CLAIMS

1. A pharmaceutical composition comprising nano-particles formed by hydrophobic conjugation of the outer membrane protein complex (OMPC) of the *Neisseria meningitidis* bacterium to the GM3 ganglioside, wherein the protein-ganglioside conjugation ratio ranges from 1.5: 1 to 10: 1 and wherein the pharmaceutical composition has a monomodal distribution of volume in a range from 15 to 25 nm particle size, polydispersity index of 0.230, negative Z potential with nominal value in the range from 25 to 45 mV.
2. Use of the pharmaceutical composition of claim 1 in the manufacture of a medicament for the treatment of cancer of with high-level myeloid-derived suppressor cells (MDSCs).
3. Use of the pharmaceutical composition of claim 1 in the manufacture of medicament as an immunomodulator of Myeloid-derived suppressor cells (MDSCs) in patients with cancer with high-level of such MDSCs
4. Use of the pharmaceutical composition of claim 1 in the manufacture of a medicament for treating a subject in need thereof wherein the medicament is to be administered by subcutaneous with a weekly frequency for at least a total of four doses and subsequently fortnightly or monthly in maintenance doses for at least six months.