PROJECT TITLE

Validation of ultrasensitive HPV ctDNA analysis platforms for detection of molecular residual disease in HPV-positive cancers

PRINCIPAL INVESTIGATOR

Dr. Scott Bratman – University Health Network

PRE-CATA

SCIENTIFIC SUMMARY

Human papilloma virus (HPV) is a causative agent for several cancer types. Despite aggressive treatment, some patients experience recurrence. Measurement of circulating tumour DNA (ctDNA) following therapy can reveal molecular residual disease (MRD) prior to recurrence. This provides an opportunity to direct intensified treatment to patients who are likely to relapse. This multidisciplinary team of investigators developed two platforms – multiplexed digital PCR and HPV- sequencing – that enable ultrasensitive analysis of HPV ctDNA. In this study, they will evaluate the performance of these platforms for detection of molecular residual disease in HPV+ cancers following (i) definitive treatment with chemoradiotherapy and (ii) de-escalated treatment.