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Health Care Provider's Copy

GX Sciences
a Fagron company

PERSONAL DATA

Patient Code	TRI19372AA
Doctor's name	John Cole
Report date	22-04-2021

THE TRICHOTEST FORMULA ™

METHODOLOGY AND LIMITATIONS:

Testing for genetic variation/mutation on listed genes was performed using Real-Time PCR with TaqMan® allele-specific probes on the QuantStudio 12K Flex. All genetic testing is performed by GX Sciences, 4150 Freidrich Lane, Ste H, Austin, TX. 78744. This test will not detect all the known alleles that result in altered or inactive tested genes. This test does not account for all individual variations in the individual tested. Test results do not rule out the possibility that this individual could be a carrier of other mutations/variations not detected by this gene mutation/variation panel. Rare mutations surrounding these alleles may also affect our detection of genetic variations. Thus, the interpretation is given as a probability. Therefore, this genetic information shall be interpreted in conjunction with other clinical findings and familial history for the administration of specific treatments. Patients should receive appropriate genetic counseling to explain the implications of these test results. The analytical and performance characteristics of this laboratory developed test (LDT) were determined by GX Sciences' laboratory pursuant to Clinical Laboratory Improvement Amendments (CLIA) requirements. CLIA #: 45D2144988 Laboratory Director: James Jacobson, PhD

DISCLAIMER:
This test was developed and its performance characteristics determined by GX Sciences. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA and qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research. rsIDs for the alleles being tested were obtained from the dbSNP database.

DISCLAIMER:
Report contents and report recommendations are created based on the consultation, advice and direction of Dr. Alan Bauman, Medical Director for GX Sciences' TrichoTest protocols. Sole responsibility for the proper use of the information on the GX Sciences report rests with the user, or those professionals with whom the user may consult. Report contents and report recommendations are intended to be informational only. Report contents and report recommendations are not intended and should not be interpreted to make claims regarding the use, efficacy or safety of products, formulas and/or services listed herein. Only a doctor or other appropriately licensed health care professional, as a learned intermediary, can determine if a formula, product or service described herein is appropriate for a specific patient. Sole responsibility for the proper use of the information on the GX Sciences report rests with the user, or those professionals with whom the user may consult.

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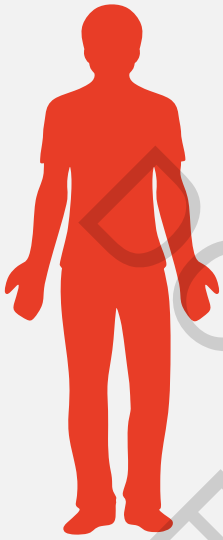
Demographic data on the patient



Gender	Male
Age	38 years
Height	180.34 cm
Weight	88.4325 Kg
BMI	27,19
Family history of alopecia	Parents

Hair loss data

Type of alopecia	Telogen Effluvium (seasonal)
Degree of alopecia on the scale	Grade II
Time since beginning of hair loss	+1
Prescription testosterone derivatives	No

Clinical examination results

Pull-Test	Little bit
Complaints associated with alopecia	Irritations
Patchy alopecia	No
Current anti-alopecia treatment	No
Previous anti-alopecia treatment	No

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Name:

Date of birth: Gender: **Male**

Collection date: **06-04-2021**
Date of the results: **20-04-2021**

Information about complaints and medication

Illnesses	No
Eating disorders	No
Known allergies to substances	No
Takes prescription drugs	No
Consume	Alcohol
Anabolizing agents	No

Patient condition

Stress	No
Suffers depression	No
Sufficient rest	No
Recent child	No
Low-calorie diet	No
Post-surgical stress	No
Are you in contact with toxic/contaminating materials at work?	No

Summary of the results

Positive : The genetic variation detected has a POSITIVE influence.
Moderate : The genetic variation detected has a MODERATE influence.
Negative : The genetic variation detected has a NEGATIVE influence.

Gene name	Description	Effect
TREATMENT EFFICACY WITH PROSTAGLANDIN INHIBITORS		
GPR44-1	RESULT: Moderately reduced PGD2 receptor activity. DOSAGE: Treatment with Prostaquinon at normal doses will be highly recommended. INTERPRETATION: Moderate biological cascade that promotes alopecia. Apply Prostaquinon in normal doses.	
GPR44-2	RESULT: Moderately reduced PGD2 receptor activity. DOSAGE: Treatment with Prostaquinon at normal doses will be highly recommended. INTERPRETATION: Moderate biological cascade that promotes alopecia. Apply Prostaquinon in normal doses.	

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Patient Code: **TRI19372AA** Date of birth: Gender: Collection date: **06-04-2021**
Name: **Male** Date of the results: **20-04-2021**

Positive **Moderate** **Negative**

Gene name	Description	Effect
TREATMENT EFFICACY WITH PROSTAGLANDIN INHIBITORS		
PTGFR-1	RESULT: STRONG REDUCED PGF2a RECEIVER ACTIVITY. DOSAGE: Latanoprost treatment is not necessary, since the PGF2a receptor works with reduced efficiency INTERPRETATION: The need for treatments with PGF2a analogues such as Latanoprost is not required.	
PTGFR-2	RESULT: Normal PGF2a receptor activity. TREATMENT / DOSAGE: Treatment with Latanoprost at high doses is recommended, since the PGF2a receptor works correctly. INTERPRETATION: Treatment with PGF2a analogs such as Latanoprost will be highly recommended.	
PTGFR-3	RESULT: STRONG REDUCED PGF2a RECEIVER ACTIVITY. DOSAGE: Latanoprost treatment is not necessary, since the PGF2a receptor works with reduced efficiency INTERPRETATION: The need for treatments with PGF2a analogues such as Latanoprost is not required.	
TREATMENT EFFICACY WITH MINOXIDIL		
PTGES2	RESULT: Normal PGE2 enzyme activity. DOSAGE: It may not be recommended to treat with Minoxidil, as the patient's metabolism works correctly. INTERPRETATION: Normal levels of PGE2, the application of drugs such as Minoxidil will not be necessary.	
SULT1A1	RESULT: Moderately reduced sulfotransferase enzymatic activity: reduced sulfation of Minoxidil. DOSAGE: Low sulfation levels; It is recommended the dose of Minoxidil be increased, to be effective. INTERPRETATION: Low levels of sulfation prevent Minoxidil from fully transforming into its active therapeutic form. Minoxidil may be recommended but in high doses, with the aim of trying to ensure therapeutic activity.	
TREATMENT EFFICACY WITH GLUCOCORTICOID ANTI-INFLAMMATORIES		
GR-alpha	RESULT: Normal sensitivity to glucocorticoid anti-inflammatories. DOSAGE: Normal doses of glucocorticoids will be effective. INTERPRETATION: Glucocorticoid anti-inflammatory drugs will be recommended since the expected response in the patient is high. NOTE: Anti-inflammatories will only be proposed in cases of Alopecia Areata. The practitioner can recommend them according to their choice	
TREATMENT EFFICACY WITH ANTIANDROGENICS		
CYP19	RESULT: Moderately reduced aromatase enzyme activity. DOSAGE: Hi Doses of Hormonal Drugs will be proposed to modulate activity. INTERPRETATION: Elavated levels of testosterone to create DHT. The aromatase activity must be modulated with hormonal treatments at high doses	

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Positive **Moderate** **Negative**

Gene name	Description	Effect
TREATMENT EFFICACY WITH ANTIANDROGENICS		
SR5DA-1	RESULT: MODERATLY ACCELERATED TYPE I STEROID-REDUCTASE ACTIVITY (HIGH LEVEL OF DHT) DOSAGE: Treatment with Dutasteride, will be highly recommended. INTERPRETATION: It is necessary to inhibit the enzyme. Dutasteride treatments are recommended to inhibit the enzyme.	
SRD5A-2	RESULT: HIGHLY ACCELERATED STEROID-REDUCTASE ACTIVITY TYPE II (HIGHEST LEVEL OF DHT). DOSAGE: Treatment with Finasteride at high doses, will be highly recommended. INTERPRETATION: It is highly advised to inhibit the activity of the enzyme by means of Finasteride at high doses.	
VASODILATATION AND BLOOD CIRCULATION		
ACE	RESULT: Strongly increased angiotensin conversion activity. DOSAGE: High doses of circulation stimulators will be recommended, such as: Cafeisome, Carnitine or Arginine INTERPRETATION: There is a higher concentration of ACE-II: a powerful vasoconstrictor. High doses of circulation stimulators will be highly recommended.	
COLLAGEN SYNTHESIS		
COL1A1	RESULT: Synthesis of normal collagen. DOSAGE: No collagen supplementation recommended. INTERPRETATION: The collagen synthesis is normal, it will not be necessary to treat.	
VITAMIN A METABOLISM		
CRABP2	RESULT: Normal intracellular transport of Vitamin A. DOSAGE: It is not necessary to supplement with vitamin A. INTERPRETATION: Vitamin A is correctly introduced into the nucleus of cells. A diet rich in vitamin A should be enough to have normal levels.	
BIOTIN METABOLISM		
BTD	RESULT: Moderately reduced biotinidase enzyme activity. DOSAGE: Normal doses of Biotin will be recommended. INTERPRETATION: The patient has a lower biotin uptake from the diet. It will be highly recommended to deal with Biotin.	
REDUCTION OF IGF-1 LEVELS		
IGFR-1	RESULT: Tendency to have moderately reduced IGF-1 (Somatomedin C) levels. DOSAGE: Need to apply normal doses of drugs that increase IGF levels INTERPRETATION: Low levels of IGF-1 have negative implications for alopecia. Drugs to increase hormone levels, will be necessary.	

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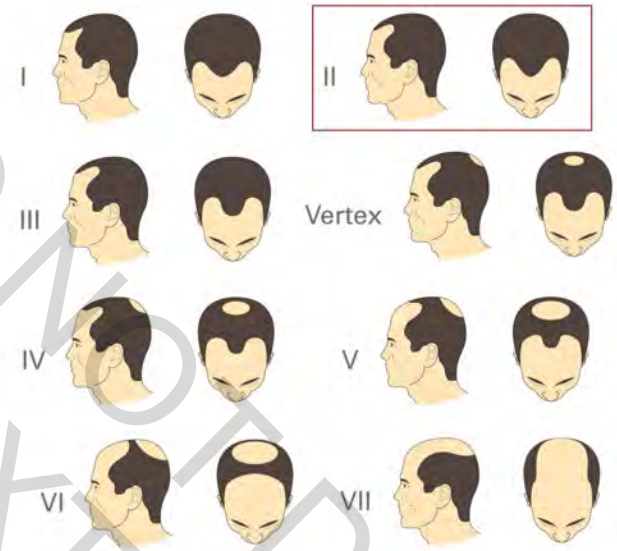
Patient alopecia classification

The Norwood-Hamilton scale shown below is used to classify the degree of alopecia. The current degree of the patient's alopecia is marked by a red square.



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The best products for your scalp

Based on this patient's genetic profile, the Medical Director for GX Sciences recommends using ingredients based on the following color scale. Differing shades of green indicate the strength of our Medical Director's positive recommendation as to specific ingredients, with a darker green indicating the more positive recommendation. White and red indicate the degrees to which ingredients are not recommended by our Medical Director. This is a reference guide subject to adjustments based on this patient's lifestyle and other factors that you may consider.

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Anti-inflammatory	
Betamethasone dipropionate	
Triamcinolone acetonide	
Hydrocortisone	
Fluocinolone acetonide	
Prednicarbate	
Desonide	
Clobetasol propionate	

Antioxidant	
Oral Coenzyme Q10	

Collagen synthesis	
Adenosine	
MSM	
Cystine	

Minerals	
Sulfur	
Oral Zinc sulfate	

Softener	
D-Panthenol	

Antiandrogenic	
Finasteride	
Oral Finasteride (man)	
Melatonin	
Dutasteride	
Spironolactone	
Oral Dutasteride	
17-α Estradiol	
Oral Finasteride (woman)	

Circulation	
L-Carnitine L-tartrate	
Arginine	
Caffeine	

Immunomodulator	
Tacrolimus	

Keratolytic	
Tretinoin	

Prostaglandins	
Minoxidil	
Cetirizine Hcl	
Oral Minoxidil (man)	
Latanoprost Fagron	
Oral Minoxidil (woman)	

Vitamin deficiency	
Topical Biotin	
Oral Biotin	
Pyridoxine HCl (Vit. B6)	
Nicotinamide (Vit B3)	
Vitamine B1	
Lysine	
Tocopherol (vit. E)	

A personalized formula with suitable active ingredients and doses

Based on the patient's genetic test results, the Medical Director for GX Sciences recommends the following topical, oral, hair care and hygienic formulations for the patient's hair issues.

Topical treatment

Formula	
Minoxidil	7 %
Finasteride	0.9 %
Arginine	2 %
Appropriate compounding base such as TrichoSol	100ml

Dosage:

Apply at night before bedtime. Leave the solution on your scalp for as long as possible. Wash your scalp the next day.

Oral treatment

Formula	
Oral Zinc sulfate	10 mg/day
Oral Coenzyme Q10	30 mg/day
Oral Dutasteride	0.32 mg/day
Oral Biotin	3 mg/day

Oral

Dosage:

1 capsule per day, 90 capsules for 3 months

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Complementary topical treatment for hair care and hygiene

Formula 2	
Sulfur	2 %
Topical Biotin	0.3 %
Appropriate compounding base such as TrichoOil	30ml
Dosage: 1-2 times / week, massage for 3-5 minutes and leave it on for 10 min before washing your hair.	

Formula 3	
Sulfur	2 %
L-Carnitine L-tartrate	0.8 %
Topical Biotin	0.3 %
Appropriate compounding base such as TrichoWash	250ml
Dosage: Massage for 2 minutes and rinse	

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Male

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Patient follow-up	Day 0	Day 30	Day 60	Day 90
Amount of hair loss	Little bit			
Appearance of the hair				
Improved hair density				
Pull-Test				
Satisfaction questionnaire				
Photos of the hair				

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Topical treatment

Formula	
Minoxidil	7 %
Finasteride	0.9 %
Arginine	2 %
Appropriate compounding base such as TrichoSol	100ml

Dosage:

Apply at night before bedtime. Leave the solution on your scalp for as long as possible. Wash your scalp the next day.

Signature of the prescribing physician

Dr: _____

Physician Registration No. _____

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Oral treatment

Formula	
Oral Zinc sulfate	10 mg/day
Oral Coenzyme Q10	30 mg/day
Oral Dutasteride	0.32 mg/day
Oral Biotin	3 mg/day

Oral

Dosage:

1 capsule per day, 90 capsules for 3 months

Signature of the prescribing physician

Dr: _____

Physician Registration No. _____

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Topical treatment

Formula	
Sulfur	2 %
Topical Biotin	0.3 %
Appropriate compounding base such as TrichoOil	30ml

Dosage:

1-2 times / week, massage for 3-5 minutes and leave it on for 10 min before washing your hair.

Signature of the prescribing physician

Dr: _____

Physician Registration No. _____

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Topical treatment

Formula	
Sulfur	2 %
L-Carnitine L-tartrate	0.8 %
Topical Biotin	0.3 %
Appropriate compounding base such as TrichoWash	250ml
Dosage: Massage for 2 minutes and rinse	

Signature of the prescribing physician

Dr: _____

Physician Registration No. _____

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