There might be other treatment options for your cancer type

HOW MOLECULAR PROFILING TESTS CAN HELP YOU TO GET THE BEST TREATMENT



Informative guide for patients & their loved ones

Understanding how cancer works

New approaches to treat cancer

Cancer is the name given to a collection of diseases characterised by the proliferation of abnormal cells which can invade different tissues of the body. While healthy cells grow and divide in a regulated manner, cancer cells multiply chaotically. Cells can become cancerous after a major mutation in a gene (DNA). These abnormal cells will eventually form a mass in a healthy tissue or organ, thus giving rise to what is known as a malignant tumour. Not all tumours are malignant: they can be non-cancerous (benign), in which case, while they may be bothersome, they do not invade the body or neighbouring tissues. In contrast, malignant tumours can metastasise, meaning that they can spread throughout the entire body. Over the last century, there have been tremendous advances in the treatment of cancer which aim to provide patients with treatment that is as customised as possible.



For decades, doctors fought cancer with a triad of treatments: surgery, to remove tumours from the body; radiotherapy to eliminate cancer cells with radiation; and chemotherapy to slow the growth of cancer cells or kill them.

New treatments have emerged in recent years that are now gaining momentum. They are designed to help defeat cancer more effectively and, ideally, with fewer side effects. With the emergence of new treatments and scientific advances, we have entered the era of "precision medicine".

Physicians now have the choice of offering treatments that are better suited to the genetic and genomic characteristics of the patient's tumour. This is the context in which OncoDNA offers its services.

Tumours begin to develop when a cell acquires a genetic mutation that increases its ability to divide uncontrollably.

GENETICALLY MODIFIED CELL HYPERPLASIA DYSPLASIA

In addition to showing uncontrolled proliferation, these cells are abnormally shaped. The tissue is now said to show **dysplasia**. After a while, new genetic changes may occur.

CARCINOMA IN SITU

If genetic changes allow the tumour to start invading the underlying tissue and releasing cells into the bloodstream or lymph nodes, the cancer is said to be **invasive**. The released cells are now likely to give rise to **new tumours (metastases)** throughout the body.

Multiplication of an altered cell causes the volume of the tissue to increase, a phenomenon called **hyperplasia**. Further mutations may occur which further alter the control of cell growth. Affected cells become even more abnormal in size and appearance, confirming the development of a tumour. If the tumour has not yet crossed any boundaries between the tissues, it is called **carcinoma in situ**. Such tumours may remain contained indefinitely

INVASIVE CANCER

I now have longer to spend **precious moments with my family**

My sister recently died of breast cancer; shortly after, I was also diagnosed with metastatic cancer. Unfortunately, the doctors were unable to determine the origin of my cancer right away. I was therefore offered chemotherapy, but with no guarantee that I would respond, and so I decided to forgo this option. I was concerned about the rest of my family, but the doctors told me that my cancer was very different from my sister's, and that there was no sufficient reason for them to get screened.

This is when I heard about OncoDNA. I got my test results within one week, which showed that my cancer was probably ovarian, that I had a BRCA gene mutation and that I might respond to a certain kind of chemotherapy. I was referred to an ovarian cancer specialist and started treatment two weeks ago. Since this BRCA mutation can be hereditary, I learned that my daughter and my nieces should also be tested for this mutation.

The progression of my disease has slowed down, giving me longer to share happy moments with my family.

Lindsey, 47 years old, Great Britain, Stage IV Ovarian Cancer

How new treatments can help you

Over the last century, we have made major strides in our understanding of cancer. Doctors can now select medications based on the presence of specific biomarkers in order to customise the treatment given to each patient. Tumour profiling can help not only to increase the chances of survival, but also to avoid unnecessary treatments and their potential toxicity.

 \rightarrow Targeted therapies:

The goal of targeted therapies is to destroy cancer cells by acting on **specific targets** involved in the spread or growth of a tumour. By acting on these specific targets, these treatments, allow us to halt the progression of the disease.

 \rightarrow Hormone therapies:

These are drugs which are used to block the action or production of hormones in the body, thereby slowing or stopping the growth of certain cancers that are dependent upon these hormones (including **hormone receptor-positive** breast cancers and certain prostate cancers).

 \rightarrow Immunotherapy:

The goal of immunotherapy is to mobilise the patient's **own immune system** against the disease. Some treatments recognise specific receptors on the surface of cancer cells, while others bind to immune cells to help them specifically destroy cancer cells.

OncoDNA tests are specifically designed to determine whether these therapies are going to be helpful. They are the only tests that cover all of these treatment options.



What are the different solutions that OncoDNA has to offer?

OncoDNA develops and improves theranostic solutions (a combination of diagnostics and therapy) to provide cancer patients with the best treatment options.

Our innovative approach combines next generation sequencing (NGS) with immunohistochemistry (IHC), providing a comprehensive view of the tumour profile, with information on DNA, mRNA and proteins. This approach enables the identification of further therapeutic options for the patient. This kind of test can also be performed on liquid biopsy specimens, either in combination with molecular tumour profiling or alone. A combination of **molecular tests** to help oncologists in their **therapeutical decisions**



COMPLETE ANALYSIS COMBINING SOLID AND LIQUID BIOPSY

OncoSTRAT&GO establishes the complete genetic profile of the tumour, which can then be used to determine the patient's response to targeted therapies, conventional chemotherapies and novel immunotherapies.

OncoSTRAT&GO combines testing of both solid (primary tumour or metastasis) and liquid biopsy specimens (blood samples).



OncoDEEP

SOLID TUMOUR ANALYSIS

OncoDEEP is used to determine the genetic profile of solid tumours (primary tumours or metastases).

OncoDEEP combines analysis of 313 genes and protein analysis, thus allowing the selection of the most appropriate chemotherapy, immunotherapy or targeted therapy.



IF NO SOLID BIOPSY IS AVAILABLE

OncoSELECT is a quick and minimally invasive analysis of circulating tumour DNA from a blood sample.

It is the ideal tool to identify therapeutic solutions in cases where biopsy is not possible. This solution also allows us to track the disease progression and detect resistance to treatment as soon as it emerges.



LIQUID BIOPSY MONITORING TOOL

OncoTRACE is a test based on circulating tumour DNA. It is used to monitor the patient's response to treatment and thus detect possible recurrence of disease. The test is customised for each patient, as it contains specific cancer targets identified during previous genomic analysis.



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What does the report include?



We provide oncologists with a dynamic report of your results on our OncoSHARE platform, allowing them to share the results with you or with a peer in order to get a second opinion. Below is some of the key information delivered in the report which is intended to allow your oncologist and yourself to determine new ways to customise your treatment.

MEDICAL INFORMATION

Presentation of your cancer with a picture of the tumour and a clinical form

NEXT-GENERATION SEQUENCING

Comprehensive list of variants and their biological impact



Immunogram showing the potential response to immunotherapy

COMPREHENSIVE SUMMARY

List of recommended vs. non-recommended treatments



List of combination treatments with:

- potential clinical benefit
- · potential lack of clinical benefit
- treatment toxicity
- undetermined clinical benefit

6 **CLINICAL TRIALS**

List of all current clinical trials to do with your results



BIBLIOGRAPHY

List of all scientific publications to do with your report

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If you require more information on the content and benefit of our interactive reports, please send us an email at infos@oncodna.com, our team of experts will be happy to help!



How to get an OncoDNA test

Talk to your oncologist, who is more than welcome to contact our team of scientific experts if the need arises. Once the decision is made, our test can be ordered easily in just a few minutes via our website.

CREATING A SECURE ACCOUNT ON 🙆 OncoSHARE

OncoSHARE is a web platform with an active community of more than 13,000 patients and oncologists, via which your doctor can request tests and view the final report. The platform also allows you to get in contact with us and to pay for your molecular profiling test.



www.oncoshare.com

THE ONCOLOGIST ORDERS THE TEST THAT BEST SUITS YOUR CLINICAL SITUATION

THE ONCOLOGIST FORWARDS YOU THE INVOICE

HE SENDS YOUR SAMPLE KIT TO ONCODNA

ONCODNA TESTS THE SAMPLE AND ISSUES AN ONLINE REPORT ON ONCOSHARE (APPROXIMATELY 10 DAYS AFTER RECEIVING THE SAMPLE)

We are available to answer any questions you may have: - via our patient care service (<u>infos@oncodna.com</u>) or - via our scientific team (<u>molecular@oncodna.com</u>) for oncologists



FAQ

If your question is not included in the list below and/or if you would like more information about our solutions, please visit our website at <u>www.oncodna.com</u> or contact us at <u>infos@</u> <u>oncodna.com</u>, our team of experts will be happy to help!

1. What are the chances of OncoDNA finding a better treatment for me?

A recent publication showed that OncoDNA found treatment options for 92% of patients with advanced metastatic cancer. However, each cancer is different and it may also be that no alternative is found. It depends on your type of cancer, its severity, what treatment you have already received and many other criteria. Feel free to ask your oncologist to call us to assess the possible benefits in relation to your case.

2. How does this work?

After ordering the test that you need via the OncoSHARE application, your oncologist will receive a kit to submit your sample (cancerous tissue specimen or/and blood sample). You will be asked to settle your invoice by credit card or bank transfer. Once we receive your payment and your sample, we perform the tests in our certified laboratories. Your oncologist will be notified as soon as the results are available (7 to 10 working days), allowing him to read the report and issue appropriate treatment recommendations.

3. What kinds of cancer is molecular profiling indicated for?

Molecular tumour profiling is not appropriate for early-stage cancer (Stage 1 or 2). It is also unsuitable for leukaemia, myeloma or other cancers of the blood or lymph (liquid tumours). OncoDNA recommends profiling only for solid stage 3 or 4 (invasive) cancer in adults (>18 years old). In fact, our tests are not designed for liquid tumours or paediatric cancers.

4. If the report suggests a new treatment, will the treatment be available or covered by health insurance?

We are unable to guarantee that all suggested treatments are available or reimbursed in your country. In some cases, if a treatment is not officially available or reimbursed, it may be suggested that you enrol in a clinical trial. Do not hesitate to ask your oncologist about your best options.

5. Is there a real chance that I will respond to treatment and live longer?

Each patient is unique and treatment may affect different patients differently. Our test results may suggest potentially more effective treatment options or to forgo others due to lack of efficacy or toxicity in your case. If successful, this can improve your life expectancy or your quality of life.

6. Will the test make me more eligible for immunotherapy?

Definitely, if available in your country. We test a wide range of markers of sensitivity to immunotherapy and provide an immunogram to visualise your chances of responding to treatment. However, we may also recommend other treatment options such as hormone therapy, chemotherapy or a targeted therapy.

7. Are molecular profiling tests covered by health insurance?

They are in some countries; it depends on your national or private health insurance scheme. Some or all of the tests may be covered. They may also be available through certain research projects in which your oncologist may be taking part. Talk to your oncologist and to your insurance provider.

About OncoDNA

OncoDNA offers solutions combining the most appropriate molecular tests to provide a comprehensive profile of each patient's cancer, and hence a more targeted treatment and better follow-up.

The objective of OncoDNA is to predict and monitor response to treatment by using a comprehensive and integrated approach to assist oncologists in their decision-making process and choice of regimen in order to help patients live better lives and for longer.

At OncoDNA, the patient is our main priority. We strive to provide quality services to support oncologists in their treatment decisionmaking.

OncoDNA has received significant recognition in its area of expertise. These awards push us to develop new solutions to improve the quality of life of cancer patients every day.



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Our offices:

BELGIUM

OncoDNA S.A, Rue Louis Breguet 1, 6041 Gosselies

BioSequence SL, Ronda Auguste y Louis Lumiere 23 Nave 13, 46980 Paterna, Valencia





unique and so is your treatment too.





There might be other treatment options for your cancer type

HOW MOLECULAR PROFILING TESTS CAN HELP YOU TO GET THE BEST TREATMENT



🔀 infos@oncodna.com

