**Supplementary Figure Legends**

**Supplemental Figure S1: Gating strategy for FACS analysis of inflammatory cells**

(A) Gating strategy for evaluation of myeloid cell subpopulations. Single cell tissue or blood suspensions were prepared and labeled. Size (FSC-A) and granularity (SSC-A) was assessed by flow cytometry and CD45+ leukocytes were identified, first (1) gated on CD11b and stratified by Ly6G expression. Neutrophils were identified as $CD45^+/CD11b^+/Ly6G^+$. $CD45^+/CD11b^+/Ly6G^-$ cells were also gated on CD64 and F4/80 and then further stratified by Ly6C expression. Macrophages were identified as $CD45^+/CD11b^+/Ly6G^-/F4/80^+/CD64^+$ and monocytes as Ly6C High or Ly6C low $CD45^+/CD11b^+/Ly6G^-/F4/80^-/CD64^-$ cells; second (2) gated on CD11c and stratified by F4/80 and MHCII expression. Dendritic cells were then identified as $CD45^+/CD11c^+/F4/80^+/MHCII^+$. (B) Gating strategy for evaluation of lymphocytes and eosinophil populations. Single cell tissue or blood suspensions were prepared and labeled. Size (FSC-A) and granularity (SSC-A) was assessed by flow cytometry and CD45+ leukocytes were identified, gated on CD11b and then first (1) further stratified by Siglec-f expression or CD3 and B220 expression. Eosinophils were identified as $CD45^+/CD11b^+/Siglec\text{-}f^+$ cells, T lymphocytes as $CD45^+/CD11b^-/CD3^+$ and B lymphocytes $CD45^+/CD11b^-/B220^+$ cells. (C) Gating strategy for evaluation of dT+ cells in neutrophil, Ly6C High and Ly6C low monocyte as well as macrophage populations, identified as described above.

**Supplemental Figure S2: Characterization of AT- and BM-chimeric mice**

(A) Quantification of $dT^+$ and $dT^-$ $Ly6C^{high}$and $Ly6C^{low}$ monocytes in the blood, BM and spleen of BM- and AT-mice, 7 days post-MI. In the stacked bars, black columns indicate the number of $dT^-$ cells and colored columns the number of $dT^+$ cells in BM-mice (grey) or AT-mice (blue). (n=4-7). (B) Quantification of IFN$\gamma$, TNF$\alpha$, IL-12p40, CCL2, CCL3 and CCL11 levels in cardiac macrophages sorted from BM- and AT-mice, 7 days post MI (n=4-6).

**Supplemental Figure S3: Effect of CD11c depletion on inflammatory chemokines in AT- and BM-chimeric mice**

Quantification in the infarcted heart (A) and in the blood (B) of CCL2, CCL3 and CCL4 in BM- and AT-mice treated with or without diphtheria toxin (DT), at 7 days post MI (n=4-6). * $p<0.05$ versus PBS-treated animals.

**Supplemental Figure S4: Characterization of metabolic profile and inflammatory parameters in AT- and BM-chimeric mice under HFD**

Metabolic profile was investigated in chimeric mice by evaluation of (A) body weight, sub-cutaneous adipose tissue weight (n=4-5), (B) Intra peritoneal glucose tolerance test (IPGTT) and Area under curve (AUC) for IPGTT (n=4-5), and quantification of fasted glycemia (n=12-15). Quantification in the infarcted heart (C) and in the blood (D) of CCL2, CCL3 and CCL4 levels in BM and AT-mice fed with a NC or a HFD (n=4-5). * $p<0.05$; ** $p<0.01$; *** $p<0.001$ in HFD vs NC fed mice.

**Supplementary Table S1**

| Antibody | Clone | fluorochrome | Supplier |
|---|---|---|---|
| Anti CD45 | 30F11 | Alexa Fluor 700 ; BV510 | BD Biosciences |
| Anti CD11b | M1/70 | BV605 ; PerCP-Cy5.5 | BD Biosciences |
| Anti CD11c | HL3 | APC-Cy7 | BD Biosciences |
| Anti Ly6C | AL-21 | FITC | BD Biosciences |
| Anti Ly6G | 1A8 | PE | BD Biosciences |
| Anti-F4/80 | MCA497APC T | APC | Bio-Rad |
| Anti CD64 | X54-5/7.1 | BV421 | BioLegend |
| Anti MHCII | M5/114.15.2 | PerCP-Cy5.5 | BD Biosciences |
| Anti CD3 | 145-2C11 | BV421 | BD Biosciences |
| Anti CD4 | RM4-4 | BV650 | BD Biosciences |
| Anti CD8 | 53-6.7 | PerCP-Cy5.5 | BD Biosciences |
| Anti Ly6A/E (Sca-1) | D7 | FITC | eBiosciences |
| Anti CD45R/B220 | RA3-6B2 | BV496 | BD Biosciences |
| Anti CD117 | 2B8 | PE-Cy7 ; BV510 | BD Biosciences |
| Lineage Panel | 145-2C11 | APC | BD Bioscience |