CLAIMS

1. A substance which regulates immune-checkpoints for use as a medicament for treatment of a tumor of a patient wherein the administration pattern of the medicament comprises administering a therapeutically effective amount of the substance to the tumor, in one or more sessions, and implanting seeds carrying radium-224 in the tumor for intra-tumoral alpha-emitter radiotherapy less than two weeks from administering the substance.

2. The substance as in claim 1, wherein the administration pattern of the medicament comprises beginning the administering the substance within less than five days from implanting of the seeds.

3. The substance as in claim 1, wherein the administration pattern of the medicament comprises beginning the administering of the substance at least 12 hours after the implanting of the seeds.

4. The substance as in claim 1, wherein the administration pattern of the medicament comprises beginning the administering of the substance at least 72 hours after the implanting of the seeds.

5. The substance as in claim 1, wherein the administration pattern of the medicament comprises beginning the administering of the substance at least 12 hours before the implanting of the seeds.

6. The substance as in claim 1, wherein the administration pattern of the medicament comprises beginning the administering of the substance at least 72 hours before the implanting of the seeds.

7. The substance as in claim 1, wherein the substance comprises an antiangiogenic agent.

8. The substance as claimed in claim 1, wherein the substance comprises a checkpoint inhibitor.

9. The substance as claimed in claim 1, wherein the substance comprises small molecule inhibitors.

10. The substance as claimed in claim 1, wherein the substance comprises Nivolumab, pembrolizumab, cemiplimab, toripalimab, or sintilimab.

11. The substance as claimed in claim 1, wherein the substance comprises Atezolizumab, avelumab, or durvalumab.

12. The substance as claimed in claim 1, wherein the substance comprises Ipilimumab.

13. The substance as claimed in claim 1, wherein the substance comprises Relatlimab.

14. The substance as claimed in claim 1, wherein the substance comprises LY3321367.

15. The substance as claimed in claim 1, wherein the substance comprises Tiragolumab.

16. The substance as claimed in claim 1, wherein the substance comprises Epacadostat.

17. The substance as claimed in claim 1, wherein the substance comprises Enoblituzumab.

18. The substance as claimed in claim 1, wherein the substance comprises HLX23 or ORIC-533.

19. The substance as claimed in claim 1, wherein the substance comprises Monalizumab.

20. The substance as claimed in claim 1, wherein the substance comprises pexidartinib or Lacnotuzumab.

21. The substance as claimed in claim 1, wherein the substance comprises Pepinemab.

22. The substance as claimed in claim 1, wherein the substance comprises Enapotamab.

23. The substance as claimed in claim 1, wherein the substance comprises tavolimab or cudarolimab.

24. The substance as claimed in claim 1, wherein the substance comprises Vopratelimab, sotigalimab or Elotuzumab.

25. The substance as in any of claims 1-24, wherein the seeds comprise:

a support having a length of at least 1 millimeter; and

radium-224 atoms coupled to the support such that not more than 20% of the radium-224 atoms leave the support into the tumor in 24 hours, without decay, when the seed is implanted in the tumor, but upon decay, at least 5% of daughter radionuclides of the radium-224 atoms leave the support upon decay.

26. A kit for treatment of a patient, comprising:

at least one source for being at least partially introduced into a body of a subject, having alpha-emitting atoms mounted thereon;

at least one immune checkpoint regulator; and

a package containing the at least one source and the at least one immune checkpoint regulator.

27. An alpha-emitting device designed for use in alpha-emitter radiotherapy treatment of a tumor of a patient wherein the alpha-emitter radiotherapy treatment pattern comprises treating the

tumor with the alpha-emitter device followed by administering a therapeutically effective amount of an immune checkpoint regulator, in one or more sessions, less than six weeks after beginning the alpha-emitter radiotherapy.

28. The alpha-emitting device of claim 27, wherein the alpha-emitter radiotherapy treatment pattern comprises treating the tumor with the alpha-emitter device followed by administering a therapeutically effective amount of an immune checkpoint regulator, in one or more sessions, less than two weeks after beginning the alpha-emitter radiotherapy.

29. An alpha-emitting device designed for use in alpha-emitter radiotherapy treatment of a population having a tumor treated with a therapeutically effective amount of an immune checkpoint regulator, in one or more sessions, less than six weeks after beginning the alpha-emitter radiotherapy.