myGenome

by Veritas

is the whole genome sequencing service and interpretation aimed to improve your patient's health

my Genome by Veritas

myGenome is the most comprehensive preventive genetic test for healthy patients

myGenome is the genome sequencing and interpretation service intended to help prevent diseases and improve the health of your patients. The test provides key genetic information to the patient and his or her physician in order to adapt the individual's lifestyle and medical care. The test is intended for healthy individuals that want to be proactive in their healthcare.

myGenome includes:

- Whole GENOME sequencing from a saliva or blood sample obtained with a Veritas kit.
- Analysis of genes related to actionable diseases with clinical utility.
- Genetic information storage for future consultations.

myGenome has been developed by experts in genetics, bioinformatics and specialized physicians from the Harvard School of Medicine with more than 10 years of experience in the study and analysis of the human genome.

Why sequence the genome?

15-20%

Between 15-20%[1] of cancer cases are due to familial aggregation that increases the risk of cancer in the family.

3%

Around 3%[2] of the couples planning to have children have a 25% risk of having a child affected by a genetic disease.

30%

About 30%[3] of sudden cardiac deaths are due to genetic variations in genes responsible for the structure of the cardiac muscle or the cardiac rhythm.

6%

Around 6%[4] of the population have an increased risk of developing hereditary thrombosis. Acquired factors such as bed rest or lack of physical activity increase the risk.

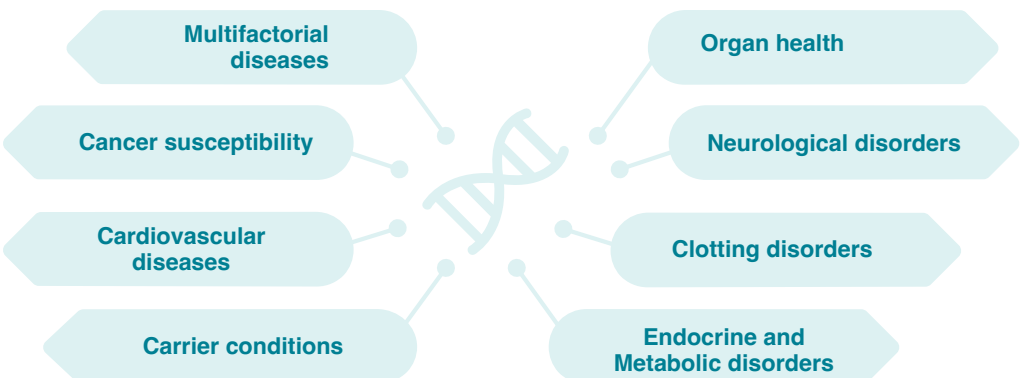
3-5%

Between 3-5%[5] of hospital admissions in Europe are due to adverse drug reactions.

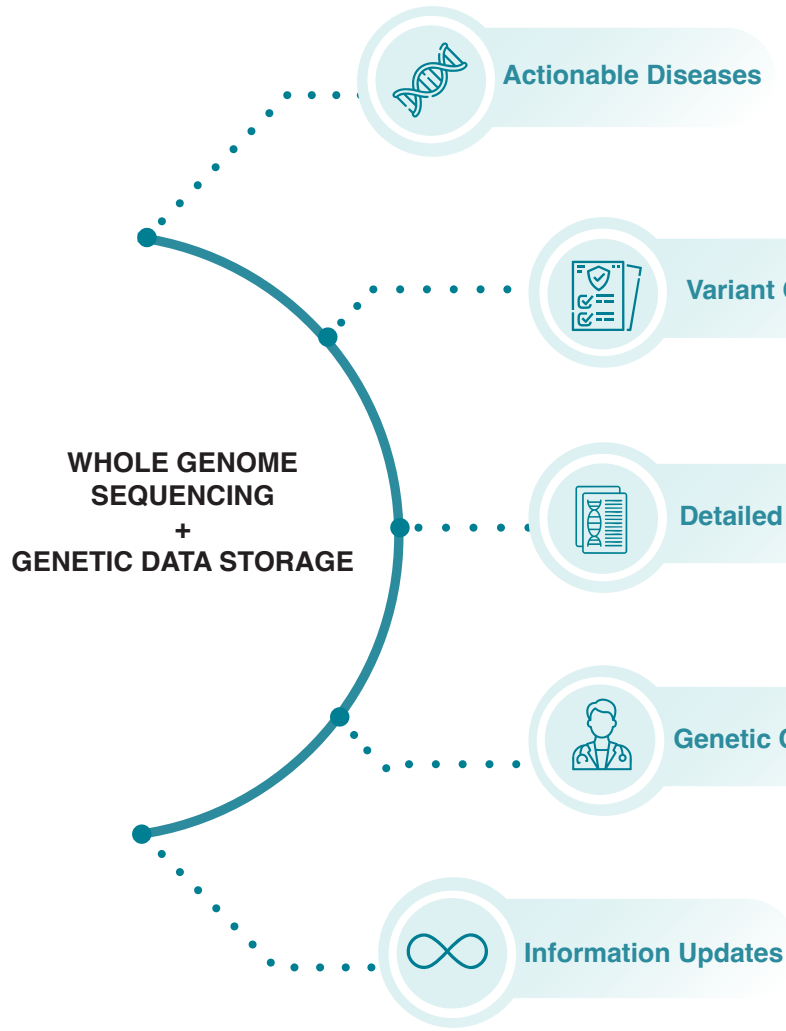
What type of diseases are included?

- Diseases selected based on the American College of Medical Genetics and Genomics criteria that emphasizes the importance of analyzing cardiovascular diseases and risk of hereditary cancer, since they are the most frequent and actionable diseases.

- More than 650 diseases are reported in the following categories:



Advantages



Actionable Diseases
Diseases selected based on clinical guidelines by a group of experts with more than 10 years of experience in whole genome analysis and interpretation

Variant Curation
Team of geneticists dedicated to variant reanalysis that ensures that each variant classification is based on the most recent scientific knowledge enhancing the proprietary database

Detailed Report
Comprehensive report with detailed information that is easy to understand for the patient

Genetic Counseling
Differential service of expert genetic counseling in several medical areas. Support to specialists and patients

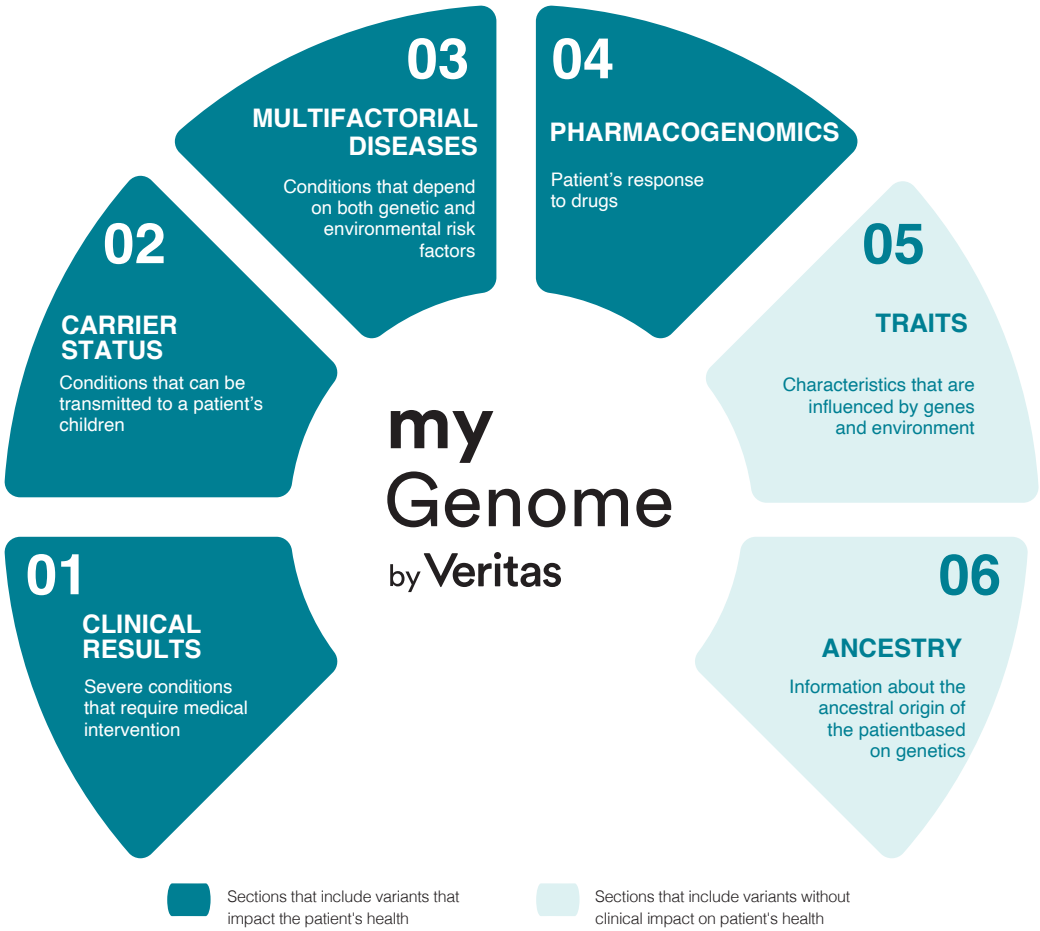
Information Updates
Classification update of clinically significant variants. Veritas offers access to information of interest that can be incorporated in the future

Clinical Examples

RESULT	CLINICAL IMPLICATION	PREVENTIVE ACTION
Pathogenic variant in *MYBPC3* gene	**Risk of hypertrophic cardiomyopathy** Heart defect associated with sudden cardiac death	Consider consulting a cardiologist for counseling and follow-up
Pathogenic variant in *ATM* gene	**Breast cancer risk** Women have 2-4 times greater risk of breast cancer and other cancers such as pancreatic	Establish a specific gynecological screening plan and personalized follow-up with a physician
Pathogenic variant in *RYR1* gene	**Risk of malignant hyperthermia** Hypermetabolic reaction to muscle relaxants commonly used in surgery, causing stiffness, tachycardia, fever and muscle breakdown	When surgery is required, notify the anesthesiologist to change the pharmacological prescription accordingly
Pathogenic variant in *F5* gene	**Risk of venous thrombosis** 5% risk of deep vein thrombosis	Inform the specialist in case of surgery, prolonged rest, pregnancy, etc.


myGenome is a key complement for
patient health checkups

Report Sections



1 Clinical results

Interpretation of 583 genes selected based on the American College of Medical Genetics and Genomics criteria, related to conditions that have an important impact on the patient's health. Full gene analysis is performed reporting pathogenic and likely pathogenic variants. This information is key to personalize medical management.

2 Carrier status

Analysis of over 200 diseases where the patient can be an asymptomatic carrier. If both members of the couple are carriers of the same disease, they have a higher risk of transmitting it to their children.*

3 Multifactorial diseases

Analysis of specific variants related to multifactorial conditions where both genetic and environmental risk factors are involved. This information allows the adaptation of patient's lifestyle based on genetics.

4 Pharmacogenomics

myGenome analyzes genes related to metabolism, secondary drug targets and transporters in order to know the effect of more than 250 pharmaceuticals on the patient, which allows a personalized prescription. The drugs analyzed are included in the following medical areas:

- Cardiovascular
- Hematology
- Infectious diseases and immune disorders
- Oncology
- Transplantation Medicine
- Pain Medicine
- Gastroenterology
- Neurology
- Ophthalmology

**myGenome should not replace a clinical screening test for carriers*

5 Traits

Veritas also includes the analysis of traits that do not have a clinical impact on the patient's health, but allow to make informed decisions based on genetics. The following traits are analyzed:

Athleticism

- Achilles Tendinopathy
- Exercise Response
- Ligament Injury Susceptibility
- Lumbar Disc Disease
- Susceptibility
- Muscle Strength
- Muscle Volume
- Muscular Endurance
- Muscular Power

Longevity

- Longevity

Metabolism

- Metabolic Syndrome
- Resting Metabolic Rate
- Weight Gain
- Obesity

Immune system

- IL-6 Levels

Cardiovascular

- Blood Pressure
- Baseline Cholesterol

Nutrition and Diet

- Polyunsaturated Fats
- Vitamin B12
- Vitamin B6
- Vitamin C
- Vitamin D
- Vitamin E

Hormones

- IGF-1 Levels
- Menopause Age
- Testosterone Levels

Physical appearance

- Earwax Type
- Eye Color
- Finger Length Ratio
- Freckling
- Hair Color
- Hair Curl
- Hair Thickness
- Height
- Iris Patterns
- Male Pattern Baldness
- Pigmentation

Behavior

- Hunger Response Control
- Snacking Behavior
- Sugar Intake
- Sweet Tooth

Substance reaction

- Alcohol Sensitivity
- Coffee and Caffeine
- Nicotine Response

Sensory perception

- Asparagus Metabolite Odor Detection in Urine
- Bitter Taste Perception
- Cilantro (Coriander) Preference
- Misophonia (Sensitivity to Chewing Sounds)
- Nearsightedness (Myopia)
- Odor Detection
- Pain Sensitivity
- Photic Sneeze Reflex
- Sweetness Detection

6 Ancestry

myGenome analyzes variants in the DNA to establish the ancestral origin of the patient based on genetics.

Genes with clinical interpretation

ABCC8	*ATM*	*CCND1*	*CTNS*	*ENG*	*FBN1*	*GPIHBP1*	*KCNH2*
ABCC9	*ATP7B*	*CD82*	*CTRC*	*EP300*	*FBN2*	*GREM1*	*KCNJ11*
ABCD1	*ATR*	*CDC73*	*CYBA*	*EPAS1*	*FGFR2*	*H19*	*KCNJ2*
ABCG5	*AURKA*	*CDH1*	*CYLD*	*EPCAM*	*FH*	*HABP2*	*KCNJ5*
ABCG8	*AXIN2*	*CDK4*	*CYP11B1*	*ERBB2*	*FHL1*	*HADHA*	*KCNJ8*
ABRAXAS1	*B3GALT6*	*CDKN1B*	*CYP11B2*	*ERCC1*	*FHL2*	*HAMP*	*KCNQ1*
ACADM	*B4GALT7*	*CDKN1C*	*CYP19A1*	*ERCC2*	*FKBP14*	*HAX1*	*KIF1B*
ACADSB	*BAG3*	*CDKN2A*	*CYP1B1*	*ERCC3*	*FKRP*	*HBB*	*KIT*
ACADVL	*BAP1*	*CEBPA*	*CYP21A2*	*ERCC4*	*FKTN*	*HCN4*	*KLF10*
ACD	*BARD1*	*CEBPE*	*CYP27A1*	*ERCC5*	*FLCN*	*HEXA*	*KLLN*
ACSF3	*BBS1*	*CEP57*	*DCLRE1C*	*ERCC6*	*FLNA*	*HEXB*	*KRAS*
ACTA1	*BBS2*	*CERKL*	*DDB2*	*ESR1*	*FLNC*	*HFE*	*LAMA2*
ACTA2	*BCHE*	*CETP*	*DDR2*	*ETFDH*	*FXN*	*HIP1*	*LAMA4*
ACTC1	*BCKDHA*	*CFTR*	*DDX41*	*ETV6*	*G6PC*	*HJV*	*LAMP2*
ACTN2	*BCKDHB*	*CHEK2*	*DES*	*EVC*	*G6PC3*	*HLCS*	*LDB3*
ACVRL1	*BLM*	*CHRM2*	*DHCR7*	*EXO1*	*G6PD*	*HMBS*	*LDLR*
ADAMTS2	*BMPR1A*	*CHRNE*	*DICER1*	*EXT1*	*GAA*	*HMMR*	*LDLRAP1*
AGA	*BRAF*	*CHST14*	*DIS3L2*	*EXT2*	*GALC*	*HNF1A*	*LIPA*
AGL	*BRCA1*	*CLN5*	*DKC1*	*EYA4*	*GALK1*	*HNF1B*	*LITAF*
AIP	*BRCA2*	*CLRN1*	*DMD*	*EYS*	*GALNT12*	*HNF4A*	*LMF1*
AIRE	*BRIP1*	*CNGB3*	*DNAJC19*	*EZH2*	*GALT*	*HOXB13*	*LMNA*
AKAP9	*BTD*	*COL1A1*	*DOCK8*	*F11*	*GATA1*	*HPS1*	*LOX*
AKT1	*BUB1B*	*COL1A2*	*DOLK*	*F5*	*GATA2*	*HRAS*	*LPL*
ALDOB	*CACNA1C*	*COL3A1*	*DPP6*	*F8*	*GATAD1*	*HSPB8*	*LRPPRC*
ALK	*CACNA1S*	*COL5A1*	*DPYD*	*F9*	*GBA*	*HYLS1*	*LSP1*
ALMS1	*CACNA2D1*	*COL5A2*	*DSC2*	*FAH*	*GBE1*	*IKZF1*	*LTBP2*
ALPL	*CACNB2*	*COL7A1*	*DSE*	*FAM161A*	*GCDH*	*ILK*	*LZTR1*
ANK2	*CALM1*	*COX15*	*DSG2*	*FAN1*	*GCK*	*INS*	*MAP2K1*
ANKRD1	*CALM2*	*CPT1A*	*DSP*	*FANCA*	*GCKR*	*ITK*	*MAP2K2*
APC	*CALM3*	*CPT2*	*DTNA*	*FANCB*	*GDF2*	*IVD*	*MAP3K1*
APOA4	*CALR3*	*CREB3L3*	*DYSF*	*FANCC*	*GEN1*	*JAG1*	*MAX*
APOA5	*CASP8*	*CREBBP*	*EFEMP2*	*FANCD2*	*GJA5*	*JAK2*	*MC1R*
APOB	*CASQ2*	*CRELD1*	*EGFR*	*FANCE*	*GJB2*	*JPH2*	*MCOLN1*
APOC2	*CASR*	*CRYAB*	*EGLN1*	*FANCF*	*GJB6*	*JUP*	*MED17*
APOE	*CAV3*	*CSRP3*	*EGLN2*	*FANCG*	*GLA*	*KCNA5*	*MEFV*
AR	*CAVIN4*	*CTC1*	*EGR2*	*FANCI*	*GLB1*	*KCND3*	*MEN1*
ARID5B	*CBL*	*CTF1*	*ELANE*	*FANCL*	*GLE1*	*KCNE1*	*MESP2*
ARSA	*CBS*	*CTLA4*	*ELN*	*FANCM*	*GNE*	*KCNE2*	*MET*
ASNS	*CBX8*	*CTNNA1*	*ELP1*	*FAS*	*GPC3*	*KCNE3*	*MGMT*
ASPA	*CCM2*	*CTNNB1*	*EMD*	*FAT1*	*GPD1L*	*KCNE5*	*MIB1*

MITF	*NHP2*	*PMP22*	*RBM20*	*SDHA*	*SREBF2*	*TSFM*	
MKS1	*NKX2-5*	*PMS1*	*RECQL*	*SDHAF2*	*SRGAP1*	*TSHR*	
MLC1	*NODAL*	*PMS2*	*RECQL4*	*SDHB*	*STAT3*	*TTN*	
MLH1	*NOP10*	*POLD1*	*RET*	*SDHC*	*STK11*	*TTR*	
MLH3	*NOTCH1*	*POLE*	*RHBDF2*	*SDHD*	*SUFU*	*TXNRD2*	
MMUT	*NOTCH3*	*POLG*	*RINT1*	*SEC23B*	*TAZ*	*TYR*	
MPL	*NPHS1*	*POLH*	*RIT1*	*SELENON*	*TBX20*	*UROD*	
MPV17	*NPPA*	*POT1*	*RMRP*	*SEPSECS*	*TBX3*	*USB1*	
MPZ	*NQO2*	*PPM1D*	*ROBO2*	*SERPINA1*	*TBX5*	*USH2A*	
MRE11	*NRAS*	*PPT1*	*ROS1*	*SERPINC1*	*TCAP*	*VCL*	
MSH2	*NSD1*	*PRDM16*	*RPE65*	*SGCB*	*TCIRG1*	*VHL*	
MSH3	*NTHL1*	*PRDM5*	*RPL11*	*SGCD*	*TECPR2*	*WAS*	
MSH6	*ODC1*	*PRF1*	*RPL15*	*SGCG*	*TERC*	*WRAP53*	
MSR1	*OPA3*	*PRKAG2*	*RPL26*	*SH2D1A*	*TERT*	*WRN*	
MTAP	*OPCML*	*PRKAR1A*	*RPL27*	*SHOC2*	*TGFB2*	*WT1*	
MTHFR	*OTC*	*PRKDC*	*RPL31*	*SKI*	*TGFB3*	*XPA*	
MUTYH	*PAH*	*PRKG1*	*RPL35A*	*SLC12A3*	*TGFBR1*	*XPC*	
MXI1	*PALB2*	*PRKN*	*RPL5*	*SLC12A6*	*TGFBR2*	*XRCC2*	
MYBPC3	*PALLD*	*PRNP*	*RPS10*	*SLC17A5*	*TINF2*	*XRCC3*	
MYCN	*PARN*	*PROC*	*RPS19*	*SLC22A5*	*TLR2*	*ZBTB17*	
MYH11	*PAX5*	*PROS1*	*RPS20*	*SLC25A13*	*TMEM127*	*ZHX3*	
MYH6	*PC*	*PRSS1*	*RPS24*	*SLC25A15*	*TMEM43*	*ZIC3*	
MYH7	*PCDH15*	*PSEN1*	*RPS26*	*SLC25A4*	*TMPO*	*ZNF469*	
MYL2	*PCSK9*	*PSEN2*	*RPS27*	*SLC26A2*	*TNNC1*		
MYL3	*PDCD10*	*PTCH1*	*RPS28*	*SLC26A4*	*TNNI3*		
MYLK	*PDGFRA*	*PTCH2*	*RPS29*	*SLC2A10*	*TNNT2*		
MYLK2	*PDLIM3*	*PTEN*	*RPS7*	*SLC39A13*	*TNXB*		
MYO6	*PEX12*	*PTPN11*	*RTEL1*	*SLC40A1*	*TOR1A*		
MYO7A	*PEX6*	*PYGM*	*RUNX1*	*SLMAP*	*TOX3*		
MYOM1	*PHB*	*RAD50*	*RYR1*	*SLX4*	*TP53*		
MYOZ2	*PHOX2B*	*RAD51*	*RYR2*	*SMAD3*	*TPM1*		
MYPN	*PICALM*	*RAD51B*	*SACS*	*SMAD4*	*TPP1*		
NBN	*PIK3CA*	*RAD51C*	*SALL4*	*SMARCA4*	*TRDN*		
NDRG1	*PKD2*	*RAD51D*	*SBDS*	*SMARCB1*	*TRF2*		
NDUFS6	*PKHD1*	*RAD54L*	*SCN1B*	*SMARCE1*	*TRIM37*		
NEBL	*PKP2*	*RAF1*	*SCN2B*	*SMPD1*	*TRIM63*		
NEFL	*PLA2G2A*	*RANGRF*	*SCN3B*	*SNTA1*	*TRMU*		
NEXN	*PLN*	*RB1*	*SCN4B*	*SOS1*	*TRPM4*		
NF1	*PLOD1*	*RBBP8*	*SCN5A*	*SPG11*	*TSC1*		
NF2	*PMM2*	*RBM15*	*SCO2*	*SPINK1*	*TSC2*		

my Genome by Veritas

+650 Diseases of hereditary origin

+225 Conditions that you may pass on to your children

+15 Multifactorial conditions dependent on genetics and environment

+250 Information on drug response based on patient's genetics

+50 Information on genetic traits related to diet, athletics, longevity, nutrition, behavior, cardiovascular health, metabolism and more

Comprehensive Genetic Counseling pre and post test

Information about your ancestors

myGenome *changes the concept of prevention, incorporating genetics as a tool for preventive medicine.*

Technical Information

- Whole genome sequencing with an average depth of 30x (gold standard for genome sequencing).
- Analytic sensitivity is 99% for SNVs* and 97.6% for small insertions/deletions (6 bases).
- Analysis and variant classification based on internal and external databases (ClinVar and HGMD**).
- Variant curation performed by our dedicated expert team with proprietary software developed for detailed variant classification.
- myGenome has been developed by a medical expert team with more than 10 years of experience in Whole Genome Sequencing, including members of the Personal Genome Project from the Harvard Medical School.

*Single Nucleotide Variant / **Human Gene Mutation Database

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About Veritas

Veritas Genetics, a *LetsGetChecked* company, is one of the world leaders in advanced genetic sequencing and clinical interpretation of the exome and whole genome, driving the transition to personalized and preventive medicine.

Using state-of-the-art technologies and the highest safety standards, Veritas Genetics helps individuals, healthcare professionals and institutions worldwide to understand and anticipate genetic risks, enabling more informed and proactive health decisions.

With a focus on innovation and accessibility, Veritas Genetics transforms the way we understand and care for health at every stage of life.

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