

## Supplementary Materials

*Research Article*

# Tracking extracellular matrix remodeling in lungs induced by breast cancer metastasis. Fourier Transform Infrared spectroscopic studies

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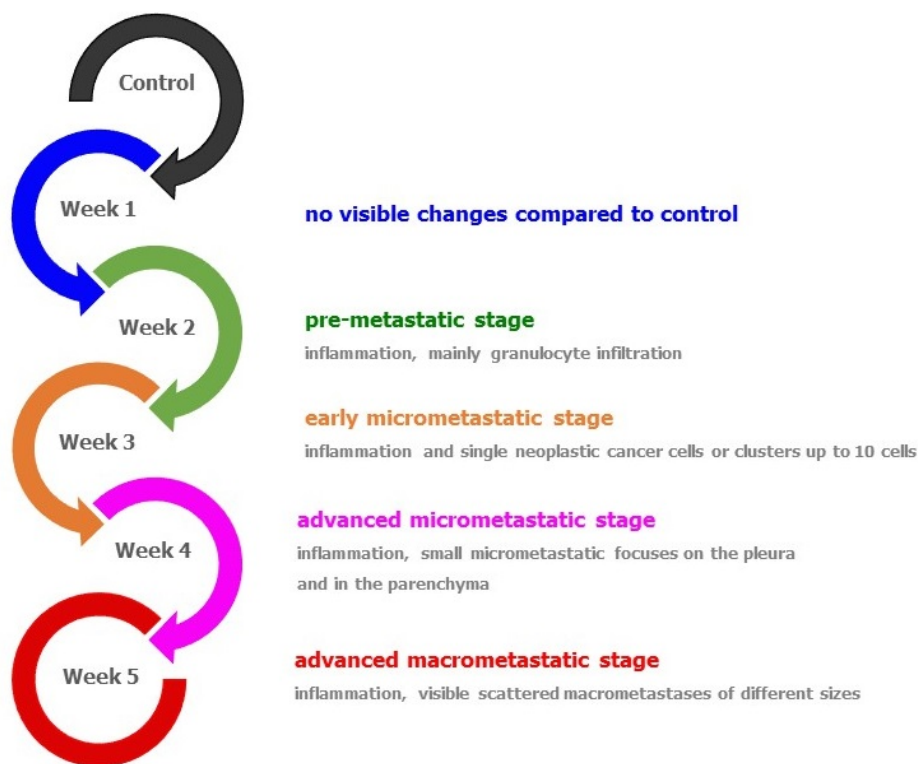
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**Table S1.** Summary of collected data from N=3 mice/group.

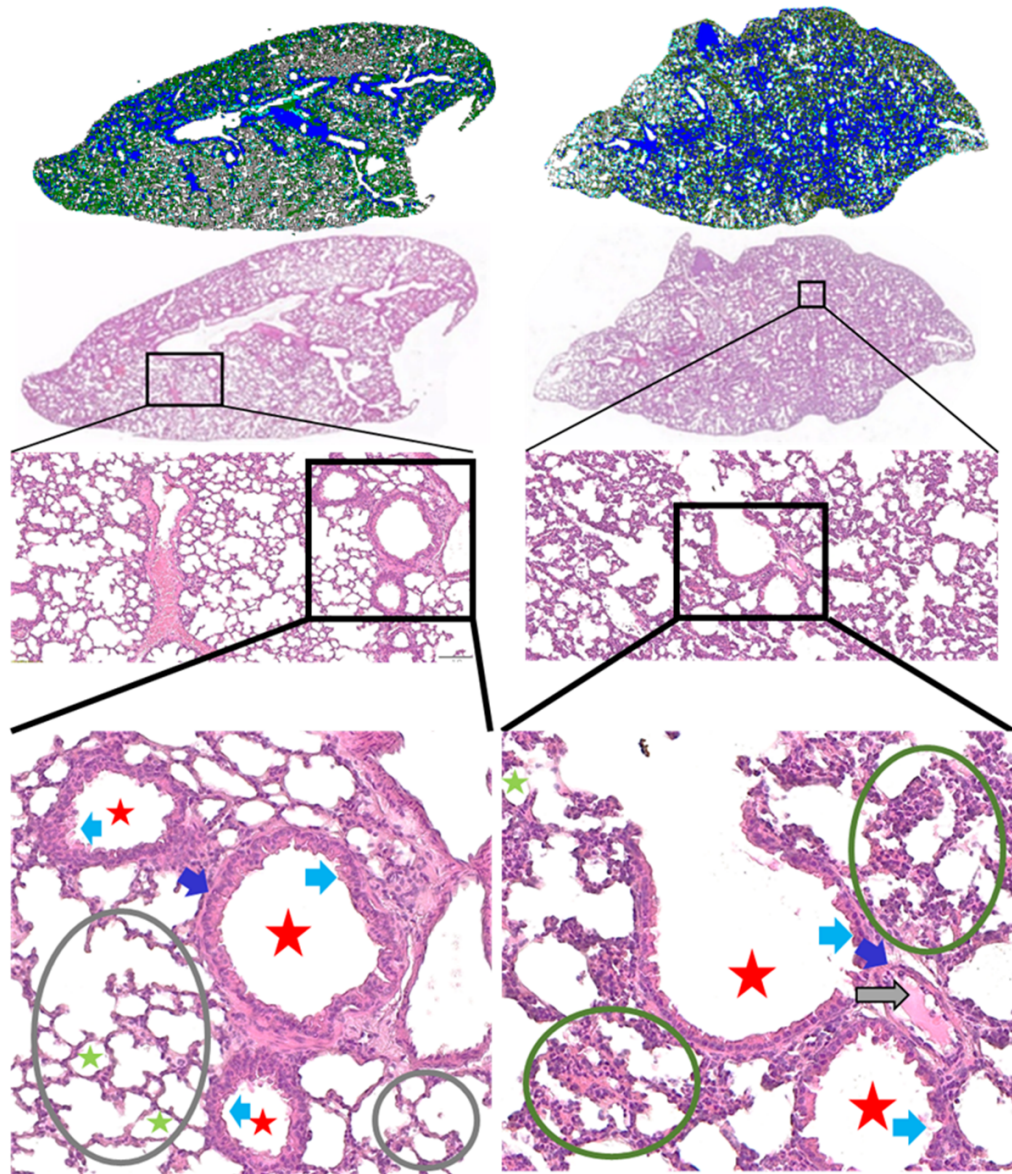
Group	No. of lung cross-sections	FTIR-imaged area [mm <sup>2</sup> ]	No. of recorded FTIR spectra
control	14	315.6	10 846 377
week 1	14	338.3	11 118 139
week 2	14	311.1	10 248 459
week 3	14	329.0	11 002 633
week 4	13	355.7	11 784 069
week 5	9	298.9	10 158 080










**Figure S1.** A schematic of the investigated phases of pulmonary breast cancer metastasis. Development of lung inflammation and metastases were examined from week 1 to week 5 following 4T1 cancer cells transplantation

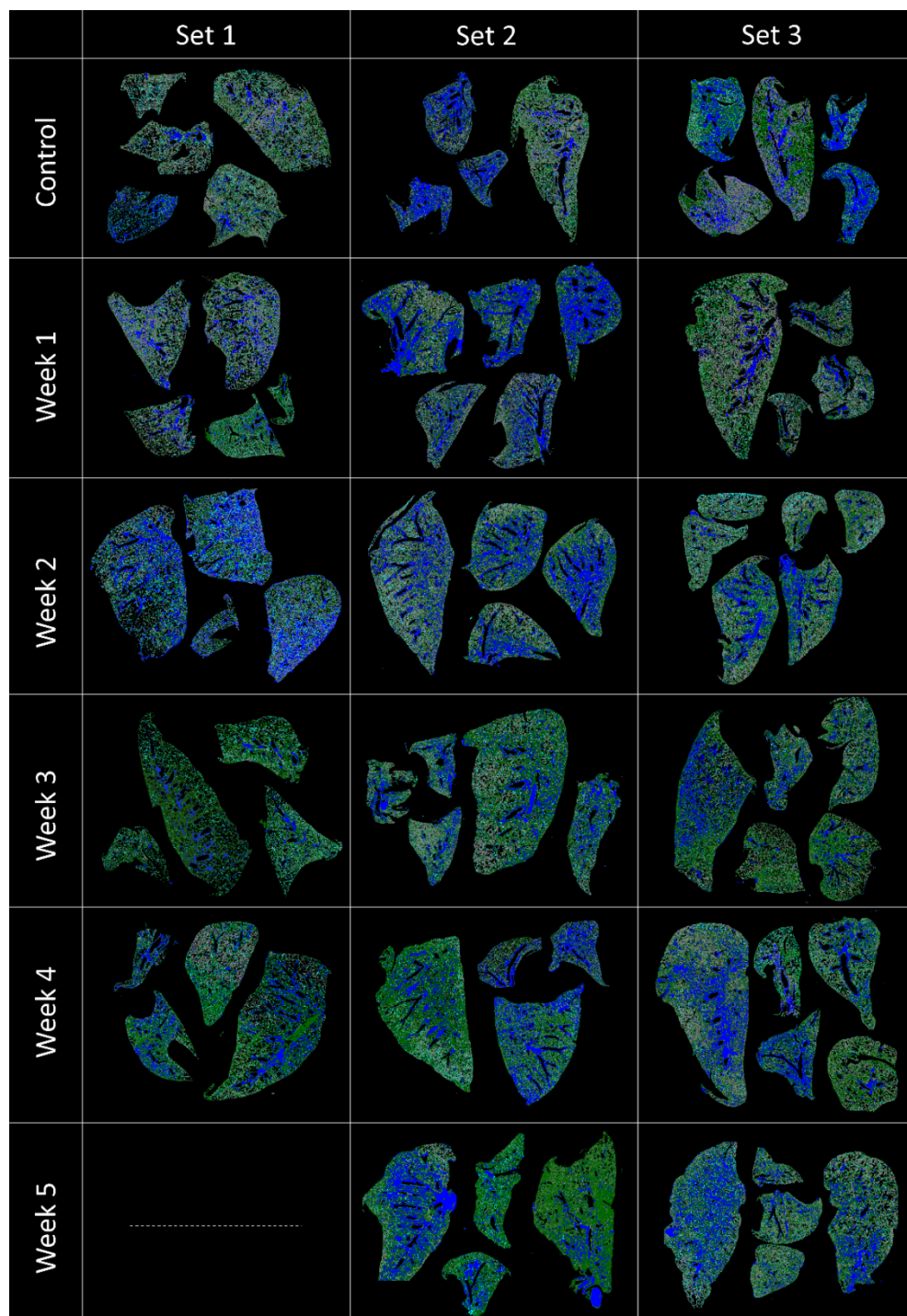
A. Healthy control

B. Advanced macrometastasis (week 5)



<b>Legend</b>					fibrous tissue
	bronchiole lumen lined with respiratory epithelium		goblet cells/ ciliate cells		normal lung parenchyma
	lung pulmonary alveoli lined with alveolar epithelium		small pulmonary artery lumen		lung parenchyma with extensive inflammation/atelectasis

**Figure S2.** H&E microphotographs (20x) showing cellular phenotypes of lung parenchyma observed in healthy control (A) and advanced macrometastasis (B).



**Figure S3.** UHCA clustering of the measured IR images of the lung cross-sections into parenchyma (*grey*), atelectasis (*green*), fibrous/muscular (*blue*), and bronchi ciliate cells (*aqua*) for pulmonary metastasis of breast cancer compared to healthy control; week 1 and 2 – the pre-metastatic phase, week 3 – the early micrometastatic stage, week 4 – the advanced micrometastatic phase, and week 5 – the advanced macrometastatic stage. For more information about FTIR imaged area of tissues and collected spectra see Table 1.