

Supplementary Materials and Methods

Table S1. List of the primer sequences used for SYBR-green RT-PCR

Gene name	Gene sequence (5' - 3')
IFN γ forward	ACACTGCATCTTGGCTTTGC
IFN γ reverse	CTGGCTCTGCAGGATTTTCA
IL13 forward	CACACAAGACCAGACTCCCC
IL13 reverse	CCAGGGATGGTCTCTCCTCA
IL4 forward	AGGTCACAGGAGAAGGGACGCC
IL4 reverse	TGCGAAGCACCTTGGAAGCCC
TNF α forward	AGCACAGAAAGCATGATCCG
TNF α reverse	GTTGCTACGACGTGGGCTA
VEGF-C forward	GGGGGCGAGGTCAAGGCTTTT
VEGF-C reverse	CCTGGTATTGAGGGTGGGCTGC
TGF β 1 forward	AGAAGAAGTCTGTGTGC GG
TGF β 1 reverse	ACTGTGTGTCCAGGCTCCAA
IL10 forward	ACAGCCGGAAGACAATAACT
IL10 reverse	GCAGCTCTAGGAGCATGTGG
Rplp0 forward	AGATTCGGGATATGCTGTTGGC
Rplp0 reverse	TCGGTCCTAGACCAGTGTTT

Supplementary figures and tables

Table S2. Key networks (top-10) down-regulated in lymphedema. Network analysis of the genes up-regulated 2 and 6 weeks post-operatively in comparison to control (un-operated) mice according to RNA sequencing analysis.

Pathway	P value
Chemotaxis	1.3E-5
Neurogenesis	2.2E-5
Gonadotropin regulation	3.8E-5
Potassium transport	8.8E-5
Ossification and bone remodeling	6.9E-4
Synaptogenesis	1.3E-3
ECM remodeling	2.1E-3
Histamin signaling	2.1E-3
Negative regulation of cell proliferation	3.6E-3
Progesterone signaling	4.4E-03

Table S3. Patient characteristics and cell count numbers

Patient	Surgical treatment	Chemotherapy/ Radiotherapy	Average CD45 cell counts/field	Average FOXP3 cell counts/field
Control 1	Mastectomy	Both	38.4	3.2
Control 2	Mastectomy	Both	33.4	1.4
Control 3	Mastectomy + LN dissection	Both	27	0.8
Control 4	Lumpectomy	Both	37.6	2
Control 5	Mastectomy + LN dissection	Both	34.8	2.4
Lymphedema 1	Mastectomy	Both	68	8.4
Lymphedema 2	Mastectomy + LN dissection	Both	75.4	12.8
Lymphedema 3	Mastectomy + LN dissection	Both	70.2	10
Lymphedema 4	Lumpectomy	Both	55	6.8
Lymphedema 5	Mastectomy + LN dissection	Both	85.4	13.4

Further files included with the submission:

Movies S1: Dynamics of lymphatic transport in the control group following therapeutic adoptive Treg transfer.

Movies S2: Dynamics of lymphatic transport in the treated group following therapeutic adoptive Treg transfer.

Data files S1: Differentially expressed genes ($P < 0.05$) 2 weeks post-operatively in comparison to control mice.

Data files S2: Differentially expressed genes ($P < 0.05$) 6 weeks post-operatively in comparison to control mice.

Manuscript referenced in the text:

E. Gousopoulos, S. T. Proulx, J. Scholl, M. Uecker, M. Detmar, Prominent lymphatic vessel hyperplasia with progressive dysfunction and distinct immune cell infiltration in lymphedema, *Am J Path* (2016) *In press*