**Figure S1**. Consort Diagram.

Shown are the dose levels evaluated and observed dose limiting toxicities. Patients were enrolled to the expansion cohort at the RP2D.

\* Olaparib doses include Cycle 0 lead-in dose

Abbreviations: DL, dose level; DLT, dose limiting toxicity; RP2D, Recommended Phase 2 Dose

Expansion: RP2D (DL-1A)

Prexasertib 70 mg/m2  IV D1, 15

Olaparib 100mg BID D1-5, 15-19\*

(N=10)

3 DLTs with prolonged Grade 3 and 4 neutropenia > 7 days

Unacceptable toxicity with continuous dosing of olaparib

2 DLTs : 1 grade 3 neutropenia, unable to complete cycle 1

 1 grade 3 febrile neutropenia

1 not evaluable due to disease progression during cycle 1

DL-1A:

Prexasertib 70 mg/m2  IV D1, 15

Olaparib 100mg BID D1-5, 15-19\*

(N=9)

DL1A:

Prexasertib 80 mg/m2 IV D1, 15

Olaparib 200mg BID D1-5, 15-19\*

(N=7)

2 not evaluable due to disease progression during cycle 1

1 not evaluable due to hospitalization for viral syndrome

No DLTs

29 patients

 treated

32 patients

 screened

DL1:

Prexasertib 80 mg/m2 IV D1, 15

Olaparib 200mg BID continuous\*

(N=3)

3 screen failures

2 due to disqualifying brain metastases detected at screening

1 due to worsening of general condition

**Supplementary Figure 1.**