



## Targeted Radiotherapy Chelates For In Situ Immune Modulated Cancer Vaccination

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### The Invention

The disclosed method of treating a malignant solid tumor in a subject includes the steps of administering to the subject an immunomodulatory dose of a radioactive phospholipid metal chelate compound that is differentially retained within malignant solid tumor tissue, and performing in situ tumor vaccination in the subject by introducing into at least one of the malignant solid tumors one or more agents capable of stimulating specific immune cells within the tumor microenvironment, or by performing another method of in situ tumor vaccination. In a non-limiting example, the radioactive phospholipid metal chelate compound has the formula: [Image Omitted] wherein R1 comprises a chelating agent that is chelated to a metal atom, wherein the metal atom is an alpha, beta or Auger emitting metal isotope with a half life of greater than 6 hours and less than 30 days. In one such embodiment, a is 1, n is 18, m is 0, b is 1, and R2 is  $-N^+(CH_3)_3$ .

### Additional Information

#### For More Information About the Inventors

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#### Tech Fields

- [Therapeutics & Vaccines : Oncology.](#)

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