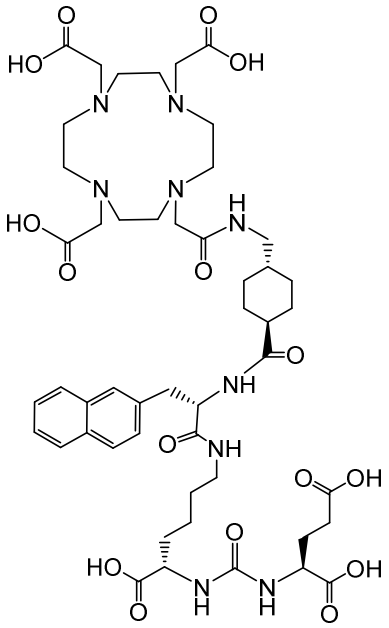


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in the manufacture of a medicament for the treatment of a PSMA expressing cancer in a patient in need of such treatment, wherein the compound is complexed with a radioactive isotope of a metal, , wherein the metal is ^{177}Lu, the medicament comprises from 6.5 to 8.5 GBq of the radioactive isotope of the metal, and wherein the medicament is to be administered on a schedule of once per every 4 to 8 weeks for 3 to 7 cycles of the schedule.

In some examples, the present disclosure provides a method for treating a cancer in a patient in need of such treatment comprising, administering to the patient a therapeutically effective amount of Compound 1.

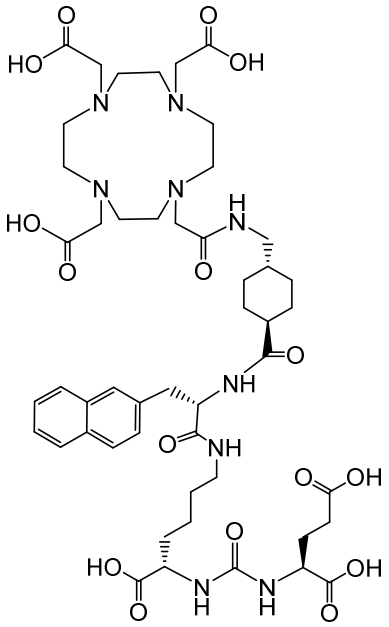
In some examples, the present disclosure provides use of Compound 1 for treating a cancer in a patient. In some examples, the use comprises administering to the patient a therapeutically effective amount of the Compound 1.

In some examples, the present disclosure provides use of Compound 1 in the preparation of a medicament useful for the treatment of a cancer in a patient. In some examples, the medicament comprises a therapeutically effective amount of Compound 1.

In some examples, the cancer is a PSMA expressing cancer. In some examples, the compound is at least about 98 percent pure. In some examples, the cancer is selected from the group consisting of a glioma, a carcinoma, a

WHAT IS CLAIMED IS:

1. Use of a compound of the formula 1



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in the manufacture of a medicament for the treatment of a PSMA expressing cancer in a patient in need of such treatment, wherein the compound is complexed with a radioactive isotope of a metal, wherein the metal is ^{177}Lu, the medicament comprises from 6.5 to 8.5 GBq of the radioactive isotope of the metal, and wherein the medicament is to be administered on a schedule of once per every 4 to 8 weeks for 3 to 7 cycles of the schedule.

~~2. The use of claim 1, wherein the cancer is a PSMA expressing cancer.~~

~~3~~2. The use of claim 1, wherein the cancer is prostate cancer, or metastatic castration-resistant prostate cancer.

~~4~~3. The use of any one of the preceding claims, wherein the medicament is to be administered in a parenteral dosage form.

~~5~~4. The use of claim ~~4~~3, wherein the parenteral dosage form is selected from the group consisting of intradermal, subcutaneous, intramuscular, intraperitoneal, intravenous, and intrathecal.

~~6~~5. The use of any one of claims 1 to ~~5~~4, wherein the medicament comprises from ~~about 2 GBq to about 13 GBq, or about 4 GBq to about 11 GBq, or about 5 GBq to about 10 GBq, or about 6 GBq to about 9 GBq, about 6.5 GBq to about 8.5 GBq, or about~~ 7 GBq to ~~about~~ 8 GBq of the radioactive isotope of the metal.

~~7~~6. The use of any one of claims 1 to ~~5~~4, wherein the medicament comprises ~~about~~ 7.4 GBq +/- 10% of the radioactive isotope of the metal.

~~8~~7. The use of any one of claims 1 to ~~5~~4, further comprising PSMA expression by the cancer of the patient ~~to be imaged~~.

~~9~~8. The use of claim ~~8~~7, wherein the PSMA expression is to be imaged before the medicament is to be administered.

~~10~~9. The use of claim ~~9~~8, wherein the PSMA expression is to be imaged by imaging and wherein the imaging is selected from the group consisting of SPECT imaging, PET imaging, IHC, and FISH.

~~11~~10. The use of any one of claims 1 to ~~10~~9, further comprising the PSMA status of the patient to be determined by imaging.

~~12~~11. The use of claim ~~11~~10, wherein the imaging is SPECT imaging.

~~13~~12. The use of claim ~~12~~11, wherein at least one PSMA positive lesion indicates functionally active PSMA.

~~14~~13. The use of any one of claims 1 to ~~13~~12, wherein the patient has been treated with at least one prior treatment selected from the group consisting of an androgen axis systemic treatment, chemotherapeutic agent, surgery, radiation therapy, immunotherapy, photodynamic therapy, stem cell therapy, and hyperthermia.

~~15~~14. The use of claim ~~14~~13, wherein the at least one prior treatment is selected from the group consisting of abiraterone, orteronel, galeterone, seviteronel, apalutamide, enzalutamide, and combinations thereof.

~~16~~15. The use of claim ~~14~~13, wherein the at least one prior treatment is selected from the group consisting of palifosfamide, 5-fluorouracil, capecitabine, pemetrexed, cisplatin, carboplatin, gemcitabine, paclitaxel, vinorelbine, eribulin, docetaxel, cyclophosphamide, doxorubicin, regorafinib, and combinations thereof.

~~17~~16. The use of any one of claims 1 to ~~16~~15, wherein the medicament is to be administered in combination with a second treatment.

~~18~~17. The use of claim ~~17~~16, wherein the second treatment is an androgen axis systemic treatment.

~~19~~18. The use of claim ~~18~~17, wherein the androgen axis systemic treatment is selected from the group consisting of abiraterone, orteronel, galeterone, seviteronel, apalutamide, enzalutamide, and combinations thereof.

~~20~~19. The use of claim ~~17~~16, wherein the second treatment is radiation therapy.

~~21~~20. The use of claim ~~20~~19, wherein the radiation therapy is external beam radiation therapy (EBRT).

~~22~~21. The use of any one of the claims 1 to ~~21~~20, wherein the medicament is to be administered on a schedule of once per every 4 to 6 weeks.

22. The use of any one of the claims 1 to 20, wherein the medicament is to be administered on a schedule of once per every 6 weeks.

23. The use of any one of the claims 1 to ~~claim~~ 22, wherein the medicament is to be administered for ~~about 2 to 8 cycles of the schedule, or about 3 to 7 cycles of the schedule, or about~~ 4 to 6 cycles of the schedule.

24. The use of any one of the claims 1 to 22, wherein the medicament is to be administered for 6 cycles of the schedule.

~~24. The use of any one of the preceding claims, wherein the radioactive isotope of a metal is selected from the group consisting of ^{90}Y, ^{177}Lu, ^{64}Cd, ^{153}Gd, ^{155}Gd, ^{157}Gd, ^{213}Bi, and ^{225}Ac.~~

~~25. The use of claim 24, wherein the radioactive isotope of a metal is ^{177}Lu.~~

~~26. The use of claim 24, wherein the radioactive isotope of a metal is ^{225}Ac.~~