SUPPLEMENTAL TABLES

Gene	Forward Primer	Reverse Primer
TNF-α	5′ ACTGAACTTCGGGGTGATCG	5′ TGAGGGTCTGGGCCATAGAA
IL-6	5′ GGATACCACTCCCAACAGACCT	5′ GCCATTGCACAACTCTTTTCTC
IL-1β	5′ GCAACTGTTCCTGAACTCAACT	5′ ATCTTTTGGGGTCCGTCAACT
iNOS	5′ GTTCTCAGCCCAACAATACAAGA	5′ GTGGACGGGTCGATGTCAC
KC	5′ CTGGGATTCACCTCAAGAACATC	5′ CAGGGTCAAGGCAAGCCTC
Mrc1	5′ CTCTGTTCAGCTATTGGACGC	5′ CGGAATTTCTGGGATTCAGCTTC
Mgl1	5′ TGAGAAAGGCTTTAAGAACTGGG	5′ GACCACCTGTAGTGATGTGGG
Rentla	5′ CCAATCCAGCTAACTATCCCTCC	5′ CCAGTCAACGAGTAAGCACAG
Chil3	5′ AGGAAGCCCTCCTAAGGACA	5′ CTCCACAGATTCTTCCTCAAAAGC
IL-10	5′ AGGCGCTGTCATCGATTTCTC	5′ GCCTTGTAGACACCTTGGTCTT
CD68	5′ GCAGCACAGTGGACATTCAT	5′ AGAGAAACATGGCCC GAAGT
F4/80 (Adgre1)	5′ GCC CAG GAGTGGAATGTCAA	5′ CAGACACTCATCAACATCTGCG
B2m	5′ TTCTGGTGCTTGTCTCACTGA	5′ CAGTATGTTCGGCTTCCCATTC
Ppia	5′ GAGCTGTTTGCAGACAAAGTTC	5′ CCCTGGCACATGAATCCTGG

Suppl. Table 1: Mouse M1- and M2- and HKG primers sequences

Gene	Forward Primer	Reverse Primer
TNF-α	5′ CAGAGGGCCTGTACCTCATC	5′ GGAAGACCCCTCCCAGATAG
MCP-1	5′ CCCCAGTCACCTGCTGTTAT	5′ TGGAATCCTGAACCCACTTC
Mrc1	5′ CGAGGAAGAGGTTCGGTTCACC	5′ GCAATCCCGGTTCTCATGGC
CD163	5′ TTGCCAGCAGCTTAAATGTG	5′ AGGACAGTGTTTGGGACTGG
B2m	5′ GCTCGCGCTACTCTCTCTTT	5′ TGTCGGATGGATGAAACCCA
Ppia	5′ GCATACGGGTCCTGGCATCTTGTCC	5′ ATGGTGATCTTCTTGCTGGTCTTGC

Suppl. Table 2: Human M1- and M2- and HKG primers sequences

IHC	Primary antibody	Diluent	Visualization
F4/80	F4/80 T-2006 clone BM8 BMA Biomedicals	1/50	Performed on Discovery Ventana UltraMap anti Rat DAB Kit
B220	B220 553084 clone RA3-6B2, BD Biosciences	1/4000	Performed on Discovery Ventana UltraMap anti Rat DAB Kit
CD3	CD3 MA1-90582 clone SP7, Thermo Fisher Scientific	1/300	Performed on Bond Leica DAB Kit
Ly-6G	Ly-6G 551459 clone 1A8, BD Biosciences	1/600	Performed on Bond Leica DAB Kit

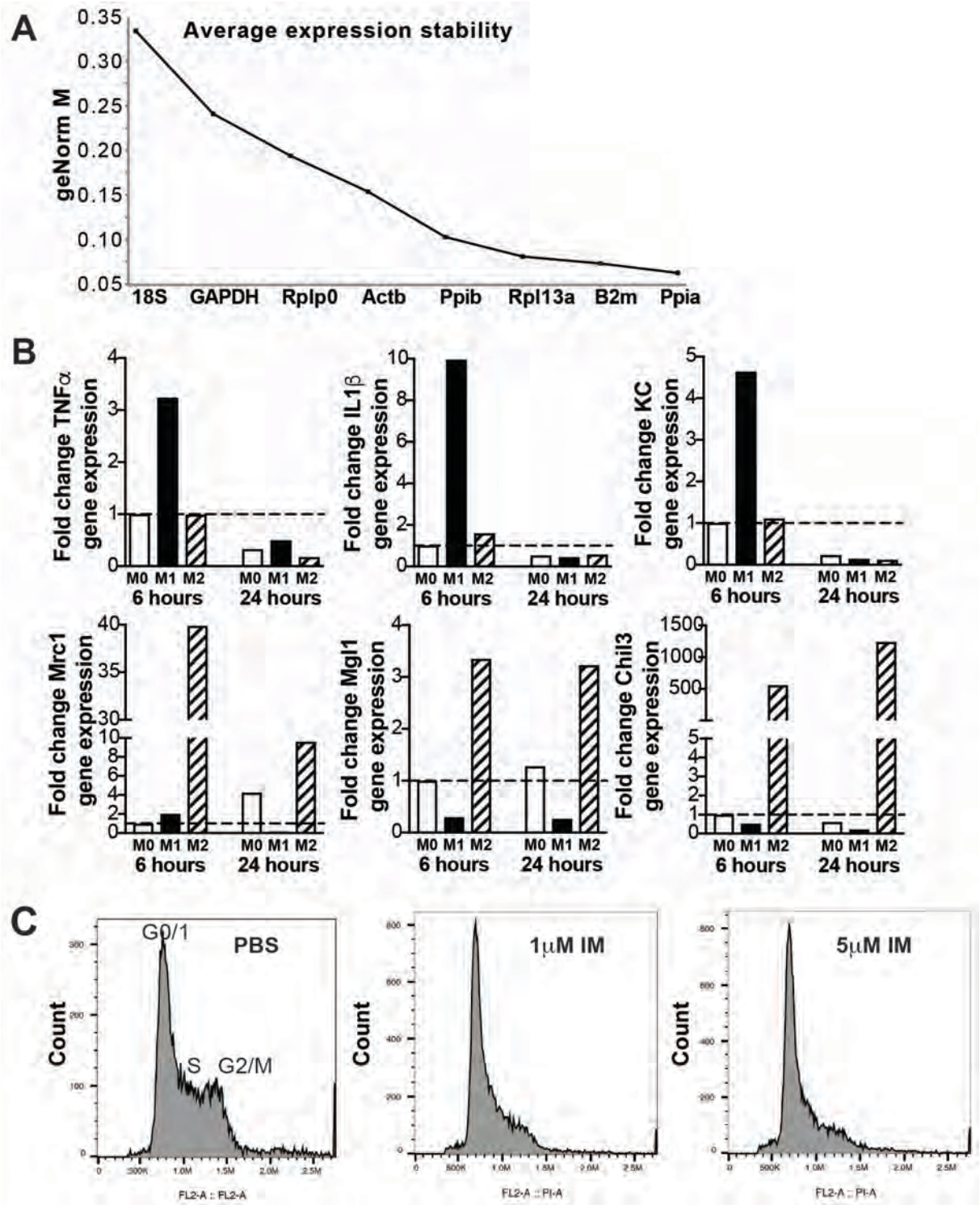
Suppl. Table 3: Antibodies for IHC of immune cells in paraffin liver sections

	Healthy Controls (n=6)	Diabetics, adequate control (n=5)	Diabetics, inadequate control (n=7)
General parameter			
Sex (M/F)	6/0	3/2	4/3
Age (years)	29.5±3.3	57.0±5.0	52.7±5.5
BMI (kg/m^2)	22.8±1.5	33.5±1.9	37.4±4.5
Weight (kg)	74.8±4.6	100.0±7.6	111.3±16.8
Waist-to-hip Ratio	0.86±0.02	0.99±0.05	1.04±0.05
Glc metabolism			
HbA1c (% (mmol/mol))	na	**7.0±0.5 (53)**	**12.6±0.6** (114)**
Fasting plasma glucose (mmol/l), average	na	**8.3±1.2**	**16.0±1.3****
Diabetes duration (years)	na	7.2±3.9	12.9±4.9
Antidiabetics			
- Oral/GLP1-Anal. (%)	na	80	85.7
- Insulin (%)	na	20	85.7
Inflammation			
CRP (mg/dl)		3.9±0.6	10.0±4.6
Leukocytes (x10^9/l)		**6.4±0.4**	**8.3±0.7***
Other Cv-Risks			
Blood Pressure			
- Antihypertensive drug (%)	0	40	85.7
- Systolic (mmHg)	125±4	126±9	143±7
- Diastolic (mmHg)	72±4	80±6	83±5
Family History			
- Diabetes (%)	16.7	100	57.1
- Obesity (%)	16.7	80	57.1
- CV disease (%)	16.7	40	42.9
Smoking (%)	0	0	42.9

Suppl. Table 4: Baseline characteristics of healthy, adequately and inadequately controlled diabetics. Statistical differences between adequately and inadequately controlled diabetics are indicated in bold font. Data presented as mean±SEM, na: not applicable, *p<.05, **p<.01

SUPPLEMENTAL FIGURES

Suppl. Figure 1

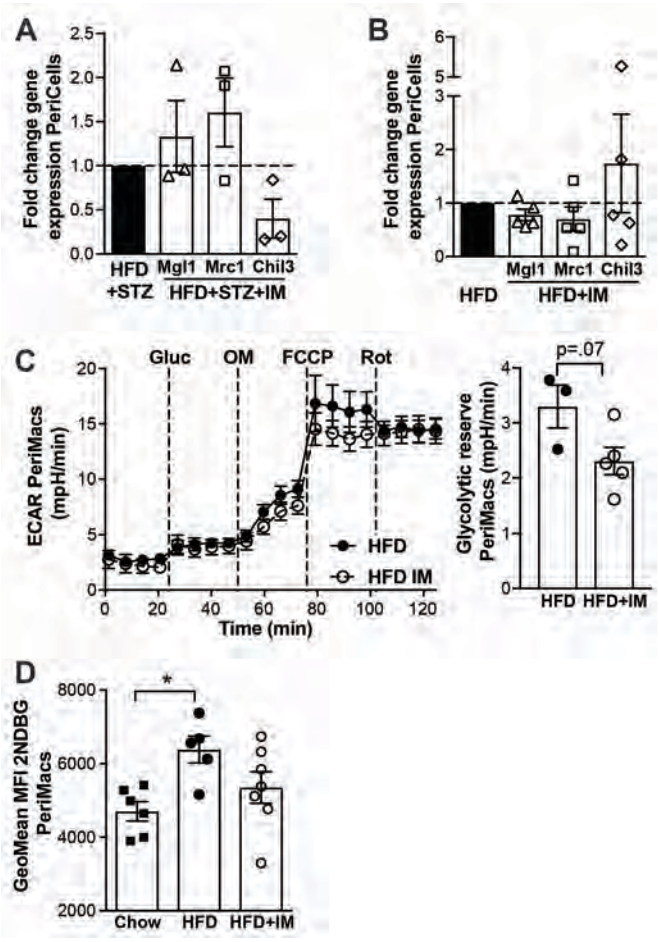


Suppl. Fig. 1: Optimization of *In Vitro* Set-Up.

Due to the highly dynamic behavior of macrophages, we optimized *in vitro* readouts for macrophage housekeeping genes (HKGs), the optimal time point for macrophage activation

and imatinib dose. **A:** Average expression stability of HKGs 18S, GAPDH, Rplp0, Actb, Ppib, Rpl13a, B2m, Ppia according to the geNorm algorithm with B2m and Ppia most stably expressed. **B:** The 6-hour time point was chosen for peritoneal macrophages when fold gene expression of pro-inflammatory M1-markers was most pronounced, while fold gene expression of anti-inflammatory M2-markers was similar at 6 and 24 hours after stimulation. **C:** Flow cytometry for cell cycle with G1-phase arrest of the CML-cell line K562 at both 1uM and 5uM imatinib compared to PBS-treated cells.

Suppl. Figure 2

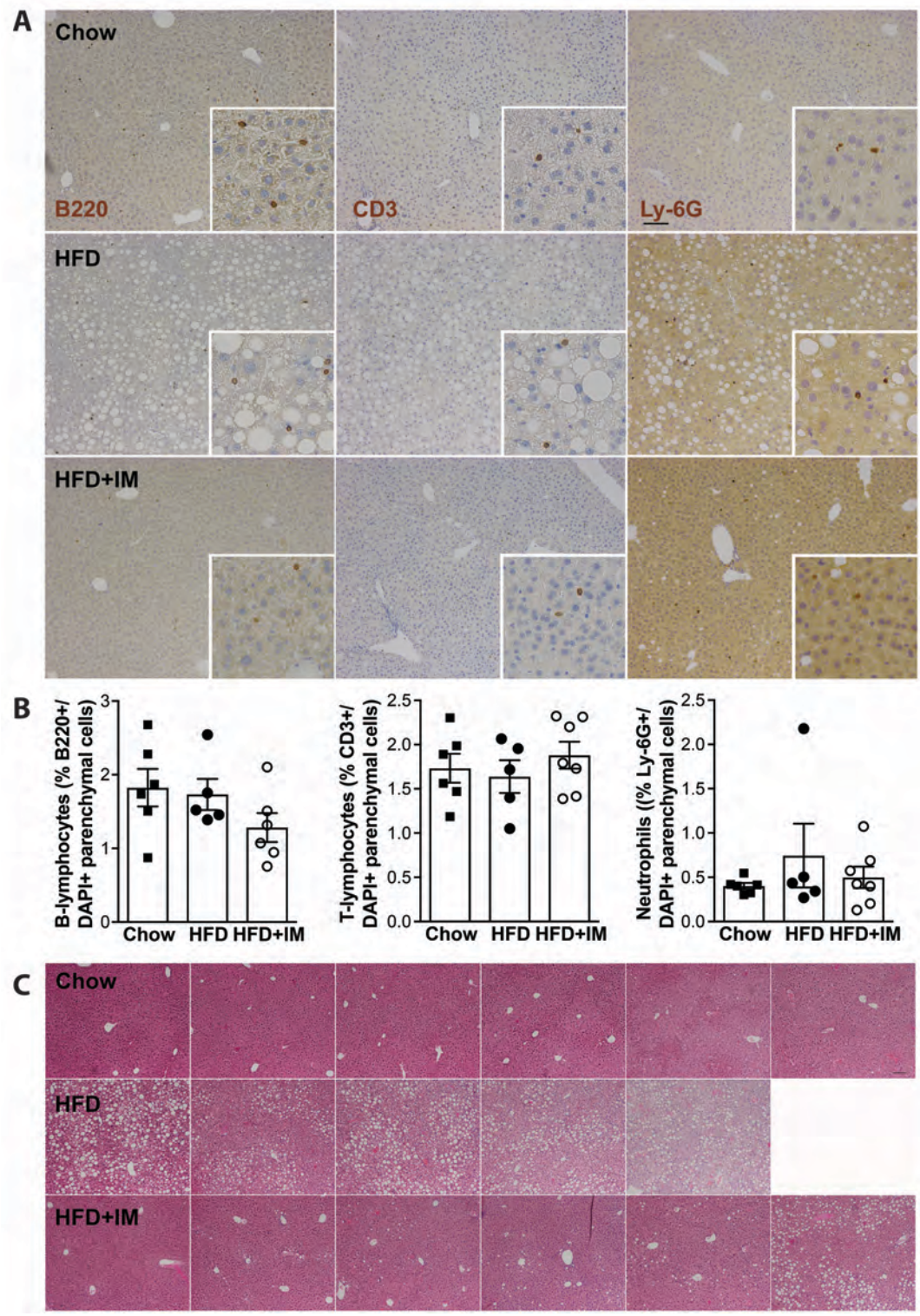


Suppl. Fig. 2: Anti-inflammatory Gene Expression and Glycolysis in Peritoneal Macrophages of Imatinib-Treated Mice.

A/B: Fold change of anti-inflammatory gene expression in peritoneal cells of diabetic and obese mice treated with imatinib compared to their respective controls. **C:** Seahorse flux

analysis with ECAR (measure of metabolic glycolysis) and calculated glycolytic reserve (mpH/min) in peritoneal macrophages of HFD-fed mice treated for 3 months with imatinib or vehicle. **D:** Flow cytometric 2-NDBG in peritoneal macrophages of imatinib-treated mice and controls. HFD+STZ: HFD-fed/STZ-treated controls, HFD+STZ+IM: HFD-fed/STZ/imatinib-treated mice; HFD: HFD-fed controls, HFD+IM: HFD-fed/imatinib-treated mice. Data expressed as mean±SEM, *=p<.05.

Suppl. Figure 3

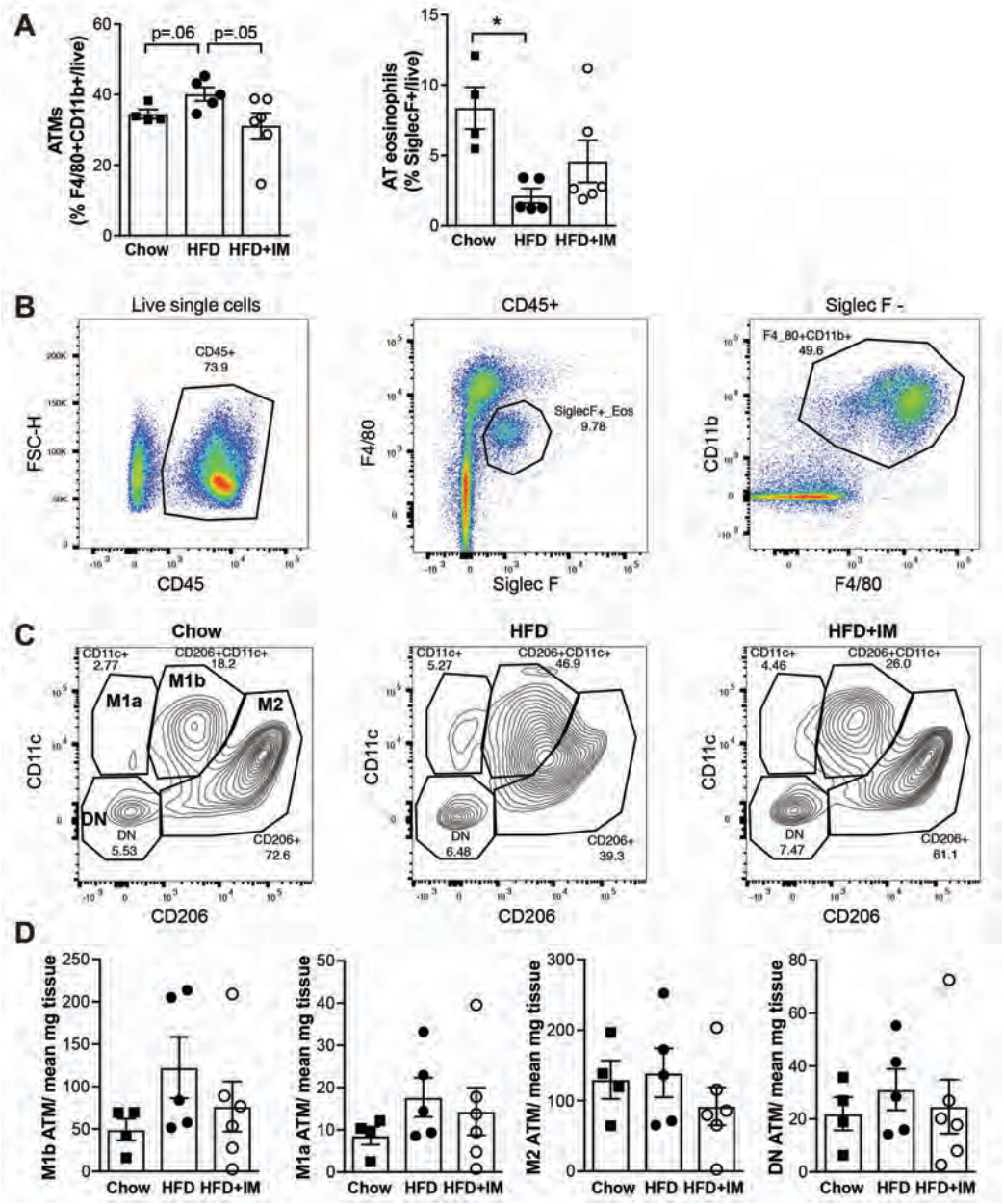


Suppl. Fig. 3: Liver Histology of B- and T-lymphocytes and Neutrophils and Liver Sections of Individual Mice Regarding Steatosis.

A/B: Representative pictures (scale bar = 100µm) and quantification of B-lymphocytes (% B220+/DAPI+ parenchymal cells), T-lymphocytes (% CD3+/DAPI+ parenchymal cells) and

neutrophils (Ly-6G+/DAPI+ parenchymal cells) in chow, HFD and HFD+IM-treated mice. **C:** H&E liver sections of 5-6 individual chow, HFD and HFD+IM-treated mice. HFD: high fat diet; IM: imatinib.

Suppl. Figure 4

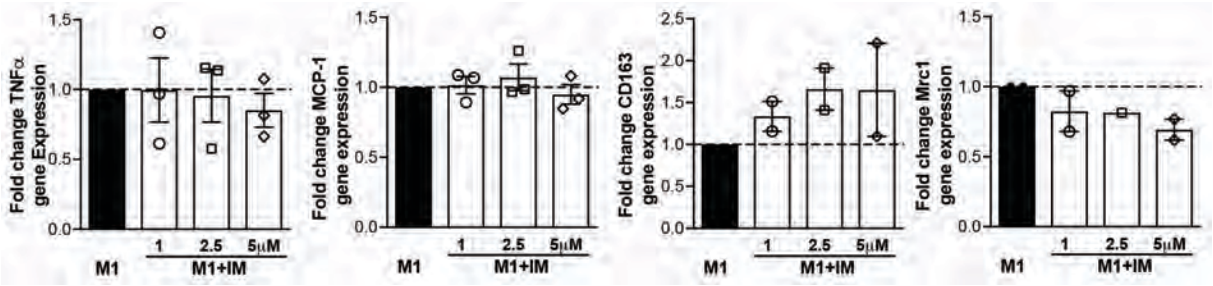


Suppl. Fig. 4: Adipose Tissue Macrophages upon Imatinib Treatment.

A: Quantification of ATM and eosinophils as percentage of live cells by flow cytometry of chow, HFD and HFD+IM-treated mice (n = 4-6). Adipose tissue macrophage subpopulation

flow cytometric staining strategy (**B**), representative flow cytometry plots (M1a: CD11c+CD206-; M1b: CD11c+CD206+; M2: CD11c^{low}CD206^{high}; DN: CD11c-CD206-; **C**) and quantification of absolute cell number (**D**) in chow, HFD and HFD+IM-treated mice (n = 4-6). ATM: adipose tissue macrophage; HFD: high fat diet; IM: imatinib; DN: double-negative.

Suppl. Figure 5



Suppl. Fig. 5: Increasing Doses of Imatinib in Activated Monocytes of Inadequately Controlled Diabetics.

Fold change of gene expression of TNFα, MCP-1, CD163 and Mrc1 with increasing doses of imatinib (1, 2.5, 5 μM) in inadequately controlled diabetics (n = 3). M1: pro-inflammatory; M1+IM: pro-inflammatory/imatinib-treated.