rightangled

Sandra Sam

Heart DNA Test

Results Overview
20/03/2019

Sample Report

rightangled

Test Methodology

Genotyping by array-based evaluation of multiple molecular probes

HEART DNA TEST

Client name:	Sandra Sam	**Age:**	35
Sex:	Female	**Report Date:**	20/03/2019
Lab reference:	CFTWWW11111	**Sample type:**	Saliva Results
Results Reviewed By:	Dr. John James		
Speciality:	Cardiologist		
Clinic location:	1, High Street, London, UK		
Signed:	Yes	**Date:**	20/03/2019

UK: 32 - 38 Scrutton Street, London, EC2A 4RQ | USA: 1601 Trinity Street, Bldg.B, Austin, TX 78712 US

Specialist review

Summary:

xxxxxxxxxxxxxxxx

Key Recommendations:
xxxxxxxxxxxxxxxx

Drug Response Review

Summary:
xxxxxxxxxxxxxxxx

Key Recommendations:
xxxxxxxxxxxxxxxx

Cardiac Screening Review

Summary:
xxxxxxxxxxxxxxxx

Key Recommendations:
xxxxxxxxxxxxxxxx

Lipids Metabolism Review

Summary:
xxxxxxxxxxxxxxxx

Key Recommendations:
xxxxxxxxxxxxxxxx

Thrombophilia Review

Summary:
xxxxxxxxxxxxxxxx

Key Recommendations:
xxxxxxxxxxxxxxxx

General Questions

What is your date of birth?	*1/12/1984*
Ethnicity:	*White or not stated*
What is your height?	*155 cm*
What is your gender?	*Female*
What is your weight?	*50 kg*
Do you smoke?	*No*
Do you drink alcohol?	*Yes*
Do you take vitamins, minerals or supplements?	--
Are you currently taking any medication?	*Yes*
What activities/exercise are you currently participating in?	*Running, Cycling, Yoga/Pilates, Free weights, Martial arts/Boxing, Resistance*
How often do you train a week?	*3-4 times a week*
How much water do you drink a day?	*1 liter*
What employment sector do you work in?	*Other*
How many days a week do you work?	*5 days*
Does your occupation involve much physical exercise?	--
How many hours a day do you work?	*7-8 hours*
How many servings of fresh fruit and vegetables do you consume a day?	*3-4 servings*

Heart DNA Questions

Do you know your results for total Cholesterol (mg/dL)? Please provide your answer in the space below	*No* --
Do you know your results for HDL cholesterol (mg/dL)?	*No*
Do you know your results for Cholesterol/HDL ratio?	*No*
Do you know your results for systolic blood pressure (mmHg)?	*No*
Do you currently have any cardiovascular disease?	*No*
Do you have any of the following conditions?	*None of the above*
Does anyone in your family have any of the following conditions?	*Type 2 diabetes, Angina or heart attack in a 1st degree relative <60, High/low blood pressure*
Do you have any first degree relative that has previously been diagnosed with a heart condition?	*Yes*
How often do you visit a medical doctor?	*Few times a year*
Do you regularly take a lunch break? **How long is your lunch break?**	*Yes* *30 mins*
Does your employer provide counselling or support for stress/mental health issues?	*Yes*
Does your employer provide active work spaces, e.g. standing desks?	*Yes*
How many servings of fresh migratory fish (salmon, sardines, mackerel) do you consume in a week?	*0 servings*
How often do you drink caffeinated beverages (coffee, tea etc.)?	*5 or more times a week*
If you have any further information to share with us, please share this below.	--

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CARDIAC SCREENING RESULTS

TYPE III HYPERPLIPOPROTEINEMIA

This is your chance of having type III hyperlipoproteinemia

NORMAL | INCREASED

Type III hyperlipoproteinemia is a rare genetically inherited condition characterised by dysfunctional breakdown of lipids, causing a build-up of fatty materials in blood vessels.

ATRIAL FIBRILLATION

This is your chance of having atrial fibrillation

NORMAL | INCREASED

Atrial fibrillation is a heart condition characterised by an irregular and abnormally fast heart rate. Symptoms include dizziness, shortness of breath, tiredness or there may be no symptoms at all. Atrial fibrillation is a major cause of stroke and coronary heart disease.

CORONARY ARTERY DISEASE

This is your chance of having coronary artery disease

DECREASED | SLIGHTLY DECREASED | TYPICAL | SLIGHTLY INCREASED | INCREASED

Coronary artery disease occurs when cholesterol and fatty substances are deposited along the artery walls, leading to atherosclerosis and compromising the blood supply to the heart. The cause of coronary artery disease is strongly influenced by genetics and lifestyle, thus can be prevented.

HYPERTENSION

This is your chance of having high blood pressure

NORMAL | Slightly increased | INCREASED

1 in 4 adults in the UK have high blood pressure (above 140/90 mmHg). Symptoms of this condition can be dangerous if left unnoticed. If hypertension is not treated, the blood supply to the organs can become strained.

MYOCARDIAL INFARCTION

This is your risk of having a heart attack

NORMAL | Slightly increased | INCREASED

A myocardial infarction, also known as a heart attack, is a life-threatening event which occurs when the blood supply to the heart is blocked causing the heart to be starved of oxygen.

PERIPHERAL ARTERIAL DISEASE

This is the risk of your arteries becoming damaged

NORMAL | Slightly increased | INCREASED

Peripheral arterial disease occurs due to fat deposition in the arterial walls of the arteries supplying the legs. The progressive narrowing of the arteries reduces the blood flow and can cause symptoms of pain and discomfort whilst walking.

SICKLE CELL ANAEMIA

This is how many sickle cell genes you have and the risk of passing on the gene to the next generation

NORMAL | TRAIT | CARRIER

Sickle Cell Anaemia is an inherited condition due to a faulty gene causing red blood cells to be disc shaped rather than round. Individuals with one sickle cell gene and one normal gene may not present any symptoms but can pass the gene to their offspring (carriers). Those carrying both genes will develop Sickle Cell Anaemia.

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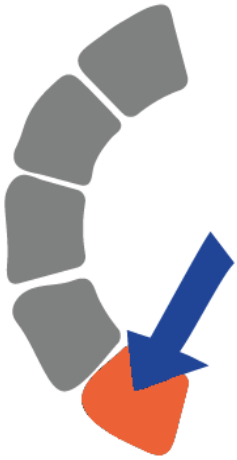
LIPIDS METABOLISM RESULTS

TRIGLYCERIDES

This detects the triglyceride level so you can prevent heart complications

DECREASED | SLIGHTLY DECREASED | TYPICAL | SLIGHTLY INCREASED | INCREASED

Triglycerides are a component of body fat present in the blood. They have a vital role in the transportation of body fat from the arteries to the liver. High level of triglycerides are associated with an increased risk of heart disease.



HDL CHOLESTEROL

This determines your HDL levels and the risk of developing cardiovascular diseases

DECREASED | SLIGHTLY DECREASED | TYPICAL | SLIGHTLY INCREASED | INCREASED

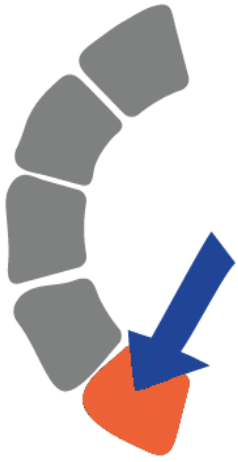
High-Density Lipoprotein (HDL) is known as 'good' cholesterol as it removes cholesterol from the blood vessels and transports it to the liver. High levels of HDL are associated with a lower risk of developing cardiovascular complications.

LDL CHOLESTEROL

This will determine your LDL levels and the associated risk of developing cardiovascular complication

DECREASED | SLIGHTLY DECREASED | TYPICAL | SLIGHTLY INCREASED | INCREASED

Low-Density Lipoprotein (LDL) is known as 'bad' cholesterol as it transports cholesterol from the liver to the blood vessels. Gradually, the vessels become narrowed and can lead to heart attack or stroke.



GENE X

This will determine whether you possess a copy of this gene and can benefit from the increased health outcomes

NOT A CARRIER | ONE COPY | TWO COPIES

Gene X has protective effects on cardiac health. Carriers of Gene X have a 34% reduction in their risk of coronary artery disease, lower Low-Density Lipoprotein and higher High-Density Lipoprotein levels.

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DRUG RESPONSES RESULTS

BETA-BLOCKERS AND LVEF RESPONSE

This determines your heart efficiency response following beta-blocker treatment

NORMAL | IMPROVED

Left Ventricular Ejection Fraction (LVEF) is the percentage of oxygenated blood being pumped around the body after each heartbeat. LVEF is particularly important in detecting the extent of heart failure.

WARFARIN

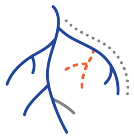
This identifies your sensitivity to different doses

DECREASED | NORMAL | INCREASED

Warfarin is an anticoagulant drug used to prevent blood clots forming in the body. A dose which is too high may cause excessive bleeding and a haemorrhage. A dose which is too low may cause a blood clot and a subsequent stroke. Therefore, identifying your ideal dose is vital.

CLOPIDOGREL METABOLISM

This is will determine your ability to metabolise clopidogrel, allowing a precise drug dose to be given



ULTRA RAPID | EXTENSIVE | INTERMEDIATE | POOR

Clopidogrel is an antiplatelet drug used to reduce the risk of heart disease and stroke. The drug works by preventing platelets from binding together that would otherwise cause blood clots.

SIMVASTATIN-INDUCED MYOPATHY

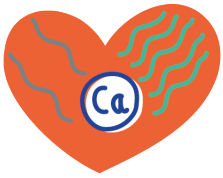
This determines your chance of developing cramps due to statin use

NORMAL | Slightly increased | INCREASED

Statins are a class of drug that reduce the amount of cholesterol in your blood. A common side effect of statin use is myopathy (muscle disease).

VERAPAMIL AND QTC INTERVAL

This determines your risk of developing cardiac problems whilst on verapamil treatment

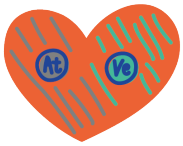


INCREASED | Slightly increased | NO CHANCE

Verapamil is a drug in the class of calcium channel blockers (CCBs). It is used to treat hypertension, angina and arrhythmias (irregular heartbeats). By blocking calcium entry into blood vessels, the vessels dilate and reduce blood pressure.

VERAPAMIL VS. ATENOLOL

This shows which drug is most effective for you.



VERAPAMIL BENEFIT | SAME BENEFIT | ATENOLOL BENEFIT

Atenolol (beta-blocker) and Verapamil (calcium channel blocker) are two classes of drugs used to treat high blood pressure and heart diseases. Our genes control how effectively we respond to one treatment over another.

METOPROLOL METABOLISM

Testing this drug will determine your individual enzyme level in the body

POOR | INTERMEDIATE | EXTENSIVE

Metoprolol is a type of beta-blocker that is used to treat angina, heart attacks, atrial fibrillation and hypertension. A liver enzyme is responsible for breaking down 60% of this drug.

PERINDOPRIL METABOLISM

This determines your risk of developing cardiac events while using perindopril.

IMPROVED | TYPICAL | DECREASED

Perindopril is a type of Angiotensin Converting Enzyme (ACE) inhibitor. ACE inhibitors are long-acting drugs used to treat hypertension. Alterations to the gene enzyme increases the chances of severe side effects.

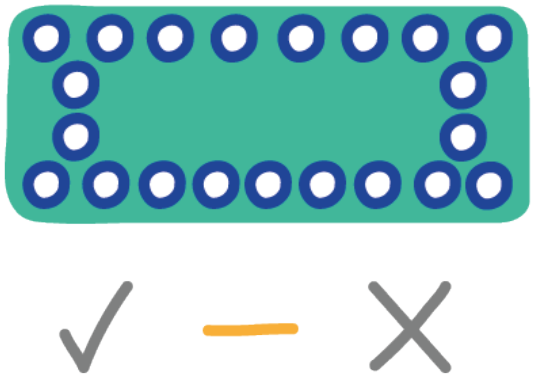
INHERITED THROMBOPHILIA RESULTS

ESTROGEN SUPPLEMENTATION

This is your predisposition to developing thrombosis when taking drugs containing oestrogen

NORMAL | Slightly increased | INCREASED

Hormone replacement therapy drugs and combined oral contraceptive pills contain oestrogen, which is known to increase the risk of developing clotting disorders and thrombosis.



FOLATE AND HOMOCYSTEINE

This is your folate and homocysteine levels

NORMAL | INCREASED

Folate, also known as Folic acid or vitamin B9, is a B vitamin required by the body to make DNA. Folate cannot be made by the body so must be obtained by diet. Homocysteine is an amino acid, which in high levels can cause arterial damage and blood clots in the body.

VENOUS THROMBOSIS

This is your chance of having a venous thrombosis

NORMAL | INCREASED

Venous thrombosis is a disease whereby a blood clot forms within a vein and stops the flow of blood. The clot can break off into the bloodstream and get trapped in a smaller artery in the lungs or brain.

DISCLAIMER

This test gene markers panel was developed by Rightangled Ltd, and its performance characteristics were determined by IDNA Genetics ltd. Rightangled Limited is a CQC registered healthcare provider for screening and diagnostic procedures, regulated under the Social Care Act 1997 as qualifed to perform high - complexity testing. This test is used for informational purposes, and it should be regarded as such.

If you have any questions about this report or wish to speak with one of Rightangled' genetic counsellors, please call + 44(0) 20 3950 3394.

RISK AND LIMITATIONS

Risk of Laboratory Technical Problems or Laboratory Error

The certifed 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, mislabelling, 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 mislabelling, DNA contamination, uninterpretable results, and human and / or testing system errors. In such cases, the testing laboratory may need to request a new sample. However, upon retesting, 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.

General 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, 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 genetic testing results without consulting a health care professional.

The science behind the signifcance 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 identifed in genetic studies.

Many of the conditions and drug responses that are tested are dependant on genetic factors as well as non-genetic 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. 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 counsellor.