

OncoKDM

FROM MOLECULAR COMPLEXITY
TO CLEAR TREATMENT DECISIONS

www.oncokdm.com



NGS data interpretation platform

How can we help you?

- User-friendly platform
- Continuously updated database including more than 1 000 000 annotated variants, 750 drugs, 5 000 publications and 2 000 clinical trials based on public databases
- Comprehensive reports curated by our molecular biologists
- Unique integration capability of different assays such as NGS, IHCs and additional molecular tests
- Drug regimen recommendations based on clinical evidence and official guidelines
- Platform and report customisation matching your specific requirements (edit feature, platform look, customised reporting system)
- A live support through our chat system

Discover
**OncoKDM, your
future platform!**

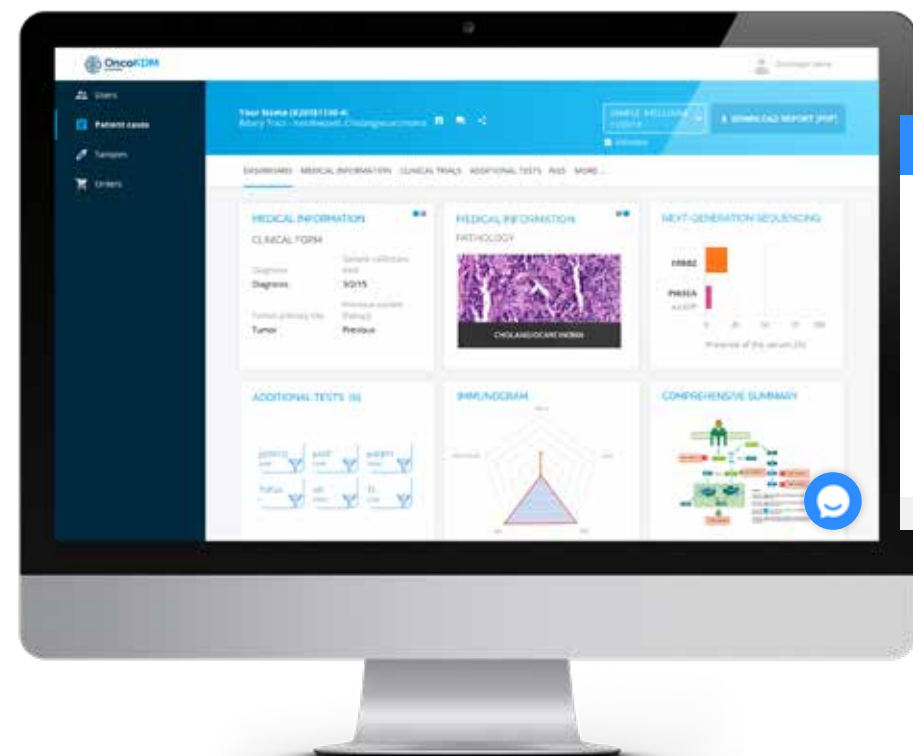
OncoKDM : The most complete solution



OncoKDM is a web-based platform that turns your raw data into actionable clinical insight. OncoKDM is a powerful tool that addresses NGS, IHC, MSI and TMB data to provide up-to-date and accurate interpretation. The comprehensive and interactive report includes quality control data, patient clinical data, in-depth NGS variants annotation, treatments and clinical trials options.

Every single report is generated by our proprietary algorithms that are browsing public databases to generate specific insights on your data. The reports are curated and validated by our expert scientists before being released to the client. OncoDNA understands the complexity of the medical environment and allows you to share the reports through the platform in a simple click turning the platform into a wonderful tool for molecular boards.

Should you have any requests or questions, OncoDNA is giving you access to our scientific support team through the live chat feature.



THE ONCOLOGY SPECIALIST



- Benefit from 5 years of experience in oncology data interpretation
- Smart variants classification to highlight treatment options
- Biological pathways integration

UNIQUE INTEGRATION CAPABILITY



- NGS (SNV, insertions and deletions, CNV, LOH)
- Protein expression and methylation analyses (IHC)
- MSI and TMB
- Translocations

DRUG RECOMMENDATIONS



Drug regimen recommended based on official guidelines and clinical evidences

SPECIFIC FEATURES



- Immunogram for immunotherapies response prediction
- Alpha List: customised hotspots list for which variant detection thresholds can be lowered down to 1% accuracy
- Validation: we will support you in validating your BioIT and reporting pipeline

KNOWLEDGE DRIVEN



OncoKDM is based on our proprietary database which is continuously enriched by our algorithms and expert scientists. To date, we have managed to gather insight about more than 1 000 000 variants, 750 drugs accounting for more than 5 000 publications.

FULLY CUSTOMISABLE UP TO YOUR STANDARDS



- The content of our report can be modified through the edit feature. It allows you to make sure that the interpretation is up to your standards and needs.
- The look of the platform can be tailored to reflect your laboratory expertise

TECHNOLOGY AGNOSTIC



- OncoKDM is compatible with all kinds of sequencing technologies (Illumina, Ion Torrent and more)
- Starting from FASTQ, BAM or VCF files

OncoKDM is technology-agnostic

OncoKDM NGS Bio-IT and interpretation pipeline is perfectly suited to analyse custom NGS panels or commercial panels. Please find hereunder a list of supported technologies/panels routinely used in clinical diagnostic laboratories.

COMMERCIAL ONCOLOGY PANELS :



IonTorrent

- OncoMINE Focus Assay
- OncoMINE Comprehensive Assay
- OncoMINE BRCA Assay

Illumina

- AmpliSeq for Illumina BRCA Panel
- AmpliSeq for Illumina Cancer Hotspot Panel V2
- AmpliSeq for Illumina Comprehensive Panel V3
- AmpliSeq for Illumina Focus Panel
- TruSight Tumor 170 (DNA)
- TruSight Tumor 15

Agilent

- ClearSeq Comprehensive Cancer Panel

Qiagen

- Human Breast cancer Panel
- Human Colorectal cancer Panel
- Human Lung cancer Panel
- Human Actionable Solid Tumor Panel
- Human BRCA1 & 2 Panel
- Human BRCA1 & 2 Plus Panel

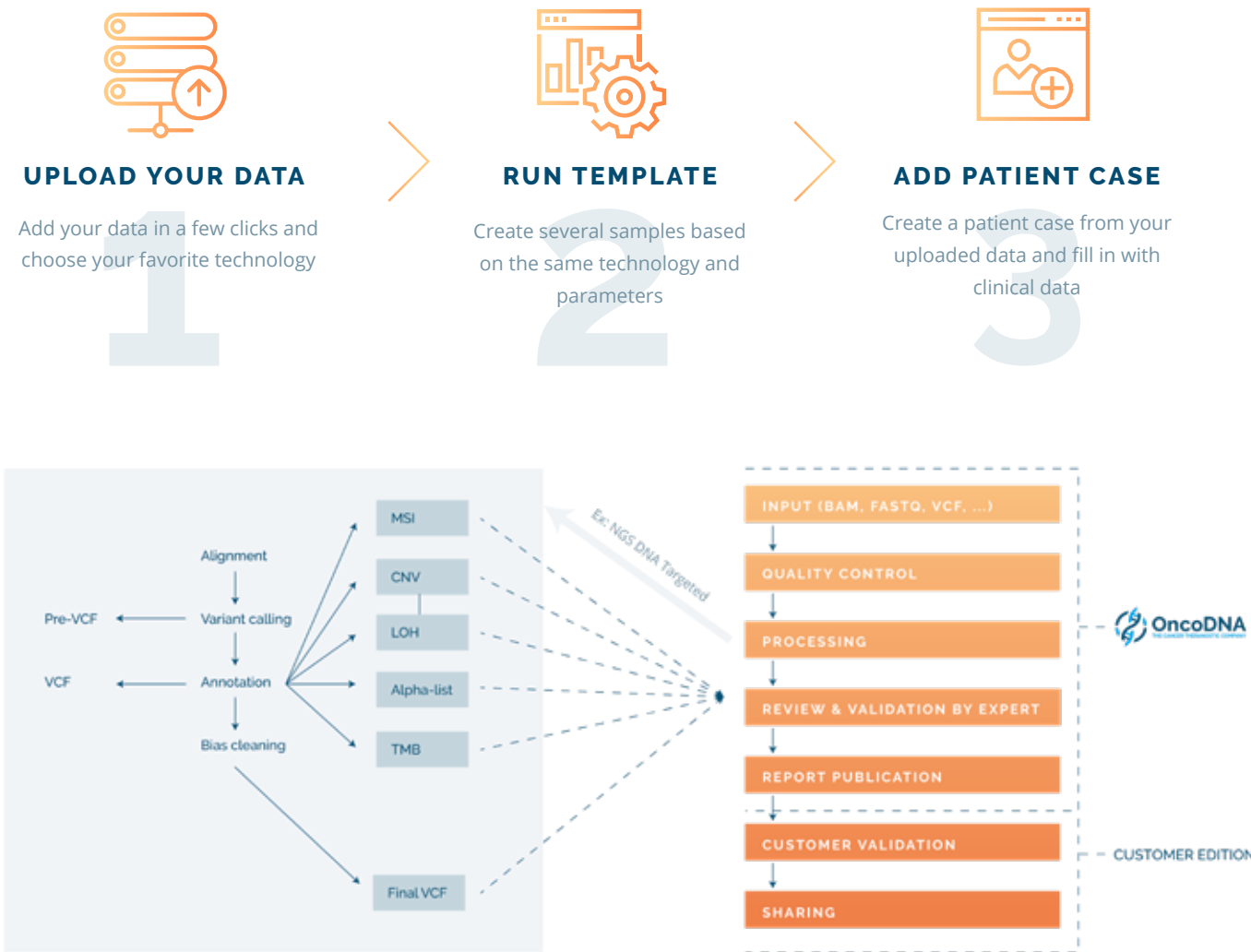
Archer DX

- Any panel starting from the VCF files

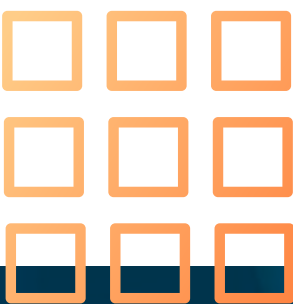
... and many more!

Innovation for your molecular oncology data interpretation

OncoKDM provides you with up-to-date interpretation of your NGS oncology data. You simply need to upload your FASTQ, BAM or VCF files on our platform in a few clicks.



Interactive report with insightful widgets



1 MEDICAL INFORMATION

- Customisable clinical form
- Sequencing-related information
- Possibility to include pathology information such as H&E staining tumour sample slide

2 QUALITY CONTROL

Quality control of your data including read length distribution and uniformity assessment

3 NEXT-GENERATION SEQUENCING

- Smart variant classification including biological and therapeutical impacts
- CNV analysis
- List of genes covered by your NGS assay
- Coverage and uniformity quality control broken down to the exon level
- Community: we match your data with public databases (TCGA and Genie)
- Alpha List: customised hotspots list for which variant presence detection rate can be lowered down to 1%

4 ADDITIONAL TESTS

- Immunohistochemistry (chemotherapy and immunotherapy response prediction)
- Translocations
- Unusual splicing or methylation
- Extra layer of interpretation on top of NGS data

5 IMMUNOGRAM

The immunogram shows the potential response to immunotherapy. It is created by (1) the percentage of PD-L1 positive tumor cells, (2) the percentage of infiltrated CD8+ T cells, (3) the level of tumor mutational burden, (4) the micro satellite stability status of the tumor (5) the presence of mutations associated with either sensitivity or resistance to immunotherapy. The larger the area, the better the patient should answer to immunotherapy

6 COMPREHENSIVE SUMMARY

- Conclusion of the report including the key findings
- Simplified pathway analysis
- Treatment recommendations based on molecular evidence

7 DRUGS SECTION

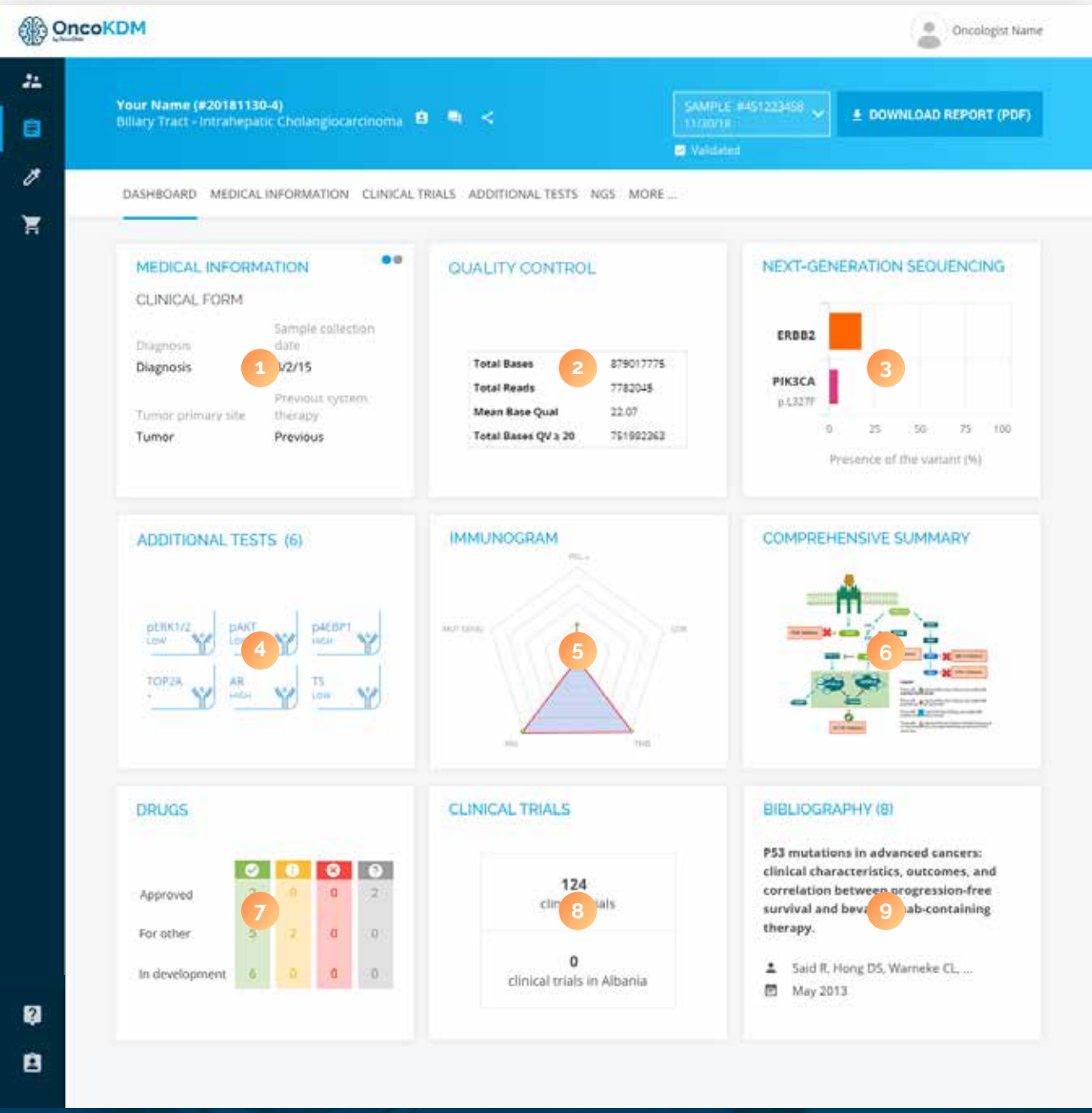
- List of treatments associated with
 - Potential clinical benefit
 - Potential lack of clinical benefit
 - Undetermined clinical benefit
 - Toxicity
- Tradenames, therapeutic classes, official indications
- Approval status for the cancer type
- Drugs in development

8 CLINICAL TRIALS

Worldwide active clinical trials list based on patient specific condition and molecular profile

9 BIBLIOGRAPHY

List of scientific papers that have been used to build up the report



OncoKDM is a very easy-to-use platform. Indeed, in a few steps, you will be able to test your first sample and discover the magic of our interpretation solution. We strive to give you the most complete information in an interactive report showing what you need at first sight.

OncoKDM quality standards: The best of your data for the best interpretation

QUALITY CONTROL REPORTING

Low-quality data often means low-quality results



How could you provide accurate treatments without accurate data? If you want your patient to benefit from precision medicine, you cannot afford to have any false-negative/positive results. Therefore, OncoDNA conducts quality control protocols on each data set that is being uploaded on OncoKDM. You will finally be able to assess the accuracy of your results at all levels, from the run quality to the single mutation.

OncoKDM provides you with quality control of your data at:

- Run Level
- Gene/Exon Level
- Base/Mutation level

Increasing interpretation power by combining NGS and IHC data

DATA INTEGRATION

Because we know that including IHC data gives a better clinical insight that using NGS only (*Laes et al. Oncotarget, 2018, Vol. 9, (No. 29), pp: 20282-20293*), OncoKDM allows you to integrate additional data than your lab might generate to reach a higher level of molecular profiling.

- including IHC data
- MSI analysis
- TMB analysis



Test	Name	Result	Conclusion	Action
CD8	CD8	Positive expression	By IHC we showed a positive expression of CD8 indicating the presence of CD8+ T cells around the tumor. Since the formation of PD-1 receptor / PD-L1 ligand complex transmits an inhibitory signal which reduces the proliferation of these CD8+ T cells at the lymph node, treatment based on PD-1/PD-L1 inhibitors could be associated with potential clinical benefit for this patient.	
MSI	MSI	NO	It is known that microsatellite instability causes a build up of somatic mutations in tumor cells and leads to a spectrum of molecular and biological changes including high tumor mutational burden, increased expression of neoantigens and abundant tumor-infiltrating lymphocytes. No MSI has been observed. Therefore, the use of checkpoint inhibitor drugs is associated with a lack of benefit.	

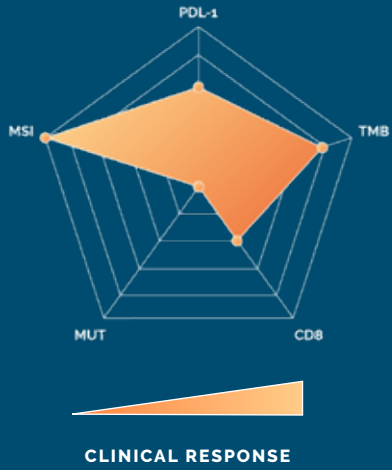
A CENTRALISED TOOL TO SUPPORT YOUR TUMOR BOARD

There is a worldwide consensus to enhance the role of molecular biologists in the hospital-based tumor conference (tumor board). Executing effective tumor boards is a challenging task that requires the participation and dedication of a multidisciplinary team of clinicians and molecular biologists.

With the OncoKDM reports we make your life easier and reinforce your role in such tumor boards through deep bibliographic support and the most recent data including clinical trials.



A UNIQUE IMMUNOGRAM TO SELECT THE BEST TREATMENT



Our immunogram is created based on 5 key points, **PD-L1** % (FDA), **TMB** (ASCO 2017), **CD8** T-cell infiltrate (ASCO 2017), **MSI** (FDA) and **Sensitivity/Resistance mutations** (ASCO 2017). With those tools, we are able to give you a clear vision of the potential clinical response of your patient.

The most comprehensive tool to predict immunotherapy response prediction

- Response characterisation to ICP (Immune Checkpoint Inhibitor)
- Multifactor approach based on 5 biomarkers

Your customised platform



With OncoKDM, our goal is to give you the best interpretation tool, tailored to your lab and needs. Therefore we do not only adapt our analysis pipelines to fit your requirements, we also give you the possibility to verify our sources, modify any of our interpretations and add comments when sharing the report with your colleagues.

All of this in your own instance of the platform.

YOUR OWN PLATFORM

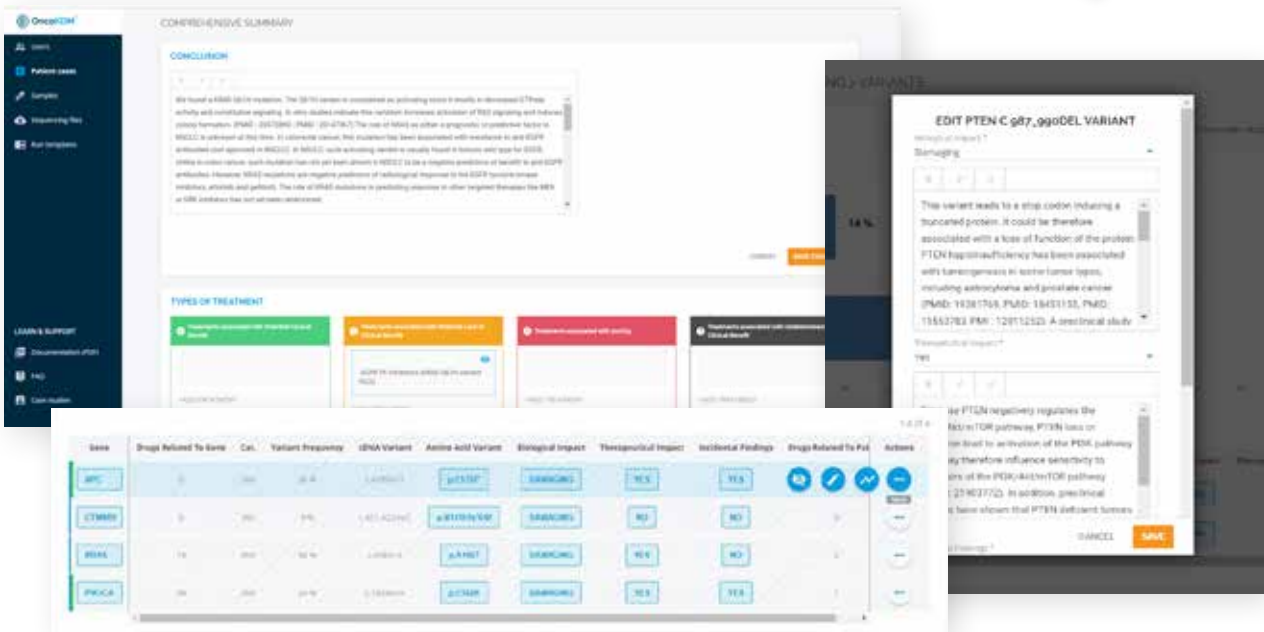
We will create for you a new instance of OncoKDM tailored to your own taste, including your logo, colors, URL, customized pdf report... We want to make OncoKDM YOUR tool.



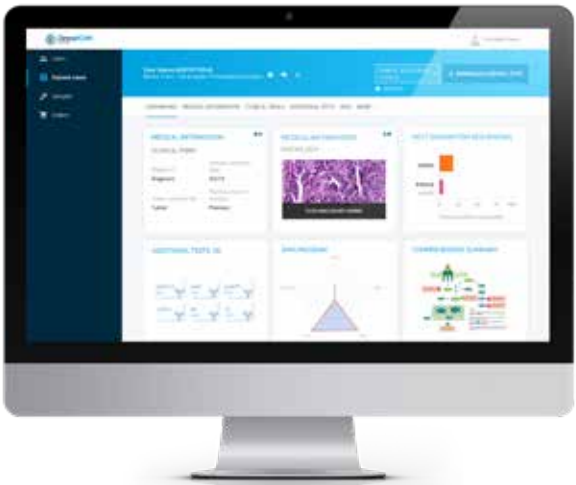
MAKE IT YOUR REPORT

You remain the owner of the final report. Every information on which our biological and clinical interpretations are based is referenced in the report. Therefore, all data can be verified and edited to suit your needs or guidelines. You will always have the last word on the final report you want to get. Through the editing feature, you are able to modify the variant classification, the summary, the drugs choices, the clinical trials list and more, prior to your validation.

The report can also be easily shared with your colleagues, following first validation by an in-house trained PhD.



A POWERFUL INTERACTIVE ONLINE REPORT



CREATE THE REPORT TEMPLATES THAT FIT YOUR NEEDS :

- Hide some level of details
- Edit our proposals and conclusions based on your preferences, choices or references

The OncoDNA team supports you



Our bioIT team will help you:

- In all technical aspects
- In the quality control
- In the validation of the bioIT pipeline (control samples, validation reports)
- In the implementation of the right pipeline for your analyses




Our scientific team will:

- Train and advise you on the best setup of your NGS platform, analysis, regulatory purposes affairs
- Will guide you in the interpretation of the results and in treatment recommendations
- Will assist you for publications research
- Will help you with the validation panel

WE ARE AT YOUR DISPOSAL IF YOU NEED A PERSONALISED QUOTATION.

- Send us an email at sales@oncodna.com or by phone +3271183500.
- Do not hesitate to visit the OncoKDM website www.oncokdm.com to learn more on how the platform works.
- Feel free to contact us for a live demo or to perform a test on a sample of your choice.

Choose your formula

	 STANDARD	 PREMIUM	 CUSTOM
Generic features			
Adult solid tumor	✓	✓	✓
NGS DNA	✓	✓	✓
Reporting of biological impact	✓	✓	✓
Reporting of the variants therapeutical impact	✓	✓	✓
Drug recommendations	✓	✓	✓
Clinical trials (II, III, IV)	✓	✓	✓
Comprehensive summary	✓	✓	✓
Platform customisation	✓	✓	✓
Bibliography associated with all conclusions	✓	✓	✓
Possibility of data extraction for further analyses	✓	✓	✓
Continuous database update	✓	✓	✓
Exomes*	✗	✗	✓
Validation report*	✗	✗	✓
Input file (Ion Torrent, Illumina, ...)			
VCF	✓	✓	✓
FASTQ	✗	✓	✓
BAM	✗	✓	✓
QCs reported (Highest level of QC analysis)			
Run level	✗	✓	✓
Gene/Exon level	✗	✓	✓
Base/Mutation level	✗	✓	✓
IGV visualisation	✗	✓	✓
Variants reported (Reporting of most relevant mutations)			
SNV	✓	✓	✓
InDel	✓	✓	✓
CNV	✗	✓	✓
LOH (if designed)	✗	✓	✓
Additional features (Integration level never achieved before)			
Clinical data	✗	✓	✓
IHC data integration	✗	✓	✓
FISH data integration	✗	✓	✓
MSI data integration	✗	✓	✓
TMB data integration	✗	✓	✓
RNA Seq (fusion panel)	✗	✓	✓
Unique features			
Immunogram for immunotherapy prediction	✗	✓	✓

(*) : Available upon request and according to your needs



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TO CLEAR TREATMENT DECISIONS



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