

## *Supplementary Material*

### **Asbestos accelerates disease onset in a genetic model of Malignant Pleural Mesothelioma**

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#### **List of Supplemental Material**

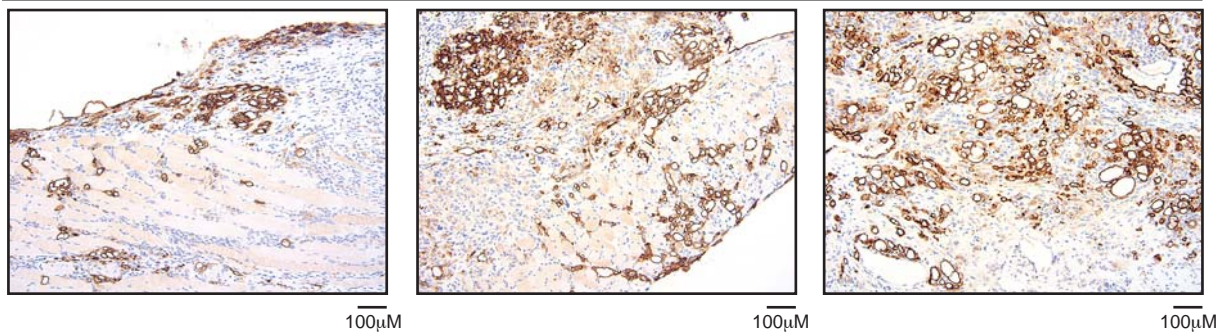
Figure S1. Examples of immunohistochemical detection of Mesothelin expression on diaphragm pleura.

Figure S2. MRI imaging of pleural effusion and mesothelioma in CNP mice induced with lenti-Cre + asbestos

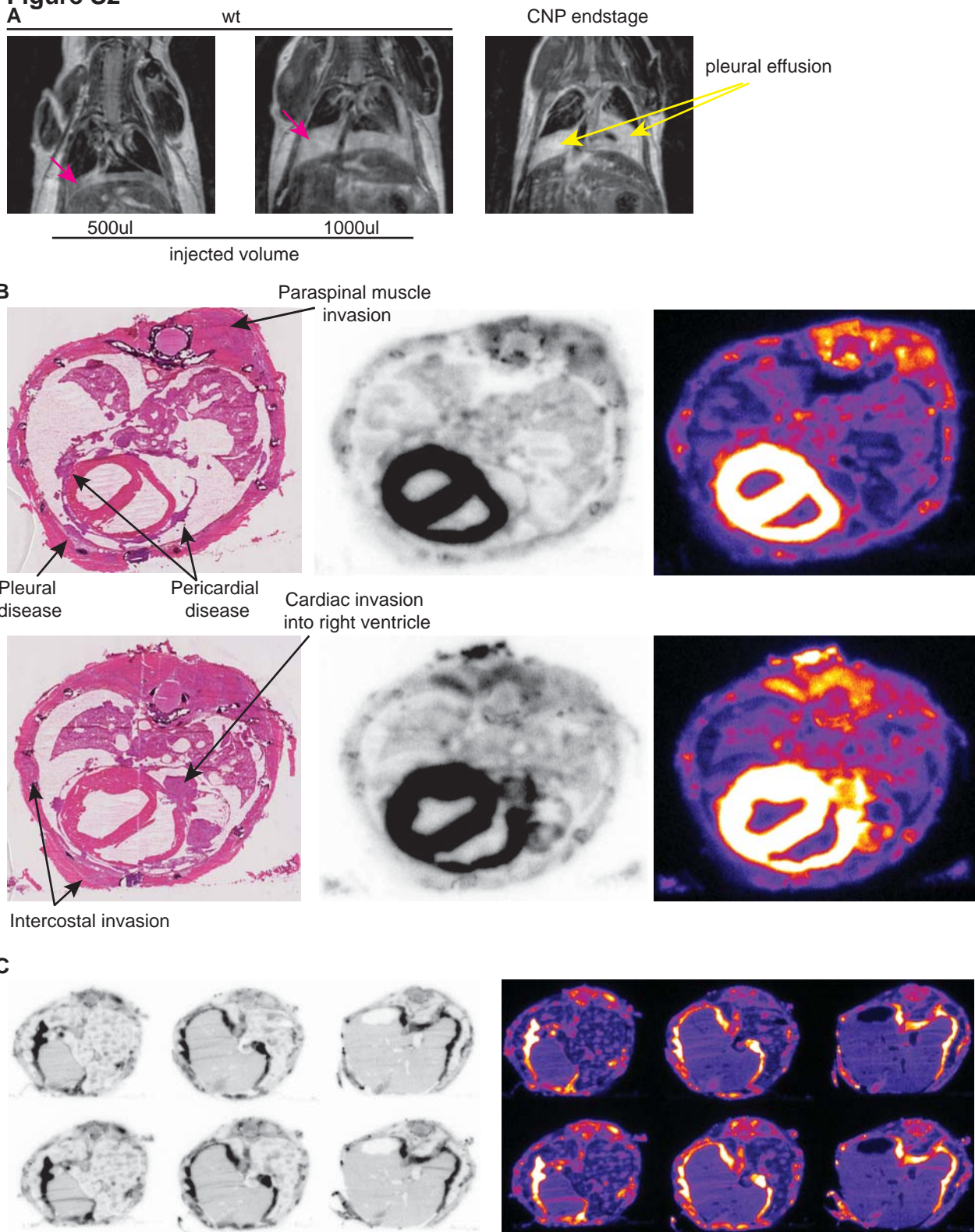
Figure S3. Detection of major leukocyte populations in pleural lavage from pre-symptomatic CNP mice induced with lenti-Cre + asbestos

**Figure S1**

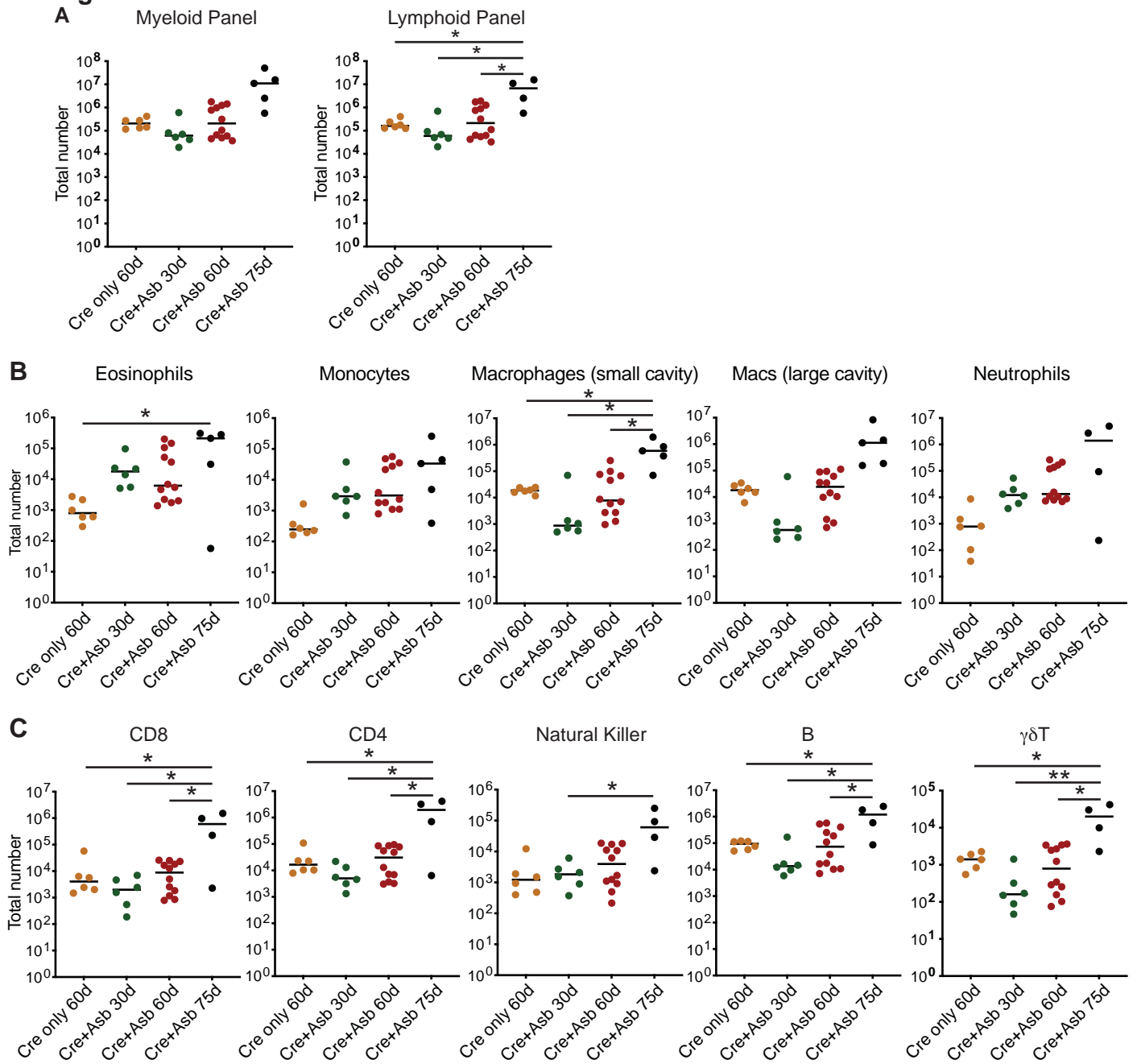
Mesothelin



**Figure S2**



**Figure S3**



**Figure S1. Examples of immunohistochemical detection of Mesothelin expression on diaphragm pleura.**

Representative images of diaphragm pleural tumours stained with anti-Mesothelin antibody (Invitrogen PA5-79698, dilution 1:500, high pH antigen retrieval). Scale bars = 100 $\mu$ M.

**Figure S2. MR imaging of pleural effusion and mesothelioma in CNP mice induced with lenti-Cre + asbestos**

**A)** Detection of sham (left and centre panels) or spontaneous (right panel) pleural effusion by MRI. Left to right: T2-weighted coronal/sagittal image of a wildtype mouse with a 0.5 ml intrapleural injection; T2-weighted coronal/sagittal image of a wildtype mouse with a 1 ml intrapleural injection; T2-weighted coronal/sagittal image of a terminal CNP mouse with disease associated pleural effusion. Pink arrows point to bilateral injected fluid collection; yellow arrows show pleural effusion. **B)** [ $^{18}$ F]-FDG PET/MR imaging of CNP an exemplar mouse (of 2 imaged) induced with lenti-Cre + asbestos at end-stage. Transverse sections through the chest cavity showing H&E stained tissue (left panels) and [ $^{18}$ F]-FDG detection by autoradiography in brightfield (centre panels) and false-colour (right panels) of corresponding whole mount sections. Invasive, pericardial and pleural disease indicated by arrows. **C)** Autoradiography of [ $^{18}$ F]-FDG detection showing extent of pleural disease in an exemplar mouse in brightfield (left) and false colour (right). Note detection of pleural effusion in the 3<sup>rd</sup> section from left (white area in brightfield, black area in false colour).

**Figure S3. Detection of major leukocyte populations in pleural lavage from pre-symptomatic CNP mice induced with lenti-Cre + asbestos**

**A)** FACS quantification of total WBC count/ml of pleural lavage from CNP mice induced with lenti-Cre alone (N=6; day 60) or lenti-Cre + Asbestos, harvested at 30 (N=6), 60 (N=12), or 75 (N=5) days post induction. Left panel shows total CD45+ cell counts per mouse, stained with the Myeloid marker panel; right panel shows total CD45+ cell counts per mouse, stained with the Lymphoid marker panel. **B)** Major Myeloid cell populations quantified from (A). **C)** Major Lymphoid populations quantified from (A). \*\* denotes  $P < 0.01$ ; \* denotes  $P < 0.05$ , 2-way ANOVA with post-hoc Tukey test.