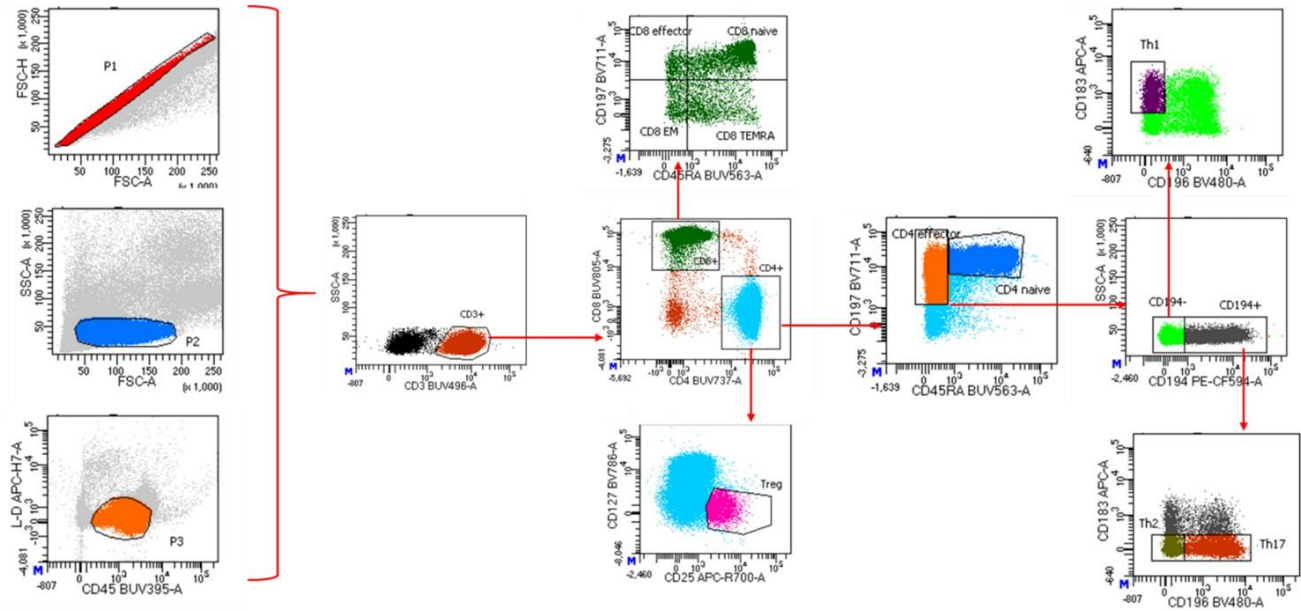


Supplementary Material



Supplementary Figure 1. Gating strategy. PBMCs were stained with the following antibodies: monoclonal anti-CD45 human antibody (mAb) (leucocytes), anti-CD3 mAb (T cells), anti-CD4 mAb (T helper cells), anti-CD8 mAb (cytotoxic T cells) anti-CD45RA and anti-CD197 mAbs (naïve, central memory (CM), effector memory cells (EM), and terminally differentiated EM cells), anti-CD25 and anti-CD127 mAbs (regulatory T cells, Tregs), anti-CD183, anti-CD194 and anti-CD196 mAbs (Th1, Th2, and Th17). The samples were acquired BD FACSymphony™ A5 flow cytometer. Data were analyzed using the BD FACSDIVA™ software (Version 9.0., Becton and Dickinson, NJ, USA).

Supplementary Table 1. Comparison of the methodology and main findings with similar studies.

Culture duration	PBMC density	Material	Findings	Reference
24 and 48h	2 x 10 ⁶ PBMCs/sample	Ti6Al4V	↑ TNF-α in polished discs compared with control without discs	(1)
72h	7.5 x 10 ⁵ PBMC/sample	Straumann Titanium-based dental implants	↑ IL-6 and IL-8 in acid etched discs compared with control without discs	(2)
24, 72h and 6 days	2 x 10 ⁶ PBMCs/sample	Commercially pure titanium	↑ GRO-α, MIG, MCP-1, IL-13, IL-4, -6, -8, -1β and TNF-α in polished titanium compared with treated discs (titanium oxide nanotubes on the surface)	(3)
24h	1 x 10 ⁶ PBMCs/mL	Ti6Al4V	↑ IL-8 in polished discs	(4)
5 days	1 x 10 ⁶ PBMCs/mL	Etched Titanium (commercially available)	↑ IL-6, GRO-α (CXCL1), ENA-78 (CXCL5) and EGF in etched discs compared with control without discs	(5)
24h	5 x 10 ⁴ PBMCs/sample	Alumina- blasted and acid-etched (AB/AE) Ti6Al4V alloy	↓ IL-1B in AB/AE alloy compared with control without discs	(6)
6 days	2 x 10 ⁶ PBMCs/mL	Polished medical-grade Titanium discs	↑ MMP9 in whole PBMCs (but not in PBMC without CD14+ monocytes) in polished discs compared with control without discs	(7)

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