INTRODUCTION

- There are limited treatment options available for patients with mCRPC following androgen deprivation and/or surgical treatments.
- Deleterious germline and somatic mutations in BRCA1, BRCA2, ATM, or other homologous recombination (HR) DNA repair genes have been identified in up to 25% of patients with advanced prostate cancer, including mCRPC.1,5
- Poly(ADP-ribose) polymerase (PARP) inhibitors, such as rucaparib, have shown activity in tumors with HRD through synthetic lethality.1
- PARP inhibitors have demonstrated preliminary evidence of antitumor activity in patients with sporadic mCRPC with an alteration in an HR gene.1

PARP inhibitors have demonstrated preliminary evidence of antitumor activity in patients with advanced prostate cancer, including metastatic, castration-resistant prostate cancer (mCRPC) associated with homologous recombination deficiency (HRD).1

PLASMA-BASED COMpanion DIAGNOSTIC

- There are significant challenges in collecting and analyzing biopsy specimens from patients with mCRPC.
- TRITON2 will explore the use of circulating tumor DNA (ctDNA) purified from blood as a noninvasive companion diagnostic.

TRITON2 TRIAL OVERVIEW

- TRITON2 (CO-338-052; NCT03292534) is an international, multicenter, open-label, phase 2 study evaluating rucaparib 600 mg twice daily in patients with mCRPC associated with HRD (Figure 2).
- Patients will be allocated into cohort A, B, or C based on HR gene mutation and metastatic disease status (Figure 2).

- Pre-treatment blood samples will be collected from all patients for analysis of BRCA1, BRCA2, ATM, and other HR mutation genes in ctDNA.

- A central retrospective analysis is planned to evaluate the agreement between HR gene alterations identified in tumor tissue samples and ctDNA obtained from plasma.

- Pretreatment blood sample will be collected from all patients for analysis of BRCA1, BRCA2, ATM, and other HR mutation genes in ctDNA.

- Patients with a known alteration in BRCA1, BRCA2, or ATM mutation (documented in the patient’s medical record) should also submit archival tumor tissue, if available; biopsy of visceral or nodal disease will be preferred.

- Eligible patients will receive rucaparib 600 mg orally twice daily and continue treatment for continued treatment beyond progression if they have met criteria for continued treatment beyond progression, which is to be determined by local testing, or central testing of archived tumor tissue.

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