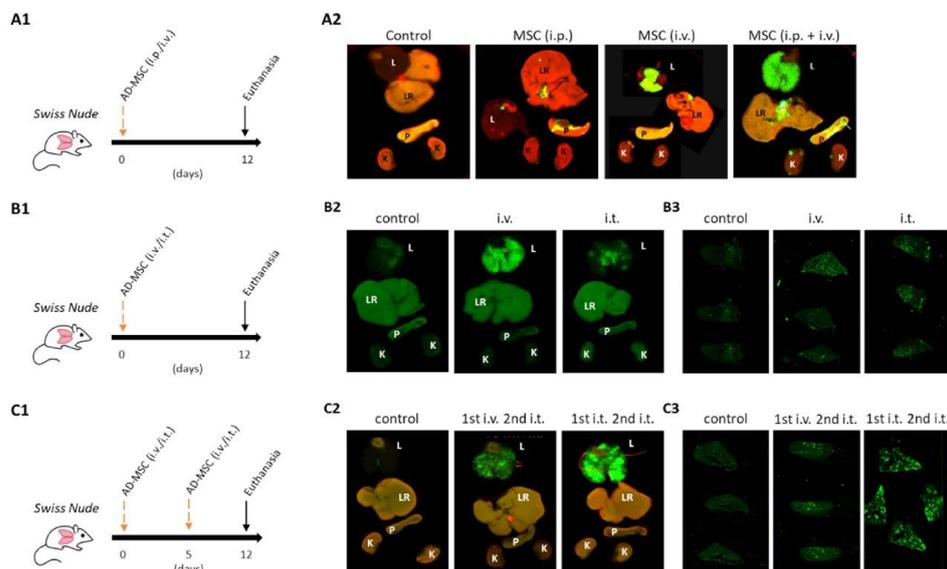
Supplementary Figures

Supplementary Figure S1



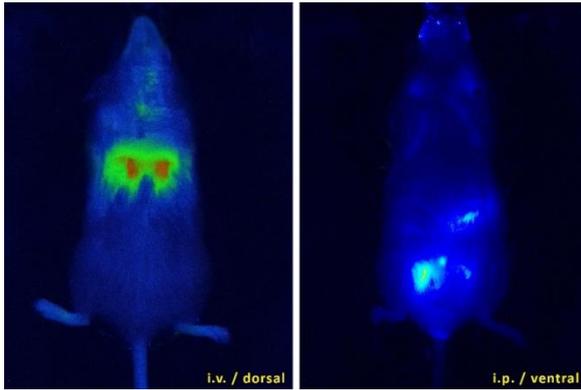
Supplementary Figure S1. Administration of human MSC induced mild inflammation in immunocompetent but not in immunodeficient mice lungs. Representative images of histological analysis of lung inflammation by H&E staining in wild type (immunocompetent) compared to immunodeficient (nude) mice. Mice were treated intratracheally with human MSC. Only PBS was applied in the control group.

Supplementary Figure S2



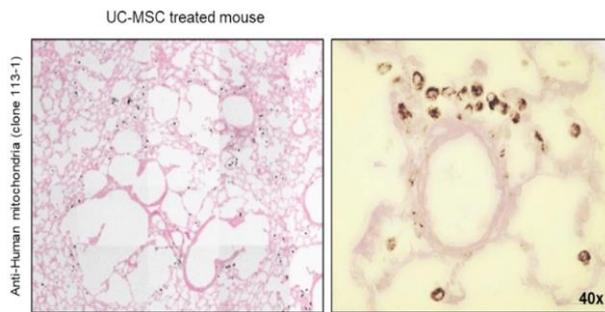
Supplementary Figure S2. Intravenous (i.v.) and intratracheal (i.t.) are the most efficient routes to deliver human MSC in the mouse lung. Assessment of the distribution of CellVue™ NIR815 pre-stained human AD-MSC delivered intraperitoneally (i.p.), intravenously (i.v.) or intratracheally (i.t.) at the timepoints indicated within whole organs; lung (L), liver (LV), pancreas (P) and kidneys (K). **(A)** CellVue™ NIR815 distribution within the mouse organs after i.p., i.v., and both (i.p + i.v.) administration. Chronogram **(A1)** and imaging of whole organs **(A2)**. **(B and C)** Comparison of the distribution of human CellVue™ NIR815 following i.v. and i.t. administration routes as a single dose **(B)**, or as two different doses **(C)**. **B1 and C1:** chronograms, **B2 and C2:** imaging of whole organs, and **C3 and C3:** histology of lung lobes.

Supplementary Figure S3



Supplementary Figure S3. Pre-stained AD-MSK signal is found distributed preferable in the lung when applied i.v. whereas it remains locally at the zone the i.p. application. Representative images of full animal bodies showing the fluorescent distribution of the signal from CellVue™ NIR815 pre-stained AD-MSK applied i.v. (left) or i.p. (right) at day 7 after administration. Abbreviations: intravenously (i.v.), intratracheally (i.t.).

Supplementary Figure S4



Supplemental Figure S4. Human mitochondria are found in the murine lungs after UC-MSK administrations. Staining of human mitochondria by immunohistochemistry in lung sections of UC-MSK treated mice after 4 days of i.t. of last cell administration.