

**Table S1.** Some of the current or upcoming studies using ctDNA (cited from ClinicalTrials.gov).

Title	Target Cancer Type	Phase	Overview
Fulvestrant, Ipatasertib and CDK4/6 Inhibition in Metastatic ER+/HER2– Breast Cancer Patients Without ctDNA Suppression (NCT04920708)	Breast cancer	2	Verification of whether the addition of ipatasertib to the standard combination therapy with fulvestrant and palbociclib increases PFS in patients with HR+/HER2– breast cancer, using ctDNA and imaging analysis.
Study of Durvalumab + Tremelimumab in NSCLC Patients After Adjuvant Treatment (NCT04625699)	Non-small cell lung cancer	2	Verification of whether the investigational treatment with durvalumab and tremelimumab is safe and effective in NSCLC patients who have completed the standard treatment, and have no evidence of recurrence by imaging, but have detectable ctDNA.
Circulating Tumour DNA guided Therapy for Stage IIB/C melanoma After surgical resection (DETECTION) (NCT04901988)	Melanoma	2	Verification of whether recurrence can be diagnosed by detecting residual disease using ctDNA earlier than by imaging examination in melanoma patients after the completion of treatment.
Personalized Escalation of Consolidation Treatment Following Chemoradiotherapy and Immunotherapy in Stage III NSCLC (NCT04585490)	Non small cell lung cancer	2	Verification of whether ctDNA can be decreased by chemotherapy combined with durvalumab given to ctDNA-positive Stage III NSCLC patients who received standard treatment.
Efficacy and Safety Comparison of Niraparib to Placebo in Participants With Either Human Epidermal Growth Factor 2 Negative (HER2–) Breast Cancer Susceptibility Gene Mutation (BRCAmut) or Triple-Negative Breast Cancer (TNBC) With Molecular Disease (ZEST) (NCT04915755)	Neoplasms, breast	3	Verification of ctDNA-based monitoring after surgery and adjuvant therapy in patients with HER2-negative, <i>BRCA</i> mutant breast cancer.
Maintenance Treatment With	Ovarian	2	Evaluation of treatment

<p>Bevacizumab and Atezolizumab for Ovarian Cancer (NCT04510584)</p>	<p>endometrioid tumor</p>		<p>response to maintenance therapy with atezolizumab and bevacizumab, using ctDNA, in patients with <i>TP53</i>-mutant ovarian, fallopian tube, or primary peritoneal cancer.</p>
<p>Proof of Concept Study of ctDNA Guided Change in Treatment for Refractory Minimal Residual Disease in Colon Adenocarcinomas (NCT04920032)</p>	<p>Colon Adenocarcinoma</p>	<p>2</p>	<p>Examination of the efficacy of adjuvant therapy with trifluridine and tipiracil (TAS-102) in combination with irinotecan in patients with ctDNA-positive colon adenocarcinoma.</p>