**Online Supplement**

**Fms-like tyrosine kinase 3 is a regulator of the cardiac side population in mice**

Giacomo Della Verde1,\*, Michika Mochizuki1,\*, Vera Lorenz1, Julien Roux1,2, Lifen Xu1, Leandra Ramin-Wright1, Otmar Pfister1,3,# and Gabriela M. Kuster1,3,#

1Department of Biomedicine, University Hospital Basel and University of Basel, Switzerland, 2Swiss Institute of Bioinformatics, Basel, Switzerland, and 3Department of Cardiology, University Hospital Basel, Basel, Switzerland, \*co-first authors; # co-senior authors

**Supplemental Tables and Figure**

**Supplemental Table 4**

Gene set enrichment analysis. Gene ontology gene sets that are differentially expressed in flt3L-/- versus wt SP-CPCs, selected according to function within the cardiovascular system and with an adjusted p-value <0.05 are listed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Gene Set1** | **NGenes** | **Direction** | **absLog2FC** | **PValue** | **adj.P.Val** |
| GO\_REGULATION OF HEART MORPHOGENESIS | 32 | Down | 0.36 | 1.0E-04 | 4.2E-03 |
| GO\_HEART FIELD SPECIFICATION | 11 | Down | 0.40 | 3.0E-04 | 8.8E-03 |
| GO\_HEART FORMATION | 22 | Down | 0.37 | 3.6E-04 | 9.6E-03 |
| GO\_POSITIVE REGULATION OF HEART GROWTH | 32 | Down | 0.37 | 3.7E-04 | 9.9E-03 |
| GO\_HEART VALVE DEVELOPMENT | 61 | Down | 0.32 | 6.8E-04 | 1.4E-02 |
| GO\_REGULATION OF HEART GROWTH | 56 | Down | 0.33 | 7.8E-04 | 1.5E-02 |
| GO\_HEART GROWTH | 76 | Down | 0.31 | 8.4E-04 | 1.6E-02 |
| GO\_CELL MIGRATION INVOLVED IN HEART DEVELOPMENT | 12 | Down | 0.36 | 4.4E-03 | 4.6E-02 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Gene Set2** | **NGenes** | **Direction** | **absLog2FC** | **PValue** | **adj.P.Val** |
| GO\_CENTRAL NERVOUS SYSTEM PROJECTION NEURON AXONOGENESIS | 22 | Down | 0.47 | 5.8E-06 | 6.3E-04 |
| GO\_REGULATION OF HEMATOPOIETIC STEM CELL DIFFERENTIATION | 69 | Up | 0.20 | 3.3E-05 | 2.0E-03 |
| GO\_SKELETAL SYSTEM DEVELOPMENT | 375 | Down | 0.32 | 3.5E-05 | 2.0E-03 |
| GO\_POSITIVE REGULATION OF STEM CELL DIFFERENTIATION | 16 | Down | 0.45 | 7.1E-05 | 3.2E-03 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Gene Set3** | **NGenes** | **Direction** | **absLog2FC** | **PValue** | **adj.P.Val** |
| GO\_POSITIVE REGULATION OF VASCULAR ASSOCIATED SMOOTH MUSCLE CELL MIGRATION | 14 | Down | 0.37 | 5.6E-04 | 1.3E-02 |
| GO\_VASCULAR ASSOCIATED SMOOTH MUSCLE CONTRACTION | 20 | Down | 0.41 | 8.1E-04 | 1.6E-02 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Gene Set4** | **NGenes** | **Direction** | **absLog2FC** | **PValue** | **adj.P.Val** |
| GO\_CORONARY VASCULATURE DEVELOPMENT | 42 | Down | 0.30 | 3.5E-03 | 4.0E-02 |

1search term “heart”; 2search term “stem”; 3search term “vascular”; 4search term “coronary”.