

Nollet E, Hoymans VY, Rodrigus IR, De Bock D, Dom M, Vanassche B, Van Hoof VOM, Cools N, Van Ackeren K, Wouters K, Vermeulen K, Vrints CJ, Van Craenenbroeck EM. **Bone marrow-derived progenitor cells are functionally impaired in ischemic heart disease.** *Journal of Cardiovascular Translational Research*.

SUPPLEMENTARY TABLES

Table I. Flow cytometric assessment of the cellular composition of the BM-MNC pool of patients with and without IHD.

P-values for comparison between groups by Mann-Whitney U.

	IHD (n=5)	no IHD (n=5)	p-value
Functional analysis BM-MNC			
Migratory Capacity (%) BM-MNC	25 (17-32)	28 (22-40)	0.462
GM-CFU (n)	44 (41-50)	76 (58-84)	0.009
BFU-E (n)	33 (23-45)	39 (32-52)	0.347
Numerical analysis BM-MNC			
% CD45+ (/viable BM-MNC)	83.93 (82.50-88.37)	87.91 (85.54-92.32)	0.117
% Erythroblasts (/viable BM-MNC)	8.13 (5.07-12.35)	9.26 (6.45-11.27)	0.917
% T cells (/viable CD45+ BM-MNC)	23.80 (19.86-42.68)	25.66 (23.72-41.20)	0.602
% NK cells (/viable CD45+ BM-MNC)	3.45 (2.39-5.21)	4.14 (1.91-6.16)	0.754
% B cells (/viable CD45+ BM-MNC)	3.37 (1.64-10.92)	6.23 (3.77-11.12)	0.602
% Mature B cells (/B cells)	64.10 (33.51-89.14)	65.57 (48.06-72.02)	0.917
% Hematogones (/B cells)	32.14 (8.56-60.23)	30.73 (22.82-46.43)	0.917
% Lymphoblasts (/B cells)	2.44 (1.21-7.90)	4.08 (3.92-6.45)	0.465
% Monocytes (/viable CD45+ BM-MNC)	17.31 (15.59-19.61)	11.37 (9.02-16.29)	0.047
% Granulocytes (/viable CD45+ BM-MNC)	24.01 (18.40-35.22)	34.02 (9.83-41.72)	0.917
% CD34+ blasts (/viable CD45+ BM-MNC)	2.98 (2.62-4.82)	3.15 (2.43-5.10)	0.917
% Lymphoblasts (/CD34+ blasts)*	3.39 (1.46-15.55)	12.63 (2.96-18.42)	0.347
% CD33+ Myeloblasts (/CD34+ blasts)**	73.68 (43.62-87.48)	71.47 (29.80-76.37)	0.602
% CD117+ Myeloblasts (/CD34+ blasts)***	82.12 (71.66-84.45)	67.88 (60.33-81.16)	0.295
Ratio Lymphoblasts* / CD33+ Myeloblasts**	4.80 (1.63-73.00)	17.27 (6.25-48.26)	0.347
Ratio Lymphoblasts* / CD117+ Myeloblasts***	4.13 (1.69-22.48)	18.72 (3.67-32.02)	0.347

Table II. Differences in cytokine levels between BM and PB.

Levels of inflammatory cytokines (IFN γ , TNF α , IL-6) were significantly lower in BM compared to PB, while levels of angiogenic growth factors (VEGF and bFGF) were significantly higher in BM compared to PB in the entire subpopulation (n=25).

Data are expressed as median (IQR). *p<0.05 (Kruskal-Wallis).

CYTOKINE	BM	PB	<i>p-value</i>
IFN γ (pg/ml)	3.39 (1.07-4.58)	4.47 (3.14-5.40)	0.001
TNF α (pg/ml)	1.66 (1.20-2.03)	2.00 (1.61-2.26)	0.005
IL-6 (pg/ml)	0.47 (0.05-1.00)	0.47 (0.27-1.16)	0.019
VEGF (pg/ml)	76.50 (61.49-224.71)	32.66 (16.24-87.96)	0.001
bFGF (pg/ml)	122.13 (80.23-286.75)	2.82 (1.77-4.89)	<0.001

Table III. Cytokine receptor expression on BM-MNC in patients with CAD, ICM and non-ischemic HF compared to Controls.

*p<0.05 (Kruskal-Wallis)

Gene target name	Symbol	UniGene	GeneBank Accession number	Fold up- or downregulation		
				CAD vs. Controls	ICM vs. Controls	Non-ischemic HF vs. Controls
Tumor necrosis factor receptor 1	TNFR1	Hs.279594	NM_001065	1.08	1.22	-1.00
Tumor necrosis factor receptor 1	TNFR2	Hs.256278	NM_001066	1.55	1.44	-1.19
Interferon gamma receptor 1	IFNGR1	Hs.520414	NM_000416	-1.11	1.06	-1.46
Interleukin 6 receptor	IL6R	Hs.135087	NM_000565	1.20	1.00	-1.03
Chemokine (CXC-motif) receptor 4	CXCR4	Hs.593413	NM_001008540	1.16	1.03	-1.38
Kinase insert domain receptor	KDR	Hs.479756	NM_002253	-1.90	-1.43	-1.77