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**Supplement table 2: Comparison between different NGS based studies in different populations**

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| **Ref** | **Population** | **No of Patients/ Phenotype** | **Panel Type** | **Platform** | **library preparation protocol** | **No. of Genes** | **Gene List** | **HCM Positive yield (%)** | **Top genes affected** | **Age group (years)** |
| 20 | German | 36/HCM | Custom | Thermo Fischer Scientific | Agilent SureSelect QXT | 28 | ACTC1; ACTN2; ANKRD1; CALR3; CASQ2; CAV3; CRYAB; CSRP3; DES ; JPH2 ; LDB3; MYBPC3; MYH6; MYH7; MYL2; MYL3; MYLK2; MYOZ2; MYPN; NEXN; PLN; PRKAG2; TCAP; TNNC1; TNNI3; TNNT2; TPM1; VCL | 78% | MYBPC3; MYH7; GAA | Pediatrics<18 |
| 60 | Majority were Finnish | 66/Mixed CMs (37DCM.20 HCM, 6LVNC, 2 RCM, 1HICM) | Custom,Commercial | NA | Agilent HaloPlex;Blueprint Genetics Pan Cardiopathy; Exome | 117;101;Exome | <https://ars.els-cdn.com/content/image/1-s2.0-S0735109718384365-mmc1.docx> | 39% | MYH7 | Pediatrics<15 |
| 26 | Japanese | 53/Mixed CMs(46 HCM and 7 RCM) | Custom | Thermo Fischer Scientific | IonImplies Library Kit 2.0 | 67 | [https://static-content.springer.com/esm/art%3A10.1038%2Fs10038-018-0479-y/MediaObjects/10038\_2018\_479\_MOESM1\_ESM.xlsx](https://static-content.springer.com/esm/art%3A10.1038/s10038-018-0479-y/MediaObjects/10038_2018_479_MOESM1_ESM.xlsx) | 78% | MYH7; MYBPC3 (HCM) | Pediatrics<16 |
| 72 | Italian | 70/ HCM | Custom | Thermo Fischer Scientific | NA | 17 | MYPBC3,MYH7; TPM1; TNNT2; TNNI3; MYL2; MYL3; ACTC1; LAMP2; PRKAG2; GLA; MYH6; TNNC1; CSRP3; PLN; TCAP; CAV3 | 85.7%in early-onset and 22.9% in late-onset | MYBPC3; MYH7; TNNT2; CAV3; MYH6; TNNI3; | Pediatrics and adults,35 with early (≤25) and 35 with late (≥65) disease onset |
| 69 | Chinese | 110/ Mixed CMs (34 HCM,22 DCM, 13 RCM,7ARVC/D,9 LVNC,25 overlapping CMs | Custom | Thermo Fischer Scientific | Ion AmpliSeq™ | 64 | [https://static-content.springer.com/esm/art%3A10.1186%2Fs12967-018-1605-5/MediaObjects/12967\_2018\_1605\_MOESM1\_ESM.doc](https://static-content.springer.com/esm/art%3A10.1186/s12967-018-1605-5/MediaObjects/12967_2018_1605_MOESM1_ESM.doc)  | 23.6% | *MYH7;* *MYBPC3;LMNA;TTN* | NA |
| 73 | German | 80/ Mixed CMs (34 DCM,23 HCM ,14 LVNC,7 RCM,2ARVC | Commercial | Illumina | Illumina TruSight Cardio | 174 | <https://support.illumina.com/sequencing/sequencing_kits/trusight-cardio-sequencing-kit.html> | 38% | MYH7; MYBPC3; TNNI3 | Pediatrics<18 |
| 74 | Slovak | 16/ Mixed CMs (6DCM,8HCM,2NNCM | Commercial | Illumina | Illumina TruSight Rapid Capture | 46 | <https://support.illumina.com.cn/sequencing/sequencing_kits/trusight_rapid_capture_kit/downloads.html> | 69% | MYBPC3, MYH7 and TTN | Adults |
| 29 | South African | 43/HCM | Custom | Roche | Roche Rapid Library 454 FLX | 15 | MYBPC3; MYH7; TNNT2; TNNI3; TPM1; MYL2; MYL3; ACTC1; PLN; CSRP3; FHL1; PRKAG2; GLA; LMNA; LAMP2 | 29% | MYH7;MYBPC3 | Adults |
| 30 | Tunisian | 11/HCM | Custom | Illumina | NA | 14 | MYBPC3; MYH7; TNNT2; TNNI3; TPM1; MYL2; MYL3; TNNC1; ACTC1; ACTN2; GLA; PRKAG2; TTR; LAMP2 | 45% | MYH7;MYBPC3;MYL3; TNNC1/ACTN2 MYL2/TNNT2 | Adults |
| 75 | Caucasian | 223/HCM | Custom | Illumina | Agilent SureSelect | 41 | <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607113/> | 64% | MYH7; MYBPC3; TNNI3; TNNT2 | Pediatrics and adults |

CMs: Cardiomyopathies; DCM: Dilated cardiomyopathy; HCM: Hypertrophic cardiomyopathy; RCM: Restrictive cardiomyopathy, Arrhythmogenic right ventricular cardiomyopathy/dysplasia (ARVC/D), LVNC: left ventricular noncompaction, NNCM: Non-compaction Cardiomyopathy