

## SUPPLEMENTARY MATERIAL

### **Abnormalities of peripheral lymphocyte subsets in rheumatoid arthritis patients complicated with osteoporosis**

*Ting Cheng<sup>1,2</sup>, Sheng-Xiao Zhang<sup>1,2</sup>, Jia Wang<sup>1,2</sup>, Jun Qiao<sup>1,2</sup>, Min-Jing Chang<sup>3</sup>, Hong-Qing Niu<sup>1,2</sup>, Guang-Ying Liu<sup>1</sup>, Xiao-Feng Li<sup>1,2\*</sup>*

<sup>1</sup> Department of Rheumatology, The Second Hospital of Shanxi Medical University; Taiyuan, China;

<sup>2</sup> Key Laboratory of Cellular Physiology at Shanxi Medical University, Ministry of Education; Taiyuan, China;

<sup>3</sup> School of Management, Shanxi Medical University; Taiyuan, China.

**\*Corresponding author:**

*Xiao-Feng Li Ph. D. & Prof.*

*Department of Rheumatology, The Second Hospital of Shanxi Medical University  
Taiyuan, Shanxi, China*

*E-mail address: [lxsf\\_9859@sxmu.edu.cn](mailto:lxsf_9859@sxmu.edu.cn)*

**Supplementary Table 1. Absolute numbers and proportions of peripheral lymphocyte subsets among HC(A), RA-non-OP(B) and RA-OP(C) group**

	HC (A) (n=117)	RA-non-OP (B) (n=557)	RA-OP (C) (n=220)	P A vs. B	P2 A vs. C	P3 B vs. C
T (cell/ $\mu$ L)	1230.03 $\pm$ 309.08	1203.86 $\pm$ 490.04	1184.79 $\pm$ 542.26	0.595	0.415	0.621
T (%)	69.59 $\pm$ 6.68	70.74 $\pm$ 9.83	72.15 $\pm$ 9.73	0.232	<b>0.018</b>	0.062
B (cell/ $\mu$ L)	203.65 $\pm$ 83.34	198.78 $\pm$ 121.79	178.75 $\pm$ 134.70	0.692	<b>0.022</b>	<b>0.038</b>
B (%)	11.54 $\pm$ 3.81	11.85 $\pm$ 5.49	10.82 $\pm$ 5.96	0.579	0.245	<b>0.018</b>
NK (cell/ $\mu$ L)	304.42 $\pm$ 144.91	255.13 $\pm$ 178.81	236.27 $\pm$ 149.88	<b>0.004</b>	<b>&lt;0.001</b>	0.159
NK (%)	17.04 $\pm$ 6.48	15.39 $\pm$ 9.05	15.11 $\pm$ 8.79	0.062	0.053	0.691
CD8 <sup>+</sup> T (cell/ $\mu$ L)	450.60 $\pm$ 166.05	432.74 $\pm$ 225.25	423.83 $\pm$ 232.79	0.426	0.289	0.612
CD8 <sup>+</sup> T (%)	25.56 $\pm$ 7.21	25.53 $\pm$ 9.17	26.04 $\pm$ 8.79	0.974	0.639	0.475
Th1 (cell/ $\mu$ L)	95.78 $\pm$ 70.57	113.81 $\pm$ 100.00	110.52 $\pm$ 94.14	0.063	0.176	0.665
Th1 (%)	19.58 $\pm$ 23.63	15.90 $\pm$ 10.98	15.75 $\pm$ 10.29	<b>0.006</b>	<b>0.011</b>	0.889
Th2 (cell/ $\mu$ L)	8.79 $\pm$ 5.78	8.75 $\pm$ 7.25	9.93 $\pm$ 10.09	0.961	0.210	0.063
Th2 (%)	1.60 $\pm$ 1.35	1.30 $\pm$ 1.03	1.50 $\pm$ 1.30	<b>0.011</b>	0.438	<b>0.032</b>
Th17 (cell/ $\mu$ L)	6.44 $\pm$ 5.06	7.33 $\pm$ 5.69	8.40 $\pm$ 7.73	0.154	<b>0.006</b>	<b>0.031</b>
Th17 (%)	1.12 $\pm$ 0.88	1.10 $\pm$ 0.78	1.34 $\pm$ 1.42	0.851	0.054	<b>0.003</b>
Treg (cell/ $\mu$ L)	34.25 $\pm$ 16.22	30.42 $\pm$ 18.95	26.44 $\pm$ 16.28	<b>0.036</b>	<b>&lt;0.001</b>	<b>0.006</b>
Treg (%)	6.56 $\pm$ 5.90	4.44 $\pm$ 2.09	4.02 $\pm$ 2.11	<b>&lt;0.001</b>	<b>&lt;0.001</b>	0.065
Th1/Th2	15.24 $\pm$ 21.50	18.09 $\pm$ 17.83	16.65 $\pm$ 17.78	0.126	0.503	0.322
Th17/Treg	0.20 $\pm$ 0.15	0.31 $\pm$ 0.36	0.46 $\pm$ 0.92	<b>0.044</b>	<b>&lt;0.001</b>	<b>0.001</b>

Results are expressed by the mean $\pm$ standard deviation. Statistics: one-way analysis of variance.

RA: rheumatoid arthritis; OP: osteoporosis; T: T cells; B: B cells; NK: natural killer cells; CD8<sup>+</sup>T: CD8<sup>+</sup>T cells; Th1: T helper 1 cells; Th2: T helper 2 cells; Th17: T helper 17 cells; Treg: regulatory T cells; Th1/Th2: T helper 1 cells/ T helper 2 cells ratio; Th17/Treg: T helper 17 cells/regulatory T cells ratio.