NEO | RaDaR® ST

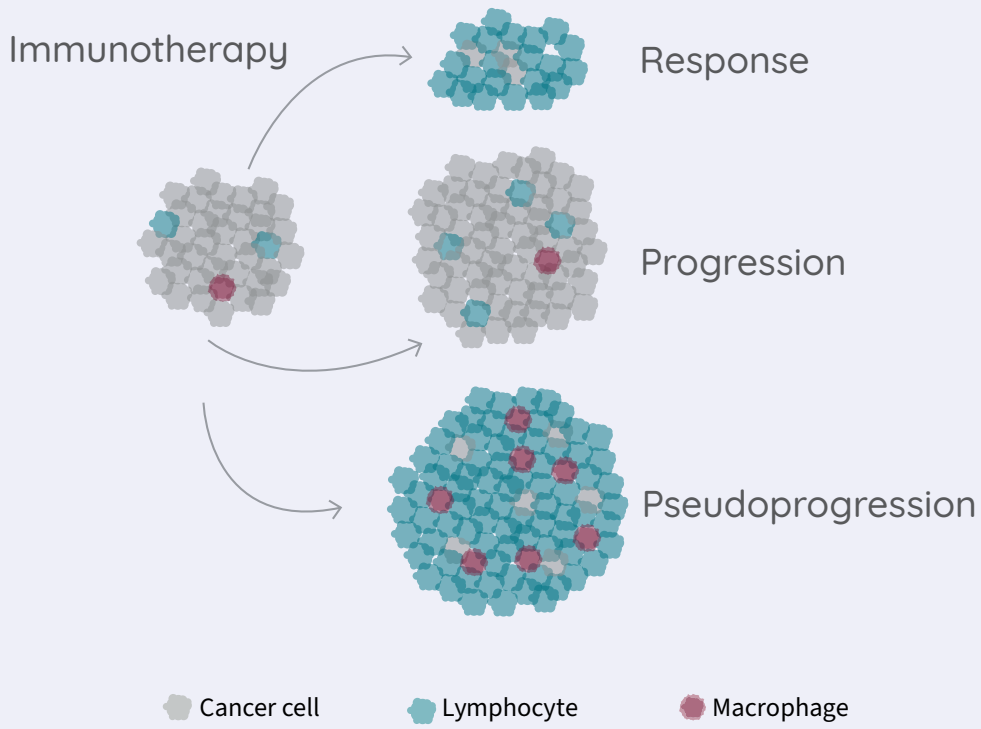
RaDaR ST is a tumor-informed, personalized MRD detection assay that enables immunotherapy response monitoring with greater confidence

NEO GENOMICS

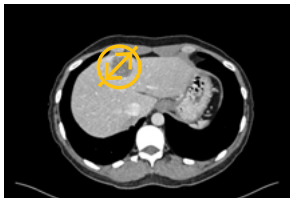
When imaging alone doesn’t tell the whole story

Immunotherapy response assessment presents unique clinical challenges, such as pseudoprogression, delayed response, and mixed response, that can make conventional imaging difficult to interpret and may complicate clinical decision-making.

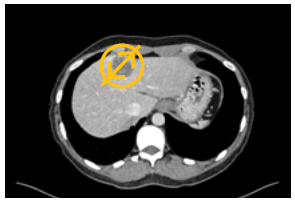
Patients may derive meaningful clinical benefit from immunotherapy despite delayed or mixed radiographic response or even perceived radiographic progression.



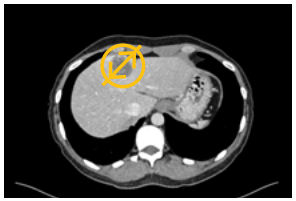
RaDaR ST is a tumor-informed, personalized MRD detection assay designed to monitor response to immunotherapy with greater confidence



Tumor size: 2.3 cm



Tumor size: 2.4 cm



Tumor size: 2.2 cm

Earlier molecular insight

A decline in ctDNA may indicate molecular response before changes are visible on imaging.[1, 2, 3]

Prognostic value

Early ctDNA decline has been associated with improved DFS, PFS and OS compared with no molecular response.[1,2,3]

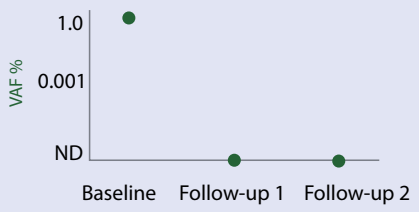
Complementing imaging and clinical evaluation

Serial ctDNA monitoring may provide an additional molecular view of treatment response over time.[1, 2, 3]

From imaging uncertainty to molecular insight

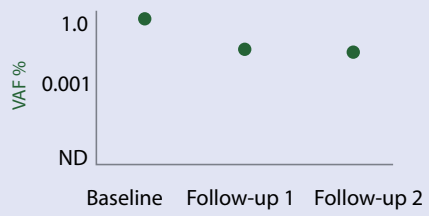
Longitudinal ctDNA monitoring with RaDaR ST may help characterize responders and non-responders across solid tumors

ctDNA clearance



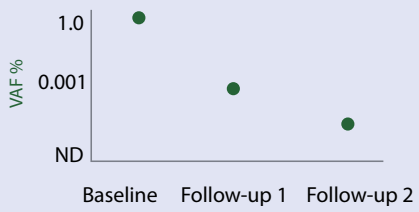
- The trend indicates a molecular response.
- Associated with improved outcomes in multiple studies.

Persistent ctDNA



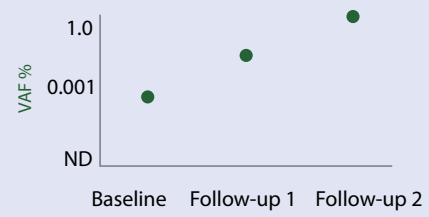
- The trend suggests ongoing molecular disease.
- May indicate limited molecular response.

Decreasing ctDNA



- The trend may indicate treatment benefit.
- Provides insight into response trajectory.

Increasing ctDNA



- The trend indicates molecular progression.
- May precede radiographic progression

---

ctDNA clearance and decreasing ctDNA may identify patients benefiting from immunotherapy.[1, 2, 3]

Persistent ctDNA and increasing ctDNA may indicate an early sign of a lack of molecular response to immunotherapy.[1, 2, 3]

No visible disease. Hidden risk. Deeper answers.

RaDaR ST may reveal response to immunotherapy after neoadjuvant immunotherapy

NABUCCO: Stage III Muscle invasive bladder cancer (MIBC)[1]

Patients with ctDNA clearance following **neoadjuvant immunotherapy** and before surgery had increased pCR rate and improved progression-free survival in stage III MIBC.[1]

45x

Patients with **ctDNA clearance** demonstrated 45-fold greater odds of achieving pCR (OR 45.0)[1]

~10x

ctDNA clearance was strongly associated with improved progression-free survival (HR 10.4)[1]

After surgery, the risk isn't always clear

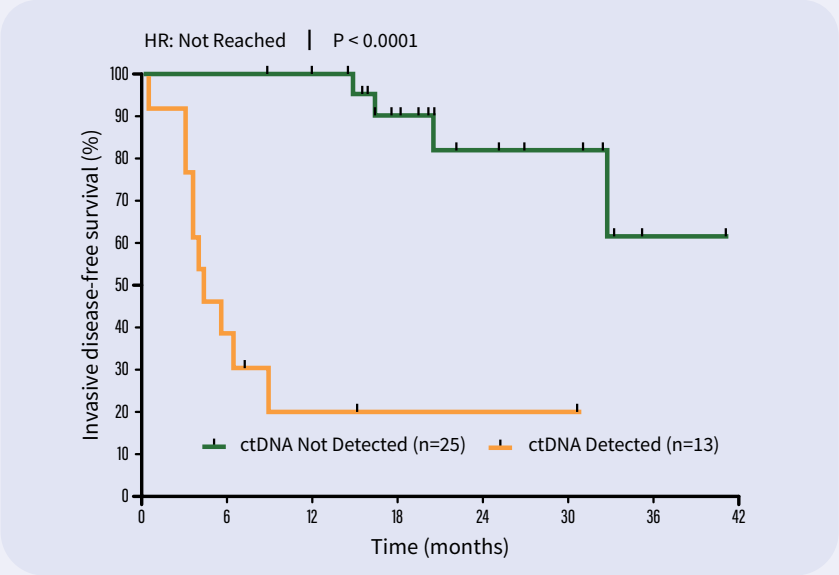
RaDaR ST may help refine risk assessment beyond clinicopathologic risk assessment alone

OXEL: stage II-III Triple-negative breast cancer (TNBC)[2]

Among patients with residual TNBC after neoadjuvant therapy, **ctDNA positivity post-surgery** identified those at greatest risk of recurrence.

Patients who were ctDNA-positive at landmark assessment had an **inferior median iDFS (4.52 months)** compared to patients who were ctDNA-negative (median iDFS not reached, P< 0.0001).[2]

All ctDNA positive patients who failed to clear ctDNA by week 6 recurred.[2]



When imaging alone doesn't tell the whole story

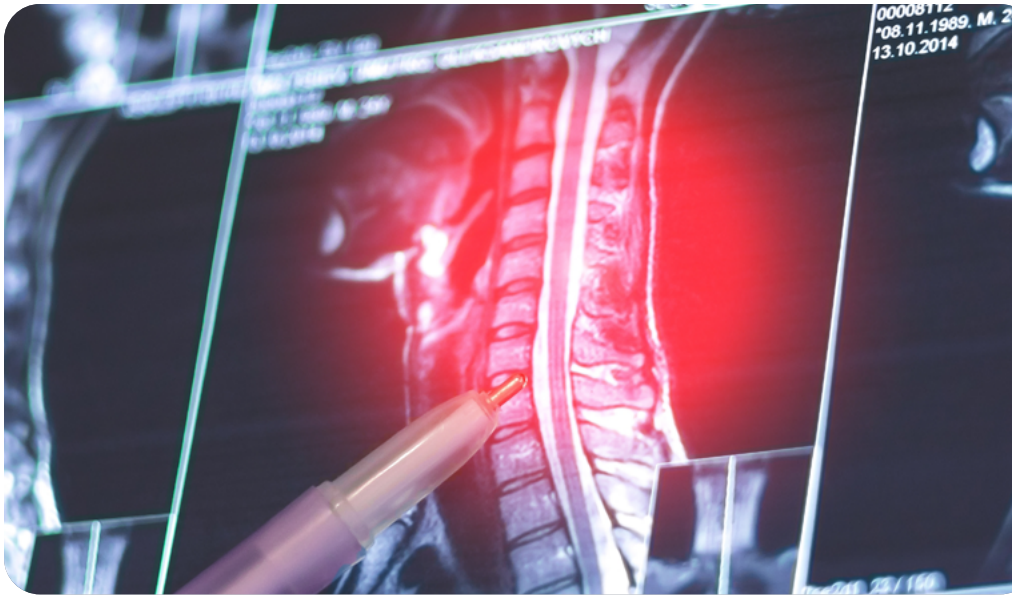
RaDaR ST may identify patients deriving meaningful benefit from immunotherapy

RUIZ-TORRES: Recurrent/metastatic head and neck squamous cell carcinoma (R/M HNSCC)[3]

ctDNA identified patients most likely to **achieve disease control** on immunotherapy and was associated with improved PFS and OS outcomes in recurrent/metastatic head and neck cancer (HNSCC).[3]

~22x

Patients who achieved ctDNA negativity during treatment had **22-fold greater odds of disease control** (OR 21.7).[3]

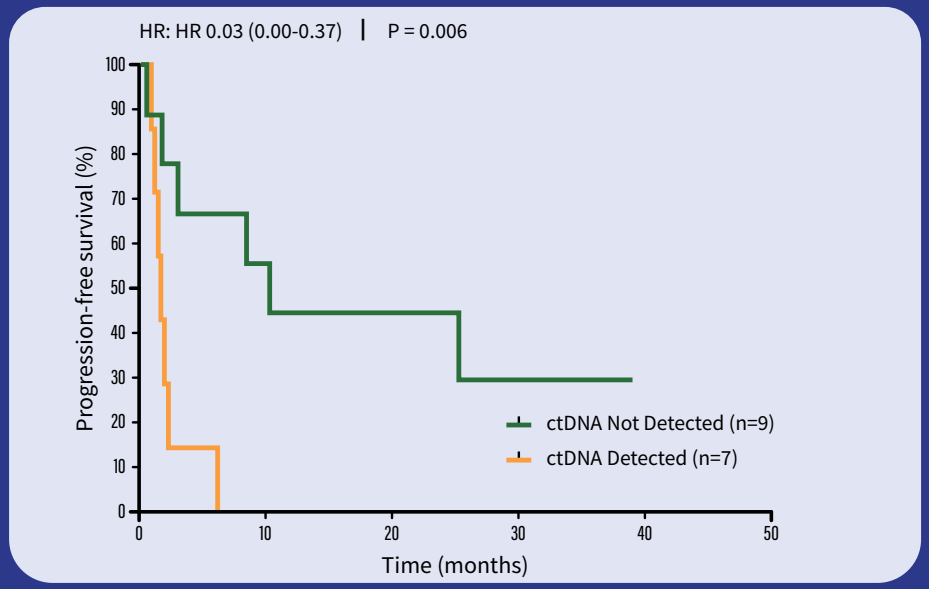


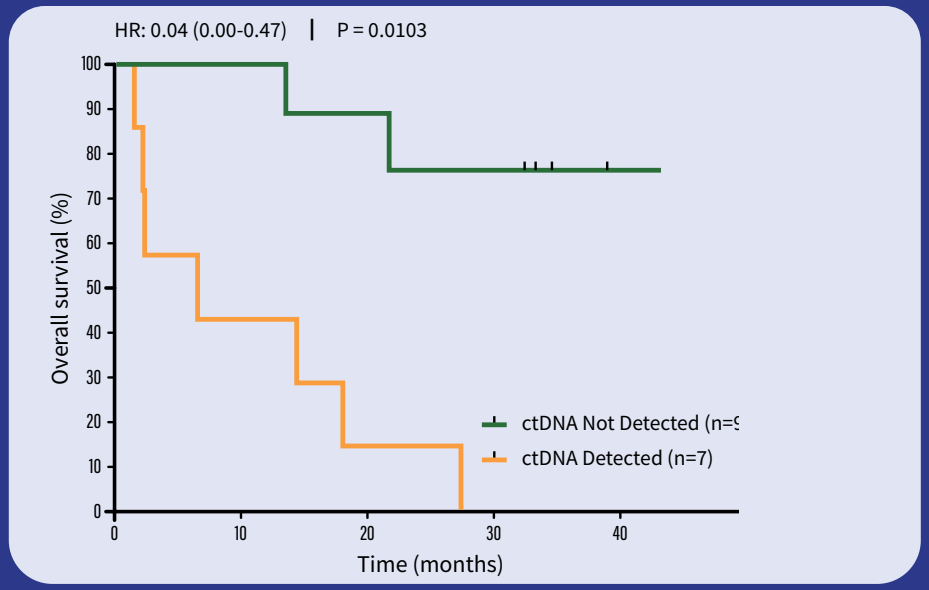
When imaging alone doesn't tell the whole story

RaDaR ST may identify patients deriving meaningful benefit from immunotherapy

RUIZ-TORRES: Recurrent/metastatic head and neck squamous cell carcinoma (R/M HNSCC) [3]

- ctDNA clearance provided an early molecular signal of durable immunotherapy benefit (PFS)
– ctDNA dynamics strongly correlated with long-term survival outcomes (OS)





97% **3-year PFS:** ctDNA clearance was associated with a 97% lower risk of progression. **HR 0.03** (95% CI, 0.00-0.37)[3]

96% **3-year OS:** ctDNA clearance during treatment was associated with a 96% lower risk of death. **HR 0.04** (95% CI, 0.00-0.47)[3]

RaDaR® ST is designed for accurate and efficient MRD testing

RaDaR ST is a tumor-informed, personalized MRD assay designed to detect molecular residual disease with exceptional sensitivity and specificity, enabling earlier, more confident clinical decisions across the patient care continuum.

Enhanced accuracy

Proprietary methods prioritize high confidence, often clonal, variants to reduce false negatives.

Error suppression, germline subtraction, and CHIP filtering minimize false positives.

Low sample requirements

First test:
10 unstained slides plus 1 for H&E and 2 blood tubes.

Follow-up tests:
2 blood tubes.

Fast turnaround time

Baseline results in as little as **28 days**.

Follow-up timepoints in as little as **7 days**.

Median tissue retrieval turnaround time: **3 days**.

Identify more patients with proven clinical performance across 15 cancer types supported by over 20 peer-reviewed publications[15]

With an analytical LoD95 of 11 ppm and detection down to 1 ppm[4,11,12,14]

RaDaR ST can detect **up to 37% more patients** compared to assays with a 100 ppm limit of detection[4,11,12,14]

Up to 5% of positive results are below 10ppm[4]

To learn more about our RaDaR ST or to order a test, please visit **NeoGenomics.com**.

We pride ourselves on our unparalleled Client Services team.
If you have questions regarding test information, specimen requirements, turnaround times, test add-ons, or patient results, please email us at client.services@neogenomics.com or call 866.776.5907, option 3.

Use this QR code to access all RaDaR ST publications

References

1. van Dorp, Jeroen, et al. "High- or Low-Dose Preoperative Ipilimumab plus Nivolumab in Stage III Urothelial Cancer: The Phase 1B NABUCCO Trial." N*ature Medicine*, vol. 29, no. 3, 2023, pp. 588–592.
2. Lynce, Filipa, et al. "Adjuvant Nivolumab, Capecitabine, or the Combination in Patients with Residual Triple-Negative Breast Cancer: The OXEL Randomized Phase II Study." *Nature Communications*, vol. 15, 2024, article 2493.
3. Ruiz-Torres, D.A., et al. "Personalized Circulating Tumor DNA Dynamics Inform Survival and Response to Immune Checkpoint Blockade in Recurrent/Metastatic Head and Neck Cancer." *NPJ Precision Oncology*, vol. 9, no. 298, 2025.
4. Elliott, Mitchell J., et al. "Longitudinal Evaluation of Circulating Tumor DNA in Patients Undergoing Neoadjuvant Therapy for Early Breast Cancer Using a Tumor-Informed Assay." *Nature Communications*, vol. 16, no. 1, 2025, article 1837.
5. Flach, Susanne, et al. "Personalized ctDNA Analysis for Detection of Residual Disease and Recurrence in Surgically Treated HNSCC Patients." *NPJ Precision Oncology*, vol. 10, no. 1, 2026, p. 103.
6. Flach, Susanne, et al. "Liquid BIOpsy for MiNimal RESidual DiSease Detection in Head and Neck Squamous Cell Carcinoma (LIONESS)-A Personalised Circulating Tumour DNA Analysis in Head and Neck Squamous Cell Carcinoma." *British Journal of Cancer*, vol. 126, 2022, pp. 1186–1195.
7. NeoGenomics data on file.

NeoGenomics, Inc. is a premier cancer diagnostics company specializing in cancer genetics testing and information services. We offer one of the most comprehensive oncology-focused testing menus across the cancer continuum, serving oncologists, pathologists, hospital systems, academic centers, and pharmaceutical firms with innovative diagnostic and predictive testing to deliver timely, actionable insights that guide personalized care decisions. Headquartered in Fort Myers, FL, NeoGenomics operates a network of CAP-accredited and CLIA-certified laboratories for full-service sample processing and analysis services throughout the US and a CAP-accredited full-service sample-processing laboratory in Cambridge, England. ©2026 NeoGenomics Laboratories, Inc. All rights reserved.

NEO GENOMICS

9490 NeoGenomics Way
Fort Myers, FL 33912

Phn: 866.776.5907
Fax: 239.690.4237

NeoGenomics.com

All trademarks are the property of their respective owners.

CORP-MRKT-0439 10.26