A clinical study of olaparib with pembrolizumab in people with advanced cancer (MK-7339-007)

Protocol Title: A Phase 2 Study of Olaparib in Combination with Pembrolizumab in Participants with Previously Treated, Homologous Recombination Repair Mutation (HRRm) and/or Homologous Recombination Deficiency (HRD)-Positive Advanced Cancer

Why is this study needed?

Researchers are looking for better ways to treat people with advanced cancer caused by solid tumors. **Advanced cancer** is cancer that has spread in the body or cannot be removed with surgery. Some types of advanced cancer have certain **gene mutations,** or changes in the order of the DNA. The cancers may also have specific **biomarkers,** substances made by cancer that can be detected in blood, tissues, or other body fluids.

In this study, researchers want to learn about advanced cancers that have tumor cells that cannot fix their broken DNA. Sometimes tumor cells cannot fix their broken DNA because of a gene mutation called homologous recombination repair mutation (**HRRm**), and sometimes the cause is unknown. A biomarker called homologous recombination deficiency (**HRD**) can be measured to find if the cancer has tumor cells that cannot fix broken DNA. If a cancer has **HRRm** or **HRD,** different treatments may work better to shrink the cancer.

People with advanced cancer usually receive chemotherapy treatment, a medicine that destroys cancer cells or stops them from growing. Sometimes the cancer comes back after chemotherapy treatment, or the person cannot tolerate the chemotherapy. **Olaparib** is a targeted therapy, a treatment that works to control how specific types of cancer cells grow and spread. **Pembrolizumab** is an immunotherapy, which is a treatment that helps the immune system fight cancer. Researchers want to learn if giving 2 medicines together (**olaparib** and **pembrolizumab**) works to treat people with advanced cancer that has HRRm or HRD.

The goal of this study is to learn how many people who receive Olaparib combined with pembrolizumab have their cancer get smaller or go away during the study.

Who will take part in this study?

About 300 people with advanced cancer will be in this study. They will be at least 18 years old and:

- Have a solid tumor with HRRm and/or HRD biomarkers
- Have been treated with chemotherapy and it stopped working, or they did not tolerate chemotherapy
- Do not have another cancer that was treated or got worse in the past 3 years

What treatments are being given during the study?

People in this study will receive **both** of these treatments:

- **Olaparib**, taken twice a day by mouth
- **Pembrolizumab**, given through a needle in a vein as an intravenous (IV) infusion every 3 weeks

How is this study designed?

Researchers will put people into 3 groups based on the types of HRRm gene mutations or HRD biomarkers found in the tumor. Both the people in the study and researchers will know which study treatment a person is taking (called an open-label study).

During the study, people may have tumor, blood, urine, and imaging tests, have physical examinations, and answer questions about their health.

People may participate in this study for up to 6 years.

What are the goals of this study and how will they be measured?

Main goal	How it will be measured
To learn the **objective response rate (ORR)** of people in each group who take olaparib with pembrolizumab	**ORR** is the number of people whose cancer responds to treatment (**responds** means cancer gets smaller or goes away). Researchers will measure this in the three groups of people based on HRRm or HRD types
Other goals	**How they will be measured**
To learn the **duration of response (DOR), progression free survival (PFS),** and the **overall survival (OS)** of people who take olaparib with pembrolizumab	Researchers will measure these items for all people in the study and in the three groups of people with different HRRm or HRD: • **DOR** is the length of time from when the cancer first responds to treatment until the cancer grows or spreads, or death from any cause • **PFS** is the length of time from the start of treatment until the cancer grows or spreads, or death from any cause • **OS** is the length of time that people live from the start of treatment until death from any cause
To learn about the **safety** and how well people **tolerate** olaparib with pembrolizumab	The number of people who: • Had an **adverse event (AE)** – an AE is a health problem that happens or worsens during the study • Stopped treatment due to an AE
To learn the **objective response rate (ORR)** of all people who take olaparib with pembrolizumab	**ORR** is the number of people whose cancer responds to treatment (gets smaller or goes away). Researchers will measure this for all people in the study.
To learn the **time to earliest progression** people with ovarian cancer who take olaparib with pembrolizumab	The average length of time from the start of treatment until ovarian cancer gets worse based on a higher CA-125 blood test result. **CA-125** is a blood test to measure a protein that may be a sign of cancer.
To learn the **prostate specific antigen (PSA) response** of people with prostate cancer who take olaparib with pembrolizumab	The number of people with prostate cancer whose PSA test result goes down during the study. **PSA** is a protein in the blood and lower levels may mean treatment is working on prostate cancer.

What are the possible benefits and risks?

People may or may not benefit from the treatment received during the study. More information about the benefits and risks is in the Investigator Brochure, Protocol, and Informed Consent documents.