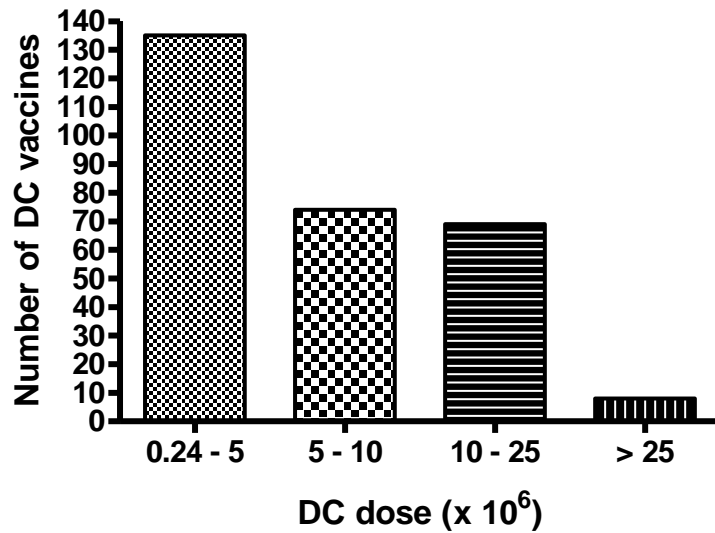
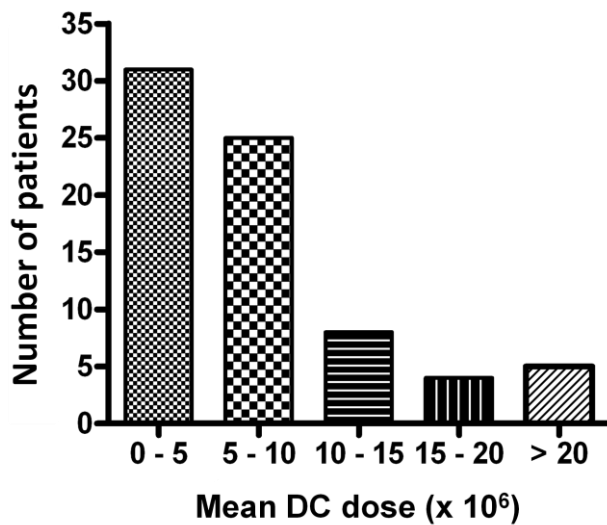


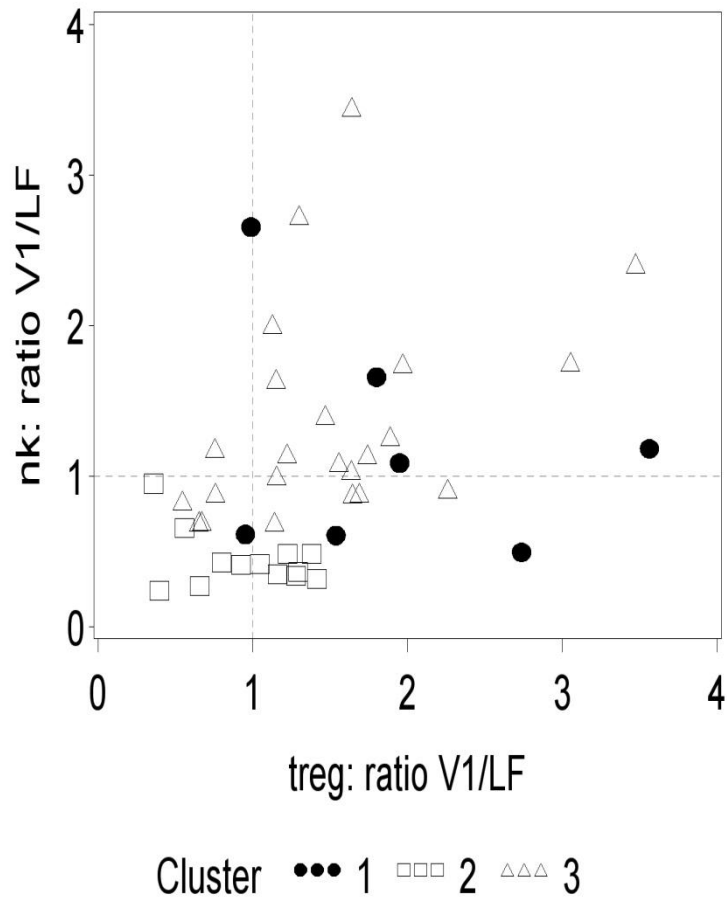
**Supplementary Figure S1:** the median number and range of early mature, loaded dendritic cells per vaccine session ( DC1 to DC4) is depicted, showing a small, but statistically significant difference between the first DC vaccine session as compared to each of the three following sessions.



**Supplementary Figure S2:** the dose of DC, expressed as number of DC injected at a given vaccination session has been categorized in 4 categories. For each DC dose category the number of vaccine sessions in which a dose was given within the corresponding indicated range is depicted.

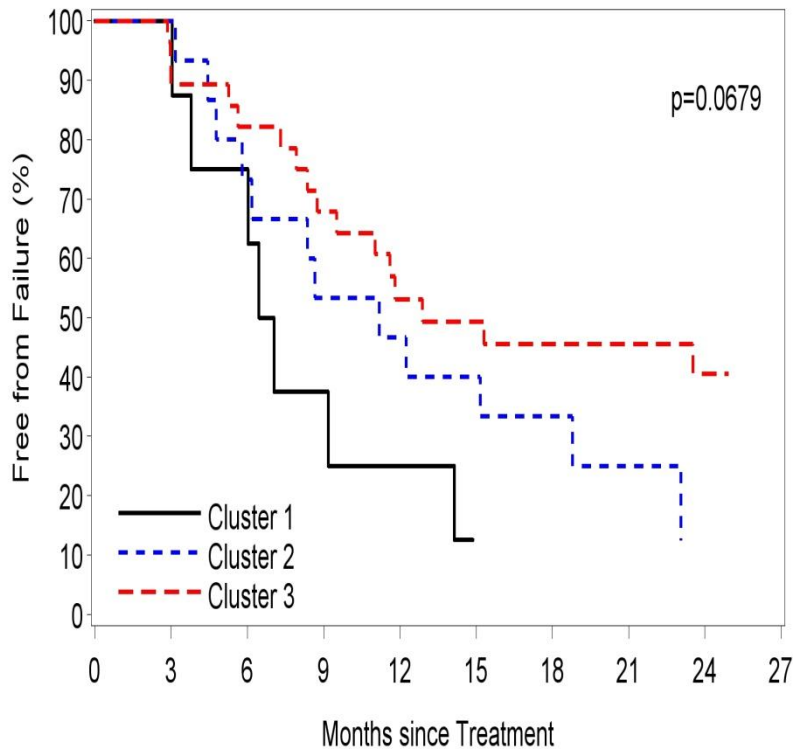


**Supplementary Figure S3:** the mean dose of DC injected per vaccine session per patient is depicted. Bars indicate the number of patients having received a mean DC dose per vaccine session within the corresponding range. No correlation with survival was found. The respective 6-months PFS was 74% , 68%, 75%, 75% and 100% for the corresponding mean DC dose categories (0-5), (5-10), (10-15), (15-20) and (>20).



**Supplementary Figure S4A. Cluster analysis**

To facilitate the interpretation of the cluster, we show the most informative graph in which patients, according to cluster membership, are plotted against the two most important variables, i.e. regulatory T (Treg) and natural killer (NK) cell ratios (LF/V1), being the variables with the highest proportion of variability explained by cluster membership. Note that clusters have not only been based on the two ratios depicted here, but on all available ratios as mentioned in the patients and methods section. Three clusters can be distinguished, depicted by full circles (cluster 1), squares (cluster 2) and triangles (cluster 3).



Number at risk										
1	8	8	7	4	3	2	0	0	0	0
2	15	15	12	9	8	7	6	4	2	1
3	28	26	24	20	15	14	13	10	9	7

**Supplementary Figure S4B. Impact on progression-free survival (PFS)**

B. PFS for the 3 different clusters, as determined by cluster analysis (LF, leukapheresis; V1, vaccine 1). This figure depicts, as an example, the most discriminative cluster analysis in terms of correlation with outcome.

<b>Inclusion criteria</b>
Age $\geq$ 18 years and $\leq$ 70 years
First diagnosis of glioblastoma multiforme, histologically proven
Total or subtotal resection of tumor mass (confirmed by assessment of neurosurgeon and postoperative MRI within 72 hours)
Availability of more than 3 cm <sup>3</sup> tumor tissue, kept dry in a sterile vial at -80°C
Perioperative administration of corticosteroids tapered within 10 days postoperatively
Life expectancy > 3 months
Histology confirmed by reference pathology
Written Informed consent by patient
<b>Exclusion criteria</b>
Pregnancy
Postoperative Karnofsky index < 70
Simultaneous treatment according to other clinical trials
Virus serology positive for hepatitis, syphilis or HIV
Blood counts: leukocytes < 3000/ $\mu$ L - lymphocytes < 500/ $\mu$ L - neutrophils < 1000/ $\mu$ L - hemoglobin < 9 g/100 mL - thrombocytes < 100000/ $\mu$ L two days prior to leukapheresis
Documented immune deficiency
Documented autoimmune disease
Mandatory treatment with corticosteroids or salicylates in anti-inflammatory dose
Other active malignancy

**Supplementary Table I. Inclusion and exclusion criteria**