CLAIMS

1. Use of a composition comprising inorganic nanoparticles, wherein the composition has a volume (Vc) that is between 2.5 and 15% of a tumor volume (Vt), the inorganic material of the nanoparticles is Hafnium (IV) oxide (HfO_2) or Rhenium (IV) oxide (ReO_2), and the nanoparticles provide more than 7×10^{22} electrons to the tumor volume (Vt), in the manufacture of a medicament for treating cancer in a human subject having a malignant solid tumor of volume Vt by inducing the destruction of more than 70% of cancer cells in the solid tumor volume Vt (anatomical tumor response), wherein the composition is to be administered intratumorally to the human subject, and the tumor of said subject being exposed to ionizing radiations.

2. The use according to claim 1, wherein the volume (Vc) of the composition is between 2.5% and 10% of the tumor volume (Vt).

3. The use according to claim 1, wherein the volume (Vc) of the composition is 2.5% of the tumor volume (Vt).

4. The use according to any one of claims 1 to 3, wherein the largest dimension of a nanoparticle is between 5 nm and 250 nm.

5. The use according to any one of claims 1 to 4, wherein the composition is a pharmaceutical composition in a liquid or gel form.

6. The use according to any one of claims 1 to 5, wherein ionizing radiations sources are selected from X-rays, ion beams, electron beams, gamma-rays, and a radioactive isotope.

7. The use according to claim 6, wherein the X-ray is between 50 KeV and 6 MeV.