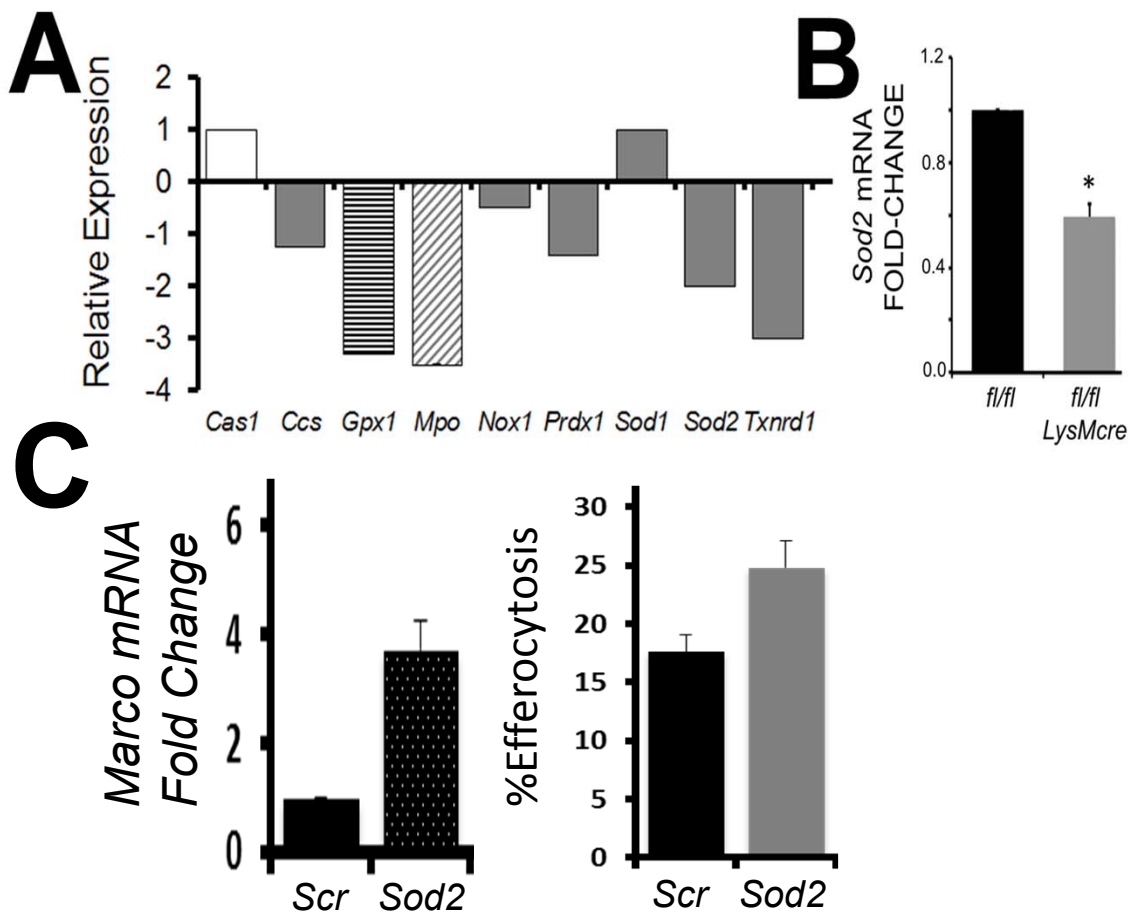
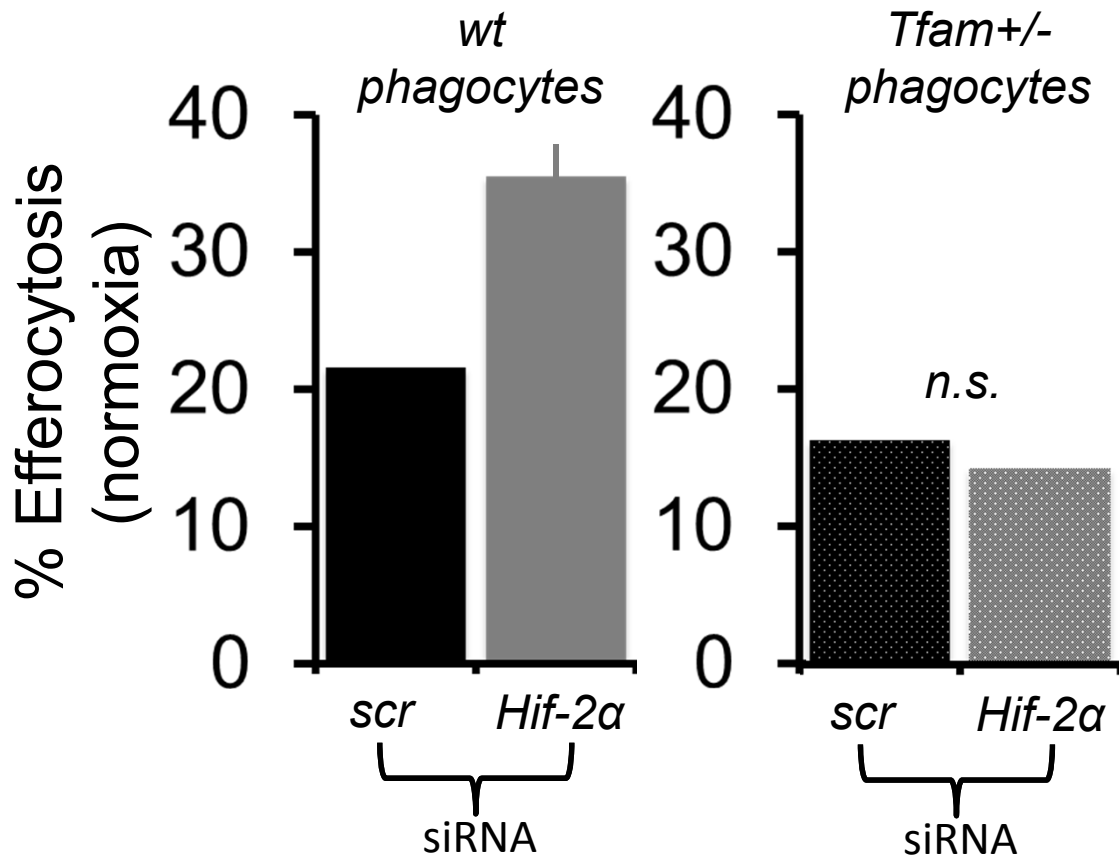


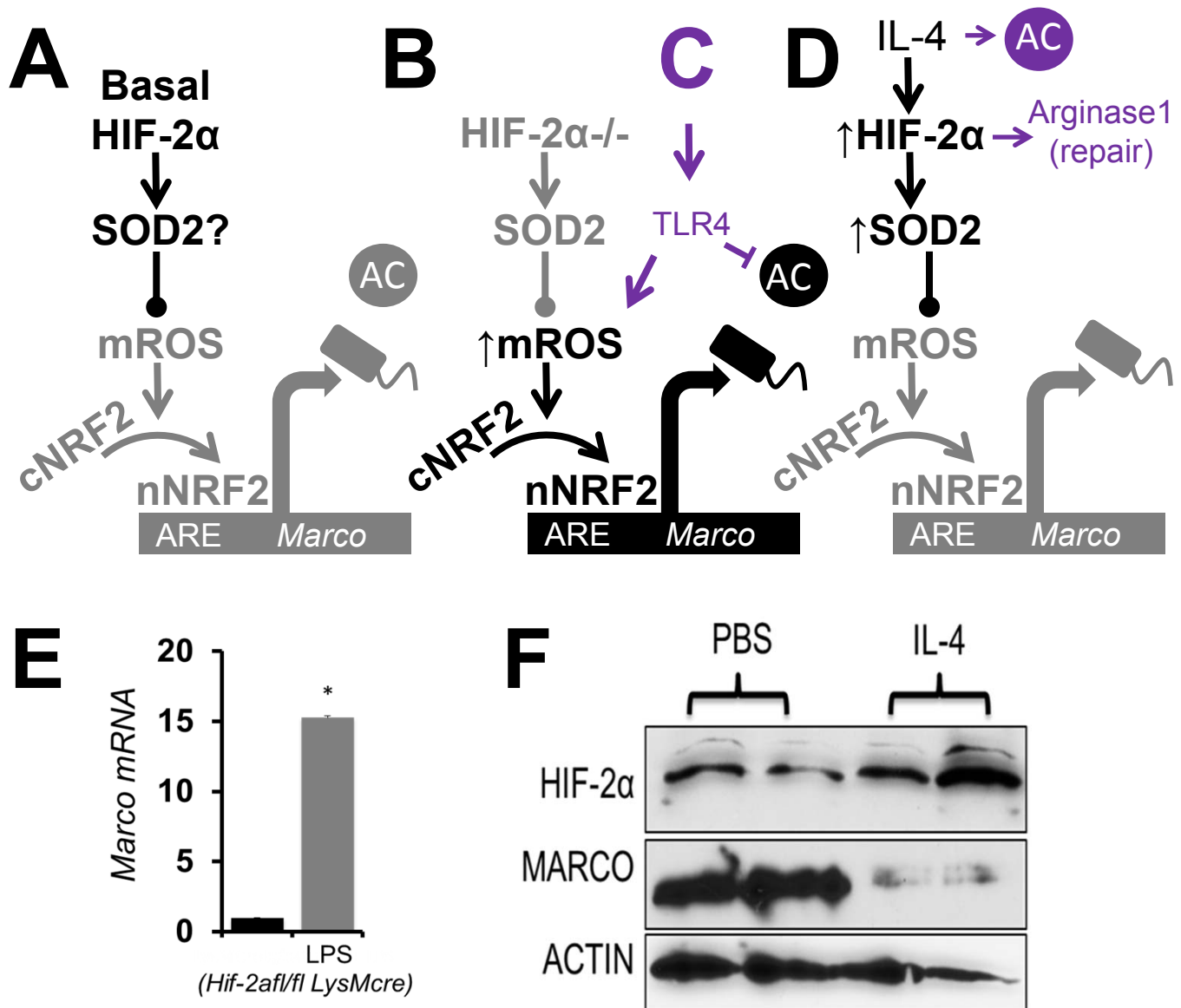
**Supplemental Figure 1. Evidence for HIF-2 $\alpha$  transcriptional regulation of Marco Axis. (A)** Marco mRNA decay profile in the absence of *Hif-2 $\alpha$* : *Hif-2 $\alpha$*  deficiency de-represses *Marco* transcription: MARCO mRNA from WT and *Hif-2 $\alpha$*  KO cells have similar decay profiles/half-lives. For the mRNA stability assay: Control and *Hif-2 $\alpha$ fl/fl* BMDMs were treated with 10ug/ml Actinomycin D or DRB to halt transcription and total cytoplasmic mRNA was collected 0, 1, 2, 4, and 8 hours after treatment. Relative MARCO mRNA levels were enumerated. **(B)** Enhanced efferocytosis in *Arnt fl/fl LysMcre* primary M $\Phi$ s under normoxic culture conditions. Micrographs were captured after overlaying fluorescently labeled (calcein-AM) apoptotic cells (ACs) onto bone marrow derived M $\Phi$ s. Scale bar is 50 micrometers. Line graph is after enumeration of % efferocytosis at indicated times post AC overlay. **(C)** Fold change in % efferocytosis after knocking down *Hif-2 $\alpha$*  with siRNA in *Arnt fl/fl* vs. *Arnt fl/fl LysMcre* bone marrow derived M $\Phi$ s.



**Supplemental Figure 2. Antioxidants are reduced *Hif-2α*-deficient macrophages. (A)** Primary bone-marrow-derived macrophages were subjected to qPCR and gene expression compared to WT cells. *Cas1* is catalase. *Ccs* is copper chaperone for superoxide dismutase. *Gpx1* is glutathione peroxidase 1. *Mpo* is myeloperoxidase. *Nox1* is NADPH oxidase1. *Prdx1* is peroxiredoxin 1. *Sod1* is superoxide dismutase 1. *Sod2* is superoxide dismutase 2. *Txnrd1* is thioredoxin reductase 1. **(B)** *Sod2* validation by qPCR. *Sod2* knockdown increases Marco and efferocytosis. **(C)** WT macrophages were treated with either scrambled (Scr) or *Sod2* siRNA prior to qPCR and efferocytosis assays.



**Supplemental Figure 3. *Tfam*-deficient macrophages and efferocytosis +/- Hif-2α.** Bone marrow derived macrophages were utilized from either WT or *Tfam*+/- macrophages and treated with indicated scrambled (scr) or *Hif-2α* siRNA. Subsequently, efferocytosis was enumerated after adding fluorescently labelled apoptotic Jurkat cells.



**Supplemental Figure 4. Working Model of HIF-2 $\alpha$  : MARCO axis in Macrophages during Steady State, Inflammation, and Repair** (A) Basal HIF-2 $\alpha$  prevents MARCO induction at steady state through regulation of mROS. (B) In experimental Hif-2 $\alpha$ -deficient macrophages, elevations in mROS lead to nuclear translocation of NRF2 (cNRF2>nNRF2) and NRF2-dependent transcriptional induction of Marco. (C) Under pathophysiological situations that induce mROS, such as after TLR4 agonism (PMID 21525932), Marco is induced yet efferocytosis is suppressed (the latter through protease-dependent cleavage of Apoptotic Cell receptors), cumulatively leading to a select pro-bacterial phagocytic mobilization of MARCO. (D) Conditions that induce HIF-2 $\alpha$ , such as IL-4, polarize an M2-like macrophage response (PMID 20194441) and in turn suppress Marco induction and de-emphasize bacterial clearance. (E) Following LPS treatment, MARCO transcription is induced, even in the absence of HIF-2 $\alpha$ . Primary bone marrow derived macrophages were treated with LPS and *Marco* mRNA measured by qPCR in *Hif-2af1/fl LysMcre* macrophages. (F) *In vitro* IL-4 treatment of M $\phi$ s. IL-4 elevates HIF-2 $\alpha$  protein, and reduces MARCO, in isolated primary M $\phi$ s. Bone marrow-derived M $\phi$ s were treated with 100ng IL-4 vs PBS and immunoblotted for indicated proteins.