HEALTHY WOMAN DNA INSIGHT®

Protected Health Information

PERSONAL DETAILS	
NAME	Sample Patient
DOB	Jan 1, 1980
SEX	F
ETHNICITY	Caucasian

ORDERING HEALTHCARE PROFESSIONAL
Jess Savala M.D.

Test Results Reviewed & Approved by:
Laboratory Director,
Jess Savala Jr. M.D.

LABORATORY INFO

ACTIVATION CODE	YAHAN-VKCJI
SPECIMEN TYPE	BUCCAL SWAB
COLLECTED DATE	Mar 20, 2020
RECEIVED DATE	Mar 25, 2020
REPORT DATE	Apr 12, 2020

CATEGORY	CONDITIONS/TRAITS	RESULT
EATING BEHAVIORS	Eating disinhibition	More Likely
	Food desire	Typical
	Satiety - feeling full	Typical
	Snacking	Typical
	Sweet tooth	Increased
EXERCISE RESPONSE	Endurance training	Enhanced Benefit
	HDL cholesterol response to exercise	Normal Benefit
	Insulin sensitivity response to exercise	Enhanced Benefit
HEALTH CONDITIONS	Diabetes, type 2	Average Risk
	Osteoarthritis	Average Risk
	Venous thrombosis	Typical Risk
METABOLIC HEALTH FACTORS	Genetic risk for decreased HDL cholesterol	Above Average Risk
	Genetic risk for elevated LDL cholesterol	Above Average Risk
	Genetic risk for elevated triglycerides	Average Risk
MEDICATION RESPONSE	Aminoglycoside antibiotics-induced hearing loss	Typical Risk
	Clopidogrel metabolism	Extensive Metabolizer
	Codeine and nursing mothers	Extensive Metabolizer
	Estrogen supplementation	Typical Risk of Venous Thrombosis
	Methotrexate toxicity	Increased Risk
	Simvastatin-induced myopathy	Typical Risk
	Warfarin	Typical Sensitivity

CATEGORY	CONDITIONS/TRAITS	RESULT
NUTRITIONAL NEEDS	Genetic risk due to decreased vitamin B2	Stay Balanced
	Genetic risk for decreased folate	Optimize Intake
	Genetic risk for decreased vitamin A	Optimize Intake
	Genetic risk for decreased vitamin B12	Optimize Intake
	Genetic risk for decreased vitamin B6	Stay Balanced
	Genetic risk for decreased vitamin C	Stay Balanced
	Genetic risk for decreased vitamin D	Optimize Intake
	Genetic risk for increased vitamin E	Optimize Intake
WEIGHT AND DIET	Genetic risk for decreased adiponectin	Possibly Low
	Genetic risk for decreased omega-6 and omega-3	Decreased
	Matching diet type	Balanced Diet
	Metabolism	Normal
	Obesity	Above Average
	Response to monounsaturated fats	Neutral
	Response to polyunsaturated fats	Increased Benefit
	Weight loss-regain	More Likely to Regain Weight

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EATING BEHAVIORS	RESULT
Eating disinhibition **Gene Tested:** TAS2R38 **Outcome Description:** The patient has a variant in the TAS2R38 gene that is associated with the tendency to eat more than normal in response to a stimulus; therefore, the patient is more likely to display eating disinhibition. This test result only applies to women, and there is insufficient scientific evidence to determine if men are similarly affected.	More Likely
Food desire **Gene Tested:** ANKK1/DRD2 **Outcome Description:** This patient's genotype at a marker in the DRD2/ANKK1 gene is not associated with elevated food desire, also known as food reinforcement. This metric quantifies how much effort an individual is willing to put forth to gain access to food. Among people who were considered obese, those with this patient's genotype displayed approximately the same amount of effort to obtain their favorite foods as non-obese individuals.	Typical
Satiety - feeling full **Gene Tested:** FTO **Outcome Description:** This patient is more likely to feel satisfied after a meal. The patient does not have a variant in the FTO gene that is associated with eating more without feeling satisfied. Although this test result is derived from a study focused on children, there is preliminary data supporting the same association in adults.	Typical
Snacking **Gene Tested:** LEPR **Outcome Description:** This patient does not have the variant in the leptin receptor gene associated with increased snacking behavior and is less likely to display extreme snacking behavior. Leptin is an essential hormone for the regulation of food intake. This test result is derived from a study with only women, and there is insufficient scientific evidence to determine if men are similarly affected.	Typical
Sweet tooth **Gene Tested:** SLC2A2 **Outcome Description:** This patient is more likely to eat increased amounts of sugars in his or her diet. The patient has a genetic variant in the SLC2A2 gene that is associated with increased consumption of sugars. The patient could be advised to choose fruit as a healthy and sweet alternative.	Increased

EXERCISE RESPONSE	RESULT
Endurance training **Genes Tested:** LIPC, LPL, PPARD **Outcome Description:** This patient has a genetic profile that is associated with enhanced benefits in response to a 20-week endurance training program.	Enhanced Benefit

EXERCISE RESPONSE	RESULT
HDL cholesterol response to exercise **Gene Tested:** PPARD **Outcome Description:** This patient has a variant in the PPARD gene that is associated with a normal benefit in HDL cholesterol levels in response to a 20-week endurance training program. People with "Normal Benefit" may also increase HDL cholesterol levels by exercising, but may not experience an enhanced effect.	Normal Benefit
Insulin sensitivity response to exercise **Gene Tested:** LIPC **Outcome Description:** This patient's genotype at a marker in the LIPC gene is associated with an increase in insulin sensitivity in response to exercise.	Enhanced Benefit

HEALTH CONDITIONS	RESULT
Diabetes, type 2 **Genes Tested:** CDKAL1, CDKN2B, ESR1, FTO, HHEX, HNF1B, IGF2BP2, JAZF1, KCNJ11, KCNQ1, MTNR1B, NOTCH2, PPARG, SLC30A8, TCF7L2, WFS1 **Outcome Description:** This patient has typical genetic risk for type 2 diabetes. This does not mean the patient will or will not develop the disease. This test outcome was determined using genetic laboratory results in conjunction with the patient's self-reported ethnicity. General preventive measures and patient education regarding the importance of regular physical activity and maintaining a healthy weight could be considered.	Average Risk
Osteoarthritis **Genes Tested:** GDF5, PTGS2 **Outcome Description:** This patient has typical genetic risk for osteoarthritis. This does not mean the patient will or will not develop the disease. This test outcome was determined using genetic laboratory results in conjunction with the patient's self-reported ethnicity.	Average Risk
Venous thrombosis **Genes Tested:** F2, F5, MTHFR **Outcome Description:** This patient does not have the Factor V Leiden or prothrombin G20210A mutations that are associated with increased risk of venous thromboembolism (VTE), and does not have the MTHFR C677T genotype associated with increased risk of hyperhomocysteinemia. The patient has typical risk of developing venous thromboembolism (VTE). However, this test does not detect other variants that might be associated with increased risk of VTE. The individual's risk for VTE is determined by a complex interaction of genetic, circumstantial and environmental risk factors. Predisposing factors include immobility, surgery, trauma, cancer, hormonal therapy, pregnancy, advanced age, as well as personal and family health history. This test result should be interpreted together with clinical and family data.	Typical Risk

METABOLIC HEALTH FACTORS	RESULT
Genetic risk for decreased HDL cholesterol **Genes Tested:** ABCA1, ANGPTL4, CETP, FADS1, GALNT2, HNF4A, KCTD10, LCAT, LIPC, LIPG, LPL, PLTP, TTC39B, ZNF259 **Outcome Description:** This patient has above average genetic risk for decreased HDL cholesterol levels (below 40 mg/dl). However, this result does not mean that the patient has decreased HDL cholesterol levels. Monitoring the patient's blood levels of cholesterol could be considered.	Above Average Risk
Genetic risk for elevated LDL cholesterol **Genes Tested:** ABCG8, APOB, CELSR2, HMGCR, HNF1A, intergenic, LDLR, MAFB, NCAN, PCSK9 **Outcome Description:** This patient has above average genetic risk for borderline-high LDL cholesterol levels (above 130 mg/dl). However, this result does not mean that the patient has borderline-high LDL cholesterol levels. Monitoring the patient's blood levels of LDL cholesterol could be considered.	Above Average Risk
Genetic risk for elevated triglycerides **Genes Tested:** ANGPTL3, APOB, FADS1, GCKR, LPL, MLXIPL, NCAN, PLTP, TRIB1, XKR6, ZNF259 **Outcome Description:** This patient has average genetic risk for elevated triglyceride levels. However, this result does not mean that the patient has optimal triglyceride levels.	Average Risk

MEDICATION RESPONSE	RESULT
Aminoglycoside antibiotics-induced hearing loss **Gene Tested:** MT-RNR1 **Outcome Description:** This patient does not have the 1555A>G mitochondrial mutation; therefore, the patient has no increased risk of developing aminoglycoside antibiotics-induced hearing loss. The patient may still develop aminoglycoside antibiotics-induced hearing loss, but his or her risk is much lower than an individual with the 1555A>G mutation.	Typical Risk
Clopidogrel metabolism **Gene Tested:** CYP2C19 **Outcome Description:** This patient's genotype is associated with normal CYP2C19 enzyme activity, typical plasma concentrations of clopidogrel and its active metabolites, and an effective response to clopidogrel. The patient's genotype does not indicate increased risk of stent thrombosis following percutaneous coronary intervention if treated with clopidogrel. Other nongenetic factors, such as age and coprescribed medications, may also affect clopidogrel response. CYP2C19 genotype and metabolizer status may also affect responses to other drugs.	Extensive Metabolizer
Codeine and nursing mothers **Gene Tested:** CYP2D6 **Outcome Description:** Exercise caution when codeine is administered to this patient if she is a breastfeeding mother. Inform her about the risk of opioid overdose in her infant. Only use the lowest effective dose, and carefully monitor the mother-infant pair for signs of opioid toxicity. This patient's genotype is associated with normal CYP2D6 enzyme activity, typical systemic exposure to codeine's active metabolite, morphine, and a typical response to standard doses of codeine.	Extensive Metabolizer

MEDICATION RESPONSE	RESULT
Estrogen supplementation **Genes Tested:** F2, F5 **Outcome Description:** This patient does not have either the Factor V Leiden mutation or the prothrombin G20210A variant; therefore, the patient does not have increased risk of developing venous thrombosis when taking combined hormonal contraceptives or estrogen for hormone replacement therapy.	Typical Risk of Venous Thrombosis
Methotrexate toxicity **Gene Tested:** MTHFR **Outcome Description:** This patient has the C677T variant in the MTHFR gene and, therefore, has increased risk of methotrexate toxicity, which may manifest as liver toxicity, myelosuppression, oral mucositis, gastrointestinal toxicity or skin toxicity. Other treatment options may be appropriate. Important: other health risks are associated with carrying the C677T variant in the MTHFR gene.	Increased Risk
Simvastatin-induced myopathy **Gene Tested:** SLCO1B1 **Outcome Description:** This patient does not have increased risk of developing myopathy if treated with simvastatin. While this patient's genetic likelihood of developing simvastatin-induced myopathy is significantly lower than those who have the risk variant, many other factors involved in simvastatin-induced myopathy are still unknown. Therefore, individuals with this genotype still have typical risk of myopathy when treated with simvastatin. The most recent simvastatin label should be consulted for updated prescribing information regarding simvastatin dosing limitations and drug-drug interactions.	Typical Risk
Warfarin **Genes Tested:** CYP2C9, VKORC1 **Outcome Description:** This patient's genotype is not associated with increased sensitivity to warfarin. Appropriate warfarin dose varies greatly between patients; in addition to genetic factors, clinical factors, such as age, sex, body weight, race, comorbidities and interacting medications, also contribute to dose variability. Consideration of VKORC1 and CYP2C9 genotypes, in addition to clinical factors, is recommended for selection of initial dose. The most recent warfarin label should be consulted for up-to-date warfarin-dosing guidelines and limitations.	Typical Sensitivity

NUTRITIONAL NEEDS	RESULT
Genetic risk due to decreased vitamin B2 **Gene Tested:** MTHFR **Outcome Description:** This patient's genotype at a marker in the MTHFR gene indicates that vitamin B2 levels are likely to have a relatively small impact on homocysteine levels. High plasma levels of homocysteine are a risk factor for heart disease.	Stay Balanced
Genetic risk for decreased folate **Gene Tested:** MTHFR **Outcome Description:** This patient has increased risk for lower plasma levels of folate and higher plasma levels of homocysteine, a substance linked to cardiovascular disease at high levels. Folate can lower the plasma level of homocysteine, and diets rich in folate are associated with reduced risk of cardiovascular disease. Folate is particularly important early in pregnancy for preventing some birth defects.	Optimize Intake

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NUTRITIONAL NEEDS	RESULT
Genetic risk for decreased vitamin A **Gene Tested:** BCMO1 **Outcome Description:** The patient has a variant in the BCMO1 gene that is associated with an impaired conversion of beta-carotene into vitamin A. This test result is derived from a study with only women, and there is insufficient scientific evidence to determine if men are similarly affected. This patient could be advised to consume preformed vitamin A found in fortified milk, breakfast cereals and multivitamins containing retinyl palmitate or retinyl acetate.	Optimize Intake
Genetic risk for decreased vitamin B12 **Gene Tested:** FUT2 **Outcome Description:** This patient is more likely to have lower plasma levels of vitamin B12. The patient has a variant in the FUT2 gene that is associated with decreased vitamin B12 levels. This patient could be advised to consume more foods containing vitamin B12, including meat, fish, poultry, eggs and milk products.	Optimize Intake
Genetic risk for decreased vitamin B6 **Gene Tested:** NBPF3 **Outcome Description:** This patient does not have a variant in the NBPF3 gene that is associated with reduced levels of vitamin B6 and is less likely to have lower plasma levels of vitamin B6.	Stay Balanced
Genetic risk for decreased vitamin C **Gene Tested:** SLC23A1 **Outcome Description:** This patient is less likely to have lower plasma levels of vitamin C. The patient does not have a variant in the SLC23A1 gene that is associated with decreased levels of circulating vitamin C.	Stay Balanced
Genetic risk for decreased vitamin D **Gene Tested:** GC **Outcome Description:** This patient is more likely to have lower plasma levels of vitamin D. The patient has a variant in the GC gene that encodes a vitamin D-binding protein and is associated with decreased circulating levels of vitamin D, possibly due to a reduced ability to transport vitamin D in the body. This patient could be advised to consume more foods containing vitamin D, including some fatty fish, fish liver oils, milk or cereals fortified with vitamin D.	Optimize Intake
Genetic risk for increased vitamin E **Gene Tested:** intergenic **Outcome Description:** This patient does not have a variant near the APOA5 gene that is associated with increased plasma levels of alpha-tocopherol so is less likely to have higher plasma levels of alpha-tocopherol, which is one compound that makes up vitamin E. This patient could be advised to consume more foods containing vitamin E, including vegetable oils, leafy green vegetables, eggs and nuts.	Optimize Intake

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WEIGHT AND DIET	RESULT
Genetic risk for decreased adiponectin **Gene Tested:** ADIPOQ **Outcome Description:** This patient is more likely to have lower adiponectin levels. Higher levels of adiponectin are considered good for weight loss and health. Individuals with lower adiponectin levels could be advised to lose weight.	Possibly Low
Genetic risk for decreased omega-6 and omega-3 **Gene Tested:** FADS1 **Outcome Description:** This patient has a variant in the FADS1 gene that is associated with decreased plasma levels of the omega-6 fat arachidonic acid and the omega-3 fat eicosapentaenoic acid. The FADS1 gene encodes an enzyme involved in processing omega-6 and omega-3 fats. Considering the current skewed ratio of omega-6:omega-3 fats in the Western diet, the patient could be advised to monitor intake of omega-6 fats from processed food and increase his or her intake of omega-3 fats.	Decreased
Matching diet type **Genes Tested:** ADIPOQ, APOA2, FTO, KCTD10, LIPC, MMAB, PPARG, and more... **Outcome Description:** This patient has an increased likelihood of weight loss or health benefits on a diet that is balanced in healthy fats, low glycemic index carbohydrates, protein and overall low calories. This diet has been selected by evaluating many genetic variants associated with LDL, HDL, triglyceride, and blood sugar levels, as well as how people respond to different macronutrients.	Balanced Diet
Metabolism **Gene Tested:** LEPR **Outcome Description:** This patient is more likely to have a typical resting metabolic rate. The patient does not have a variant in the leptin receptor gene that is associated with a high resting metabolic rate. This variant is only one of many other genetic and nongenetic factors that contribute to metabolism.	Normal
Obesity **Genes Tested:** FTO, MC4R **Outcome Description:** This patient has increased risk for being overweight (BMI ≥ 25). This patient's genetic profile in the MC4R and FTO genes is associated with increased risk for being overweight. The MC4R gene is involved in regulating energy balance, and the FTO gene may be important for controlling feeding behavior and energy balance. Both genes are associated with BMI.	Above Average
Response to monounsaturated fats **Genes Tested:** ADIPOQ, PPARG **Outcome Description:** This patient's genotypes in the ADIPOQ and PPARG genes do not indicate an association between monounsaturated fat intake and body weight. However, several health benefits may still be gained by avoiding trans fats and substituting some saturated fats with monounsaturated fats. The PPARG study included only women, whereas the ADIPOQ study included both men and women. There is insufficient scientific evidence to determine if men are similarly affected by the PPARG variant.	Neutral

WEIGHT AND DIET	RESULT
Response to polyunsaturated fats **Gene Tested:** PPARG **Outcome Description:** This patient is more likely to have a lower body weight when eating a diet containing more polyunsaturated fats than saturated fats. The patient has a variant in the PPARG gene, which can affect the association between body weight and the ratio of consumed polyunsaturated to saturated fats. This test result was derived from a study with only women, and there is insufficient scientific evidence to determine if men are similarly affected.	Increased Benefit
Weight loss-regain **Gene Tested:** ADIPOQ **Outcome Description:** This patient has a variant in the ADIPOQ gene that is associated with weight regain within 32 to 60 weeks following a restricted calorie diet. Hence, the patient is more likely to regain weight after diet-induced weight loss. If this patient is planning a diet for weight loss, a plan for weight maintenance should be considered.	More Likely to Regain Weight

GENOTYPE/HAPLOTYPE DETAIL

PHARMACOGENETICS

This section lists the genetic markers that were tested for Pharmacogenetics. Results are organized by drug response. Each drug response may have two sections, which includes a "Genetic Result" section and an associated table with three columns. "Genetic Result" indicates the haplotype, genotype or presence of a mutation. A genetic result that contains “ND” indicates that a haplotype could not be determined. “Unable To Report” indicates that no result can be provided.

In the tables, results are organized by drug response into three columns:

1. “Gene/Locus” refers to the gene or intergenic region where the marker is located.
2. “Marker” refers to the unique identifier of the tested marker.
3. “Genotype” refers to the combination of nucleotides at a particular marker. The letter(s) on each side of the slash refer(s) to the two copies of the patient’s DNA. "Del" indicates a deletion of the nucleotide(s) in the patient's DNA. A genotype of “- -“ indicates that a result could not be obtained.

AMINOGLYCOSIDE ANTIBIOTICS-INDUCED HEARING LOSS

Genetic Result: 1555A>G not present

GENE/LOCUS	MARKER	GENOTYPE
MT-RNR1	1555A>G	A

CLOPIDOGREL METABOLISM

Genetic Result: CYP2C19 *1/*1

GENE/LOCUS	MARKER	GENOTYPE
CYP2C19	rs4244285	G/G
CYP2C19	rs4986893	G/G
CYP2C19	rs12248560	C/C
CYP2C19	rs28399504	A/A
CYP2C19	rs41291556	T/T
CYP2C19	rs56337013	C/C
CYP2C19	rs72552267	G/G

CODEINE AND NURSING MOTHERS

Genetic Result: CYP2D6 *1/*6

GENE/LOCUS	MARKER	GENOTYPE
CYP2D6	rs16947	C/C
CYP2D6	rs769258	G/G
CYP2D6	rs1065852	C/C
CYP2D6	rs1080985	C/C
CYP2D6	rs3892097	G/G
CYP2D6	rs5030655	T/del
CYP2D6	rs5030656	AAG/AAG
CYP2D6	rs5030862	G/G
CYP2D6	rs5030863	C/C

CODEINE AND NURSING MOTHERS

Genetic Result: CYP2D6 *1/*6

GENE/LOCUS	MARKER	GENOTYPE
CYP2D6	rs5030865	C/C
CYP2D6	rs5030867	A/A
CYP2D6	rs28371706	C/C
CYP2D6	rs28371725	G/G
CYP2D6	rs35742686	A/A
CYP2D6	rs59421388	C/C
CYP2D6	rs72549357	T/T

ESTROGEN SUPPLEMENTATION

Genetic Result: Factor V Leiden mutation (0 copies); Prothrombin G20210A mutation (0 copies)

GENE/LOCUS	MARKER	GENOTYPE
F2	Prothrombin G20210A	G/G
F5	Factor V Leiden	G/G

METHOTREXATE TOXICITY

GENE/LOCUS	MARKER	GENOTYPE
MTHFR	rs1801133	C/T

SIMVASTATIN-INDUCED MYOPATHY

GENE/LOCUS	MARKER	GENOTYPE
SLCO1B1	rs4149056	T/T

WARFARIN

Genetic Result: CYP2C9 *1/*1; VKORC1 G/G

GENE/LOCUS	MARKER	GENOTYPE
CYP2C9	rs1057910	A/A
CYP2C9	rs1799853	C/C
CYP2C9	rs9332131	A/A
VKORC1	rs9923231	G/G

HEALTH CONDITIONS

This section lists the genetic markers that were tested for Health Conditions. Results are organized by condition into three columns.

1. “Gene/Locus” refers to the gene or intergenic region where the marker is located.
2. “Marker” refers to the unique identifier of the tested marker.
3. “Genotype” refers to the combination of nucleotides at a particular marker. The letter(s) on each side of the slash refer(s) to the two copies of the patient’s DNA. "Del" indicates a deletion of the nucleotide(s) in the patient's DNA. A genotype of “- -“ indicates that a result could not be obtained.

“Unable To Report” indicates that no result can be provided. The strength of scientific evidence for each marker is available in the technical bulletin of the corresponding condition.

DIABETES, TYPE 2

GENE/LOCUS	MARKER	GENOTYPE
CDKAL1	rs10946398	A/A
CDKN2B	rs10811661	T/C
ESR1	rs3020314	C/T
FTO	rs8050136	C/A
HHEX	rs1111875	C/C
HNF1B	rs7501939	T/C
IGF2BP2	rs1470579	A/A
JAZF1	rs864745	T/T
KCNJ11	rs5219	C/C
KCNQ1	rs2237892	C/C
MTNR1B	rs10830963	C/C
NOTCH2	rs10923931	G/G
PPARG	rs1801282	C/C
SLC30A8	rs13266634	C/T
TCF7L2	rs7903146	C/C
WFS1	rs10010131	A/G

OSTEOARTHRITIS

GENE/LOCUS	MARKER	GENOTYPE
GDF5	rs143383	A/G
PTGS2	rs4140564	A/A

VENOUS THROMBOSIS

Genetic Result: Factor V Leiden mutation (0 copies); Prothrombin G20210A mutation (0 copies); MTHFR C677T mutation (1 copy)

GENE/LOCUS	MARKER	GENOTYPE
F2	Prothrombin G20210A	G/G
F5	Factor V Leiden	G/G
MTHFR	rs1801133	C/T

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DIET, NUTRITION AND EXERCISE RESPONSES

This section lists the genetic markers that were tested for Diet, Nutrition and Exercise Responses. Results are organized by condition into four columns:

1. "Gene/Locus" refers to the gene or intergenic region where the marker is located.
2. "Marker" refers to the unique identifier of the tested marker.
3. "Genotype" refers to the combination of nucleotides at a particular marker. The letter(s) on each side of the slash refer(s) to the two copies of the patient's DNA. A genotype of "- -" indicates that a result could not be obtained.
4. "Strength" refers to strength of research evidence for the genetic marker and the associated result. Four filled boxes indicate a study of over 2,000 people and at least one study that replicated the results. Three filled boxes indicate a study of over 400 people. Two filled boxes indicate a study of less than 400 people; studies in this category are preliminary but pass Pathway's criteria for statistical significance. One filled box indicates that results are extremely preliminary.

"Unable To Report" indicates that no result can be provided.

EATING DISINHIBITION

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
TAS2R38	rs1726866	C/T	■■□□

ENDURANCE TRAINING

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
LIPC	rs1800588	C/C	■■■□
LPL	rs328	C/C	■■□□
PPARD	rs2016520	A/A	■■■□

FOOD DESIRE

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ANKK1/DRD2	rs1800497	C/C	■■□□

GENETIC RISK DUE TO DECREASED VITAMIN B2

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
MTHFR	rs1801133	C/T	■■■□

GENETIC RISK FOR DECREASED ADIPONECTIN

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ADIPOQ	rs17366568	A/G	■■■■

GENETIC RISK FOR DECREASED FOLATE

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
MTHFR	rs1801133	C/T	■■■□

GENETIC RISK FOR DECREASED HDL CHOLESTEROL

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ABCA1	rs1883025	C/C	■■■■
ANGPTL4	rs2967605	C/C	■■■■
CETP	rs247616	C/T	■■■■
FADS1	rs174547	T/C	■■■■
GALNT2	rs4846914	A/A	■■■■
HNF4A	rs1800961	C/C	■■■■
KCTD10	rs2338104	C/G	■■■■
LCAT	rs2271293	G/A	■■■■
LIPC	rs10468017	C/C	■■■■
LIPG	rs4939883	T/C	■■■■
LPL	rs12678919	A/A	■■■■
PLTP	rs7679	T/C	■■■■
TTC39B	rs471364	C/C	■■■■
ZNF259	rs964184	G/C	■■■■

GENETIC RISK FOR DECREASED OMEGA-6 AND OMEGA-3

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
FADS1	rs174547	C/T	■■■■

GENETIC RISK FOR DECREASED VITAMIN A

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
BCMO1	rs7501331	C/T	■■□□
BCMO1	rs12934922	A/T	■■□□

GENETIC RISK FOR DECREASED VITAMIN B12

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
FUT2	rs602662	A/G	■■■■

GENETIC RISK FOR DECREASED VITAMIN B6

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
NBPF3	rs4654748	T/T	■■■■

GENETIC RISK FOR DECREASED VITAMIN C

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
SLC23A1	rs33972313	G/G	■■■■

GENETIC RISK FOR DECREASED VITAMIN D

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
GC	rs2282679	G/T	■■■■

GENETIC RISK FOR ELEVATED LDL CHOLESTEROL

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ABCG8	rs6544713	C/C	■■■■
APOB	rs515135	C/C	■■■■
CELSR2	rs12740374	G/G	■■■■
HMGCR	rs3846663	C/T	■■■■
HNF1A	rs2650000	C/C	■■■■
intergenic	rs1501908	C/G	■■■■
LDLR	rs6511720	G/G	■■■■
MAFB	rs6102059	C/T	■■■■
NCAN	rs10401969	T/T	■■■■
PCSK9	rs11206510	T/T	■■■■

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GENETIC RISK FOR ELEVATED TRIGLYCERIDES

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ANGPTL3	rs10889353	C/C	■■■■
APOB	rs7557067	A/A	■■■■
FADS1	rs174547	T/C	■■■■
GCKR	rs1260326	C/C	■■■■
LPL	rs12678919	A/A	■■■■
MLXIPL	rs714052	A/G	■■■■
NCAN	rs17216525	C/C	■■■■
PLTP	rs7679	T/C	■■■■
TRIB1	rs2954029	A/A	■■■■
XKR6	rs7819412	G/A	■■■■
ZNF259	rs964184	G/C	■■■■

GENETIC RISK FOR INCREASED VITAMIN E

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
intergenic	rs12272004	C/C	■■■■

HDL CHOLESTEROL RESPONSE TO EXERCISE

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
PPARD	rs2016520	A/A	■■■□

INSULIN SENSITIVITY RESPONSE TO EXERCISE

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
LIPC	rs1800588	C/C	■■■□

MATCHING DIET TYPE

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ADIPOQ	rs17300539	G/G	■■■□
APOA2	rs5082	C/T	■■■■
FTO	rs9939609	A/T	■■■□
KCTD10	rs10850219	G/G	■■■□
LIPC	rs1800588	C/C	■■■□
MMAB	rs2241201	C/G	■■■□
PPARG	rs1801282	C/C	■■■□

and more...

METABOLISM

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
LEPR	rs8179183	G/G	■■■□

OBESITY

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
FTO	rs9939609	T/A	■■■■
MC4R	rs17782313	T/C	■■■■

RESPONSE TO MONOUNSATURATED FATS

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ADIPOQ	rs17300539	G/G	■■■□
PPARG	rs1801282	C/C	■■■□

RESPONSE TO POLYUNSATURATED FATS

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
PPARG	rs1801282	C/C	■■■□

SATIETY - FEELING FULL

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
FTO	rs9939609	A/T	■■■□

SNACKING

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
LEPR	rs2025804	A/G	■■□□

SWEET TOOTH

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
SLC2A2	rs5400	C/T	■■■□

WEIGHT LOSS-REGAIN

GENE/LOCUS	MARKER	GENOTYPE	STRENGTH
ADIPOQ	rs17300539	G/G	■■□□

TEST METHODOLOGY

Genotyping by PCR-based enrichment and next-generation sequencing or by array-based evaluation of multiple molecular probes.

DISCLAIMER

This test was developed and its performance characteristics determined by Ome Ventures Inc. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research.

If you have any questions about this report or wish to speak with one of Ome Ventures' genetic counselors, please call (877) 505.7374.

RISKS AND LIMITATIONS

Risk of Laboratory Technical Problems or Laboratory Error

The certified testing laboratory has standard and effective procedures in place to protect against technical and operational problems. However, such problems may still occur. The testing laboratory receives samples collected by patients and physicians. Problems in shipping to the laboratory or sample handling can occur, including but not limited to damage to the specimen or related paperwork, mislabeling, and loss or delay of receipt of the specimen. Laboratory problems can occur that might lead to inability to obtain results. Examples include, but are not limited to, sample mislabeling, DNA contamination, un-interpretable results, and human and/or testing system errors. In such cases, the testing laboratory may need to request a new sample. However, upon re-testing, results may still not be obtainable.

As with all medical laboratory testing, there is a small chance that the laboratory could report inaccurate information. For example, the laboratory could report that a given genotype is present when in fact it is not. Any kind of laboratory error may lead to incorrect decisions regarding medical treatment and/or diet and fitness recommendations. If a laboratory error has occurred or is suspected, a health care professional may wish to pursue further evaluation and/or other testing. Further testing may be pursued to verify any results for any reason.

Limitations

The purpose of this test is to provide information about how a tested individual’s genes may affect carrier status for some inherited diseases, responses to some drugs, risk for specific common health conditions, and/or selected diet, nutrition and/or exercise responses, as well as to learn more about the tested individual’s ancient ancestry, depending upon the specific genetic testing that is ordered by the health care professional. Tested individuals should not make any changes to any medical care (including but not limited to changes to dosage or frequency of medications, diet and exercise regimens, or pregnancy planning) based on genetic testing results without consulting a health care professional.

The science behind the significance or interpretation of certain testing results continues to evolve. Although great strides have been made to advance the potential usefulness of genetic testing, there is still much to be discovered. Genetic testing is based upon information, developments and testing techniques that are known today. Future research may reveal changes in the interpretation of previously obtained genetic testing results. For example, any genetic test is limited by the variants being tested. The interpretation of the significance of some variants may change as more research is done about them. Some variants that are associated with disease, drug response, or diet, nutrition and exercise response may not be tested; possibly these variants have not yet been identified in genetic studies.

Many of the conditions and drug responses that are tested are dependent on genetic factors as well as nongenetic factors such as age, personal health and family health history, diet, and ethnicity. As such, an individual may not exhibit the specific drug response, disease, or diet, nutrition and exercise response consistent with the genetic test results.

Another limitation for some conditions, particularly in the areas of diet and exercise, is that genetic associations have been studied and observed in Caucasian populations only, and in some cases only in one gender. In this case, the interpretations and recommendations are made in the context of Caucasian studies, but the results may or may not be relevant to tested individuals who are of non-Caucasian or mixed ethnicities or the non-studied gender. If patient ethnicity is not disclosed in the test requisition form the ethnicity field in the report will read as "Ethnicity: Not Reported". Such reports will be defaulted to phenotype list displayed for Caucasian ethnicity.

Based on test results and other medical knowledge of the tested individual, health care professionals might consider additional independent testing, or consult another health care professional or genetic counselor.

RESULT STATUS DEFINITIONS

Amended 	Test results and/or patient information that have been revised in a way that does not impact the clinical significance of the result(s) and/or patient diagnosis, treatment or management.
Corrected 	Test results and/or patient information that have been revised in a way that may impact the clinical significance of the result(s) and/or patient diagnosis, treatment or management.
Final 	Test results that are available at the time of report issue or have been revised from pending status to final status.
Pending 	Test results that are not available at the time of report issue. All pending results will be specified in the report.