

OncoDEEP[®]
by OncoDNA

3 VERSIONS
available

HRD

638
DNA genes

TMB

Deliver on the promise of **precision medicine**

Identify the most relevant treatments
for your cancer patients

Protein
biomarkers

22
RNA genes

MSI

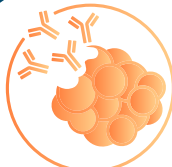
When your patients are diagnosed with any cancer type including aggressive cancer or rare cancer type, at diagnosis, after resection or when chemotherapy doesn't work or when cancer comes back, **OncoDEEP** can provide you with **clear clinical guidance**.

OncoDEEP covers the widest panel of clinically relevant genes existing today and offers a unique comprehensive and flexible offer with 3 new OncoDEEP types based on biological and/or scientific evidence.

Depending on your OncoDEEP formula (see table below), this 360-degree approach has proved to maximize the clinical benefits for patients and has matched patients with:



Chemotherapy



Immunotherapy



Targeted therapy



Hormone therapy



Clinical trials

Why choose OncoDEEP?



- **Map out the cancer treatment options** that match your patient's tumor profile
- **Reveal early indication of treatment resistance** and spare non-responders toxicity of a treatment with no therapeutic benefit
- **Reduce cost of testing** as comprehensive testing is more cost-effective than sequential biomarker testing and delivers faster results
- **Uncover opportunities to access drugs and clinical trials by leveraging OncoDNA proprietary, curated and up to date database and OncoDNA networks with pharma and clinical trial platforms**
- **Increase patients' understanding and access to clinical trials**
- **Publish patient case studies** and develop **academic papers** with us

In what scenarios is OncoDEEP useful?

- Available for all solid tumors in adults and glioblastoma in children
- Recommended for stage IA-IIIa for NSCLC after complete resection and adjuvant chemotherapy
- Recommended for maintenance Treatment of Patients with Advanced Ovarian Cancer
- Recommended for stage 3 or stage 4 cancer patients:
 - > At initial diagnosis
 - > At disease progression after first-line treatment
 - > In case of a highly aggressive cancer or rare cancer type
 - > When primary location of the tumor is unknown

A 35-year-old man was diagnosed with **metastatic NSCLC**.

Due to the nature of NSCLC, the biopsy obtained was of limited quantity and questionable quality. With this in mind, his oncologist suggested to run a biomarker test and decided on OncoDEEP. The test confirmed the poor RNA quality and also revealed a METex-14 skipping, highlighting patient eligibility to be treated with capmatinib or tepotinib.

A **treatment-naïve 40-year-old man** patient was diagnosed with **pancreatic cancer** without any familial predisposition.

The oncologist requested to perform a routine 45-gene NGS test in his local hospital suspecting that the likelihood to find an actionable mutation was very low. After a discussion with his patient, he decided to try OncoDEEP. The test revealed a positive HRD status (homologous recombination deficiency) in the absence of a BRCA mutation, highlighting the patient's eligibility to a clinical trial in the USA for irinotecan, rucaparib, fluorouracil and leucovorin; into which his oncologist succeeded in getting him recruited.

A **65-year-old woman** was diagnosed with a **Cancer of Unknown Primary**.

She underwent an OncoDEEP test, which did not decipher the primary origin of the cancer but highlighted a microsatellite instability (MSI-high) and a high tumor mutational burden (TMB-high). Based on these insights, the oncologist enrolled this lady onto a clinical trial focused on an innovative combination of immunotherapies (tiragolumab + atezolizumab). In just one month, the patient showed a partial response with a 25% decrease in the tumor size.

A unique combination of leading-edge tests

13 GENES FOR FUSION ANALYSIS

ALK FGFR1 NTRK1 BRAF TMPRSS2
ROS1 FGFR2 NTRK2 NRG1
RET FGFR3 NTRK3 EWSR1

9 GENES FOR UNUSUAL SPLICING EVENTS

BRCA1 RB1 ERBB2
BRCA2 AR MET
PTEN EGFR PALB2

FUSION GENES
& UNUSUAL
SPLICING
EVENTS



Sensitivity prediction to **targeted and hormone therapy**

Inclusion of 1,150 sequences to increase the accuracy and robustness of this biomarker

MSI



Sensitivity prediction to **immunotherapy**

1.7Mb of genomic content to better address TMB in low mutational burden tumors



Sensitivity prediction to **immunotherapy** for TMB-high solid tumors

TMB

- Mutations within genes associated with homologous recombination repair (HRR)
- Genomic scarring

HRD



Sensitivity prediction to **PARP-inhibitors** for HR-deficient tumor

- High-confidence calling of SNVs and Indels
- Better uniformity
- Genomic backbone to improve the analysis of CNV, LOH, homozygous deletions even in complex regions



Sensitivity prediction to **targeted therapy & immunotherapy**

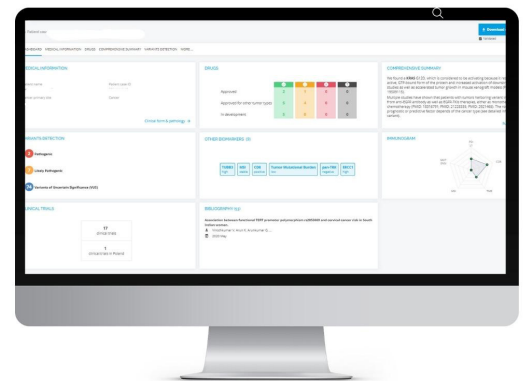
SNVs,
INDELS,
CNV

The OncoDEEP report

The OncoDEEP report helps oncologists understand how likely it is that an individual patient will respond to a specific treatment and flag potential resistance mechanisms.

Each report:

- Summarizes result in one page with **clear indication of patient sample information and genomic findings**
- Presents **detected variants with clinical significant** associated with potential therapeutic impact (or lack of) according to FDA/EMA/NCCN/ESMO guidelines and/or based on our proprietary database
- Is actionable, concise and help inform **therapy decisions according to the most recent clinical guidelines**
- **Aids in fueling research**, by contributing and building clinical evidences, uncovering potential targets for cancer drug development



OncoDEEP step by step

Our teams are at hand to assist you every step of the way – from discussing the relevance of the test for your patient and easing the sample collection to understanding the clinical recommendations listed in the report.



Test selection based on patient's case

Cancer sample collection and test order confirmation

Sample shipment to OncoDNA testing laboratory and confirmation of receipt

Sample processing

Final report available on a secured online platform in **10 days**

Choose your OncoDEEP formula

	OncoDEEP NGS	OncoDEEP I+	OncoDEEP P+
Features			
Therapeutic prediction	At DNA and RNA level according to international guidelines and or scientific evidence	At DNA, RNA and protein level (Immunotherapy only) according to international guidelines and or scientific evidence	At DNA, RNA and protein level according to international guidelines and or scientific evidence
NGS panels	638 genes DNA + 22 genes RNA	638 genes DNA + 22 genes RNA	638 genes DNA + 22 genes RNA
Genomic signatures (MSI, TMB, HRD)	Included	Included	Included
<i>TERT</i> promotor	Included	Included	Included
<i>MGMT</i> promotor methylation	Not included	Not included	Included for specific cancer types
Additional Biomarkers	Not included	Included for immunotherapy response (PD-L1, CD8)	Included Tumor-specific IHC supported by clinical and/or scientific evidence for targeted chemotherapy and immunotherapy
Clinical Utility			
Targeted therapy	Based on NGS	Based on NGS	Based on NGS + IHC
Immunotherapy	Based on NGS (TMB & MSI)	Based on NGS (TMB, MSI) + Based on IHC : PD-L1, CD-8	Based on NGS (TMB, MSI) + Based on IHC : PD-L1, CD-8
Hormone therapy	Based on NGS (<i>ESR1/AR</i> genes and ARv7)	Based on NGS (<i>ESR1/AR</i> genes and ARv7)	Based on NGS (<i>ESR1/AR</i> genes and ARv7) + IHC markers
Clinical trials (II,III,IV)	Based on NGS	Based on NGS + IHC markers	Based on NGS + IHC markers
Chemotherapy	Toxicity based in NGS	Toxicity based in NGS	Toxicity based on NGS + potential treatment responsiveness based on chemotherapy IHC panel
Sample Requisitions			
Sample type	Block or if not possible, 7 slides of 10 µm Non-Superfrost™ Plus	Block or if not possible 10 slides (7 slides of 10 µm Non-Superfrost™ Plus and 3 slides of 5 µm Superfrost™ Plus)	Block or if not possible 19 slides (7 slides of 10 µm Non-Superfrost™ Plus and 12 slides of 5 µm Superfrost™ Plus)

PRODUCT SPECIFICATIONS

	BREAST CANCER HER2	BREAST CANCER HR+	TRIPLE NEGATIVE BREAST CANCER	CERVICAL CANCER	CHOLANGIOCARCINOMA	COLORECTAL CANCER	CARCINOMA OF UNKNOWN PRIMARY (CUP)	GASTROESOPHAGEAL CANCER	GLIOBLASTOMA/ GLIOMA	HEAD AND NECK CANCER	MESOTHELIOMA	MELANOMA	NON-SMALL CELL LUNG CANCER	OVARIAN CANCER	PANCREATIC CANCER	PROSTATE CANCER	SARCOMA	URINARY BLADDER CANCER	OTHERS
NGS alone																			
HE IHC							*												
AR							*												
CD8							*												
c-ERBB2							*												
ER							*												
<i>MGMT</i> methylation																			
PD-L1 (sp142)							*												
PD-L1 (22c3)							*												
PR							*												
PTEN							*												
p-4EBP1																			
Claudin18.2																			
TROP-2																			
FOLR1																			
Chemo Panel:																			
ERCC1																			
HENT1																			
RRM1																			
TLE3																			
TOPO1																			
TOP2A																			
TS																			
TUBB3																			

*CUP male : AR + standard IHC panel for histological diagnosis

*CUP female: ER + PR + standard IHC panel for histological diagnosis

ONLY Uterine sarcoma

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