**Phase 1/2 Clinical Study of Niraparib in Combination With Pembrolizumab (MK-3475) in Patients With Advanced or Metastatic Triple-Negative Breast Cancer and in Patients With Recurrent Ovarian Cancer (TOPACIO)**

<table>
<thead>
<tr>
<th>NCT02657889</th>
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<tr>
<td><strong>Phase</strong></td>
<td>I/II</td>
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<tr>
<td><strong>Drug Class</strong></td>
<td>PARP Inhibitor</td>
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<tr>
<td><strong>Drug Name</strong></td>
<td>Niraparib</td>
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<td><strong>Alternate Drug Names</strong></td>
<td>MK4827, Zejula™</td>
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<td><strong>Eligible Participant</strong></td>
<td>Recurrent Pt-R, Pt-Rf or Pt-S but-Pt ineligible; ≤ 5 prior therapies; no primary Pt-R/Pt-Rf</td>
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<td><strong>Patients Enrolled</strong></td>
<td>62 (9 Phase I, 53 Phase II); median of 2 prior therapies (1-5)</td>
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<td><strong>Therapy Setting</strong></td>
<td>Recurrence</td>
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<td><strong>Study Design</strong></td>
<td>Open Label, Non-Randomized</td>
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<td><strong>Endpoints</strong></td>
<td>ORR evaluated per RECIST, DCR, DoR</td>
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<td><strong>Biomarkers</strong></td>
<td>sBRCA1/2 status, HRD status, PD-L1 expression</td>
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</table>
| **Efficacy** | **ORR**: 25% (3 CR, 12 PR, n=60)  
**DCR** (3 months): 64% (2 CR, 11 PR, 21 SD, n=53)  
**DoR**: 9.3 months  
Exploratory sub-group analysis: Platinum-status  
**ORR** (Pt-R): 24% (n=29)  
**ORR** (Pt-Rf): 24% (n=17)  
**ORR** (Pt-R or Pt-Rf and sBRCA WT): 26% (n=34)  
**ORR** (Pt-R or Pt-Rf and sBRCA MUT): 29% (n=7) |
| **Clinically Significant Adverse Events** | Serious AE: none  
Grade 3-4 AE: anemia (19%)                                                                                                                                                                                                                     |
| **Conclusion** | Promising activity of non-chemotherapy combination in Pt-R/Pt-Rf patients independent of BRCA status and PD-L1 expression                                                                                                                                 |
https://meetinglibrary.asco.org/record/161618/abstract |
Legend

Therapy Setting
First-line – Therapy given to patients on initial diagnosis of disease as the first, best treatment option.
Maintenance – Therapy given to patients to help keep cancer from coming back after it has responded to therapy.
Recurrence – Therapy given to patients in whom disease has returned after prior therapy.

Study Design
Randomized -- A study in which participants are assigned by chance to the separate study groups.
Non-randomized -- A study in which participants are NOT assigned by chance to the separate study groups.

Efficacy Endpoints
PFS: Progression-Free Survival—length of time during and after treatment during which the cancer does not get worse (usually reported as the time when the cancer for half or median of the people in the treatment group gets worse).
OS: Overall Survival—length of time from the start of treatment that patients are still alive (usually reported as the time when half or median of the people in the treatment group are still alive).
CR: Complete Response -- The disappearance of all signs of cancer in response to treatment.
SD: Stable Disease Response -- Cancer that is neither decreasing nor increasing in extent or severity.
ORR: Objective Response Rate -- Sum of complete and partial tumor responses to treatment, divided by the number of patients evaluated.
DCR: Disease Control Rate -- Sum of complete, partial and stable disease tumor responses to treatment, divided by the number of patients evaluated.
DoR: Duration of Response -- Time from documentation of tumor response to disease progression
HR: Hazard Ratio--measures survival in the treatment group compared to the control group. An HR = 1 means that there is no difference in survival between the groups. An HR < 1 means that the treatment group has a lower risk of death compared to the control group. Range in parentheses is 95% Confidence Interval (CI).
RECIST: Response Evaluation Criteria in Solid Tumors -- Set of rules, based on measurements of the change in tumor size that define when cancer patients improve, stabilize, or worsen during a treatment regimen.
CA125: GCIG CA125 Criteria -- Set of rules, based on measurements of the CA125 biomarker level that define when cancer patients improve, stabilize, or worsen during a treatment regimen

Clinically Significant Adverse Events (Based on NCI --Common Terminology Criteria for Adverse Events (CTCAE)
AE: Adverse events -- any undesirable experience associated with the use of a drug
SAE: Serious adverse events – untoward event associated with drug treatment e.g., death, life-threatening, requiring of hospitalization, persistent or significant incapacity; usually graded from 1-5.