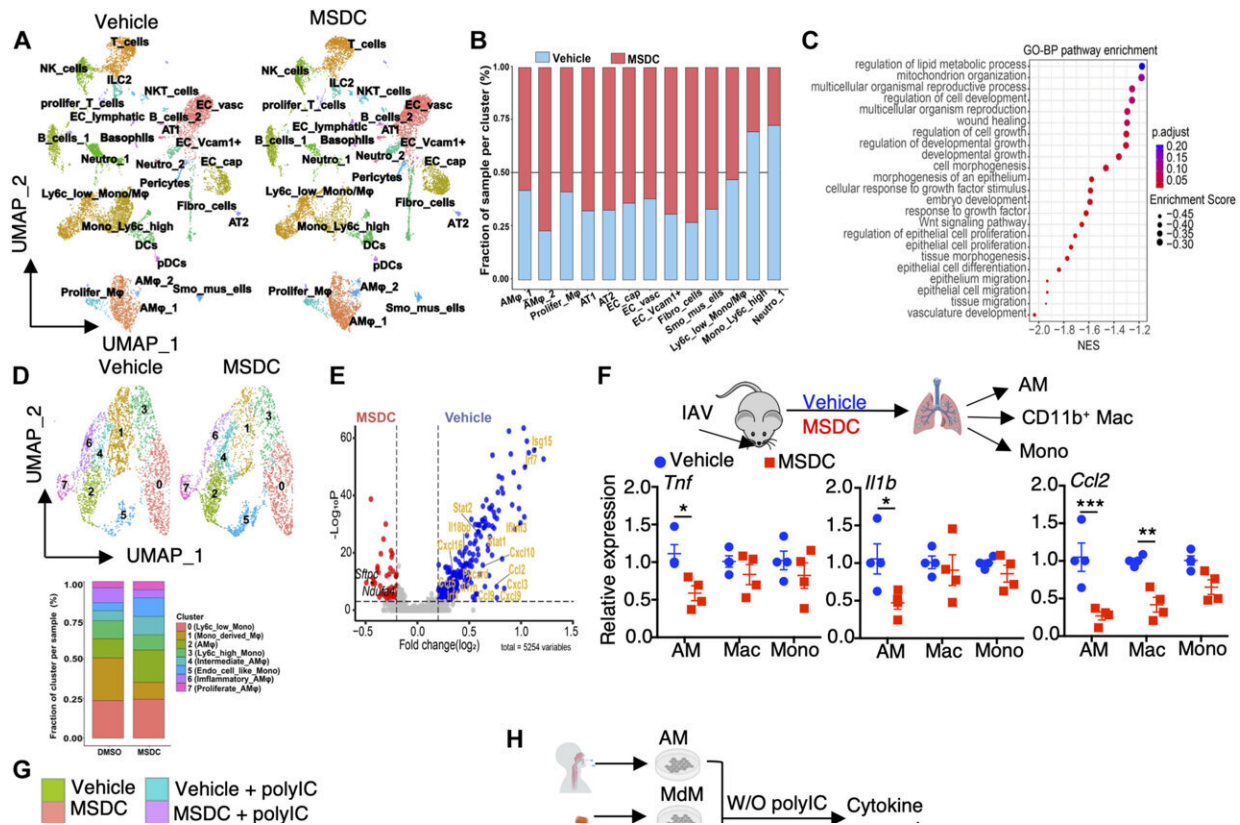


# Discovery could protect high-risk COVID-19 patients

March 13 2023, by Josh Barney



Murine and human lung macrophages are prominent target of MPC inhibition by MSDC. (A to E) scRNA-seq analysis of lungs from IAV-infected C57BL/6 WT mice with vehicle or MSDC treatment at 4 d.p.i. Lung cells were pooled from three individual mice from each group. (A) UMAP plot visualization of lung cells from vehicle- or MSDC-treated mice. (B) The relative contributions of indicated clusters by each group. (C) Dot plot showing enrichment of Gene Ontology biological processes pathways enriched in MSDC-treated lungs. The color of the dots represents the adjusted P value. Dot size represents the

enrichment score. (D) UMAP showing clusters of monocytes and macrophages from (A) in vehicle- or MSDC- treated lung cells (upper panel). The percentages of each cluster in each studied subject was shown on the lower panel. (E) Volcano plot showing the differentially expressed genes in AMs (cluster 2, 4, 6 and 7) of vehicle (blue) and MSDC (red) treated mice. (F) The mRNA levels of Tnf, Il1b and Ccl2 in AMs, CD11b<sup>+</sup> macrophages (Mac) and monocytes (Mono) sorted from lungs at 4 d.p.i. (G) RNA-seq analysis of mouse AMs stimulated with or without Poly IC in the presence of vehicle or MSDC overnight in vitro. Heatmap of K-means clustering of differentially expressed genes and KEGG enrichment analysis. (H) The mRNA levels of TNF, IL1B and CCL2 in human AMs, monocyte-derived macrophages (Mdm), and monocytes (Mono) stimulated with or without Poly IC in the presence of vehicle or MSDC overnight in vitro. Data are presented as means  $\pm$  SEM. \*, p

Citation: Discovery could protect high-risk COVID-19 patients (2023, March 13) retrieved 13 May 2023 from <https://medicalxpress.com/news/2023-03-discovery-high-risk-covid-patients.html>

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