GENE DESCRIPTION	
CYP2D6	Cytochrome P450 2D6 gene pathway is responsible for the metabolism of various Psychotropics, Analgesics, and Beta-blockers, among others. The presence of variations in this gene can result in increased or decreased metabolism of drugs and impact medicinal efficacy and safety.
CYP2C9/ VKORC1	Cytochrome P450 2C9 gene pathway is responsible for the metabolism of various Psychotropics, Non-steroidal Anti-inflammatory Drugs (NSAIDs), and Hypoglycemics, among others. The Vitamin K Expoxide Reductase (VKORC1) enzyme is primary responsible for the metabolism of a person's vitamin K intake. The presence of variations in these genes can result in increased or decreased sensitivity to various medications.
CYP2C19	Cytochrome P450 2C19 gene pathway is responsible for the metabolism of various Psychotropics, Anti-convulsants and Proton Pump Inhibitors (PPIs), among others. The presence of variations in this gene can result in increased or decreased metabolism of drugs and impact medicinal efficacy and safety.
SLCO1B1	The SLCO1B1 gene encodes a liver-specific protein, a transmembrane receptor that facilitates the hepatic uptake of statins as well as other endogenous compounds. Variations in this gene may affect the blood levels of drugs such as statins, one of the most common classes of medication affected by this transporter. Variations of the SLCO1B1 gene are also associated with heart disease medications, certain antibiotics, and some drugs used for the treatment of cancer.
CYP1A2	Cytochrome P450 1A2 gene pathway is responsible for metabolizing approximately 9% of prescription medication including theophylline, melatonin, clopidogrel, caffeine, and seveal phsychiatric medication including clozapine.
ANKK1/DRD2	The ANKK1 gene codes for the DRD2 (dopamine) receptor which is the area of action of several psychiatric medications including aripiprazole and wellbutrin.
CYP3A4/3A5	Cytochrome P450 3A5 gene pathway is responsible for the metabolism of various Statins, Antibiotics/anti-virals, and Analgesics, among others. Working in conjunction with the CYP3A4 pathway, presence of variations in this gene can result in increased or decreased metabolism of drugs and impact medicinal efficacy and safety.
CYP2B6	Cytochrome P450 2B6 gene pathway is responisble for metabolizing about 10% of all drugs. Certain variants, also known as alleles, of this gene can affect efavirenz, nevirapine, zoloft, bupropion, and methadone metabolism.
FACTOR II-V MTHFR	Factor II Prothrombin and Factor V Leiden gene variations are the two most common causes of inherited thrombophilia. Methylenetetrahydrofolate Reductase (MTHFR) gene mutations are strongly associated with hyperhomocysteinemia, which increases cardiovascular disease risk. These markers provide important information when designing anti-coagulant therapy.
OPRM1	Mu 1 Opioid (OPRM1) receptor is a pharmacodynamic receptor that is partly responsible for opiod effectiveness and is associated with pain sensitivity, substance dependence and abuse.
APOE	APOE is a specific component of very low density lipoprotien (VLDL). Variants of APOE are associated with increased cardiovascular risk and Alzheimer's disease.
COMT	Catechol-O-Methyltransferase (COMT) is an enzyme that inactivates catecholamines, such as epinephrine, norepinephrine and dopamine which has an effect on cognitive function, memory, mood and pain perception. A variety of drugs such as opioids, SSRI's and antipsychotics may be directly or indirectly impacted by these changes. This could increase the risk for depression, schizophrenia, etc.
GRIK4	GRIK4 is the gene that encodes KA1, a type of neurotransmitter receptor subunit that contributes to the formation of the glutamate receptor in the brain. KA1 my play a role in modulating the therapuetic effect of anti-depressants, particularly citalopram.
UGT2B15	UGT2B15 gene variations are associated with increased prostate cancer risk. Variations can have an effect on tamoxifen metabolism which can alter this important drugs effectiveness. This gene is also used in guidance for glucurondidate drugs such as oxazepam, lorazepam, rofecoxib and sipoglitazar.

PANEL DESCRIPTION						
	MEDICATION MANAGEMENT	CARDIOVASCULAR	MENTAL HEALTH	ORTHOPEDIC	PAIN MANAGEMENT	THROMBOSIS RISK
PANEL DESCRIPTION	This panel includes a range of genetic polymorphisms that have been associated with a broad range of medical conditions and their associated medications	This panel includes a range of genetic polymorphisms that have been associated with cardiovascular disorders and/ or response to cardiovascular medications	This panel includes a range of genetic polymorphisms that have been associated with psychiatric disorders and/ or response to psychotropic medications	This panel includes a range of genetic polymorphisms that have been associated with conditions involving pain or blood clotting relevant to pre or post-surgical medication management	This panel includes a range of genetic polymorphisms that have been associated with disorders involving chronic pain and associated medications	This panel includes a range of genetic polymorphisms that have been associated with blood clotting disorders and associated medications
CYP2D6	X	X	X	X	X	
CYP2C9	X	X	X	X		
CYP2C19	X	X	X	X	X	
SLC01B1		X				
CYP1A2	X		X			
ANKK1/DRD2	X		X			
CYP3A4/3A5	X	X	X		X	
CYP2B6	X		X	X	X	
MTHFR		X	X	X		X
Factor II		X	X	X		X
Factor V		X	X	X		X
OPRM1	X	X	X	X	X	
APOE	X		X			
COMT				X	X	
GRIK4	X		X			
UGT2B15	X		X			
VKORC1	X	X				

Samples will ship to and be tested at Prima Health 2239 Poydras Street, Suite 250, New Orleans, LA 70119.