What is claimed is:

Claim 1. Use of 4-[(3-{[4-(cyclopropane-carbonyl)piperazine-1-yl]carbonyl}-4-fluorophenyl)methyl]-2H-phthalazin-1-one (olaparib), or a salt, hydrate, solvate, or prodrug thereof in the manufacture of medicament for treating metastatic castration-resistant prostate cancer (mCRPC) in a subject, wherein the subject is treatment naïve,

wherein the medicament is to be separately, sequentially or simultaneously administered to the subject with (3β)-17-(3-pyridinyl) androsta-5,16-dien-3-yl acetate (abiraterone acetate), or a salt thereof,

wherein progression free survival is at least about 6 months greater than for subjects receiving abiraterone acetate alone.

Claim 2. The use according to claim 1, wherein the subject has not previously received taxane-based chemotherapy.

Claim 3. The use according to claim 2, wherein the taxane-based chemotherapy is docetaxel.

Claim 4. The use according to any one of claims 1 to 3, wherein the subject has not previously received new hormonal agent chemotherapy previously, optionally wherein the new hormonal agent is enzalutamide or abiraterone acetate or a salt thereof.

Claim 5. The use according to any one of claims 1 to 4, wherein the cancer metastasized to bone and/or lymph nodes.

Claim 6. The use according to any one of claims 1 to 5, wherein the metastasis is visceral.

Claim 7. The use according to any one of claims 1 to 6, wherein the cancer cells are wild-type at one or more homologous recombination repair (HRR) genes.

Claim 8. The use according to any one of claims 1 to 6, wherein the cancer cells comprise one or more HRR gene mutations.

Claim 9. The use according to claim 8, wherein the HRR gene mutation is selected from *BRCA1*, *BRCA2*, *ATM*, *BRIP1*, *BARD1*, *CDK12*, *CHEK1*, *CHEK2*, *FANCL*, *PALB2*, *PPP2R2A*, *RAD51B*, *RAD51C*, *RAD51D*, and *RAD54L* gene mutation; or wherein the cancer cells comprise a *BRCA1*, a *BRCA2*, and/or an *ATM* gene mutation; or wherein the cancer cells comprise a *BRCA1* and/or a *BRCA2* gene mutation.

Claim 10. The use according to any one of claims 1 to 6, wherein the cancer is wild-type at one or more HRR gene mutations, and wherein the subject previously did not receive docetaxel.

Claim 11. The use according to any one of claims 1 to 10, wherein the olaparib is to be administered in an amount in the range of about 400 to 800 mg per day.

Claim 12. The use according to any one of claims 1 to 10, wherein the olaparib is to be administered in an amount of about 600 mg daily.

Claim 13. The use according to any one of claims 1 to 10, wherein the olaparib is to be administered in an amount of about 300 mg twice daily.

Claim 14. The use according to any one of claims 1 to 13, wherein the abiraterone acetate or salt thereof is to be administered in an amount in the range of about 500 to 1500 mg daily.

Claim 15. The use according to any one of claims 1 to 13, wherein the abiraterone acetate or salt thereof is to be administered in an amount in the range of about 800 to 1200 mg daily.

Claim 16. The use according to any one of claims 1 to 13, wherein the abiraterone acetate or salt thereof is to be administered in an amount about 1000 mg daily, optionally is to be administered orally once daily.

Claim 17. The use according to any one of claims 1 to 16, wherein prednisone or prednisolone is to be further administered in an amount of about 10 mg daily, optionally in an amount of about 5 mg twice daily.

Claim 18. The use according to any one of claims 1 to 17, wherein progression free survival is about 6 to 18 months greater, or about 6 to 14 months greater, or about 6 to 12 months greater

Claim 19. The use according to any one of claims 1 to 17, wherein progression free survival is about 8 to 18 months greater, or about 8 to 14 months greater, or about 8 to 12 months greater.

Claim 20. The use according to any one of claims 1 to 19, further comprising, prior to administration of olaparib and abiraterone acetate or salt thereof, selecting the subject based on prior treatment.

Claim 21. The use according to claim 20, wherein selecting does not comprise the step of selecting on a status of HRR gene mutations in the cancer.

Claim 22. Olaparib, or a salt, hydrate, solvate, or prodrug thereof, for use in the treatment of prostate cancer in a subject, wherein said treatment comprises separate, sequential or simultaneous administration of said olaparib, or a hydrate, solvate, or prodrug thereof, and abiraterone acetate or a or salt thereof, to said subject, wherein the subject has not been selected for HRR gene mutations in the cancer.

Claim 23. Olaparib for use according to claim 22, wherein the subject has a progression free survival that is at least about 6 months greater than for subjects receiving abiraterone acetate or salt thereof alone.

Claim 24. Olaparib for use according to claim 22 or claim 23, wherein the cancer has metastasized.

Claim 25. Olaparib for use according to of claim 24, wherein the metastasis is to bone and/or lymph nodes.

Claim 26. Olaparib for use according to of claim 24, wherein the metastasis is visceral.

Claim 27. Olaparib for use according to of any one of claims 22 to 26, wherein the cancer is mCRPC.

Claim 28. Olaparib for use according to of any one of claims 22 to 27, wherein the cancer cells are wild-type at one or more HRR genes.

Claim 29. Olaparib for use according to of any one of claims 22 to 26, wherein the cancer cells comprise one or more HRR gene mutations.

Claim 30. Olaparib for use according to of any one of claims 22 to 26, wherein the cancer is mCRPC comprising one or more HRR gene mutations.

Claim 31. Olaparib for use according to of claim 29 or 30, wherein the HRR gene mutation is selected from *BRCA1*, *BRCA2*, *ATM*, *BRIP1*, *BARD1*, *CDK12*, *CHEK1*, *CHEK2*, *FANCL*, *PALB2*, *PPP2R2A*, *RAD51B*, *RAD51C*, *RAD51D*, and *RAD54L* gene mutation; or wherein the cancer cells comprise a *BRCA1*, a *BRCA2*, and/or an *ATM* gene mutation; or wherein the cancer cells comprise a *BRCA1* and/or a *BRCA2* gene mutation.

Claim 32. Olaparib for use according to any one of claims 22 to 31, wherein the prostate cancer is mCRPC and the subject is treatment naïve.

Claim 33. Olaparib for use according to claim 32, wherein the subject is did not receive taxane-based chemotherapy previously, optionally wherein the taxane-based chemotherapy is docetaxel.

Claim 34. Olaparib for use according to any one of claims 22 to 33, wherein the subject did not receive new hormonal agent chemotherapy previously, optionally wherein the new hormonal agent is abiraterone acetate or salt thereof.

Claim 35. Olaparib for use according to any one of claims 22 to 31, wherein the subject previously received taxane-based chemotherapy.

Claim 36. Olaparib for use according to any one of claims 22 to 31, wherein the subject previously received new hormonal agent chemotherapy, optionally wherein the new hormonal agent is enzalutamide or abiraterone acetate or salt thereof.

Claim 37. Olaparib for use according to any one of claims 22 to 28, wherein the cancer is mCRPC, which is wild-type at one or more HRR gene mutations, and wherein the subject previously did not receive docetaxel.

Claim 38. Olaparib for use according to any one of claims 22 to 37, administered in an amount in the range of about 400 to 800 mg per day.

Claim 39. Olaparib for use according to any one of claims 22 to 37, administered in an amount of about 600 mg daily.

Claim 40. Olaparib for use according to any one of claims 22 to 37, administered in an amount of about 300 mg twice daily.

Claim 41. Olaparib for use according to any one of claims 22 to 40, wherein abiraterone is administered in an amount in the range of about 500 to 1500 mg daily.

Claim 42. Olaparib for use according to any one of claims 22 to 40, wherein abiraterone is administered in an amount in the range of about 800 to 1200 mg daily.

Claim 43. Olaparib for use according to any one of claims 22 to 40, wherein abiraterone is administered in an amount of about 1000 mg daily, optionally administered orally once daily.

Claim 44. Olaparib for use according to any one of claims 22 to 43, wherein prednisone or prednisolone is to be further administered in an amount of about 10 mg daily, optionally in an amount of about 5 mg twice daily.

Claim 45. Olaparib for use according to any one of claims 23 to 44, wherein progression free survival is about 6 to 18 months greater, or about 6 to 14 months greater, or about 6 to 12 months greater

Claim 46. Olaparib for use according to any one of claims 23 to 44, wherein progression free survival is about 8 to 18 months greater, or about 8 to 14 months greater, or about 8 to 12 months greater.