**\*\*\*Report Amended to add Incidental Findings\*\*\***

**Patient Results: No known pathogenic variants detected in genes causative of genetic conditions that are medically actionable (incidental findings)**

**Interpretation:**

This individual requested to learn about findings of genetic conditions that are medically actionable (incidental findings; please see attached list). Our analysis did not identify any medically actionable findings in this individual. However, it is important to understand that genome sequencing is a screening test. This individual could carry a variant not detected by this test (see test limitations). In addition, only known pathogenic or likely pathogenic variants are reported.

**Recommendations:**

Genetic counseling is recommended if the patient has unresolved questions.

**Disorders for Cancer Genes:**

[BRCA1](http://ncgenes.org/w/index.php?title=BRCA1&action=edit&redlink=1), BRCA2-Hereditary breast and ovarian cancer; EPCAM, [MLH1](http://ncgenes.org/w/index.php?title=MLH1&action=edit&redlink=1), MLH3, MSH2, MSH6, PMS1, PMS2-Hereditary nonpolyposis colorectal cancer/Lynch syndrome; [APC](http://ncgenes.org/w/index.php?title=APC&action=edit&redlink=1)-Familial adenomatous polyposis; [PTEN](http://ncgenes.org/w/index.php?title=PTEN&action=edit&redlink=1)-Cowden syndrome; [TP53](http://ncgenes.org/w/index.php?title=TP53&action=edit&redlink=1)-Li-Fraumeni syndrome; [MEN1](http://ncgenes.org/w/index.php?title=MEN1&action=edit&redlink=1)-Multiple endocrine neoplasia, type 1; [RET](http://ncgenes.org/w/index.php?title=RET&action=edit&redlink=1)-Multiple endocrine neoplasia , type 2;BMPR1A-Juvenile polyposis syndrome;; CDC73-Hyperparathyroidism-jaw tumor syndrome; [CDH1](http://ncgenes.org/w/index.php?title=CDH1&action=edit&redlink=1)-Hereditary diffuse gastric cancer;; [FH](http://ncgenes.org/w/index.php?title=FH&action=edit&redlink=1)-Leiomyomatosis and renal cell cancer; FLCN-Birt-Hogg-Dube syndrome; GREM1-Hereditary Mixed Polyposis; KIT-Gastrointestinal stromal tumor;; MET-Renal cell carcinoma, papillary, familial; [MUTYH](http://ncgenes.org/w/index.php?title=MUTYH&action=edit&redlink=1)-MYH Associated polyposis; PDGFRA-Gastrointestinal stromal tumor; POLD1, POLE-Colorectal adenomas and carcinomas; PTCH1- Basal cell nevus syndrome; SCG5-Hereditary Mixed Polyposis; [SMAD4](http://ncgenes.org/w/index.php?title=SMAD4&action=edit&redlink=1)-Juvenile polyposis syndrome; SMARCB1-Schwannomatosis; [STK11](http://ncgenes.org/w/index.php?title=STK11&action=edit&redlink=1)-Peutz-Jeghers syndrome; [TGFBR2](http://ncgenes.org/w/index.php?title=TGFBR2&action=edit&redlink=1)- Hereditary nonpolyposis colorectal cancer/Lynch syndrome / Loeys-Dietz syndrome

**Non Cancer Genes:**

**Autosomal Dominant:**

[ACTA2](http://ncgenes.org/w/index.php?title=ACTA2&action=edit&redlink=1)-Aortic aneurysm, familial thoracic; ACTC1, MYH7-Cardiomyopathy, dilated; Cardiomyopathy, familial hypertrophic; Left ventricular noncompaction; [ACVRL1](http://ncgenes.org/w/index.php?title=ACVRL1&action=edit&redlink=1)-Telangiectasia, hereditary hemorrhagic; CACNA1C-SQTS-4; CACNA1S-Malignant hyperthermia susceptibility; CACNB2SQTS-5; CNBP-Myotonic dystrophy 2; COL3A1-Ehlers-Danlos syndrome; DMPK-Myotonic dystrophy 1; DSC2, DSG2, DSP-Arrhythmogenic right ventricular dysplasia; ENG-Telangiectasia, hereditary hemorrhagic, type 1 187300; [FBN1](http://ncgenes.org/w/index.php?title=FBN1&action=edit&redlink=1)-Marfan syndrome; GCH1-Dystonia, DOPA-responsive, with or without hyperphenylalainemia; HMBS-Porphyria, acute intermittent; KCNE1-LQTS-5; KCNE2-LQTS-6; KCNH2-LQTS-2, SQTS-1; KCNJ2-SQTS-3; KCNQ1-LQTS-1, SQTS-2; LDLR-Hypercholesterolemia, familial; LMNA-Cardiomyopathy; MYBPC3-Cardiomyopathy, dilated; Cardiomyopathy, familial hypertrophic; [MYH11](http://ncgenes.org/w/index.php?title=MYH11&action=edit&redlink=1)- Aortic aneurysm, familial thoracic; MYL2-Cardiomyopathy, familial hypertrophic; MYL3-Cardiomyopathy, familial hypertrophic; MYLK-Aortic aneurysm, familial thoracic; NF2- Neurofibromatosis, type 2; PKP2-Arrhythmogenic right ventricular dysplasia; PLN, SGCD-Cardiomyopathy, dilated; Cardiomyopathy, familial hypertrophic; [PRKAG2](http://ncgenes.org/w/index.php?title=PRKAG2&action=edit&redlink=1)-Wolff-Parkinson-White syndrome; Cardiomyopathy,hypertrophic 6; PRKAR1A-Carney complex, type 1; PROC-Thrombophilia due to protein C deficiency; PROS1-Thrombophilia due to protein S deficiency; PTCH1-Basal cell nevus syndrome; RBM20-Cardiomyopathy, dilated; RYR1-Malignant hyperthermia susceptibility 1; RYR2-Arrhythmogenic right ventricular dysplasia; SCN5A-LQTS-3; BRGDA 1; [SDHAF2](http://ncgenes.org/w/index.php?title=SDHAF2&action=edit&redlink=1), [SDHB](http://ncgenes.org/w/index.php?title=SDHB&action=edit&redlink=1),[SDHC](http://ncgenes.org/w/index.php?title=SDHC&action=edit&redlink=1), [SDHD](http://ncgenes.org/w/index.php?title=SDHD&action=edit&redlink=1)-Hereditarty paragangliomas and pheochromocytomas; SERPINC1-Thrombophilia due to antithrombin III deficiency; SMAD3-Loeys-Dietz syndrome 1C; TGFB3-Arrhythmogenic right ventricular dysplasia 1; [TGFBR1](http://ncgenes.org/w/index.php?title=TGFBR1&action=edit&redlink=1)-Loeys-Dietz syndrome, type 1A and type 2A; TMEM43-Arrhythmogenic right ventricular dysplasia 5; TNNI3,TNNT2,TPM1,TTN-Cardiomyopathy, dilated; Cardiomyopathy, familial hypertrophic; TSC1,TSC2-Tuberous sclerosis complex; [VHL](http://ncgenes.org/w/index.php?title=VHL&action=edit&redlink=1)-von Hippel-Lindau syndrome

**Autosomal Recessive** (*Homozygotes)*:

[ATP7B](http://ncgenes.org/w/index.php?title=ATP7B&action=edit&redlink=1) -Wilson disease; BCHE-Pseudocholinesterase deficienct *(homozygotes for null alleles only);* BLM-Bloom syndrome; CASQ2-Ventricular tachycardia, catecholaminergic polymorphic; [CFTR](http://ncgenes.org/w/index.php?title=CFTR&action=edit&redlink=1)-Cystic fibrosis; [COQ2](http://ncgenes.org/w/index.php?title=COQ2&action=edit&redlink=1)-Coenzyme Q10 deficiency; [COQ9](http://ncgenes.org/w/index.php?title=COQ9&action=edit&redlink=1)-Coenzyme Q10 deficiency; CPT2-CPT deficiency, hepatic, type II; [F5](http://ncgenes.org/w/index.php?title=F5&action=edit&redlink=1)-Factor V deficiency; GAA-Glycogen storage disease II; [HAMP](http://ncgenes.org/w/index.php?title=HAMP&action=edit&redlink=1)-Hemochromatosis, type 2B; [HFE](http://ncgenes.org/w/index.php?title=HFE&action=edit&redlink=1)-Hemochromatosis *\*C282Y only;* [HFE2](http://ncgenes.org/w/index.php?title=HFE2&action=edit&redlink=1)-Hemochromatosis, type 2A; IDUA-Mucopolysaccharidosis; [LDLRAP1](http://ncgenes.org/w/index.php?title=LDLRAP1&action=edit&redlink=1)-Hypercholesterolemia, familial; [PAH](http://ncgenes.org/w/index.php?title=PAH&action=edit&redlink=1)-Phenylketonuria; [PCBD1](http://ncgenes.org/w/index.php?title=PCBD1&action=edit&redlink=1)- Hyperphenylalaninemia, BH4-deficient, D; [PTS](http://ncgenes.org/w/index.php?title=PTS&action=edit&redlink=1)- Hyperphenylalaninemia, BH4-deficient, A; [QDPR](http://ncgenes.org/w/index.php?title=QDPR&action=edit&redlink=1)- Hyperphenylalaninemia, BH4-deficient, C; SERPINA1-Emphysema due to AAT deficiency; SLC25A13-Citrullinemia, adult-onset type II; [SLC37A4](http://ncgenes.org/w/index.php?title=SLC37A4&action=edit&redlink=1)-Glycogen storage disease Ib; Glycogen storage disease Ic; [SLC7A9](http://ncgenes.org/w/index.php?title=SLC7A9&action=edit&redlink=1)-Cystinuria

**X-Linked**

DMD-Becker muscular dystrophy; Cardiomyopathy, dilated; Duchenne muscular dystrophy; EMD-Emery-Dreifuss muscular dystrophy 1; [GLA](http://ncgenes.org/w/index.php?title=GLA&action=edit&redlink=1)-Fabry disease; OTC-Ornithine transcarbamylase deficiency

**For Carrier Screen results, please see below:**