



**Fig. S3 Single-cell profiling of myeloid cells**

**a** Heatmap showing myeloid cell phenotypes with corresponding marker gene sets. **b** Violin plots of normalized marker gene expression, distinguishing 6 macrophage subclusters based on their monocyte-derived characteristics, as indicated by monocyte lineage associated genes (*CSF1R*, *CSF3R*, *SPPI*, *FCN1*), and alveolar macrophage marker gene (*FABP4*). **c** Relative contribution of each cell type (in %) in mild (upper panel) and critical (lower panel) pneumonia patients comparing COVID-19 vs non-COVID-19. **d** Expression dynamics of key functional genes along the monocyte-to-macrophage trajectory. **e** Gene expression dynamics along the *RGS1*<sup>hi</sup> macrophage lineage. Genes cluster into 5 gene sets, each of them characterized by specific expression profiles, as depicted by a selection of marker gene characteristic for each set.