Ready Health Go!
HEALTH RESEARCH ASSISTANT

THE DNA COMPANY COMPREHENSIVE DNA TEST

(Includes the Genome & Hormone Panel)

IMAGINE FINALLY GETTING YOUR HANDS ON YOUR PERSONAL OPERATING MANUAL

Your DNA can be used to create accurate predictive models for the prevention of chronic diseases. The DNA Company's Comprehensive Assessment Panel can help your clinician personalize:

- Diet/Nutrition
- Supplement
- Medication
- Lifestyle Strategies (i.e., exercise, sleep, stress management)

In a manner that is unique to you and your genetic profile. This is called lifestyle genomics because it is designed to provide insight into intelligent pathway driven genetics that can accurately predict areas of concern such as:

- What is my innate risk of cardiovascular disease? (What genes and pathways contribute to heart attack risk factors, blood toxicity, vascular inflammation, susceptibility of arterial blood vessels, cholesterol risk factors, circulation, and statin drug metabolism)
- How can I deal with mental health issues like a poor stress response, anxiety, addiction, or depression?
- Find out exactly which neurotransmitters need to be optimized.
- Why do I continuously feel like I have low energy, fatigue, or migraines?
- What is my innate risk of Alzheimer's Disease and Dementia?
- Why do I struggle with: Hormonal imbalances, PCOS, estrogen related disorders, weight gain, or physical and sexual performance?
- What is my innate methylation and detoxification profile? (Lyme disease, toxic mold exposure, and chemical sensitivity symptoms are always more prevalent and more serious in those with poor methylation and detoxification profiles)
- Am I at greater risk of being estrogen toxic? (Some women have been incorrectly diagnosed with Lyme disease due to estrogen toxicity being mistaken for a bacterial infection that seems to mimic the symptoms of Lyme Disease without showing exposure to the Borrelia bacteria.)
- Am I at a greater risk of developing breast cancer?
- Am I at greater risk of experiencing life threatening side effects from chemotherapy?
- What kind of exercise is best suited to me but most importantly which should I avoid altogether?
- Am I at greater risk of having complications, in recovery, after a concussion? If so what can I do about it?
- How well does my body break down fats and carbohydrates?
- Which diet plan is actually the best for me? (Keto, paleo, vegan, etc.)

DNA TESTING TODAY - CNVs AND IN/DELs ARE IMPORTANT VARRIENTS TO ACCOUNT FOR

DNA testing generally revolves around looking for variations in DNA, the most popular of which are known as Singular Nucleotide Polymorphisms (SNPs). Some SNPs occur in functional genes that code for important enzymes, affecting multiple aspects of our mental, emotional and physical health. It is not simply a variation in a singular gene that determines an outcome but instead many genes working in a cascading manner that results in an outward expression(s) or symptom(s).

In other words one can have a single perfectly functioning gene yet still exhibit symptoms of poor function due to a variation upstream or downstream from that gene within the gene cascade.

Additionally, there are two types of variations that are known to occur in your DNA outside of SNPs. These are known as copy number variations (CNVs) and inserts & deletions (IN/DELs). The DNA Company was the first commercially available test in the world to include variations, outside SNPs, and still only one of the few **direct to consumer (DTC)** DNA tests to include CNVs and IN/DELS.

- **CNVs**: Determine whether an individual possesses 1, 2, or sometimes even 0 copies of a particular gene. A gene is an instruction that tells your body how to accomplish a particular job(s). ***Consider the number of copies, or lack thereof, similar to either a duplication or deletion of an entire paragraph in your operating manual***.

- **IN/DELs**: Determines whether or not a section of a particular gene is missing or deleted. ***This can be considered similar to the deletion of words or sentences within a paragraph in your operating manual.***

A different type of testing, not used by a majority of DTC tests, is necessary in order to take CNVs and IN/DEls into account. These additional variations within our DNA, outside of SNPs, can have far reaching implications which absolutely requires a commanding knowledge of DNA in order to arrive at the highest possible accuracy in genotype and interpretation.

IN DTC TESTS 40% OF VARIANTS IN A VARIETY OF GENES WERE ACTUALLY FALSE POSITIVES

Traditionally, gene testing is done by querying multiple genes simultaneously and looking for individual SNPs within each gene. The actual molecular reaction (PCR) to do this diminishes in quality the more genes are queried simultaneously.

It is not cost effective to have a singular reaction occur for each SNP. Most DNA companies opt to use a multiplex assay, which tests for many genes at the same time. The problem occurs when one tries to process dozens of genes within a single panel, thus introducing dozens of primers. This increases the probability of inaccurate SNP assessment and is especially important if there are two genes that are very similar in sequence to each other.

However, even if one doesn't overload a panel with dozens of genes, if they were not careful in determining which genes they're simultaneously testing, there is still a chance they will have the primer of one gene binding to another (due to similar sequence). One study found that 40% of variants, in a variety of genes, in (DTC) test's raw data were false positives. This emphasizes the huge limitations in raw genotyping data that is currently being distributed by many DTC genetic testing companies.

ACCURACY IS THE DNA COMPANY'S PRIORITY AND THEY AIM TO BE THE GOLD STANDARD

Multiplex gene testing is still a relatively new science. The majority of companies, in a bid to take advantage of the DTC market, have marketed DNA testing primarily aimed at gathering **as much data in as cost effective manner as possible**. Genotype accuracy, intelligent/informative analysis and reporting are all secondary priorities in the bid to provide as much "raw data" as possible.

This means you may believe you have received a genotype for a specific gene, according to the DTC test results, when in fact you possess the opposite genotype.

WHO IS CURATING YOUR DNA TEST AND WHERE IT'S PROCESSED MATTERS

The DNA Company's proprietary DNA test is carefully designed and curated by Dr. Mansoor an actual genomicist. In other words specific SNP's were either included or excluded based on his experience working with Intelligent pathway driven genetics. Dr. Mansoor began his career by using genetics for bona fide disease diagnostics. He initially trained as a cancer diagnostics specialist at UCLA and then went on to use genetic testing in childhood developmental syndromes (down syndrome, prader willi syndrome ect.) these were the original categories that genetic testing was reserved for.

The DNA Company's DNA test is actually processed through a diagnostic laboratory at McGill University, the same lab certified by Genomics Canada to do all of their genetic testing. McGill's lab is well versed in clinical-grade variant detection and classification. All of this is to ensure the highest possible genotype accuracy which is THE gold standard when it comes to genetic testing.

A fair share of DTC genetic testing companies are not using a diagnostic laboratory that is experienced and well versed in clinical-grade variant detection and classification. Many new DTC tests are being processed at labs that don't have the same experience nor long standing track record of excellence that McGill University labs do. These are only some of the reasons DTC genetic testing companies raw data could have as much as 40% of variants, in a variety of genes, showing up as false positives.

THE DNA COMPANY'S COMPREHENSIVE DNA PANEL ~ WHAT'S IN IT FOR YOU?

Intelligent pathway driven genetics does not replace medicine or the need of a good clinician. However, it does provide vital information, the same way an operating manual does, to inform your clinician about things that they should look at closer. Things that they should consider in the bigger picture of your health and treatment plan.

When your clinician is able to look at what your genes have to say about you it's as if they are reading your personal operating manual. The information can be used to help them customize every aspect of your care (i.e., diet/nutrition, supplements, medications and lifestyle recommendations).

It isn't just about picking and looking at individual genes or having access to thousands of genes all at once but rather it's about judiciously handpicking a set of well-studied genes that work together in concert (aka: intelligent pathway driven genetics).

The next step is then to understand that pathway driven genetics is how the human body works and this is what the DNA Company specializes in. Dr. Mansoor carefully selected and curated 38 SNPs that provide insight into the most relevant functional genomic pathways. It is the analysis of these genomic pathways, utilizing a proprietary genomic storyboarding methodology, that allows The DNA company to create accurate predictive models for the prevention of chronic diseases.

Getting a comprehensive DNA Panel, through The DNA Company, really is like handing a clinician your personal operating manual. In the right clinicians hands it is filled with clear-cut actionable information specific to you that could help them to prevent the onset of a chronic disease and/or even save your life.