## **PROJECT TITLE**

## REVOLVE: Phase 2 Clinical Trial in women with Ovarian Cancer Progressing post-PARP inhibitor with treatment adapted to real-time assessment of evolving genomic resistance

## PRINCIPAL INVESTIGATOR

Dr. Stephanie Lheureux – University Health Network



## **SCIENTIFIC SUMMARY**

Ovarian cancer is a difficult disease to treat because most women are diagnosed late due to unspecific symptoms. Once diagnosed, surgery and chemotherapy are standard treatment for ovarian cancer and while first responses to these are good, most women will see the return of their cancer. Recent discoveries have shown that certain genes can help ovarian cancer grow when they are damaged. Drugs known as PARP inhibitors, that work by preventing cancer cells from repairing damage, have been shown to be effective at keeping cancer at bay after women have responded to chemotherapy when they are newly diagnosed and when cancer has returned. However, no treatment has been established after cancer comes back or continues to grow following the use of PARP inhibitors. This project will provide an innovative approach to guide treatment in real-time based on mechanisms of resistance identified in each patient.