



DATE SAMPLE DRAWN: _____ SAMPLE TYPE: BLOOD OTHER (SPECIFY): _____

COMPLETE A FORM FOR EACH SAMPLE SUBMITTED

PATIENT FIRST NAME: _____ LAST NAME: _____

DOB: _____ SEX: M F UNKNOWN

ADDRESS: _____

CITY, STATE, ZIP: _____

HOME PHONE: (_____) _____ WORK: (_____) _____

ETHNIC BACKGROUND

- EUROPEAN CAUCASIAN ASHKENAZI JEWISH OTHER JEWISH
 ASIAN HISPANIC AFRICAN AMERICAN
 NATIVE AMERICAN INDIAN OTHER (SPECIFY): _____

REPORTING INFORMATION

PHYSICIAN/INSTITUTION: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

TELEPHONE: (_____) _____ FAX: (_____) _____

SIGNATURE: _____

GENETIC COUNSELOR/LABORATORY: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

TELEPHONE: (_____) _____ FAX: (_____) _____

SIGNATURE: _____

MUTATION ANALYSIS: CHECK TEST METHOD AND PANEL OR GENE NAME FROM LIST BELOW

Please Select Method:

- NGS + Sanger fill-in at 100% coverage**
 NGS only at 97.9% coverage
 Array CGH for deletion/duplication
 Testing for Known Familial Mutation---KFM
 GENE: _____ MUTATION: _____

Please provide copy of report if testing done at another lab.

PANEL A: Marfan Syndrome, Loeys-Dietz Syndrome, Aortopathy and Their-Related Disorders

- | | | | | | | | |
|--------------------------------|--------------------------------|---------------------------------|--------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> ACTA2 | <input type="checkbox"/> CBS | <input type="checkbox"/> COL3A1 | <input type="checkbox"/> FLNA | <input type="checkbox"/> FBN1 | <input type="checkbox"/> FBN2 | <input type="checkbox"/> MAT2A | <input type="checkbox"/> MFAP5 |
| <input type="checkbox"/> MYH11 | <input type="checkbox"/> MYLK | <input type="checkbox"/> NOTCH1 | <input type="checkbox"/> PRKG1 | <input type="checkbox"/> SLC2A10 | <input type="checkbox"/> SMAD3 | <input type="checkbox"/> SMAD4 | <input type="checkbox"/> TGFB2 |
| <input type="checkbox"/> TGFB3 | <input type="checkbox"/> TGFB1 | <input type="checkbox"/> TGFB2 | <input type="checkbox"/> TGFB3 | | | | |

JOHN WELSH CARDIOVASCULAR DIAGNOSTIC LABORATORY
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Tel: (832) 824-4155 Fax: (832) 825-5159 E-mail: yuxinf@bcm.edu

Website: <http://www.bcm.edu/pediatrics/welsh>



PANEL B: Congenital Heart Disease---Holt-Oram Syndrome, ASD, TOF, Heterotaxy, RVOT, TGA, DORV

- | | | | | | | | |
|---------------------------------|---------------------------------|-----------------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| <input type="checkbox"/> ACTC1 | <input type="checkbox"/> ACVR2B | <input type="checkbox"/> ACVRL1 | <input type="checkbox"/> ADCK3 | <input type="checkbox"/> ARHGAP31 | <input type="checkbox"/> ARX | <input type="checkbox"/> ATRX | <input type="checkbox"/> B3GAT3 |
| <input type="checkbox"/> BCOR | <input type="checkbox"/> BMPR2 | <input type="checkbox"/> BRAF | <input type="checkbox"/> CACNA1C | <input type="checkbox"/> CFC1 | <input type="checkbox"/> CHD7 | <input type="checkbox"/> COL18A1 | <input type="checkbox"/> COL2A1 |
| <input type="checkbox"/> CREBBP | <input type="checkbox"/> CRELD1 | <input type="checkbox"/> DHCR24 | <input type="checkbox"/> DLL3 | <input type="checkbox"/> DNAH11 | <input type="checkbox"/> DNAH5 | <input type="checkbox"/> DNAI1 | <input type="checkbox"/> DSG2 |
| <input type="checkbox"/> DSP | <input type="checkbox"/> DTNA | <input type="checkbox"/> ELN | <input type="checkbox"/> ESCO2 | <input type="checkbox"/> EVC | <input type="checkbox"/> EVC2 | <input type="checkbox"/> EYA1 | <input type="checkbox"/> FANCA |
| <input type="checkbox"/> FANCC | <input type="checkbox"/> FANCD2 | <input type="checkbox"/> FANCE | <input type="checkbox"/> FASTKD2 | <input type="checkbox"/> FBN1 | <input type="checkbox"/> FBN2 | <input type="checkbox"/> FGD1 | <input type="checkbox"/> FGFR2 |
| <input type="checkbox"/> FLNA | <input type="checkbox"/> FLNB | <input type="checkbox"/> FOXC2 | <input type="checkbox"/> FOXH1 | <input type="checkbox"/> GATA4 | <input type="checkbox"/> GATA6 | <input type="checkbox"/> GDF1 | <input type="checkbox"/> GJA1 |
| <input type="checkbox"/> GLI3 | <input type="checkbox"/> GPC3 | <input type="checkbox"/> HOXA1 | <input type="checkbox"/> HRAS | <input type="checkbox"/> IGBP1 | <input type="checkbox"/> JAG1 | <input type="checkbox"/> KCNJ2 | <input type="checkbox"/> KRAS |
| <input type="checkbox"/> LBR | <input type="checkbox"/> LEFTY2 | <input type="checkbox"/> LRP5 | <input type="checkbox"/> MAP2K1 | <input type="checkbox"/> MAP2K2 | <input type="checkbox"/> MID1 | <input type="checkbox"/> MKKS | <input type="checkbox"/> MKS1 |
| <input type="checkbox"/> MYCN | <input type="checkbox"/> MYH6 | <input type="checkbox"/> MYOT | <input type="checkbox"/> NF1 | <input type="checkbox"/> NIPBL | <input type="checkbox"/> NKX2.5 | <input type="checkbox"/> NKX2.6 | <input type="checkbox"/> NODAL |
| <input type="checkbox"/> NOTCH1 | <input type="checkbox"/> NOTCH2 | <input type="checkbox"/> NPHP3 | <input type="checkbox"/> NSDHL | <input type="checkbox"/> NUBPL | <input type="checkbox"/> PEX7 | <input type="checkbox"/> PRKAB2 | <input type="checkbox"/> PRKG1 |
| <input type="checkbox"/> PTPN11 | <input type="checkbox"/> PTRF | <input type="checkbox"/> RAI1 | <input type="checkbox"/> RBM10 | <input type="checkbox"/> RET | <input type="checkbox"/> RPL4 | <input type="checkbox"/> RPSA | <input type="checkbox"/> SALL1 |
| <input type="checkbox"/> SALL4 | <input type="checkbox"/> SCN1B | <input type="checkbox"/> SCN5A | <input type="checkbox"/> SEMA5A | <input type="checkbox"/> SKI | <input type="checkbox"/> SNX3 | <input type="checkbox"/> SOS1 | <input type="checkbox"/> SOX2 |
| <input type="checkbox"/> SOX7 | <input type="checkbox"/> SPEG | <input type="checkbox"/> TBX1 | <input type="checkbox"/> TBX20 | <input type="checkbox"/> TBX3 | <input type="checkbox"/> TBX5 | <input type="checkbox"/> TCAP | <input type="checkbox"/> TCTN3 |
| <input type="checkbox"/> TGFB2 | <input type="checkbox"/> TGFB2 | <input type="checkbox"/> THEMIS | <input type="checkbox"/> TLL1 | <input type="checkbox"/> TWIST1 | <input type="checkbox"/> UQCRB | <input type="checkbox"/> VCL | <input type="checkbox"/> VHL |
| <input type="checkbox"/> ZFPM2 | <input type="checkbox"/> ZIC3 | <input type="checkbox"/> ZMPSTE24 | <input type="checkbox"/> ZNF469 | | | | |

PANEL C: Dilated Cardiomyopathy---DCM

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|---------------------------------|---------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|
| <input type="checkbox"/> ABCC9 | <input type="checkbox"/> ACTC1 | <input type="checkbox"/> ACTN2 | <input type="checkbox"/> ANKRD1 | <input type="checkbox"/> BAG3 | <input type="checkbox"/> CAV3 | <input type="checkbox"/> CRYAB | <input type="checkbox"/> CSRP3 |
| <input type="checkbox"/> CTF1 | <input type="checkbox"/> DES | <input type="checkbox"/> DMD | <input type="checkbox"/> DSC2 | <input type="checkbox"/> DSP | <input type="checkbox"/> EMD | <input type="checkbox"/> EYA4 | <input type="checkbox"/> FHL2 |
| <input type="checkbox"/> FKTN | <input type="checkbox"/> GATAD1 | <input type="checkbox"/> ILK | <input type="checkbox"/> LAMA4 | <input type="checkbox"/> LAMP2 | <input type="checkbox"/> LDB3 | <input type="checkbox"/> LMNA | <input type="checkbox"/> MYBPC3 |
| <input type="checkbox"/> MYH6 | <input type="checkbox"/> MYH7 | <input type="checkbox"/> MYPN | <input type="checkbox"/> NEBL | <input type="checkbox"/> NEXN | <input type="checkbox"/> PDLIM3 | <input type="checkbox"/> PKP2 | <input type="checkbox"/> PLN |
| <input type="checkbox"/> PRDM16 | <input type="checkbox"/> PSEN1 | <input type="checkbox"/> PSEN2 | <input type="checkbox"/> RBM20 | <input type="checkbox"/> SCN5A | <input type="checkbox"/> SDHA | <input type="checkbox"/> SGCD | <input type="checkbox"/> SPEG |
| <input type="checkbox"/> SYNE2 | <input type="checkbox"/> TAZ | <input type="checkbox"/> TBX20 | <input type="checkbox"/> TCAP | <input type="checkbox"/> TMPO | <input type="checkbox"/> TNNC1 | <input type="checkbox"/> TNNI3 | <input type="checkbox"/> TNNT2 |
| <input type="checkbox"/> TPM1 | <input type="checkbox"/> TTN | <input type="checkbox"/> VCL | | | | | |

PANEL D: Left Ventricular Noncompaction---LVNC

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|---------------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|
| <input type="checkbox"/> ACTC1 | <input type="checkbox"/> CASQ2 | <input type="checkbox"/> DTNA | <input type="checkbox"/> LDB3 | <input type="checkbox"/> LMNA | <input type="checkbox"/> MIB1 | <input type="checkbox"/> MYBPC3 | <input type="checkbox"/> MYH7 |
| <input type="checkbox"/> PRDM16 | <input type="checkbox"/> TAZ | <input type="checkbox"/> TNNT2 | <input type="checkbox"/> TPM1 | <input type="checkbox"/> VCL | | | |

PANEL E: Muscular Dystrophies with Cardiomyopathy

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|--------------------------------|-------------------------------|---------------------------------|---------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| <input type="checkbox"/> ACTC1 | <input type="checkbox"/> BAG3 | <input type="checkbox"/> CAV3 | <input type="checkbox"/> CRYAB | <input type="checkbox"/> CSRP3 | <input type="checkbox"/> DES | <input type="checkbox"/> DMD | <input type="checkbox"/> EMD |
| <input type="checkbox"/> FKTN | <input type="checkbox"/> LDB3 | <input type="checkbox"/> LMNA | <input type="checkbox"/> MYBPC3 | <input type="checkbox"/> MYH7 | <input type="checkbox"/> RYR1 | <input type="checkbox"/> SGCD | <input type="checkbox"/> SGCG |
| <input type="checkbox"/> SYNE2 | <input type="checkbox"/> TCAP | <input type="checkbox"/> TMEM43 | <input type="checkbox"/> TNNT2 | <input type="checkbox"/> TNXB | <input type="checkbox"/> TPM2 | <input type="checkbox"/> TTN | <input type="checkbox"/> VCL |
| <input type="checkbox"/> VCP | | | | | | | |

PANEL F: Hypertrophic Cardiomyopathy---HCM

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|--------------------------------|---------------------------------|----------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------------------|-------------------------------|
| <input type="checkbox"/> AARS2 | <input type="checkbox"/> ACTC1 | <input type="checkbox"/> ACTN2 | <input type="checkbox"/> ANKRD1 | <input type="checkbox"/> BAG3 | <input type="checkbox"/> CAV3 | <input type="checkbox"/> CSRP3 | <input type="checkbox"/> FXN |
| <input type="checkbox"/> GAA | <input type="checkbox"/> GLA | <input type="checkbox"/> JPH2 | <input type="checkbox"/> KRAS | <input type="checkbox"/> LAMP2 | <input type="checkbox"/> LDB3 | <input type="checkbox"/> MYBPC3 | <input type="checkbox"/> MYH6 |
| <input type="checkbox"/> MYH7 | <input type="checkbox"/> MYL2 | <input type="checkbox"/> MYL3 | <input type="checkbox"/> MYLK2 | <input type="checkbox"/> MYO6 | <input type="checkbox"/> MYOM1 | <input type="checkbox"/> MYOZ2 | <input type="checkbox"/> NEXN |
| <input type="checkbox"/> PLN | <input type="checkbox"/> PRKAG2 | <input type="checkbox"/> PRKAR1A | <input type="checkbox"/> PTPN11 | <input type="checkbox"/> RAF1 | <input type="checkbox"/> RYR2 | <input type="checkbox"/> SCO2 | <input type="checkbox"/> SDHA |
| <input type="checkbox"/> SURF1 | <input type="checkbox"/> TCAP | <input type="checkbox"/> TNNC1 | <input type="checkbox"/> TNNI3 | <input type="checkbox"/> TNNT2 | <input type="checkbox"/> TPM1 | <input type="checkbox"/> TTN | <input type="checkbox"/> TTR |
| <input type="checkbox"/> VCL | | | | | | | |

PANEL G: Long QT Syndrome---LQTS

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|--------------------------------|--------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> AKAP9 | <input type="checkbox"/> ANK2 | <input type="checkbox"/> CACNA1C | <input type="checkbox"/> CALM1 | <input type="checkbox"/> CALM2 | <input type="checkbox"/> CAV3 | <input type="checkbox"/> KCNE1 | <input type="checkbox"/> KCNE2 |
| <input type="checkbox"/> KCNH2 | <input type="checkbox"/> KCNJ2 | <input type="checkbox"/> KCNJ5 | <input type="checkbox"/> KCNQ1 | <input type="checkbox"/> SCN4B | <input type="checkbox"/> SCN5A | <input type="checkbox"/> SNTA1 | |

PANEL H: CPVT and Other VT

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|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|--------------------------------|
| <input type="checkbox"/> ANK2 | <input type="checkbox"/> CALM1 | <input type="checkbox"/> CASQ2 | <input type="checkbox"/> GNAI2 | <input type="checkbox"/> KCNJ2 | <input type="checkbox"/> KCNQ1 | <input type="checkbox"/> RYR2 | <input type="checkbox"/> SCN5A |
| <input type="checkbox"/> TRDN | | | | | | | |



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Website: <http://www.bcm.edu/pediatrics/welsh>



PANEL I: Sudden Cardiac/Infant Death Syndrome---SCDS/SIDS

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|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------|---------------------------------|--------------------------------|
| <input type="checkbox"/> ABCC9 | <input type="checkbox"/> ACTN2 | <input type="checkbox"/> AKAP9 | <input type="checkbox"/> AKT3 | <input type="checkbox"/> ANK2 | <input type="checkbox"/> CACNA1C | <input type="checkbox"/> CACNB2 | <input type="checkbox"/> CASQ2 |
| <input type="checkbox"/> CAV3 | <input type="checkbox"/> CSRP3 | <input type="checkbox"/> DES | <input type="checkbox"/> DSC2 | <input type="checkbox"/> DSG2 | <input type="checkbox"/> DSP | <input type="checkbox"/> EYA4 | <input type="checkbox"/> FBN1 |
| <input type="checkbox"/> FBN2 | <input type="checkbox"/> FKTN | <input type="checkbox"/> GPD1L | <input type="checkbox"/> JPH2 | <input type="checkbox"/> JUP | <input type="checkbox"/> KCNA5 | <input type="checkbox"/> KCNE1 | <input type="checkbox"/> KCNE2 |
| <input type="checkbox"/> KCNE3 | <input type="checkbox"/> KCNH2 | <input type="checkbox"/> KCNJ2 | <input type="checkbox"/> KCNQ1 | <input type="checkbox"/> LMNA | <input type="checkbox"/> MYBPC3 | <input type="checkbox"/> MYH6 | <input type="checkbox"/> MYH7 |
| <input type="checkbox"/> MYL2 | <input type="checkbox"/> MYL3 | <input type="checkbox"/> MYLK2 | <input type="checkbox"/> NEXN | <input type="checkbox"/> NRAS | <input type="checkbox"/> PKP4 | <input type="checkbox"/> RYR2 | <input type="checkbox"/> SCN2B |
| <input type="checkbox"/> SCN3B | <input type="checkbox"/> SCN4B | <input type="checkbox"/> SCN5A | <input type="checkbox"/> SNTA1 | <input type="checkbox"/> TGFB1 | <input type="checkbox"/> THEMIS | <input type="checkbox"/> TMEM70 | <input type="checkbox"/> TNNC1 |
| <input type="checkbox"/> TNNI3 | <input type="checkbox"/> TNNT2 | <input type="checkbox"/> TPM1 | <input type="checkbox"/> TTR | | | | |

PANEL J: Atrioventricular Block

- DES EMD LMNA NKX2.5 SCN1B SCN5A

PANEL K: Short QT Syndrome---SQTS

- CACNA1B CACNA1C CACNA2D1 CACNB2 KCNH2 KCNJ2 KCNQ1

PANEL L: Familial Atrial Fibrillation---FAF

- | | | | | | | | |
|--------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> ABCC9 | <input type="checkbox"/> GJA5 | <input type="checkbox"/> KCNA5 | <input type="checkbox"/> KCND3 | <input type="checkbox"/> KCNE1 | <input type="checkbox"/> KCNE2 | <input type="checkbox"/> KCNH2 | <input type="checkbox"/> KCNJ2 |
| <input type="checkbox"/> KCNQ1 | <input type="checkbox"/> NPPA | <input type="checkbox"/> SCN1B | <input type="checkbox"/> SCN2B | <input type="checkbox"/> SCN3B | <input type="checkbox"/> SCN5A | | |

PANEL M: Pulmonary Arterial Hypertension---PAH

- | | | | | | | | |
|---------------------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|-------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> ACVRL1 | <input type="checkbox"/> BMPR2 | <input type="checkbox"/> CAV1 | <input type="checkbox"/> EIF2AK4 | <input type="checkbox"/> ENG | <input type="checkbox"/> GDF2 | <input type="checkbox"/> KCNA5 | <input type="checkbox"/> KCNK3 |
| <input type="checkbox"/> NOTCH1 | <input type="checkbox"/> NOTCH3 | <input type="checkbox"/> SMAD4 | <input type="checkbox"/> SMAD9 | <input type="checkbox"/> TOPBP1 | | | |

PANEL N: Brugada Syndrome/J-Wave Syndromes

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|--------------------------------|----------------------------------|-----------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> ANK2 | <input type="checkbox"/> CACNA1C | <input type="checkbox"/> CACNA2D1 | <input type="checkbox"/> CACNB2 | <input type="checkbox"/> CAV3 | <input type="checkbox"/> GPD1L | <input type="checkbox"/> HCN4 | <input type="checkbox"/> KCND3 |
| <input type="checkbox"/> KCNE3 | <input type="checkbox"/> KCNH2 | <input type="checkbox"/> KCNJ8 | <input type="checkbox"/> SCN1B | <input type="checkbox"/> SCN2B | <input type="checkbox"/> SCN3B | <input type="checkbox"/> SCN5A | <input type="checkbox"/> TRPM4 |

PANEL O: Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy---ARVD/C

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|-------------------------------|--------------------------------|---------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|------------------------------|
| <input type="checkbox"/> DES | <input type="checkbox"/> DSC2 | <input type="checkbox"/> DSG2 | <input type="checkbox"/> DSP | <input type="checkbox"/> JUP | <input type="checkbox"/> PKP2 | <input type="checkbox"/> PKP4 | <input type="checkbox"/> PLN |
| <input type="checkbox"/> RYR2 | <input type="checkbox"/> TGFB3 | <input type="checkbox"/> TMEM43 | <input type="checkbox"/> TTN | | | | |

PANEL P: Hereditary Hemorrhagic Telangiectasia---HHT

- ACVRL1 ENG GDF2 SMAD4

PANEL Q: Dyslipidemia

- | | | | | | | | |
|----------------------------------|---------------------------------|--------------------------------|----------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> ABCA1 | <input type="checkbox"/> ABCG5 | <input type="checkbox"/> ABCG8 | <input type="checkbox"/> ANGPTL3 | <input type="checkbox"/> ANGPTL4 | <input type="checkbox"/> APOA1 | <input type="checkbox"/> APOA2 | <input type="checkbox"/> APOA5 |
| <input type="checkbox"/> APOB | <input type="checkbox"/> APOC2 | <input type="checkbox"/> APOE | <input type="checkbox"/> EPHX2 | <input type="checkbox"/> GPIHBP1 | <input type="checkbox"/> HADH | <input type="checkbox"/> LCAT | <input type="checkbox"/> LDLR |
| <input type="checkbox"/> LDLRAP1 | <input type="checkbox"/> LIPC | <input type="checkbox"/> LIPI | <input type="checkbox"/> LMF1 | <input type="checkbox"/> LPIN1 | <input type="checkbox"/> LPL | <input type="checkbox"/> MTP | <input type="checkbox"/> NPC1 |
| <input type="checkbox"/> PCSK9 | <input type="checkbox"/> PNPLA3 | <input type="checkbox"/> PPARA | <input type="checkbox"/> PPARG | <input type="checkbox"/> PPP1R17 | <input type="checkbox"/> USF1 | | |

PANEL R: Idiopathic Pulmonary Fibrosis---IPF

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|--------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> ABCA3 | <input type="checkbox"/> CSF2RA | <input type="checkbox"/> ELMOD2 | <input type="checkbox"/> MUC5B | <input type="checkbox"/> SFTPA1 | <input type="checkbox"/> SFTPA2 | <input type="checkbox"/> SFTPB | <input type="checkbox"/> SFTPC |
| <input type="checkbox"/> SFTPD | <input type="checkbox"/> TERC | <input type="checkbox"/> TERT | | | | | |

PANEL S: Restrictive Cardiomyopathy---RCM

- ACTC1 BAG3 DES MYH7 TNNI3 TNNT2

PANEL T: Heterotaxy

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|---------------------------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|-------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> ACVR2B | <input type="checkbox"/> CFC1 | <input type="checkbox"/> CRELD1 | <input type="checkbox"/> FOXH1 | <input type="checkbox"/> GDF1 | <input type="checkbox"/> GJA1 | <input type="checkbox"/> LEFTY2 | <input type="checkbox"/> NKX2.5 |
| <input type="checkbox"/> NODAL | <input type="checkbox"/> ZIC3 | | | | | | |



PANEL U: Valvar and Vascular Disorders

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|----------------------------------|---------------------------------|---------------------------------|-----------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|
| <input type="checkbox"/> ABCC6 | <input type="checkbox"/> ACVRL1 | <input type="checkbox"/> ACTA2 | <input type="checkbox"/> ATP6V0A2 | <input type="checkbox"/> BMPR2 | <input type="checkbox"/> CBS | <input type="checkbox"/> CHST14 | <input type="checkbox"/> COL1A1 |
| <input type="checkbox"/> COL1A2 | <input type="checkbox"/> COL2A1 | <input type="checkbox"/> COL3A1 | <input type="checkbox"/> COL4A1 | <input type="checkbox"/> COL5A1 | <input type="checkbox"/> COL5A2 | <input type="checkbox"/> EFEMP2 | <input type="checkbox"/> EIF2AK4 |
| <input type="checkbox"/> ELN | <input type="checkbox"/> ENG | <input type="checkbox"/> FBLN5 | <input type="checkbox"/> FBN1 | <input type="checkbox"/> FBN2 | <input type="checkbox"/> FLNA | <input type="checkbox"/> GLA | <input type="checkbox"/> LTBP4 |
| <input type="checkbox"/> MAT2A | <input type="checkbox"/> MFAP5 | <input type="checkbox"/> MYH11 | <input type="checkbox"/> MYLK | <input type="checkbox"/> NOTCH1 | <input type="checkbox"/> NOTCH3 | <input type="checkbox"/> PLOD1 | <input type="checkbox"/> PRKG1 |
| <input type="checkbox"/> SLC2A10 | <input type="checkbox"/> SMAD3 | <input type="checkbox"/> SMAD4 | <input type="checkbox"/> TGFB2 | <input type="checkbox"/> TGFB3 | <input type="checkbox"/> TGFB1 | <input type="checkbox"/> TGFB2 | <input type="checkbox"/> TGFB3 |
| <input type="checkbox"/> TOPBP1 | | | | | | | |

PANEL V: Pan Arrhythmia

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|---------------------------------|--------------------------------|---------------------------------|----------------------------------|----------------------------------|-----------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> ABCC9 | <input type="checkbox"/> AKAP9 | <input type="checkbox"/> ANK2 | <input type="checkbox"/> CACNA1C | <input type="checkbox"/> CACNA1D | <input type="checkbox"/> CACNA2D1 | <input type="checkbox"/> CACNB2 | <input type="checkbox"/> CALM1 |
| <input type="checkbox"/> CALM2 | <input type="checkbox"/> CASQ2 | <input type="checkbox"/> CAV3 | <input type="checkbox"/> DES | <input type="checkbox"/> DPP6 | <input type="checkbox"/> DSC2 | <input type="checkbox"/> DSG2 | <input type="checkbox"/> DSP |
| <input type="checkbox"/> GJA5 | <input type="checkbox"/> GNAI2 | <input type="checkbox"/> GPD1L | <input type="checkbox"/> HCN4 | <input type="checkbox"/> JUP | <input type="checkbox"/> KCNA5 | <input type="checkbox"/> KCND3 | <input type="checkbox"/> KCNE1 |
| <input type="checkbox"/> KCNE1L | <input type="checkbox"/> KCNE2 | <input type="checkbox"/> KCNE3 | <input type="checkbox"/> KCNH2 | <input type="checkbox"/> KCNJ2 | <input type="checkbox"/> KCNJ5 | <input type="checkbox"/> KCNJ8 | <input type="checkbox"/> KCNQ1 |
| <input type="checkbox"/> LDB3 | <input type="checkbox"/> LMNA | <input type="checkbox"/> MYH6 | <input type="checkbox"/> NPPA | <input type="checkbox"/> PKP2 | <input type="checkbox"/> PKP4 | <input type="checkbox"/> PLN | <input type="checkbox"/> PRKAG2 |
| <input type="checkbox"/> RPSA | <input type="checkbox"/> RYR1 | <input type="checkbox"/> RYR2 | <input type="checkbox"/> SCN1B | <input type="checkbox"/> SCN2B | <input type="checkbox"/> SCN3B | <input type="checkbox"/> SCN4B | <input type="checkbox"/> SCN5A |
| <input type="checkbox"/> SNTA1 | <input type="checkbox"/> TGFB3 | <input type="checkbox"/> TMEM43 | <input type="checkbox"/> TRDN | <input type="checkbox"/> TRPM4 | <input type="checkbox"/> TTN | | |

PANEL W: Pan Cardiomyopathy

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|---------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> AARS2 | <input type="checkbox"/> ABCC9 | <input type="checkbox"/> ACTC1 | <input type="checkbox"/> ACTN2 | <input type="checkbox"/> ADRB1 | <input type="checkbox"/> ALMS1 | <input type="checkbox"/> ANKRD1 | <input type="checkbox"/> APOA1 |
| <input type="checkbox"/> BAG3 | <input type="checkbox"/> CALR3 | <input type="checkbox"/> CAV3 | <input type="checkbox"/> COL1A1 | <input type="checkbox"/> CRYAB | <input type="checkbox"/> CSRP3 | <input type="checkbox"/> CTF1 | <input type="checkbox"/> DES |
| <input type="checkbox"/> DMD | <input type="checkbox"/> DPP6 | <input type="checkbox"/> DSC2 | <input type="checkbox"/> DSG2 | <input type="checkbox"/> DSP | <input type="checkbox"/> DTNA | <input type="checkbox"/> EMD | <input type="checkbox"/> EYA4 |
| <input type="checkbox"/> FHL2 | <input type="checkbox"/> FKTN | <input type="checkbox"/> FXN | <input type="checkbox"/> GAA | <input type="checkbox"/> GATA4 | <input type="checkbox"/> GATAD1 | <input type="checkbox"/> GLA | <input type="checkbox"/> GSN |
| <input type="checkbox"/> ILK | <input type="checkbox"/> JPH2 | <input type="checkbox"/> JUP | <input type="checkbox"/> KRAS | <input type="checkbox"/> LAMA4 | <input type="checkbox"/> LAMP2 | <input type="checkbox"/> LDB3 | <input type="checkbox"/> LMNA |
| <input type="checkbox"/> MIB1 | <input type="checkbox"/> MYBPC3 | <input type="checkbox"/> MYF6 | <input type="checkbox"/> MYH6 | <input type="checkbox"/> MYH7 | <input type="checkbox"/> MYL2 | <input type="checkbox"/> MYL3 | <input type="checkbox"/> MYLK2 |
| <input type="checkbox"/> MYO6 | <input type="checkbox"/> MYOM1 | <input type="checkbox"/> MYOZ2 | <input type="checkbox"/> MYPN | <input type="checkbox"/> NEBL | <input type="checkbox"/> NEXN | <input type="checkbox"/> PDLIM3 | <input type="checkbox"/> PKP2 |
| <input type="checkbox"/> PKP4 | <input type="checkbox"/> PLN | <input type="checkbox"/> PRDM16 | <input type="checkbox"/> PRKAG2 | <input type="checkbox"/> PRKAR1A | <input type="checkbox"/> PSEN1 | <input type="checkbox"/> PSEN2 | <input type="checkbox"/> PTPN11 |
| <input type="checkbox"/> RAF1 | <input type="checkbox"/> RBM20 | <input type="checkbox"/> RPSA | <input type="checkbox"/> RYR2 | <input type="checkbox"/> SCN5A | <input type="checkbox"/> SCO2 | <input type="checkbox"/> SDHA | <input type="checkbox"/> SGCD |
| <input type="checkbox"/> SGCG | <input type="checkbox"/> SPEG | <input type="checkbox"/> SURF1 | <input type="checkbox"/> SYNE2 | <input type="checkbox"/> TAZ | <input type="checkbox"/> TBX20 | <input type="checkbox"/> TCAP | <input type="checkbox"/> TGFB3 |
| <input type="checkbox"/> TMEM43 | <input type="checkbox"/> TMPO | <input type="checkbox"/> TNNC1 | <input type="checkbox"/> TNNI3 | <input type="checkbox"/> TNNT2 | <input type="checkbox"/> TNXB | <input type="checkbox"/> TPM1 | <input type="checkbox"/> TPM2 |
| <input type="checkbox"/> TTN | <input type="checkbox"/> TTR | <input type="checkbox"/> VCL | <input type="checkbox"/> VCP | | | | |

PANEL X: Pan Cardiovascular Panel

All genes listed in Panels A-W

INDICATION FOR GENETIC TESTING

SYMPTOMATIC INDIVIDUAL

- POSSIBLE DIAGNOSIS DEFINITIVE DIAGNOSIS

ASYMPTOMATIC INDIVIDUAL

- PREVIOUS AFFECTED CHILD CARRIER SCREEN FAMILY HISTORY PREGNANCY AT RISK

Upon completion of testing, patient DNA sample may be used for anonymized research studies. YES NO

PLEASE SIGN CONSENT FORM FOR GENETIC STUDIES.

FAMILY HISTORY/CLINICAL SYMPTOMS: Please Complete



VIRAL PCR ANALYSIS: CHECK THE TEST(S) REQUESTED

- ADENOVIRUS
- EPSTEIN-BARR VIRUS (EBV)
- PARVOVIRUS
- VIRUS PANEL** (Adenovirus, CMV, EBV, Enterovirus, Parvovirus)
- CYTOMEGALOVIRUS (CMV)
- INFLUENZA A VIRUS
- RESPIRATORY SYNCYTIAL VIRUS
- ENTEROVIRUS
- MUMPS VIRUS
- RUBELLA VIRUS

AUTHORIZATION TO RELEASE INFORMATION

I AUTHORIZE ANY PHYSICIAN OR LAB WHO HAS TREATED ME OR MY DEPENDENT(S) TO FURNISH ANY MEDICAL INFORMATION REQUESTED.

PRINTED NAME: _____ SIGNATURE: _____ DATE: _____

BILLING INFORMATION

ONE OF THE TWO FOLLOWING BILLING OPTIONS MUST BE INDICATED BELOW.
 The Self-Pay option must include payment with sample. If the Billing information section is incomplete, the referring physician/laboratory will be automatically charged, or sample processing will not be initiated.

PAYMENT METHOD:

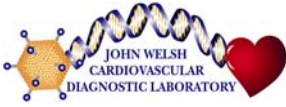
- SELF-PAY(PAYMENT-IN-FULL)**
 - CHECK OR MONEY ORDER
 - AMEX/MASTERCARD/VISA/DISCOVER: Please Complete The Credit Card Authorization Form

REFERRING INSTITUTION/MD

INSTITUTION CODE (As Assigned): _____
 INSTITUTION NAME: _____
 FINANCIAL CONTACT: _____
 BILLING ADDRESS: _____
 CITY, STATE, ZIP: _____
 TELEPHONE: (____) _____ FAX: (____) _____
 EMAIL: _____

ESTIMATED TURNAROUND TIMES (TAT)

- Mutation Analysis by Sequencing for Panels: 3-8 weeks
- Mutation Analysis by Sequencing for Single Genes: 2-4 weeks
- Known Familial Mutation: 1-2 weeks
- aCGH for Deletion/Duplication Analysis: 2-4 weeks
- Viral Testing: 1-2 weeks



JOHN WELSH CARDIOVASCULAR DIAGNOSTIC LABORATORY
BAYLOR COLLEGE OF MEDICINE, FEIGIN CENTER, DEPARTMENT OF PEDIATRIC CARDIOLOGY

1102 Bates Avenue, Suite 480.02, Houston, TX 77030
Tel: (832) 824-4155 Fax: (832) 825-5159 E-mail: yuxinf@bcm.edu
Website: <http://www.bcm.edu/pediatrics/welsh>



SAMPLE SHIPPING INFORMATION

SEND SAMPLES OVERNIGHT (MONDAY THRU THURSDAY) TO:

The John Welsh Cardiovascular Diagnostic Laboratory
Baylor College of Medicine, Feigin Center
1102 Bates Avenue, Suite 480.02
Houston, TX 77030
USA