

## **Supplementary Figure 1**

Establishment of Mouse Pulmonary Metastasis Cancer Model and Treatment Timeline.

## **Supplementary File 1A**

This file displays the differences and intersections of microbiota in the four sample groups A, B,D, and E.

## **Supplementary File 1B**

This file displays the differences and intersections of microbiota in the four sample groups A, C,D, and G.

## **Supplementary File 1C**

This file displays the differences and intersections of microbiota in the four sample groups A, D,E and H.

## **Supplementary File 2A**

This file displays the gene names, microbiota names, and cytokine names in this network of all gene-microbe-cytokine Spearman correlations.

## **Supplementary File 2B**

This file displays all the gene names, microbiota names, and cytokine names in this network of gene-microbe-cytokine Spearman correlations when group F is compared with group B.

## **Supplementary File 2C**

This file displays all the gene names, microbiota names, and cytokine names in this network of gene-microbe-cytokine Spearman correlations when group G is compared with group C.

## **Supplementary File 2D**

This file displays all the gene names, microbiota names, and cytokine names in this network of gene-microbe-cytokine Spearman correlations when group H is compared with group E.