

# Improved MRI detection of inflammation-induced changes in bone marrow microstructure in mice: a machine learning-enhanced T2 distribution analysis

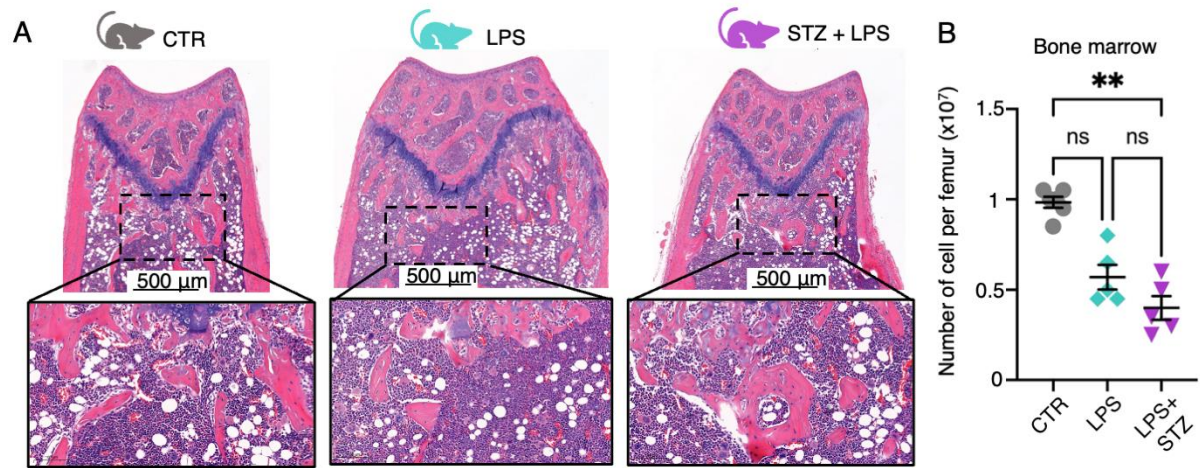
## ELECTRONIC SUPPLEMENTARY MATERIAL

### **Methods**

**Histology.** For comparing the findings in MR with a ground truth, histological exams were performed on the murine bone marrow of left femur. Femur sections of the inflammatory groups were stained with hematoxyline and eosin (H&E).

**Cell count bone marrow cells.** To obtain the number of bone marrow cells per femur, mice from all groups (n=5) were sacrificed, and bone marrow cells were flushed with DMEM from the femur and tibia and isolated through a 70- $\mu$ m mesh. After osmotic erythrocyte lysis, cells were pelleted, counted. Counting the number of unstained (viable) cells was done after incubation with Trypan Blue using a hemocytometer.

## Supplemental Figure



**Figure S1** | Bone marrow H&E staining does not show changes, yet reduction of number of bone marrow cells with increasing inflammatory levels. (A) H&E staining on 4µm sections of femoral bone marrow from control (CTR), acute (LPS), and diabetic and acute inflammation (STZ+ LPS) mice. (B) Quantification of the number of isolated bone marrow cells per femur. (scale = 100µm; Each dot represents one mouse (n=5 mice per group); Kruskal-Wallis test; ns= non-significant, \*\*P < 0.01)