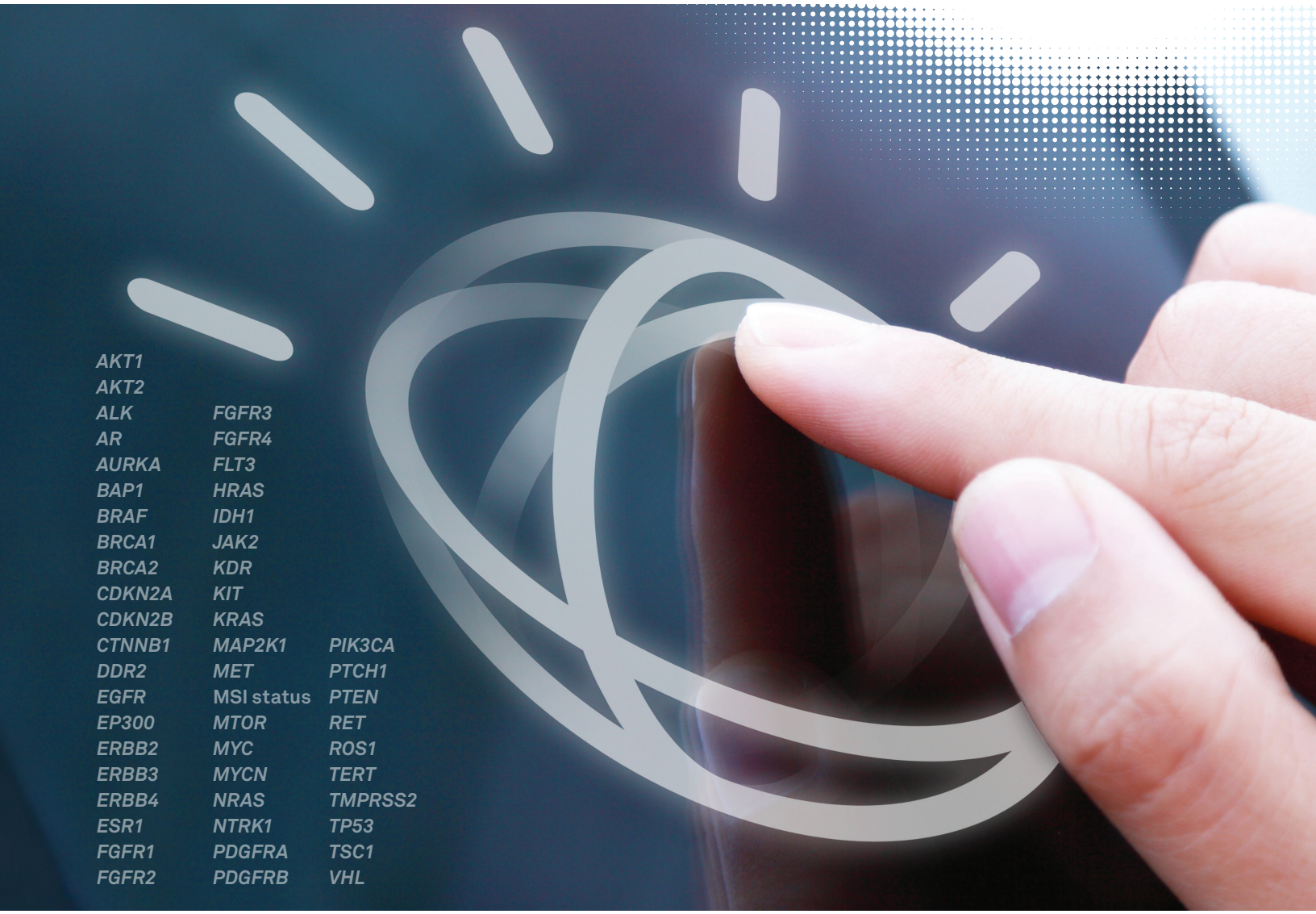
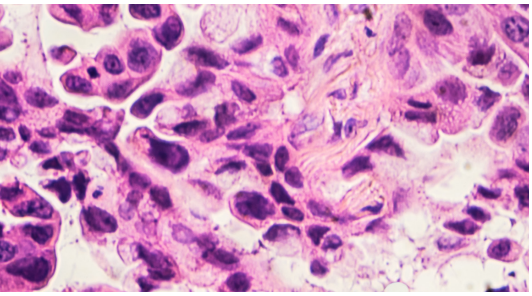
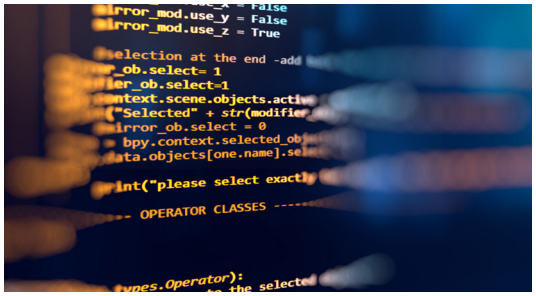
Quest Diagnostics™ | With Watson™




# **Helping** your care team make informed decisions





## Helping your care team make informed decisions

Just as no two patients are alike, no two cancers are alike. Despite advances in cancer treatment, some patients still face a lack of options, especially when it comes to rare, aggressive, or late-stage disease.

IBM Watson Genomics from Quest Diagnostics is here to help change that.

By combining state-of-the-art solid tumor genetic sequencing with powerful data analysis, Watson Genomics from Quest Core can provide information regarding a range of highly personalized cancer treatment options—including options that previously remained unidentified—for consideration, and can help you and your patients can make informed choices.

## Watson Genomics from Quest Core analyzes 50 genes

| | | |
|---|---|---|
| *AKT1* | *ERBB4* | *MYC* |
| *AKT2* | *ESR1* | *MYCN* |
| *ALK* | *FGFR1* | *NRAS* |
| *AR* | *FGFR2* | *NTRK1* |
| *AURKA* | *FGFR3* | *PDGFRA* |
| *BAP1* | *FGFR4* | *PDGFRB* |
| *BRAF* | *FLT3* | *PIK3CA* |
| *BRCA1* | *HRAS* | *PTCH1* |
| *BRCA2* | *IDH1* | *PTEN* |
| *CDKN2A* | *JAK2* | *RET* |
| *CDKN2B* | *KDR* | *ROS1* |
| *CTNNB1* | *KIT* | *TERT* |
| *DDR2* | *KRAS* | *TMPRSS2* |
| *EGFR* | *MAP2K1* | *TP53* |
| *EP300* | *MET* | *TSC1* |
| *ERBB2* | MSI status | *VHL* |
| *ERBB3* | *MTOR* | |

## Watson Genomics from Quest Core helps you and your patients make informed choices

### Watson Genomics from Quest Core can give you and your patients insights regarding therapeutic options

Watson Genomics from Quest Core can provide actionable insights and therapeutic options that help you and your patients feel more informed about treatment decisions and the path forward.

Using Next Generation Sequencing (NGS), Watson Genomics from Quest Core analyzes 50 frequently mutated genes, making it appropriate for nearly all solid tumors. The test identifies single nucleotide polymorphisms (SNPs), insertions and deletions, copy number variations, and select translocations. Annotations are in the hands of our medical professionals promptly, ensuring consistent turn-around times. Further, the panel can be paired with a matched blood sample to create a truly personalized, targeted treatment program.

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## Designed for patients with limited options

Watson Genomics from Quest Core was developed specifically for patients where few or no standard treatment options exist:

- Metastatic or locally advanced disease at presentation
- No actionable mutations found in guideline-recommended testing
- Disease that is refractory to standard lines of therapy
- Rare tumor types
- Tumors of unknown primary origin
- Solid tumors where step-wise testing may not be possible due to limited biopsy sample

## The power of Watson Genomics from Quest Diagnostics

Watson Genomics from Quest Diagnostics combines Quest's state-of-the-art tumor analysis, the cognitive computing of IBM's Watson, and deep cancer treatment expertise, to power Quest's genome sequencing capabilities with Watson's analytics capabilities.

Watson's analysis takes into consideration the genetic makeup of a patient's tumor and medical literature from journals, online resources, and extensive cancer databases. Watson employs advanced cognitive computing to automatically extract and analyze relevant and validated data from established guidelines, medical texts, and clinical trials to help enhance your patient's results.

- Watson Genomics from Quest Core can simplify complex information in minutes
- Watson Genomics continually updates itself as new research is published to ensure that you have the most up-to-date information available

## Matched blood sample—helping to deliver on the promise of personalized healthcare

Watson Genomics from Quest Core offers a free matched blood sample option. The patient's matched blood sample is used as a control, or normal, which is compared against the abnormal tumor. Thus, mutations that the patient was born with can be filtered out, providing a clearer picture of microsatellite instability (MSI) status and helping to deliver a more concise, accurate, and personalized treatment plan.

## A powerful collaborative approach

### Quest Diagnostics sequencing & analysis

Quest Diagnostics sequences the tumor's genomic makeup to help clinicians understand the unique cancer-causing mutations specific to that individual patient's cancer

### Watson annotation

Watson then compares your patient's results against relevant medical literature, clinical studies, pharmacopeia, and carefully annotated rules created by leading cancer centers

### Quest Diagnostics medical director review

A Quest Diagnostics medical director reviews the Watson reports, confirms the results, and prepares a report for your consideration

### Watson Genomics from Quest Core report

You receive a report from the Quest Diagnostics medical team that provides therapy and clinical trial information that has been personalized to your patient, including mutations and therapeutic associations that have been graded through clearly-defined levels of evidence

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## Powerful insights into cancer

Quest Diagnostics is the world's leading provider of cancer diagnostic testing, with the most comprehensive capabilities in anatomic pathology and molecular diagnostics. With Quest Diagnostics, you can count on:

- An expansive oncology menu
- 700 MD and PhD experts nationwide
- Genetic/genomic expertise
- Ease of ordering and results reporting

## Committed to making testing affordable

Affordability is a critical factor when making healthcare decisions. Quest Diagnostics offers a flexible and easy-to-use financial assistance program for those who need help. Our goal at Quest Diagnostics is to ensure every patient has a solution that works towards lessening the financial burden of care.

We offer tiered discounts that take into account your patient's income and family unit size. Discounts are based on guidelines provided by the US Department of Health and Human Services (HHS) and can be as much as 100% of your amount due.

The guidelines are updated annually and are available at http://aspe.hhs.gov/poverty/

To apply for financial assistance, your patient can download an application at QuestDiagnostics.com or call 1.866.MYQUEST (1.866.697.8378), option 2.

### Sample preparation requirements

- Sample: 1 tumor block (1 × 5 µm × 1 cm² (50 ng))
  - 5 – 10 micron sections
  - Sections should contain adequate material (1 cm²) for DNA extraction
  - Tissue will be macro-dissected if necessary
  - Core needle biopsies are acceptable if sufficient tumor is present
- For submission of paraffin block, tumor tissue type and block ID are required on the requisition form
- A pathology report is required with the submission

Please note that the tumor tissue that is most recent is the most ideal specimen. We will be unable to process baked slides or frozen samples. Original surgical tissue may be acceptable in the event there is no access to more current tumor tissue but it is recommended that the referring physician contact 1.866.GENE.INFO (1.866.436.3463) for consultation prior to submission.

### Optional blood sample requirements

If you are submitting the optional matched blood sample, please provide one vial of whole blood in either Streck (provided in kit) or lavender-top tube.

Rely on Watson Genomics from Quest Diagnostics to provide insights to help inform patient cancer care.

**Watson Genomics from Quest Core Test 93234**

Questions? Speak with your local Quest Diagnostics sales representative, call 1.866.GENE.INFO (1.866.436.3463), or visit QuestDiagnostics.com/Watson