**Supporting Information Figures and Tables**

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**Supporting Information Figure S1.** Differentiation of EOCs in the presence of GW3965 generates a distinct population of EOCs that does not induce myeloid or mesenchymal markers. **(A-C):** EOCs from WT and *Lxrαβ*-/- mice were treated with GW3965 and gene expression was performed for **(A)**, *Cd11b*, **(B)**, *Tgfβ*, and **(C)**, *Fsp1*. n=6 per group. **(D-E):** Shotgun proteomic analysis of cell pellets at day 1 or day 9, differentiated in the presence of Veh or GW3965. **(D)** Protein quantitation of the endothelial marker von Willebrand factor (vWF) using label free quantitation (LFQ). **(E)** Unsupervised clustering of proteomic data (using LFQ values) demonstrating distinct sub-populations of EOCs differentiated with Veh vs. GW3965. n=2-3 per group. Data represent the mean ± SEM. \**P*<0.05, \*\**P*<0.01, \*\*\*\**P*<0.0001.

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**Supporting Information Figure S2.** Incubation with the secretome from GW3965-treated EOCs does not reduce the expression of adhesion molecules and selectins on activated endothelial cells and is effective at decreasing monocyte-adhesion when incubated either pre- or during TNFα. **(A-C)** HUVECs were incubated with conditioned media from treated EOCs and gene expression was assessed for **(A)** *VCAM1*, **(B)** *ICAM1*, and **(C)** *SELE*. n=6 per group. **(D)** CM from GW3965-treated EOCs was applied to HUVECs for either i) 20 hrs before TNFα addition, ii) 4 hrs concurrent with TNFα addition, or iii) during both periods and the effect on monocyte-endothelial binding was quantified. Scale bar = 400 μm. n=3-6 per group. Data represent the mean ± SEM. \**P*<0.05, \*\**P*<0.01, \*\*\*\**P*<0.0001.



**Supporting Information Figure S3.** Injection of CM from vehicle or GW3965 treated EOCs does not impact the systemic inflammatory markers **(A)** plasma IL-6 levels or **(B)** spleen weight to body weight ratio. n=11-12 per group. Data represent the mean ± SEM.

**Supporting Information Table S1.** List of mouse primers.

|  |  |  |  |
| --- | --- | --- | --- |
| **Gene (abbrev.)** | **Accession number** | **Forward Primer (5’ 🡪 3’)** | **Reverse Primer (5’ 🡪 3’)** |
| Fibroblast specific protein 1 (*Fsp1*) | NM\_011311.2 | aagctgaacaagacagagctcaag | atgaagctgcattccagaaggt |
| Integrin αM (*Cd11b*) | NM\_0010829601.1 | CAGCACAAGCCGGTGTCA | GACATATTCACAGCCTCTGGAGGTA |
| Kinase domain receptor (*Vegfr2*) | NM\_010612.2 | GATGCAGGAAACTACACGGTCAT | AGGCGAGATCAAGGCTTTCTC |
| Peptidylprolyl isomerase A (*Cyclophilin*) | NM\_011149.2 | CAACGATAAGAAGAAGGGACCTAAA | CGTCCTACAGATTCATCTCCAATTT |
| Protein tyrosine phosphatase, receptor type, C (*Cd45*) | NM\_011210.3 | AAGCACTGACCCTCCAAGCA | CATGGCAGCACATGTTTGC |
| Transforming growth factor β (*Tgfβ*) | NM\_011577.1 | gcagtggctgaaccaagga | agcagtgagcgctgaatcg |
| VE-cadherin (*Cd144*) | NM\_009868.4 | TGGCCAAAGACCCTGACAA | ACTGGTCTTGCGGATGGAGTA |

**Supporting Information Table S2.** List of human primers.

|  |  |  |  |
| --- | --- | --- | --- |
| **Gene name (abbrev.)** | **Accession number** | **Forward Primer (5’ 🡪 3’)** | **Reverse Primer (5’ 🡪 3’)** |
| Endothelial-leukocyte adhesion molecule (*SELE*) | NM\_000450.2 | GGCCACGGTGAATGTGTAGAG | CCCAGTGGGTGACTGCAAAC |
| Intercellular cell adhesion molecule (*ICAM1*) | NM\_000201.2 | GCCGGCCAGCTTATACACAA | TGGCCACGTCCAGTTTCC |
| Peptidylprolyl isomerase A (*CYCLOPHILIN*) | NM\_000942.4 | ggagatggcacaggaggaa | gcccgtagtgcttcagttt |
| Vascular cell adhesion molecule 1 (*VCAM1*) | NM\_001078.3 | AAACAAAGGCAGAGTACGCAAAC | GGCTGACCAAGACGGTTGTATC |

**Supporting Information Table S3.** Circulating immune cells in splenectomized *Ldlr*-knockout mice receiving EOCs.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Saline | Veh EOC | GW3965 EOC |
| RBC (1012 cells/L) | 10.0 ± 0.3 | 9.9 ± 0.2 | 10.4 ± 0.1 |
| WBC (109 cells/L) | 13 ± 1 | 12 ± 1 | 13.0 ± 0.8 |
| Lymphocyte (109 cells/L) | 10 ± 3 | 10 ± 1 | 10.1 ± 0.6 |
| Platelet (109 cells/L) | 590 ± 40 | 670 ± 20 | 610 ± 30 |
| Monocyte (109 cells/L) | 0.55 ± 0.06 | 0.59 ± 0.05 | 0.59 ± 0.05 |
| Neutrophil (109 cells/L) | 2.7 ± 0.4 | 2.1 ± 0.1 | 2.2 ± 0.4 |

n=10-11 mice per group. Data represent the mean ± SEM. RBC: red blood cell, WBC: white blood cell.

**Supporting Information Table S4.** Circulating immune cells in *Ldlr*-knockout mice receiving conditioned media derived from treated EOCs.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Control | Veh CM | GW3965 CM |
| RBC (1012 cells/L) | 10.0 ± 0.2 | 10.2 ± 0.1 | 10.3 ± 0.1 |
| WBC (109 cells/L) | 6.7 ± 0.5 | 8.3 ± 0.5 | 8.0 ± 0.5 |
| Lymphocyte (109 cells/L) | 5.2 ± 0.4 | 6.3 ± 0.3 | 6.2 ± 0.4 |
| Platelet (109 cells/L) | 580 ± 50 | 670 ± 30 | 650 ± 30 |
| Monocyte (109 cells/L) | 0.28 ± 0.03 | 0.41 ± 0.04 | 0.44 ± 0.04\* |
| Neutrophil (109 cells/L) | 1.3 ± 0.1 | 1.5 ± 0.2 | 1.4 ± 0.2 |

n=11-12 mice per group. Data represent the mean ± SEM. \**P*<0.05 compared to Control. RBC: red blood cell, WBC: white blood cell.