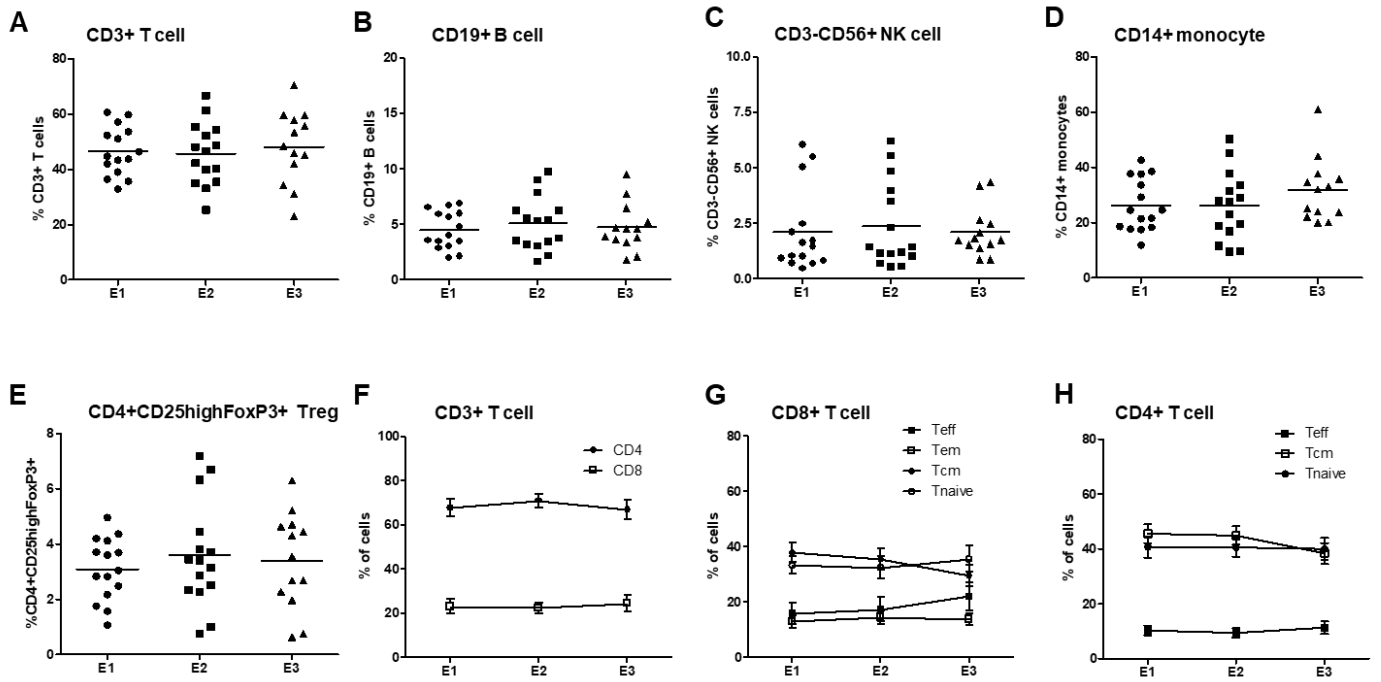


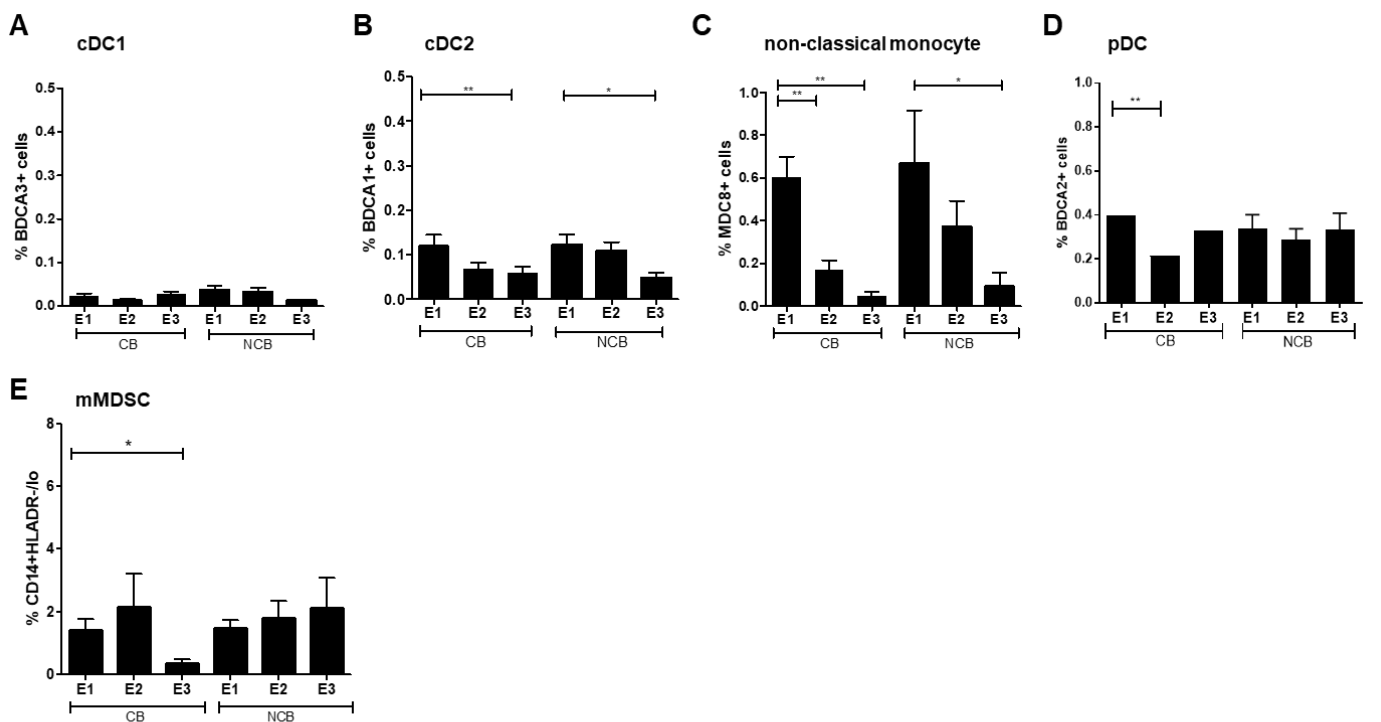
Supplemental table 1. Adverse events

Adverse Event	Any grade	Grade 1	Grade 2	Grade 3 or 4
Fatigue	13	7	5	1
Fever	10	10		
GGT elevation	10	3	1	6
Anemia	8	1	5	2
ALP elevation	6		3	3
Anorexia	6	5	1	
Malaise	6	6		
Night sweats	6	5	1	
Skin rash	6	6		
Chills	5	5		
Creatinine elevation	5	5		
Itch	5	5		
Pain	5	5		
Cough	4	4		
Dizziness	4	3		1
Nausea	4	4		
Myalgia	3	3		
Abdominal pain	2	2		
Constipation	2	2		
Aphasia	1			1
Attention disorder	1	1		
Chest pain	1	1		
Diarrhea	1	1		
Disturbed balance	1			1
Dry skin	1	1		
Dyspnea	1		1	
Hemoptysis	1	1		
Headache	1	1		
Hearing loss	1	1		
Hemiplegia	1			1
Hypertension	1	1		
Insomnia	1	1		
Melena	1			1
Nycturia	1	1		
Edema	1		1	
Pancreatitis	1		1	
Rectal blood loss	1	1		
Rhinitis	1	1		
Sensory Neuropathy	1			1
Vomiting	1	1		

Abbreviations: GGT, gamma-glutamyl transferase; ALP, Alkaline phosphatase



Supplemental figure 1 Frequencies of circulating CD3⁺ T cells (A), CD19⁺ B cells (B), CD3⁻CD56⁺ NK cells (C), CD14⁺ classical monocytes (D) and CD4⁺CD25^{hi}FoxP3⁺ Tregs (E) and frequencies of circulating CD4⁺ T cells, CD8⁺ T cells (F) and CD4⁺ (G) or CD8⁺ (H) Tn, Teff, Tcm or Tem cells at baseline (E1), third vaccination (E2), and follow-up (7-14 weeks, E3).



Supplemental figure 2 Comparative analysis of PBDC frequencies between patients with clinical benefit (CB: stable disease [SD], partial response [PR] and complete response [CR]) and patients with no clinical benefit (NCB: progressive disease [PD]). at baseline (E1), third vaccination (E2), and follow-up (7-14 weeks, E3).