CARDIOLOGY TEST REQUISITION FORM

GeneDx

PATIENT INFORMATION

First Name	Last Name	
Genetic Sex ◯ Male ◯ Female Gender Identification (optional): _____	Date of Birth (mm/dd/yy)	
Ancestry ◯ White/Caucasian ◯ Hispanic ◯ Black/African American ◯ Native American ◯ East Asian ◯ South Asian ◯ Middle Eastern ◯ Ashkenazi Jewish ◯ Other: _____		
Email		
Address		
City	State	Zip Code
Primary Phone	Is this patient deceased? ◯ Yes ◯ No Deceased Date: _____	

SAMPLE INFORMATION

Date Sample Collected (mm/dd/yy) (required):	Medical Record #
◯ Blood ◯ Buccal Swab ◯ Other (specify source): _____	
Patient has had a blood transfusion ◯ Yes ◯ No Date of Last Transfusion: _____ (2-4 weeks of wait time is required for some testing)	
Patient has had an allogeneic bone marrow transplant ◯ Yes ◯ No Fibroblasts are recommended for patients who had an allogeneic bone marrow transplant. See www.genedx.com/specimen-requirements for details.	
Patient has a personal history of a hematologic malignancy or disease ◯ Yes (specify diagnosis) _____ ◯ No If yes, please call the lab to discuss with a genetic counselor the most appropriate sample type.	
◯ Treatment-Related **RUSH** Date: _____ ◯ Transplantation ◯ Pregnancy ◯ Surgery ◯ Other	

PATIENT CONSENTS

By signing this form, I acknowledge as the patient or relative being tested that I have read or have had read to me the GeneDx Informed Consent document at the end of this test requisition form, and understand the information regarding molecular genetics testing. I have had the opportunity to ask questions about the testing, the procedure, the risks, and the alternatives. By signing this form, I authorize GeneDx to perform genetic testing as ordered. I understand that, for tests that evaluate data from multiple family members concurrently, test results from these family members may be included in a single comprehensive report that will be made available to all tested individuals and their healthcare providers.

More information, including the GeneDx Notice of Privacy Policies, is available on GeneDx's website: www.genedx.com

◯ By checking this box, I confirm that I am a New York state resident, and I give permission for GeneDx to retain any remaining sample longer than 60 days after the completion of testing, and to be used as a de- identified sample for test development and improvement, internal validation, quality assurance, and training purposes. Otherwise, New York law requires GeneDx to destroy my sample within 60 days, and it cannot be used for test development studies.

◯ Check this box if you wish to opt out of being contacted for research studies.

◯ Check this box if you do not wish to receive ACMG secondary findings (Full Exome Sequencing and Genome Sequencing Tests ONLY; not for Xpanded® or Slice tests).

Signature of Patient/Legal Guardian (required)	**Date**
Signature of Relative A/Legal Guardian	**Date**
Signature of Relative B/Legal Guardian	**Date**

OPTIONAL AND FOR COMMERCIAL INSURANCE ONLY:

By entering my preferred contact information below, I give my permission to GeneDx to send me an email and/or text with a link to access my personalized Digital Patient Letter. Data rates may apply.

Mobile Number*	Email*

*Contact information provided must be for the individual authorizing the genetic testing.

NOTE: Not providing complete information could result in a delay of testing being started.

ACCOUNT INFORMATION

GeneDx Account Number		**Account Name**
Phone		Fax
Address		City
State	Zip Code	Country
Ordering Provider Name		Role/Title (required)
NPI (required)		Phone Number
Send Report Via ◯ Fax ◯ Email ◯ Portal Fax #/Email: _____		
Additional Reporting Provider's Name		Role/Title (required)
NPI (required)		
Send Report Via ◯ Fax ◯ Email ◯ Portal Fax #/Email: _____		
SEND ADDITIONAL REPORT COPIES TO:		
Provider Name		GeneDx Acct#
Fax #/Email:		

ICD-10 CODES *(Required)*

ICD-10 Codes	
Clinical Diagnosis	Age of Onset

STATEMENT OF MEDICAL NECESSITY

By submission of this test requisition and accompanying sample(s), I: (i) authorize and direct GeneDx to perform the testing indicated; (ii) certify that the person listed as the ordering provider is authorized by law to order the test(s) requested; (iii) certify that any custom panel and/or ordered test(s) requested on this test requisition form are reasonable and medically necessary for the diagnosis and/or treatment of a disease, illness, impairment, symptom, syndrome or disorder; (iv) the test results will determine my patient's medical management and treatment decisions of this patient's condition on this date of service; (v) have obtained this patient's and relatives', when applicable, written informed consent to undergo any genetic testing requested; and (vi) that the full and appropriate diagnosis code(s) are indicated to the highest level of specificity.

Signature of Provider (required)	Date

PAYMENT OPTIONS *(Select One)*

◯ **INSURANCE BILL** *(select all that applies)*

◯ Commercial
◯ Medicaid
◯ Medicare
◯ Tricare

FOR ALL INSURANCE CARDS PROVIDE FRONT AND BACK COPY OF CARD(S)

Patient Status (required)
◯ Hospital outpatient ◯ Hospital inpatient; Date of Discharge _____
◯ Not a hospital patient

Name of Insurance Carrier	Insurance ID#:
Relationship to Insured ◯ Self ◯ Spouse ◯ Child ◯ Other: _____	Policy Holder's Name Policy Holder's Date of Birth
Referral/Prior Authorization # (please attach)	GeneDx Benefit Investigation #

Secondary Insurance Type:

Insurance Carrier	Insurance ID #	Subscriber Name	Date of Birth

Relationship to Insured:
◯ Self ◯ Spouse ◯ Child ◯ Other: _____

◯ **PATIENT BILL**
Amount Due: _____

If Patient Bill is selected, I am electing to be treated as a self-pay patient for this testing. I agree that neither GeneDx nor I will submit a claim to my insurance for this testing, if I have insurance. GeneDx will send an invoice to the patient listed above.

Authorized Patient/Guardian Signature

◯ **INSTITUTIONAL BILL**

GeneDx Account #	Place Sticker/Stamp Here
Hospital/Lab Name	

CLINICAL INFORMATION

GeneDx

GeneDx Account #	Account Name	
First Name	Last Name	Date of Birth

CLINICAL INFORMATION (DETAILED MEDICAL RECORDS MUST BE ATTACHED)

Is this person affected: ○ Yes ○ No Clinical diagnosis:_____

Reason for testing: ○ Diagnosis ○ Presymptomatic diagnosis ○ Carrier/Familial Variant Testing

Please check all that apply. This is not a substitute for submitting clinical records.

Diagnosis
- ○ Amyloidosis
- ○ ARVC
- ○ Brugada syndrome
- ○ CPVT
- ○ DCM
- ○ Ehlers-Danlos syndrome
- ○ HCM
- ○ HHT
- ○ Hypertension
- ○ Loeys-Dietz syndrome
- ○ LQT syndrome
- ○ Noncompaction cardiomyopathy (LVNC)
- ○ Marfan syndrome
- ○ PAH
- ○ RCM
- ○ SQT syndrome
- ○ Sudden Cardiac Arrest
- ○ Sudden Death

Echocardiogram
- ○ Aortic root dimensions: _____
  - ○ Z-score: _____
- ○ EF%: _____
- ○ LVEDD: _____
  - ○ Z-score: _____
- ○ Max LV wall thickness: _____
- ○ Normal
- ○ Report Included

ECG
- ○ Prolonged QTc interval:
  - Max QTc: _____
- ○ Normal
- ○ Report Included

Arrhythmia/Cardiomyopathy
- ○ Abnormal atrioventricular conduction
- ○ Atrial fibrillation
- ○ Bradycardia
- ○ Fatty replacement of ventricular myocardial tissue
- ○ Heart transplant
- ○ Syncope
- ○ Torsades de pointe
- ○ Ventricular tachycardia

HHT
- ○ Arteriovenous malformation
- ○ Epistaxis
- ○ Telangiectasia

Dislipidemias
- ○ Atherosclerosis
- ○ Corneal Arcus
- ○ LDL-C levels _____
- ○ Xanthomatosis
- ○ Other: _____

Marfan/TAAD/HDCT
- ○ Aortic/Arterial aneurysm
- ○ Aortic/Arterial dissection
- ○ Aortic root dilation
- ○ Arachnodactyly
- ○ Arterial tortuosity/ectasia
- ○ Arthralgia
- ○ Atypical scarring of skin
- ○ Beighton score _____
- ○ Bifid uvula
- ○ Blue sclerae
- ○ Bruising susceptibility
- ○ Cleft lip
- ○ Cleft palate
- ○ Craniosynostosis
- ○ Cutis laxa
- ○ Dental crowding
- ○ Dural ectasia
- ○ Ectopia lentis
- ○ Flexion contracture
- ○ High palate
- ○ Hollow organ rupture:
  - ○ Uterine rupture ○ Intestinal perforation
  - ○ Other: _____
- ○ Hypertelorism
- ○ Joint contractures
- ○ Joint dislocations
- ○ Joint hypermobility
- ○ Meets Ghent criteria
- ○ Micrognathia / Retrognathia (circle what applies)
- ○ Midface retrusion
- ○ Mitral valve prolapse
- ○ Myopia
- ○ Osteoarthritis
- ○ Pectus carinatum
- ○ Pectus excavatum
- ○ Pes Planus
- ○ Pneumothorax
- ○ Recurrent fractures
- ○ Retinal detachment
- ○ Scoliosis/Kyphosis (circle what applies)
- ○ Skin findings, Specify: _____
- ○ Stroke
- ○ Tall stature
- ○ Velvety skin

Abnormal heart morphology
- ○ Bicuspid aortic valve
- ○ Coarctation of aorta
- ○ Heart murmur
- ○ Heterotaxy
- ○ Hypoplastic left heart
- ○ Mitral valve prolapse
- ○ Patent ductus arteriosus
- ○ Patent foramen ovale
- ○ Tetralogy of Fallot
- ○ Ventricular septal defect
- ○ Atrial septal defect
- ○ Other: _____

PAH
- ○ Pulmonary hypertension

Other
- ○ Abnormality of the periventricular white matter
- ○ Angiokeratomas
- ○ Anhydrosis
- ○ Café-Au-Lait Macules
- ○ Hearing impairment:
  - ○ Sensorineural ○ Conductive
- ○ Craniosynostosis
- ○ Cystic hygroma
- ○ Downslanted palpebral fissures
- ○ Dysmorphic features:
  - Describe: _____
- ○ Elevated CPK
- ○ Hypotonia
- ○ Increase nuchal translucency
- ○ Intellectual disability
- ○ Keratoconus
- ○ Muscle weakness
- ○ Myopathy
- ○ Renal insufficiency
- ○ Short neck
- ○ Thromboembolism
  - ○ Type: _____

Attach pedigree and/or include additional clinical information:

_____

_____

_____

_____

_____

Signature of Provider (required)	Date

CARDIOLOGY TEST REQUISITION FORM

GeneDx

GeneDx Account #	Account Name	
First Name	Last Name	Date of Birth

HISTORY

FAMILY HISTORY: ○ No Known Family History ○ Pedigree Attached ○ Adopted

Relationship	Maternal	Paternal	Relevant History	Age at Dx
1	○	○		
2	○	○		
3	○	○		

PREVIOUS GENETIC TESTING

Personal or family history of genetic testing ○ No ○ Yes (If yes, please complete all fields below)

Relation to patient (self, sibling, etc.), Genetic Test(s) and Result (e.g. positive, negative, etc.). If relative was tested at GeneDx, please also provide their accession #: _____

If patient or relative(s) were found to have a positive or VUS result on prior testing, please provide details below. Indicate any Variants of Interest** via the checkbox below.

Relation (self, sibling, etc.)	Gene	Transcript #	c./p. (SNV) or exon # (CNV)	Build, coordinates (CNV)	Variant of Interest**?
1					○
2					○
3					○

Required for sequence variants: gene, c.p., transcript #
Required for CNVs: gene, transcript #, exon # OR build, coordinates

Abnormal karyotype, FISH, or other results: _____

For certain tests, GeneDx **may be able to specifically comment upon the presence or absence of previously identified variant(s) of interest in the report. Complete variant information must be provided in the table above at the time the test order is placed. If you do not complete the table above and check off that a previously identified variant is a variant of interest, it will not be possible to comment upon the presence or absence of the variant in the report retrospectively. This service is not applicable to targeted variant testing.

TESTING OPTIONS

CUSTOM DEL/DUP TESTING

○ 906 Deletion/Duplication Analysis of ONE Nuclear Gene	○ 703 Deletion/Duplication Analysis of 2-20 Nuclear Genes

Write-in Desired Gene(s) to be Tested: _____

FAMILY MEMBER FOR XPANDED PANEL TESTING OPTION (NO SEPARATE REPORT, ADDITIONAL SAMPLES MUST BE RECEIVED WITHIN 3 WEEKS OF PROBAND SAMPLE)
See Test Menu page for proband test selection

○ TJ33 Xpanded® Congenital Heart Defects, Family member testing

Mother	First Name	Last Name	DOB	○ Asymptomatic ○ Symptomatic ○ At GeneDx ○ Not Available ○ To be Sent Later*
Father	First Name	Last Name	DOB	○ Asymptomatic ○ Symptomatic ○ At GeneDx ○ Not Available ○ To be Sent Later*
Other	Relationship to Proband			
	First Name	Last Name	DOB	○ Asymptomatic ○ Symptomatic ○ At GeneDx ○ Not Available ○ To be Sent Later*

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GeneDx Account #	Account Name	
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TEST MENU

TEST CODE	TEST NAME	# GENES	GENE LIST
○ 910	Chromosomal Microarray (MicroarrayDx)		
○ TJ07	Xpanded® Congenital Heart Defects Panel		
ARRHYTHMIA TESTING OPTIONS			
○ 695	Arrhythmia Sequencing and Del/Dup Panel	58	*ABCC9, AKAP9, ANK2, CACNA1C, CACNA2D1, CACNB2, CALM1^, CALM2, CALM3, CASQ2, CAV3, CTNNA3, DES, DSC2, DSG2, DSP, FLNC, GATA4, GATA5^, GATA6, GJA5, GNB5, GPD1L, HCN4, JUP, KCNA5, KCND3, KCNE1, KCNE2, KCNE3, KCNE1L (KCNE5), KCNH2 (HERG), KCNJ2, KCNJ5, KCNJ8, KCNQ1, LDB3, LMNA, MYL4, NKX2-5, PKP2, PLN, PPA2, RANGRF, RYR2, SCN10A, SCN1B^, SCN2B, SCN3B, SCN4B, SCN5A, SNTA1, TECRL, TGFB3, TMEM43, TRDN, TRPM4, TTN*
○ 695RE	Reflex to Rest of Combined Cardiac after Arrhythmia Panel		
○ 483	ARVC Sequencing and Del/Dup Panel	16	*CTNNA3, DES, DSC2, DSG2, DSP, FLNC, JUP, LDB3, LMNA, PKP2, PLN, RYR2, SCN5A, TGFB3, TMEM43, TTN*
○ 483RE	Reflex to Rest of Combined Cardiac after ARVC Panel		
○ TA12	SCN5A-related Brugada syndrome	1	*SCN5A*
○ 481	Brugada syndrome Sequencing and Del/Dup Panel	17	*ABCC9, CACNA1C, CACNA2D1, CACNB2, GPD1L, HCN4, KCND3, KCNE3, KCNH2 (HERG), KCNJ8, PKP2, SCN10A, SCN1B^, SCN2B, SCN3B, SCN5A, TRPM4*
○ 481RE	Reflex to Rest of Arrhythmia after Brugada Syndrome Panel		
○ 482	CPVT Sequencing and Del/Dup Panel	9	*ANK2, CALM1^, CALM2, CALM3, CASQ2, KCNJ2, RYR2, TECRL, TRDN*
○ 482RE	Reflex to Rest of Arrhythmia after CPVT Panel		
○ 727	LQTS Sequencing and Del/Dup Panel	17	*AKAP9, ANK2, CACNA1C, CALM1^, CALM2, CALM3, CAV3, KCNE1, KCNE2, KCNH2 (HERG), KCNJ2, KCNJ5, KCNQ1, SCN4B, SCN5A, SNTA1, TRDN*
○ 727RE	Reflex to Rest of Arrhythmia after LQTS Panel		
○ J552	SCA Arrhythmia Sequencing and Del/Dup Panel	14	*ANK2, CALM1^, CALM2, CALM3, CASQ2, CAV3, KCNE1, KCNE2, KCNH2 (HERG), KCNJ2, KCNQ1, PPA2, RYR2, SCN5A*
○ J552RE	Reflex to Rest of Arrhythmia after SCA Arrhythmia Panel		
CARDIOMYOPATHY TESTING OPTIONS			
○ 694	Cardiomyopathy Sequencing and Del/Dup Panel	102	*ABCC9, ACTC1, ACTN2, AKAP9, ALMS1, ALPK3, ANKRD1, BAG3, BRAF, CAV3, CHRM2, CRYAB, CSRP3, CTNNA3, DES, DMD, DOLK, DSC2, DSG2, DSP, DTNA, EMD, EYA4, FHL1, FKRP*, FKTN, FLNC, GAA, GATA4, GATAD1, GLA, HCN4, HFE, HRAS*, ILK, JPH2, JUP, KRAS, LAMA4, LAMP2, LDB3, LMNA, LRRC10, MAP2K1, MAP2K2, MIB1, MTND1*, MTND5*, MTND6*, MTTD*, MTTG*, MTTH*, MTTI*, MTTK*, MTTL1*, MTTL2*, MTTM*, MTTQ*, MTTS1*, MTTS2*, MURC, MYBPC3, MYH6, MYH7, MYL2, MYL3, MYLK2, MYOZ2, MYPN, NEBL, NEXN, NKX2-5, NRAS, PDLIM3, PKP2, PLN, PRDM16, PRKAG2, PTPN11, RAF1, RBM20, RIT1, RYR2, SCN5A, SGCD, SHOC2, SOS1, TAZ^, TBX20^, TCAP, TGFB3, TMEM43, TMPO, TNNC1, TNNI3, TNNT2, TOR1AIP1, TPM1, TTN, TTR, TXNRD2, VCL*
○ 694RE	Reflex to Rest of Combined Cardiac after Cardiomyopathy Panel		
○ 483	ARVC Sequencing and Del/Dup Panel	16	*CTNNA3, DES, DSC2, DSG2, DSP, FLNC, JUP, LDB3, LMNA, PKP2, PLN, RYR2, SCN5A, TGFB3, TMEM43, TTN*
○ 483RE	Reflex to Rest of Combined Cardiac after ARVC Panel		
○ J554	DCM/LVNC Sequencing and Del/Dup Panel	68	*ABCC9, ACTC1, ACTN2, ALMS1, ANKRD1, BAG3, CHRM2, CRYAB, CSRP3, DES, DMD, DOLK, DSC2, DSG2, DSP, DTNA, EMD, FKTN, FLNC, GATAD1, HCN4, ILK, LAMA4, LAMP2, LDB3, LMNA, LRRC10, MIB1, MTND1*, MTND5*, MTND6*, MTTD*, MTTG*, MTTH*, MTTI*, MTTK*, MTTL1*, MTTL2*, MTTM*, MTTQ*, MTTS1*, MTTS2*, MYBPC3, MYH6, MYH7, MYPN, NEBL, NEXN, NKX2-5, PLN, PRDM16, RAF1, RBM20, RYR2, SCN5A, SGCD, TAZ^, TBX20^, TCAP, TMPO, TNNC1, TNNI3, TNNT2, TPM1, TTN, TTR, TXNRD2, VCL*
○ J554RE	Reflex to Rest of Cardiomyopathy after DCM Panel		
○ J553	HCM Sequencing and Del/Dup Panel	42	*ACTC1, ACTN2, ALPK3, CAV3, CSRP3, FHL1, FLNC, GAA, GLA, JPH2, LAMP2, MTND1*, MTND5*, MTND6*, MTTD*, MTTG*, MTTH*, MTTI*, MTTK*, MTTL1*, MTTL2*, MTTM*, MTTQ*, MTTS1*, MTTS2*, MYBPC3, MYH6, MYH7, MYL2, MYL3, MYOZ2, PLN, PRKAG2, RAF1, RIT1, TCAP, TNNC1, TNNI3, TNNT2, TPM1, TTR, VCL*
○ J553RE	Reflex to Rest of Cardiomyopathy after HCM Panel		

CARDIOLOGY TEST REQUISITION FORM

GeneDx

GeneDx Account #	Account Name	
First Name	Last Name	Date of Birth

TEST MENU

TEST CODE	TEST NAME	# GENES	GENE LIST
COMBINED ARRHYTHMIA AND CARDIOMYOPATHY TESTING OPTIONS			
○ 935	Combined Cardiac Panel	138	*ABCC9, ACTC1, ACTN2, AKAP9, ALMS1, ALPK3, ANK2, ANKRD1, BAG3, BRAF, CACNA1C, CACNA2D1, CACNB2, CALM1^, CALM2, CALM3, CASQ2, CAV3, CHRM2, CRYAB, CSRP3, CTNNA3, DES, DMD, DOLK, DSC2, DSG2, DSP, DTNA, EMD, EYA4, FHL1, FKRP*, FKTN, FLNC, GAA, GATA4, GATA5^, GATA6, GATAD1, GJA5, GLA, GNB5, GPD1L, HCN4, HFE, HRAS*, ILK, JPH2, JUP, KCNA5, KCND3, KCNE1, KCNE2, KCNE3, KCNE1L (KCNE5), KCNH2 (HERG), KCNJ2, KCNJ5, KCNJ8, KCNQ1, KRAS, LAMA4, LAMP2, LDB3, LMNA, LRRC10, MAP2K1, MAP2K2, MIB1, MTND1*, MTND5*, MTND6*, MTTD*, MTTG*, MTTH*, MTTI*, MTTK*, MTTL1*, MTTL2*, MTTM*, MTTQ*, MTTS1*, MTTS2*, MURC, MYBPC3, MYH6, MYH7, MYL2, MYL3, MYL4, MYLK2, MYOZ2, MYPN, NEBL, NEXN, NKX2-5, NRAS, PDLIM3, PKP2, PLN, PPA2, PRDM16, PRKAG2, PTPN11, RAF1, RANGRF, RBM20, RIT1, RYR2, SCN10A, SCN1B^, SCN2B, SCN3B, SCN4B, SCN5A, SGCD, SHOC2, SNTA1, SOS1, TAZ^, TBX20^, TCAP, TECRL, TGFB3, TMEM43, TMPO, TNNC1, TNNI3, TNNT2, TOR1AIP1, TPM1, TRDN, TRPM4, TTN, TTR, TXNRD2, VCL***
LIPIDEMIAS TESTING OPTIONS			
○ J556	Familial Hypercholesterolemia Sequencing and Del/Dup Panel	4	*APOB, LDLR, LDLRAP1, PCSK9*
○ TA01	Familial Dyslipidemia Sequencing and Del/Dup Panel	28	*ABCA1, ABCG5, ABCG8, ANGPTL3, APOA1^, APOA5, APOB, APOC2, APOC3, APOE, CETP, CYP27A1, CYP7A1, GCKR*, GPD1, GPIHBP1, LCAT^, LDLR, LDLRAP1, LIPA, LIPC, LMF1^, LPL, MTTP, PCSK9, SAR1B, SCARB1, STAP1*
MARFAN/TAAD AND OTHER CONNECTIVE TISSUE TESTING OPTIONS			
○ T999	Cutis Laxa Sequencing and Del/Dup Panel	11	*ALDH18A1, ATP6V0A2, ATP6V1E1, ATP7A, EFEMP2, ELN, FBLN5, LTBP4, PYCR1, RIN2, SLC2A10*
○ T998	Ehlers Danlos Sequencing and Del/Dup Panel	4	*COL1A1, COL3A1, COL5A1, COL5A2*
○ 918	FBN1 Sequencing and Del/Dup	1	*FBN1*
○ 919	Rest of Marfan/TAAD Sequencing and Del/Dup if Test #918 is negative	25	*ACTA2, BGN, CBS, COL3A1, COL5A1, COL5A2, FBN2, FLNA, LOX, MAT2A, MED12, MFAP5, MYH11, MYLK, NOTCH1, PRKG1, SKI, SLC2A10, SMAD2, SMAD3, SMAD4, TGFB2, TGFB3, TGFBR1, TGFBR2*
○ 883	Marfan/TAAD Sequencing and Del/Dup Panel	26	*ACTA2, BGN, CBS, COL3A1, COL5A1, COL5A2, FBN1, FBN2, FLNA, LOX, MAT2A, MED12, MFAP5, MYH11, MYLK, NOTCH1, PRKG1, SKI, SLC2A10, SMAD2, SMAD3, SMAD4, TGFB2, TGFB3, TGFBR1, TGFBR2*
○ 883RE	Reflex to Rest of Heritable Disorders of Connective Tissue after Marfan/TAAD Panel		
○ TA02	Stickler Syndrome Sequencing and Del/Dup Panel	6	*COL2A1, COL9A1, COL9A2, COL9A3, COL11A1, COL11A2*
○ J555	Heritable Disorders of Connective Tissue (HDCT) Sequencing and Del/Dup Panel	60	*ACTA2, ADAMTS2, AEBP1, ALDH18A1, ATP6V0A2, ATP6V1E1, ATP7A, B3GALT6, B3GAT3, B4GALT7, BGN, CBS, CHST14, COL1A1, COL1A2, COL2A1, COL3A1, COL4A1, COL5A1, COL5A2, COL9A1, COL9A2, COL9A3, COL11A1, COL11A2, COL12A1, DSE, EFEMP2, ELN, FBLN5, FBN1, FBN2, FKBP14, FLNA, LOX, LTBP4, MAT2A, MED12, MFAP5, MYH11, MYLK, NOTCH1, PLOD1, PRDM5, PRKG1, PYCR1, RIN2, SKI, SLC2A10, SLC39A13, SMAD2, SMAD3, SMAD4, TAB2, TGFB2, TGFB3, TGFBR1, TGFBR2, TNXB, ZNF469*
OTHER CARDIAC-RELATED GENETIC TESTING OPTIONS			
○ 697	HHT Sequencing and Del/Dup Panel	5	*ACVRL1, ENG, GDF2, RASA1, SMAD4*
○ 696	PAH Sequencing and Del/Dup Panel	8	*ACVRL1, BMPR2, CAV1, EIF2AK4, ENG, GDF2, KCNK3, SMAD9*
○ TA06	Noonan and RASopathies Sequencing and Del/Dup Panel	25	*A2ML1, ACTB^, ACTG1, BRAF, CBL, HRAS*, KAT6B, KRAS, LZTR1, MAP2K1, MAP2K2, NF1, NRAS, NSUN2, PPP1CB, PTPN11, RAF1, RASA1, RASA2, RIT1, RRAS, SHOC2, SOS1, SOS2, SPRED1*
○ 363	Cardiac Amyloidosis (TTR gene sequencing)	1	*TTR*
ADDITIONAL TESTS			
○	Test name:		

"Rest of" panels should be ordered at the time of an initial order and not as a stand-alone test
* Del/Dup analysis not offered ^ Gene level resolution; may not detect exon level events

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GeneDx Account #	Account Name	
First Name	Last Name	Date of Birth

CUSTOM CARDIOLOGY PANEL

○ J779 | Create your own panel by choosing from the Custom Cardiology Gene List below

CUSTOM CARDIOLOGY GENE LIST

Primary Disease Genes on the Cardiogenetics Menu

○ *ABCC9*	○ *BGN*	○ *COL2A1*	○ *ELN*	○ *GLA*	○ *KCNJ8*	○ *MYBPC3*	○ *PLOD1*	○ *SCN5A*	○ *TMEM43*
○ *ACTA2*	○ *BMPR2*	○ *COL3A1*	○ *EMD*	○ *GNB5*	○ *KCNK3*	○ *MYH11*	○ *PPA2*	○ *SGCD*	○ *TMPO*
○ *ACTC1*	○ *BRAF*	○ *COL5A1*	○ *ENG*	○ *GPD1L*	○ *KCNQ1*	○ *MYH6*	○ *PRDM16*	○ *SHOC2*	○ *TNNC1*
○ *ACTN2*	○ *CACNA1C*	○ *COL5A2*	○ *EYA4*	○ *HCN4*	○ *KRAS*	○ *MYH7*	○ *PRDM5*	○ *SKI*	○ *TNNI3*
○ *ACVRL1*	○ *CACNA2D1*	○ *COL9A1*	○ *FBLN5*	○ *HFE*	○ *LAMA4*	○ *MYL2*	○ *PRKAG2*	○ *SLC2A10*	○ *TNNT2*
○ *ADAMTS2*	○ *CACNB2*	○ *COL9A2*	○ *FBN1*	○ *HRAS**	○ *LAMP2*	○ *MYL3*	○ *PRKG1*	○ *SLC39A13*	○ *TNXB*
○ *AKAP9*	○ *CALM1^*	○ *COL9A3*	○ *FBN2*	○ *ILK*	○ *LDB3*	○ *MYL4*	○ *PTPN11*	○ *SMAD2*	○ *TOR1AIP1*
○ *ALDH18A1*	○ *CALM2*	○ *CRYAB*	○ *FHL1*	○ *JPH2*	○ *LDLR*	○ *MYLK*	○ *PYCR1*	○ *SMAD3*	○ *TPM1*
○ *ALMS1*	○ *CALM3*	○ *CSRP3*	○ *FKBP14*	○ *JUP*	○ *LDLRAP1*	○ *MYLK2*	○ *RAF1*	○ *SMAD4*	○ *TRDN*
○ *ALPK3*	○ *CASQ2*	○ *CTNNA3*	○ *FKRP**	○ *KCNA5*	○ *LMNA*	○ *MYOZ2*	○ *RANGRF*	○ *SMAD9*	○ *TRPM4*
○ *ANK2*	○ *CAV1*	○ *DES*	○ *FKTN*	○ *KCND3*	○ *LOX*	○ *MYPN*	○ *RASA1*	○ *SNTA1*	○ *TTN*
○ *ANKRD1*	○ *CAV3*	○ *DMD*	○ *FLNA*	○ *KCNE1*	○ *LRRC10*	○ *NEBL*	○ *RBM20*	○ *SOS1*	○ *TTR*
○ *APOB*	○ *CBS*	○ *DOLK*	○ *FLNC*	○ *KCNE1L (KCNE5)*	○ *LTBP4*	○ *NEXN*	○ *RIN2*	○ *TAZ^*	○ *TXNRD2*
○ *ATP6V0A2*	○ *CHRM2*	○ *DSC2*	○ *GAA*		○ *MAP2K1*	○ *NKX2-5*	○ *RIT1*	○ *TBX20^*	○ *VCL*
○ *ATP6V1E1*	○ *CHST14*	○ *DSE*	○ *GATA4*	○ *KCNE2*	○ *MAP2K2*	○ *NOTCH1*	○ *RYR2*	○ *TCAP*	○ *ZNF469*
○ *ATP7A*	○ *COL11A1*	○ *DSG2*	○ *GATA5^*	○ *KCNE3*	○ *MAT2A*	○ *NRAS*	○ *SCN10A*	○ *TECRL*	
○ *B3GALT6**	○ *COL11A2*	○ *DSP*	○ *GATA6*	○ *KCNH2 (HERG)*	○ *MED12*	○ *PCSK9*	○ *SCN1B^*	○ *TGFB2*	
○ *B3GAT3*	○ *COL12A1*	○ *DTNA*	○ *GATAD1*		○ *MFAP5*	○ *PDLIM3*	○ *SCN2B*	○ *TGFB3*	
○ *B4GALT7*	○ *COL1A1*	○ *EFEMP2*	○ *GDF2*	○ *KCNJ2*	○ *MIB1*	○ *PKP2*	○ *SCN3B*	○ *TGFBR1*	
○ *BAG3*	○ *COL1A2*	○ *EIF2AK4*	○ *GJA5*	○ *KCNJ5*	○ *MURC*	○ *PLN*	○ *SCN4B*	○ *TGFBR2*	

Expanded Phenotype Genes

○ *ABCC6*	○ *ADAMTS17*	○ *COX15*	○ *FOXC2*	○ *KLF10*	○ *MYOM1*	○ *SCO2**	○ *SOS2*	○ *TMEM70*
○ *ACADVL*	○ *ADAMTSL4*	○ *CPT1A*	○ *FOXF1*	○ *LTBP2*	○ *NPPA*	○ *SLC25A20*	○ *SYNE1*	○ *TRIM63*
○ *ACTA1*	○ *AGL*	○ *CTF1**	○ *FOXRED1*	○ *LZTR1*	○ *PLEC*	○ *SLC25A3*	○ *SYNE2*	○ *TSFM*
○ *ACVR1*	○ *ASPH*	○ *DNAJC19*	○ *GLB1*	○ *MRPS22*	○ *RRAS*	○ *SLC25A4*	○ *TBX1**	○ *UPF3B*
○ *ADAMTS10*	○ *COL4A1*	○ *ELAC2*	○ *JAG1*	○ *MTO1*	○ *SCARF2*	○ *SMS*	○ *TBX5*	○ *XK*

Limited Evidence Genes

○ AEBP1	○ CALR3	○ FHL2	○ KCNJ16	○ MRPL3	○ PI4KA	○ SCN4A	○ SMAD1
○ ATP6VOD2	○ CBLN2	○ FHOD3	○ KCNT1^	○ MYO6	○ PLEKHM2	○ SCNN1A	○ SMAD6
○ BMPR1B	○ COA5^	○ FOXE3*	○ LZTS1	○ NKX2-6	○ PLOD3	○ SLC2A5	○ SPRY1
○ CALR	○ FGF12	○ KCNB2	○ MAP3K8	○ NOS1AP	○ RASA2	○ SLMAP	○ TAB2

* Del/Dup analysis not offered ^ Gene level resolution; may not detect exon level events

DID YOU REMEMBER TO...?

○ Label specimen tube appropriately with TWO identifiers
○ Get a signature for medical necessity and patient consent
○ Fill out testing submission form (pages 4 and 5)

○ Complete clinical information (page 2)
○ Complete payment form (page 1)

CARDIOLOGY TEST REQUISITION FORM

GeneDx

GeneDx Account #	Account Name	
First Name	Last Name	Date of Birth

TARGETED VARIANT TESTING AND SPECIAL SERVICES

Individual to be Tested: ○ Affected/Symptomatic ○ Unaffected/Asymptomatic

○ Known Familial Variant(s) in a Nuclear Gene
○ Known Familial Copy Number Variant(s)
○ Confirmation of Variant Identified in Research Lab
○ Known mtDNA Variant(s) Testing
○ Targeted Mosaic Variant Testing (Insurance Billing NOT Accepted; Patient Bill or Institutional Bill MUST be selected on page 1)

Proband Name	Relationship to Proband	Proband GeneDx Accession #

Non-GeneDx Test: ○ Family member test report included (recommended if previous test was performed at another lab)
○ Positive control included/will be sent **– Positive control is recommended if previous test was performed at another lab.**
○ Positive control not available (caveat language will be included on a negative report)

VARIANT INFORMATION (please fill out the below information if family member report is not included) Number of Variants: _____

Gene	Coding DNA (c./m.)	Amino Acid (p.)	Transcript (NM#)
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COPY NUMBER VARIANTS (CNV(s) require coordinates and genome build or transcript # and exon #) Number of Variants: _____

Gene(s)	Exon #	Coordinates	Genome Build
Gene(s)	Exon #	Coordinates	Genome Build

GeneDx tests are frequently updated and improved based upon the most recent scientific evidence. The test codes, genes, and gene quantities listed on this test requisition are subject to change by GeneDx at any time. The most current test menu and list of genes included for a specific test panel may be found on our website, genedx.com. Please note that GeneDx reserves the right to modify and upgrade any ordered panel to the version currently listed on our website.

INFORMED CONSENT

GeneDx Account #	Account Name	
First Name	Last Name	Date of Birth

For the purposes of this consent, "I", "my", and "your" will refer to me or to my child, including my unborn child, if my child is the person for whom the healthcare provider has ordered testing.

PURPOSE OF THIS TEST

The purpose of this test is (a) to see if I may have a genetic variant or chromosome rearrangement causing a genetic disorder; or (b) to evaluate the chance that I will develop or pass on a genetic disorder in the future. If I already know the specific gene variant(s) or chromosome rearrangement that causes the genetic disorder in my family, I agree to inform the laboratory of this information.

WHAT TYPE OF TEST RESULTS CAN I EXPECT FROM GENETIC TESTING?

1. Positive: A change in your DNA was found, which is very likely the cause of your features/symptoms. This is the most straightforward test result, which can be used as the basis to test other family members to determine their chances of having either the disease or a child with the disease.
2. Negative: No variants were found to explain your symptoms. This does not mean that you do not have a genetic condition. It is still possible that there is a genetic variant not found by the test that was ordered. Your healthcare provider or genetic counselor may discuss more testing either now or in the future.
3. Variant of Uncertain Significance (VUS): A change in a gene was found. However, we are not sure whether this variant is the cause of your symptoms/features. More information is needed. We may suggest testing other family members to help figure out the meaning of the test result.
4. Unexpected Results: In rare instances, this test may reveal an important genetic change that is not directly related to the reason for ordering this test. For example, this test may find you are at risk for another genetic condition I am not aware of or it may indicate differences in the number or rearrangement of sex chromosomes. We may disclose this information to the ordering healthcare provider if it likely affects medical care.

Because medical and scientific knowledge is constantly changing, new information that becomes available may supplement the information GeneDx used to interpret my results. Healthcare providers can contact GeneDx at any time to discuss the classification of an identified variant.

WHAT IS TRIO/DUO-BASED GENETIC TESTING?

For some genetic tests, including samples from the biological parents and/or other biological relatives along with the patient's sample can help with the interpretation of the test results. These tests are often referred to as "trio tests" since they typically include samples from the patient and both parents.
Samples from relatives should be submitted with the patient's sample. Clinical information must be provided for the patient and any relative who submits a sample.
I understand that GeneDx will use the relative sample(s) when needed for the interpretation of my test results and that my test report may include clinical and genetic information about a relative when it is relevant to the interpretation of the test results. I further understand that relatives will not receive an independent analysis of data nor a separate report.

RISKS AND LIMITATIONS OF GENETIC TESTING

1. In some cases, testing may not identify a genetic variant even though one exists. This may be due to limitations in current medical knowledge or testing technology.
2. Accurate interpretation of test results may require knowing the true biological relationships in a family. I understand that if I fail to accurately state the biological relationships in my family, it could lead to incorrect interpretation of the test results, incorrect diagnoses, and/or inconclusive test results. If genetic testing reveals that the true biological relationships in a family are not as I reported them, including non-paternity (the reported father is not the biological father) and consanguinity (the parents are related by blood), I agree to have these findings reported to the healthcare provider who ordered the test.
3. Although genetic testing is highly accurate, inaccurate results may occur. These reasons include, but are not limited to mislabeled samples, inaccurate reporting of clinical/medical information, rare technical errors, or other reasons.
4. I understand that this test may not detect all of the long-term medical risks that I might experience. The result of this test does not guarantee my health and that additional diagnostic tests may still need to be done.
5. I agree to provide an additional sample if the initial sample is not adequate.

PATIENT CONFIDENTIALITY AND GENETIC COUNSELING

It is recommended that I receive genetic counseling before and after having this genetic test. I can find a genetic counselor in my area at www.nsgc.org. Further testing or additional consultations with a healthcare provider may be necessary.
To maintain confidentiality, test results will only be released to the referring healthcare provider, the ordering laboratory, to me, to other healthcare providers involved in my care, diagnosis and treatment, or to others with my consent or as permitted or required by law. Federal laws prohibit unauthorized disclosure of this information. More information can be found at: www.genome.gov/10002077

INTERNATIONAL SAMPLES

If I reside outside the United States, I attest that by providing a sample for testing, I am not knowingly violating any export ban or other legal restriction in the country of my residence.

SAMPLE RETENTION

After testing is complete, my sample may be de-identified and be used for test development and improvement, internal validation, quality assurance, and training purposes. GeneDx will not return DNA samples to you or to referring healthcare providers, unless specific prior arrangements have been made.
I understand that samples from residents of New York State will not be included in the de-identified research studies described in this authorization and GeneDx will not retain them for more than 60 days after test completion, unless specifically authorized by my selection. The authorization is optional, and testing will be unaffected if I do not check the box for the New York authorization language. GeneDx will not perform any tests on the biological sample other than those specifically authorized.

DATABASE PARTICIPATION

De-identified health history and genetic information can help healthcare providers and scientists understand how genes affect human health. Sharing this de-identified information helps healthcare providers to provide better care for their patients and researchers to make new discoveries. GeneDx shares this type of information with healthcare providers, scientists, and healthcare databases. GeneDx will not share any personally identifying information and will replace the identifying information with a unique code not derived from any personally identifying information. Even with a unique code, there is a risk that I could be identified based on the genetic and health information that is shared. GeneDx believes that this is unlikely, though the risk is greater if I have already shared my genetic or health information with public resources, such as genealogy websites.

INFORMED CONSENT

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EXOME/GENOME SEQUENCING SECONDARY FINDINGS

- Applicable Only for Full Exome Sequencing and Genome Sequencing Tests.
- Does not pertain to Xpanded® or Slice tests

As many different genes and conditions are analyzed in an exome or genome sequencing test, these tests may reveal some findings not directly related to the reason for ordering the test. Such findings are called "incidental" or "secondary" and can provide information that was not anticipated.

Secondary findings are variants, identified by an exome or genome sequencing test, in genes that are unrelated to the individual's reported clinical features.

The American College of Medical Genetics and Genomics (ACMG) has recommended that secondary findings identified in a specific subset of medically actionable genes associated with various inherited disorders be reported for all probands undergoing exome or genome sequencing. Please refer to the latest version of the ACMG recommendations for reporting of secondary findings in clinical exome and genome sequencing for complete details of the genes and associated genetic disorders. Reportable secondary findings will be confirmed by an alternate test method when needed.

WHAT WILL BE REPORTED FOR THE PATIENT?
All pathogenic and likely pathogenic variants associated with specific genotypes identified in the genes (for which a minimum of 10X coverage was achieved by exome sequencing or a minimum of 15X coverage was achieved by genome sequencing), as recommended by the ACMG.

WHAT WILL BE REPORTED FOR RELATIVES?
The presence or absence of any secondary finding(s) reported for the proband will be provided for all relatives analyzed by an exome or genome sequencing test.

LIMITATIONS
Pathogenic and/or likely pathogenic variants may be present in a portion of the gene not covered by this test and therefore are not reported. The absence of reportable secondary findings for any particular gene does not mean there are no pathogenic and/or likely pathogenic variants in that gene. Pathogenic variants and/or likely pathogenic variants that may be present in a relative, but are not present in the proband, will not be identified, or reported. Only changes at the sequence level will be reported in the secondary findings report. Larger deletions/duplications, abnormal methylation, triplet repeat or other expansion variants, or other variants not routinely identified by clinical exome and genome sequencing will not be reported.

FINANCIAL AGREEMENT AND GUARANTEE
For insurance billing, I understand and authorize GeneDx to bill my health insurance plan on my behalf, to release any information required for billing, and to be my designated representative for purposes of appealing any denial of benefits. I irrevocably assign to and direct that payment be made directly to GeneDx.
I understand that my out-of-pocket costs may be different than the estimated amount indicated to me by GeneDx as part of a benefit investigation. I agree to be financially responsible for any and all amounts as indicated on the explanation of benefits issued by my health insurance plan. If my insurance provider sends a payment directly to me for services performed by GeneDx on my behalf, I agree to endorse the insurance check and forward it to GeneDx within 30 days of receipt as payment towards GeneDx's claim for services rendered.
If I do not have health insurance, I agree to pay for the full cost of the genetic testing that was ordered by my healthcare provider and billed to me by GeneDx. I further understand and agree that, if I fail to make payment for genetic testing, in accordance with the payment policies of GeneDx, my account may be turned over to an external collection agency for non-payment. I agree to pay any associated collection costs, including attorney fees. By my signature on the GeneDx Test Requisition Form or at the bottom of this form, I accept full and complete financial responsibility for all genetic testing ordered by my healthcare provider.

MEDICARE
A completed Advance Beneficiary Notice (ABN) is required for Medicare patients. Please visit our website, www.genedx.com/billing for more information.

DIGITAL PATIENT LETTER CONSENT

- Applicable Only for Commercial Insurance
- Estimate is provided by your health insurance company and therefore NO estimate will be sent for any orders placed with federal or state-funded insurance plans (e.g. Medicare, Medicaid, Tricare, etc.), institutional bill, or patient bill (self-pay).

To provide you with the estimated out-of-pocket expenses related to your test, GeneDx will send you an email and/or text with the link to access your personalized Digital Patient Letter. In order to send this information, we need your consent and agreement to the following items:

1. GeneDx can use your email address or mobile phone number solely for the purpose of GeneDx sending your estimated financial obligation. Text message data rates may apply. GeneDx is not responsible for undelivered messages due to incorrect or illegible contact information.
2. GeneDx will send you an email and/or text message containing a link to view your personalized Patient Letter that includes the test out-of-pocket estimate. The link is time-sensitive and will only be available for 72 hours from the time the message is sent. In order to view the estimate, you must click the link in the message.
3. If you take no action, GeneDx will assume that you agree to move ahead with testing and will bill your health insurance. You can approve testing with insurance, switch to self-pay, or cancel the test via the link within the given 72-hour window. In turn, if GeneDx receives your sample(s) and the billing method hasn't been changed, or the test hasn't been cancelled, we will move ahead with testing as ordered, and you will be responsible for any out-of-pocket costs for the completion of the test(s).