INTERPRETA

PIONEERING THE FUTURE OF CLINICAL INTERPRETATION
The concepts of precision medicine and timely care delivery are starting to move from experimental stages to the clinical front lines, helping caregivers tailor care decisions to individual patients.

But for this new healthcare paradigm to realize its promise of saving and improving more lives, the healthcare industry must identify and correct the gaps between genomic science and clinical applications. Headquartered in San Diego, CA, Interpreta is meeting this critical challenge with the power of clinical and genomic interpretation.

Founded by three seasoned technology entrepreneurs, Dr. Ahmed Ghouri, Gary Rayner, and Raghu Sugavanam, Interpreta targeted the genomics revolution that began a few years ago with affordable and accurate DNA sequencing. Realizing that interpretations in the macroscopic clinical and atom-level genomic domains were disjointed, they felt these interpretations were worthy of unification into a single, real-time system. “Imagine a GPS system that only works for major highways, but not for minor roads. It won’t get you anywhere,” says Dr. Ghouri. Interpreta tapped into this massive opportunity and developed a real-time clinical and genomic interpreter. The result was a powerful analytics engine that continuously updates, interprets, and synchronizes clinical and genomics data, creating a personalized roadmap and enabling the orchestration of timely care.

The real-time insights from Interpreta provide physicians, care managers, and payers with the patient-specific information needed for quality improvement, patient prioritization, population management, and precision medicine.
Interpreta is led by three industry veterans, who have united to harmonize interpretation of molecular medicine with clinical recommendations for better patient outcomes.

Ahmed Ghouri, M.D., Founder and Chief Executive Officer
Ahmed Ghouri is founder and Chief Executive Officer at Anvita (a clinical analytics company acquired by Humana in 2011), a practicing anesthesiologist, the principal author of >70 peer-reviewed scientific publications and lead author of eight granted U.S. Patents in analytics, medical devices, and software. As co-lead investigator, his efforts led to the FDA approval of new drugs, Flumazenil (the first Benzodiazepine reversal drug) and Desflurane (the first ultra-rapid general anesthetic).

Raghu Sugavanam, Founder and President
The founder of many successful companies in the healthcare space, Raghu Sugavanam holds strong technical expertise and the ability to overcome engineering challenges of whatever venture he develops, building the company into one of the most sought-after solution providers.

Gary Rayner, Founder and Chairman of the Board
A recipient of EY Entrepreneur of the Year award, Gary Rayner has authored over 25 granted US patents.

By creating a patient road map led by clinical and genomics data, Interpreta can match an individual with the best possible treatment in real time, says Dr. Ghouri. Achieving this feat was not a cakewalk for Interpreta. Most players in the market today use costly technologies and interpretations using actual DNA sequences, not simply reported biomarkers from third-party labs.

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Real-Time Interpretation in the Cloud
Dr. Ghouri compares Interpreta’s work model to a combination of Microsoft Office and the cloud. “Office does not make movies,” he says. But it gets the other business needs accomplished for the overwhelming majority of users, including interoperability between applications. “You can copy and paste between Excel and PowerPoint, for example, without loss of meaning.” The same goes for clinical interpretation: There are quality protocols for doctors, hospitals, and insurers. Every stakeholder needs to be able to prioritize individuals for outreach and prevention and ensure that no patient with unaddressed abnormalities slips through the cracks. All treatment recommendations should combine macroscopic clinical data (like drug-drug interactions) alongside drug-genome efficacy and safety according to vetted standards like the FDA. The interpreter should run in real time within clinical workflow, because problems can’t be fixed after the fact. It has to run continuously, rather than episodically, as soon as new data arrives. Episodic interpretation is dangerous to the patient if you miss the event of even one single day.

Running on the cloud, Interpreta performs all these tasks while taking away the requirements of local software and local knowledge base. This translates into a qualitative advantage in user experience and clinical reaction times up to 10-fold speed advantage, not just better benchmarks.

Unique Methodology
To better understand Interpreta’s unique approach, consider one of their priority-based modules, known as Continuous Member Prioritization, which re-computes information rendered from the analytics engine. With this, Interpreta performs precision match-making on a DNA-level to scrutinize every individual member and determine which patient is the most in need, the kind of care required, and the best available caregiver based on clinical acuity and severity. All of these actions are executed within a cloud-based calendar, which stores and calibrates data in the form of performable actions by automating closure of any outdated action items or tasks and upgrading itself with the influx of current data.

Interpreta continuously interprets clinical and genomic data, writes adherence to FDA guidelines, and suggests prospective therapeutic allocations and medications.

 Syndicated to a number of different touch points viz. doctors, care co-ordinators, case managers, and quality executives responsible for the relevant care, this calendar is like a comprehensive panoptic interpreter which creates personalized road maps in real time within a single framework. “Being a cloud-based API, it can directly communicate with any processor and integrate into a healthcare setting’s existing infrastructure to allow the generated data to benefit any Electronic Medical Records (EMR), nursing apps or customer apps,” explains Dr. Ghouri.

Daily re-computation and interpretation of a single patient’s clinical and genomic data delivers actionable insights for superior HEDIS (Healthcare Effectiveness Data and Information Set), P4P (Pay for Performance), and Risk Adjustment scores while greatly enhancing performance.

To that end, Interpreta performs continuous genomic interpretations using actual DNA sequences, not simply reported biomarkers from third-party labs.

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Interpreta differentiates itself from third and fourth generation healthcare analytics companies with its ability to update a patient’s annual care plan and compliance record on a continuous basis—operating on population sizes at national health system scale to deliver improved outcomes for providers, ACOs, and health plans. “We are delivering on the promise of precision medicine today with our daily clinical analytics and pharmacogenomics capabilities,” adds Dr. Ghouri. “Considering all sources of patient data across all medical providers and re-computing it daily answers the question: ‘what is going on with the patient today?’ and it can drive unparalleled advancements in clinical care while realizing great economic benefit through quality improvement.”

Building the Future
The healthcare sector is set to witness stellar analytical growth by 2025, as IDC estimates 80 percent of healthcare data will be moved to the cloud. The future of healthcare analytics will be personalized, supported by real-time processing that will eliminate heavy local IT support. Interpreta has already aligned itself with this trajectory.

The platform has scalable computing power on demand for the hardest clinical queries, and elastic knowledge bases for interpretation. “This cannot be done locally at any time, by any cost, and integration to such an architecture is inevitable,” says Dr. Ghouri.

Interpreta is creating the mathematical tools, data, and computational substrates for artificial intelligence in medicine, leading to outcomes that no one can fully predict yet. “It’s a GPS system that covers major highways and back-country roads at the same time. It’s a new worldview of patient care, but it is absolutely inevitable, and we plan to define it,” concludes Dr. Ghouri.
Intelligently
Synchronizing
Healthcare

Interpreta enables population genomics and precision medicine by continuously interpreting clinical and genomic data, creating personalized patient roadmaps and orchestrating timely care. Physicians, patients, care managers, and health plans get prospective, patient-specific and population information in real time. The result: patient prioritization, personalized medicine and improved quality.

Real-time
Continuous Member Prioritization
Population Genomics for Healthcare
HEDIS®, P4P, STARS, HCC
Risk Adjustment & Inference

Interpreta, Inc.

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