Protocol Plain Language Summary

A clinical study of olaparib in people with advanced cancer (MK-7339-002)

Protocol title: A Phase 2 Study of Olaparib Monotherapy in Participants with Previously Treated, Homologous Recombination Repair Mutation (HRRm) or Homologous Recombination Deficiency (HRD) Positive Advanced Cancer

Why is this study needed?

Researchers are looking for better ways to treat advanced cancers that have tumor cells that cannot fix their broken DNA. **Advanced cancers** are cancers that have spread in the body or cannot be removed with surgery. Sometimes tumor cells cannot fix their broken DNA because of a **gene mutation** (change in the order of DNA) called homologous recombination repair mutation (**HRRm**) and sometimes the cause is unknown. Homologous recombination deficiency (HRD) is a biomarker that can be measured to find if a tumor cannot fix broken DNA. A biomarker is a substance made by a tumor that can be detected in blood, tissues, or other body fluids. It may show how well the body could respond or is responding to a treatment.

The goal of this study is to learn if olaparib works to treat cancers with HRRm gene mutations and HRD for which standard of care treatments have not worked. **Standard of care** is the accepted or approved treatment given to people for a condition. **Olaparib** is a targeted therapy (type of cancer treatment that targets proteins that control how cancer cells grow, divide, and spread). Olaparib works by stopping cancer cells from fixing themselves, which causes them to die.

Who will take part in this study?

About 390 people with advanced cancer will be in this study. They will be 18 years old and older and have:

- Solid tumors that tested positive for (have) certain types of HRRm gene mutations and HRD
- Taken standard of care that stopped working, or were not able to take standard of care
- Not had another cancer that got worse or was treated in the past 5 years

What treatments are being given during the study?

People will take **olaparib** twice each day by mouth.

How is this study designed?

People will be put into groups based on their types of gene mutations. Both the people in the study and researchers will know which treatment the person takes because everyone takes olaparib (also 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 be in this study for up to 7 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 all people who take olaparib	The number of people whose cancer responds to treatment (the cancer shrinks or goes away) during the study. Researchers will measure this for all people in the study and for groups of people with HRRm gene mutations and HRD.

Other goals	How they will be measured
To learn the **duration of response** of people who take olaparib	The length of time from when a person's cancer first responds to treatment until the cancer gets worse or death from any cause. Researchers will measure this for all people in the study and for groups of people with HRRm gene mutations and HRD.
To learn the **overall survival** of people who take olaparib	The length of time that people are alive after starting treatment. Researchers will measure this for all people in the study and for groups of people with HRRm gene mutations and HRD.
To learn the **progression free survival** of people who take olaparib	The average length of time people are alive from the start of treatment until the cancer gets worse or death from any cause. Researchers will measure this for all people in the study and for groups of people with HRRm gene mutations and HRD.
To learn about the **safety** and how well people **tolerate** olaparib	The number of people who: • Had an **adverse event (AE)** – an AE is a health problem that happens or worsens during a study • Stopped treatment due to an AE
To learn the **ORR** of people with certain types of gene mutations who take olaparib	Researchers will measure **ORR** for people with HRRm gene mutations and HRD.
To learn the **time to earliest progression** of people with ovarian cancer who take olaparib	The average length of time from the start of treatment until cancer gets worse based on higher CA-125 blood test results. CA-125 is a blood test to measure a protein that may be a sign of cancer. Researchers will measure this for people with ovarian cancer and certain types of genetic mutations.
To learn the **prostate specific antigen (PSA) response** of people with prostate cancer who take olaparib	The number of people with prostate cancer whose PSA test results go down after joining the study – **PSA** is a protein measured by a blood test to check the condition of the prostate
To learn the **progression free survival after next-line treatment** of people with breast cancer who take olaparib	The average length of time people are alive from the start of treatment until the cancer grows or spreads. Researchers will measure this for people with breast cancer and certain types of BReast CAncer (BRCA) gene mutations.

What are the possible benefits and risks?

People in this study may or may not benefit from treatment, such as having the cancer stop growing or go away. More information about benefits and risks may be found in the Investigator's Brochure, Protocol, and Informed Consent documents.