



Figure S1. Simulated microgravity alters cDC but not pDC phenotype. BMDC differentiated for 7 days with Flt3L (A-B) or splenic DCs (C) were cultured for 24 hours in the absence (1G) or presence (μ G) of simulated microgravity and with (+LPS) or without (-LPS) LPS. Cells were then analyzed by flow cytometry for the expression levels of MHCII, CD40, CD80 and CD86 in CD11C+, CD11C+ mPDCA- (cDC) or CD11C+ mPDCA+ (pDC) populations. (A, B and C) Representative FACS histograms are shown of populations that express the related marker.

Table S1. Ova323-339-pulsed DCs polarize mainly naïve CD4 T cells towards Th1 effector cells. Splenic DCs were isolated from mice and cultured for 24 hours in the absence (1G) or presence (μ G) of simulated microgravity with (+LPS) or without (-LPS) LPS and then pulsed with ova323-339. DCs were then cocultured for 4 days with CD4+ T cells isolated from OTII mice. On day 4, T cells were restimulated for 6 hours with PMA/ionomycin in the presence of Golgi inhibitor. Production of indicated cytokine or transcription factor was determined by intracellular staining followed by flow cytometry. Data represent the percentage of CD4+ T cells subpopulation for each condition. Mean \pm SEM of 3 independent experiments.

		Th1 (CD4+IFN γ +)	Th2 (CD4+ IL4+)	Th17 (CD4+ IL17+)	Treg (CD4+ FoxP3)
- LPS	1G	13.4 +/- 2.3	2.32 +/- 1.54	0.44 +/- 0.27	0.21 +/- 0.1
	μ G	9.83 +/- 1.66	2.46 +/-1.26	0.66 +/- 0.08	0.48 +/- 0.09
+ LPS	1G	18.29 +/- 1.55	3.18 +/- 2.61	0.22 +/- 0.07	0.13 +/- 0.05
	μ G	14.11 +/- 0.7	1.93 +/- 1.27	0.27 +/- 0.08	0.21 +/- 0.06