

**Supplemental Table 1:** Microarray data for genes detected with fold-changes >2 and a false discovery rate (FDR) <5% are listed in tables a-j (see overview table). Datasets include the male to female ratio (M/F ratio), GeneSymbol, GeneBank accession number, UniGene identifier, Entrez gene number, chromosomal location, description, and q-value. Raw data of mouse and human Agilent microarray experiments are available online at the GEO database (GSE4793 and GSE4795). Affymetrix datasets of human myocardial samples can be found on the Cardiogenomics website (<http://www.cardiogenomics.org>).

## Overview

| Table | Dataset    | Description                                                                                                                                         |
|-------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| a.    | MoAg2f     | Mouse hearts, 2 mon. old, Agilent platform, pool of female samples (n=6) versus pool of male samples (n=6), 4 tech. replicates, female-biased genes |
| b.    | MoAg2m     | Mouse hearts, 2 mon. old, Agilent platform, pool of female samples (n=6) versus pool of male samples (n=6), 4 tech. replicates, male-biased genes   |
| c.    | MoAg8f     | Mouse hearts, 8 mon. old, Agilent platform, pool of female samples (n=6) versus pool of male samples (n=6), 4 tech. replicates, female-biased genes |
| d.    | MoAg8m     | Mouse hearts, 8 mon. old, Agilent platform, pool of female samples (n=6) versus pool of male samples (n=6), 4 tech. replicates, male-biased genes   |
| e.    | HuAg<40f   | Human myocardium of donors <40 years old, Agilent platform, female pool (n=3) versus male pool (n=5), 4 tech. replicates, female-biased genes       |
| f.    | HuAg<40m   | Human myocardium of donors <40 years old, Agilent platform, female pool (n=3) versus male pool (n=5), 4 tech. replicates, male-biased genes         |
| g.    | HuAg50-65f | Human myocardium of donors 50-65 years old, Agilent platform, female pool (n=5) versus male pool (n=5), 4 tech. replicates, female-biased genes     |
| h.    | HuAg50-65m | Human myocardium of donors 50-65 years old, Agilent platform, female pool (n=5) versus male pool (n=5), 4 tech. replicates, male-biased genes       |
| i.*   | HuAffyf    | Human myocardium of female donors (n=7, mean age = 49.3 years) and male donors (n=7, mean age = 53.6 years)*, Affymetrix platform, female           |
| j.*   | HuAffym    | Human myocardium of female donors (n=7, mean age = 49.3 years) and male donors (n=7, mean age = 53.6 years)*, Affymetrix platform, male             |

\* data obtained from Cardiogenomics, NHLBI Program for Genomic Applications, Harvard Medical School. URL: <http://www.cardiogenomics.org>

## Total numbers of genes

| Table | Dataset    | No. of clones<br>(probes) | No. of genes |
|-------|------------|---------------------------|--------------|
| a.    | MoAg2f     | 89                        | 83           |
| b.    | MoAg2m     | 8                         | 7            |
| c.    | MoAg8f     | 34                        | 30           |
| d.    | MoAg8m     | 3                         | 3            |
| e.    | HuAg<40f   | 53                        | 35           |
| f.    | HuAg<40m   | 85                        | 58           |
| g.    | HuAg50-65f | 136                       | 94           |
| h.    | HuAg50-65m | 37                        | 31           |
| i.    | HuAffyf    | 10                        | 4            |
| j.    | HuAffym    | 22                        | 12           |

**a. Mouse hearts, 2 months old, Agilent platform, female-biased genes**

| Dataset | Ratio M/F | Symbol        | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                           | q-value (%) |
|---------|-----------|---------------|--------------|-----------|------------|-----|-------------------------------------------------------|-------------|
| MoAg2f  | 0.01      | Xist          | AI877091     | Mm.274770 | 213742     | X   | X (inactive)-specific transcript, antisense           | 0.32        |
| MoAg2f  | 0.05      | Rag1          | AA874497     | Mm.828    | 19373      | 2   | Recombination activating gene 1                       | 0.32        |
| MoAg2f  | 0.05      | Prss16        | AI605812     | Mm.32043  | 54373      | 13  | Protease, serine, 16 (thymus)                         | 0.32        |
| MoAg2f  | 0.08      | Snca          | AI510034     | Mm.17484  | 20617      | 6   | Synuclein, alpha                                      | 0.32        |
| MoAg2f  | 0.08      | Tcrb-V13      | AA791518     | Mm.333026 | 269846     |     | T-cell receptor beta, variable 13                     | 0.32        |
| MoAg2f  | 0.09      | Cd8a          | AA839138     | Mm.1858   | 12525      | 6   | CD8 antigen, alpha chain                              | 0.32        |
| MoAg2f  | 0.09      | Dntt          | AI326745     | Mm.25620  | 21673      | 19  | Deoxynucleotidyltransferase, terminal                 | 0.32        |
| MoAg2f  | 0.11      | Lat           | AA153591     | Mm.10280  | 16797      | 7   | Linker for activation of T cells                      | 0.32        |
| MoAg2f  | 0.12      | 1700021K02Rik | AI587887     | Mm.30227  | 65971      | 10  | RIKEN cDNA 1700021K02 gene                            | 0.32        |
| MoAg2f  | 0.13      | Ucp1          | W41372       | Mm.4177   | 22227      | 8   | Uncoupling protein 1 (mitochondrial, proton carrier)  | 0.32        |
| MoAg2f  | 0.13      | Ccl25         | AI158138     | Mm.7275   | 20300      | 8   | Chemokine (C-C motif) ligand 25                       | 0.32        |
| MoAg2f  | 0.14      | Fxyd2         | AA108723     | Mm.22742  | 11936      | 9   | FXYP domain-containing ion transport regulator 2      | 0.32        |
| MoAg2f  | 0.15      | Lck           | AA717185     | Mm.293753 | 16818      | 4   | Lymphocyte protein tyrosine kinase                    | 0.32        |
| MoAg2f  | 0.15      | Sh2d1a        | AI464772     | Mm.235391 | 20400      | X   | SH2 domain protein 1A                                 | 0.32        |
| MoAg2f  | 0.19      | Ly6d          | AI386262     | Mm.878    | 17068      | 15  | Lymphocyte antigen 6 complex, locus D                 | 0.32        |
| MoAg2f  | 0.19      | Myb           | AA123009     | Mm.52109  | 17863      | 10  | Myeloblastosis oncogene                               | 0.32        |
| MoAg2f  | 0.19      | Rasgrp1       | AA276690     | Mm.42150  | 19419      | 2   | RAS guanyl releasing protein 1                        | 0.32        |
| MoAg2f  | 0.21      | Cd3g          | AA796027     | Mm.335106 | 12502      | 9   | CD3 antigen, gamma polypeptide                        | 0.32        |
| MoAg2f  | 0.21      | Xist          | AA690387     | Mm.274770 | 213742     | X   | X (inactive)-specific transcript, antisense           | 0.32        |
| MoAg2f  | 0.22      | Cd4           | AA210044     | Mm.2209   | 12504      | 6   | CD4 antigen                                           | 0.32        |
| MoAg2f  | 0.23      | Igh-VJ558     | AA146478     | Mm.240437 | 16061      |     | Immunoglobulin heavy chain (J558 family)              | 0.32        |
| MoAg2f  | 0.24      | Arpp21        | AA867057     | Mm.297444 | 74100      | 9   | Cyclic AMP-regulated phosphoprotein, 21               | 0.32        |
| MoAg2f  | 0.24      | Nsg2          | W62007       | Mm.3304   | 18197      | 11  | Neuron specific gene family member 2                  | 0.32        |
| MoAg2f  | 0.25      | Fasn          | AA760287     | Mm.236443 | 14104      | 11  | Fatty acid synthase                                   | 0.32        |
| MoAg2f  | 0.25      | Ltf           | AA763033     | Mm.282359 | 17002      | 9   | Lactotransferrin                                      | 0.32        |
| MoAg2f  | 0.26      | Itk           | AA137960     | Mm.339927 | 16428      | 11  | IL2-inducible T-cell kinase                           | 0.32        |
| MoAg2f  | 0.26      | Bcl11b        | AA855968     | Mm.379090 | 58208      | 12  | B-cell leukemia/lymphoma 11B                          | 0.32        |
| MoAg2f  | 0.27      | U46068        | AI390107     | Mm.3783   | 228801     | 2   | CDNA sequence U46068                                  | 0.32        |
| MoAg2f  | 0.27      | Cyp2f2        | AA220582     | Mm.4515   | 13107      | 7   | Cytochrome P450, family 2, subfamily f, polypeptide 2 | 0.32        |
| MoAg2f  | 0.27      | Sla           | AA867150     | Mm.7601   | 20491      | 15  | Src-like adaptor                                      | 0.32        |
| MoAg2f  | 0.27      | Tcrb-V13      | AA174675     | Mm.123831 | 269846     | 6   | T-cell receptor beta, variable 8.2                    | 0.32        |
| MoAg2f  | 0.27      | Cd3e          | AI323257     | Mm.210361 | 12501      | 9   | CD3 antigen, epsilon polypeptide                      | 0.32        |
| MoAg2f  | 0.29      | Sept1         | W16222       | Mm.18     | 54204      | 7   | Septin 1                                              | 0.32        |
| MoAg2f  | 0.29      | Scd1          | AA754922     | Mm.267377 | 20249      | 19  | Stearoyl-Coenzyme A desaturase 1                      | 0.32        |
| MoAg2f  | 0.30      | Dusp2         | AA798849     | Mm.4729   | 13537      | 2   | Dual specificity phosphatase 2                        | 0.32        |
| MoAg2f  | 0.30      | Sftpc         | AA222208     | Mm.24040  | 20389      | 14  | Surfactant associated protein C                       | 0.32        |
| MoAg2f  | 0.31      | Fasn          | AA690737     | Mm.236443 | 14104      | 11  | Fatty acid synthase                                   | 0.32        |

| Dataset | Ratio M/F | Symbol        | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                   | q-value (%) |
|---------|-----------|---------------|--------------|-----------|------------|-----|---------------------------------------------------------------|-------------|
| MoAg2f  | 0.31      | Cyp2a4        | AA106125     | Mm.154643 | 13086      | 7   | Cytochrome P450, family 2, subfamily a, polypeptide 4         | 0.32        |
| MoAg2f  | 0.31      | Cidec         | AA062151     | Mm.10026  | 14311      | 6   | Cell death-inducing DFFA-like effector c                      | 0.32        |
| MoAg2f  | 0.31      | Cyp2a4        | AA674177     | Mm.154643 | 13086      | 7   | Cytochrome P450, family 2, subfamily a, polypeptide 4         | 0.32        |
| MoAg2f  | 0.32      | Cd5           | AI117259     | Mm.779    | 12507      | 19  | CD5 antigen                                                   | 0.32        |
| MoAg2f  | 0.32      | Ccl28         | AA762401     | Mm.143745 | 56838      |     | Chemokine (C-C motif) ligand 28                               | 0.32        |
| MoAg2f  | 0.32      | Camk4         | AI019266     | Mm.45058  | 12326      | 18  | Calcium/calmodulin-dependent protein kinase IV                | 0.32        |
| MoAg2f  | 0.32      | Cd6           | AA396636     | Mm.290897 | 12511      | 19  | CD6 antigen                                                   | 0.32        |
| MoAg2f  | 0.33      | Car3          | AI386062     | Mm.300    | 12350      | 3   | Carbonic anhydrase 3                                          | 0.32        |
| MoAg2f  | 0.33      | Clstn3        | AI390859     | Mm.193701 | 232370     | 6   | Calsyntenin 3                                                 | 0.32        |
| MoAg2f  | 0.34      | 5830405N20Rik | AI606535     | Mm.131264 | 67596      | 10  | RIKEN cDNA 5830405N20 gene                                    | 0.32        |
| MoAg2f  | 0.34      | Zfpn1a1       | AA596543     | Mm.103545 | 22778      | 11  | Zinc finger protein, subfamily 1A, 1 (Ikaros)                 | 0.32        |
| MoAg2f  | 0.34      | Tcrg          | AA666779     | Mm.211738 | 434531     |     | T cell receptor gamma chain                                   | 0.32        |
| MoAg2f  | 0.35      | Satb1         | AA275312     | Mm.311655 | 20230      | 17  | Special AT-rich sequence binding protein 1                    | 0.32        |
| MoAg2f  | 0.35      | Gys2          | AI465768     | Mm.275975 | 232493     | 6   | Glycogen synthase 2                                           | 0.32        |
| MoAg2f  | 0.36      |               | AA822105     | Mm.377955 | 0          |     | Transcribed locus                                             | 0.32        |
| MoAg2f  | 0.36      |               | AA739203     |           |            |     |                                                               | 0.32        |
| MoAg2f  | 0.36      | Kcna3         | AA119270     | Mm.30640  | 16491      | 3   | Potassium voltage-gated channel, shaker-related subfamily     | 0.32        |
| MoAg2f  | 0.37      | AI504432      | AA982084     | Mm.347584 | 229694     | 3   | Expressed sequence AI504432                                   | 0.32        |
| MoAg2f  | 0.37      | Cyp2b10       | AI325330     | Mm.218749 | 13088      | 7   | Cytochrome P450, family 2, subfamily b, polypeptide 10        | 0.32        |
| MoAg2f  | 0.38      | Krt2-8        | AA607100     | Mm.382083 | 16691      | 15  | Keratin complex 2, basic, gene 8                              | 0.32        |
| MoAg2f  | 0.38      | Myef2         | AI158547     | Mm.330538 | 17876      | 2   | Myelin basic protein expression factor 2, repressor           | 0.32        |
| MoAg2f  | 0.39      | Sit           | AI509504     | Mm.31775  | 54390      | 4   | Suppression inducing transmembrane adaptor 1                  | 0.32        |
| MoAg2f  | 0.39      | Aqp11         | AA881395     | Mm.31331  | 66333      | 7   | Aquaporin 11                                                  | 0.32        |
| MoAg2f  | 0.39      | Igh-VJ558     | AI481911     | Mm.380329 | 16061      |     | Immunoglobulin heavy chain (J558 family)                      | 0.32        |
| MoAg2f  | 0.40      | Txk           | AA762897     | Mm.3264   | 22165      | 5   | TXK tyrosine kinase                                           | 0.32        |
| MoAg2f  | 0.40      | Ccnd3         | AI552341     | Mm.246520 | 12445      | 17  | Cyclin D3                                                     | 0.32        |
| MoAg2f  | 0.40      | Krt1-17       | AI154635     | Mm.14046  | 16667      | 11  | Keratin complex 1, acidic, gene 17                            | 0.32        |
| MoAg2f  | 0.42      | Tnfrsf7       | AA717022     | Mm.367714 | 21940      |     | Tumor necrosis factor receptor superfamily, member 7          | 0.32        |
| MoAg2f  | 0.42      | Nr4a1         | AA209882     | Mm.119    | 15370      | 15  | Nuclear receptor subfamily 4, group A, member 1               | 0.32        |
| MoAg2f  | 0.42      | Scgb3a1       | W34387       | Mm.22802  | 68662      | 11  | Secretoglobin, family 3A, member 1                            | 0.32        |
| MoAg2f  | 0.42      | 2900062L11Rik | AA437939     | Mm.407198 | 76976      | X   | RIKEN cDNA 2900062L11 gene                                    | 0.32        |
| MoAg2f  | 0.42      | Kcnn4         | AA185547     | Mm.9911   | 16534      | 7   | Potassium intermediate/small conductance calcium-activated    | 0.32        |
| MoAg2f  | 0.43      | Gla           | AI118621     | Mm.1114   | 11605      | X   | Galactosidase, alpha                                          | 0.32        |
| MoAg2f  | 0.43      | Gfi1          | AA716844     | Mm.2078   | 14581      | 5   | Growth factor independent 1                                   | 0.32        |
| MoAg2f  | 0.43      | Orm1          | AI117779     | Mm.4777   | 18405      | 4   | Orosomucoid 1                                                 | 0.32        |
| MoAg2f  | 0.43      | Nusap1        | AA920753     | Mm.290015 | 108907     | 2   | Nucleolar and spindle associated protein 1                    | 0.32        |
| MoAg2f  | 0.43      | Tox           | AA184909     | Mm.87051  | 252838     | 4   | Thymocyte selection-associated HMG box gene                   | 0.32        |
| MoAg2f  | 0.45      | Trp53inp1     | AA437755     | Mm.28708  | 60599      | 4   | Transformation related protein 53 inducible nuclear protein 1 | 0.32        |

| Dataset | Ratio M/F | Symbol  | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                        | q-value (%) |
|---------|-----------|---------|--------------|-----------|------------|-----|--------------------------------------------------------------------|-------------|
| MoAg2f  | 0.45      | Csnb    | AI157135     | Mm.268737 | 12991      | 5   | Casein beta                                                        | 0.32        |
| MoAg2f  | 0.46      | Lrmp    | AI158088     | Mm.843    | 16970      | 6   | Lymphoid-restricted membrane protein                               | 0.32        |
| MoAg2f  | 0.46      | Def6    | AA199299     | Mm.204731 | 23853      | 17  | Differentially expressed in FDCP 6                                 | 0.32        |
| MoAg2f  | 0.47      | Abcg3   | AA145479     | Mm.389663 | 27405      | 5   | ATP-binding cassette, sub-family G (WHITE), member 3               | 0.32        |
| MoAg2f  | 0.47      | Aqp11   | AI595281     | Mm.29756  | 66333      | 7   | Aquaporin 11                                                       | 0.32        |
| MoAg2f  | 0.47      | Mki67   | AA671317     | Mm.4078   | 17345      | 7   | Antigen identified by monoclonal antibody Ki 67                    | 0.32        |
| MoAg2f  | 0.48      | Ccr7    | AI158536     | Mm.2932   | 12775      | 11  | Chemokine (C-C motif) receptor 7                                   | 0.32        |
| MoAg2f  | 0.48      | Arpp21  | AI464603     | Mm.297444 | 74100      | 9   | Cyclic AMP-regulated phosphoprotein, 21                            | 0.32        |
| MoAg2f  | 0.48      |         | W34262       | Mm.342680 | 0          |     | Transcribed locus, strongly similar to NP_038588.1 heat shock prot | 0.32        |
| MoAg2f  | 0.49      | Sftpd   | AA880738     | Mm.1321   | 20390      | 14  | Surfactant associated protein D                                    | 0.32        |
| MoAg2f  | 0.49      | Tacstd1 | AA755032     | Mm.4259   | 17075      |     | Tumor-associated calcium signal transducer 1                       | 0.32        |
| MoAg2f  | 0.49      | Car3    | AA611779     | Mm.300    | 12350      | 3   | Carbonic anhydrase 3                                               | 0.32        |
| MoAg2f  | 0.50      | Prkcb1  | AA289586     | Mm.207496 | 18751      | 7   | Acid phosphatase 1, soluble                                        | 0.32        |
| MoAg2f  | 0.50      | Car5b   | AI465828     | Mm.180953 | 56078      | X   | Carbonic anhydrase 5b, mitochondrial                               | 0.32        |

### b. Mouse hearts, 2 months old, Agilent platform, male-biased genes

| Dataset | Ratio M/F | Symbol  | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                     | q-value (%) |
|---------|-----------|---------|--------------|-----------|------------|-----|-----------------------------------------------------------------|-------------|
| MoAg2m  | 21.26     | Ddx3y   | AI646620     | Mm.302938 | 26900      | Y   | DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked              | 0.32        |
| MoAg2m  | 10.24     | Eif2s3y | AI386390     | Mm.250909 | 26908      | Y   | Eukaryotic translation initiation factor 2, subunit 3, Y-linked | 0.32        |
| MoAg2m  | 6.04      | Jarid1d | AA170509     | Mm.262676 | 20592      | Y   | Jumonji, AT rich interactive domain 1D (Rbp2 like)              | 0.32        |
| MoAg2m  | 4.63      | Ddx3y   | AI510645     | Mm.302938 | 26900      | Y   | DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked              | 0.32        |
| MoAg2m  | 3.41      | Pdk4    | AI322278     | Mm.235547 | 27273      | 6   | Pyruvate dehydrogenase kinase, isoenzyme 4                      | 1.10        |
| MoAg2m  | 2.52      | Tfrc    | AA413490     | Mm.28683  | 22042      | 16  | Transferrin receptor                                            | 1.41        |
| MoAg2m  | 2.50      | Xab1    | AI645199     | Mm.348649 | 74254      | 5   | XPA binding protein 1                                           | 1.41        |
| MoAg2m  | 2.13      | Nsmaf   | AA013700     | Mm.3059   | 18201      | 4   | Neutral sphingomyelinase (N-SMase) activation associated factor | 0.75        |

### c. Mouse hearts, 8 months old, Agilent platform, female-biased genes

| Dataset | Ratio M/F | Symbol    | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                             | q-value (%) |
|---------|-----------|-----------|--------------|-----------|------------|-----|---------------------------------------------------------|-------------|
| MoAg8f  | 0.01      | Xist      | AI877091     | Mm.274770 | 213742     | X   | X (inactive)-specific transcript, antisense             | 3.13        |
| MoAg8f  | 0.06      | Chi3l1    | W10705       | Mm.38274  | 12654      | 1   | Chitinase 3-like 1                                      | 3.13        |
| MoAg8f  | 0.10      | Xist      | AA690387     | Mm.274770 | 213742     | X   | X (inactive)-specific transcript, antisense             | 3.13        |
| MoAg8f  | 0.14      | Igh-VJ558 | AI481911     | Mm.240437 | 16061      |     | Immunoglobulin heavy chain (J558 family)                | 3.13        |
| MoAg8f  | 0.15      | Igh-6     | AA166427     | Mm.342177 | 16019      | 12  | Immunoglobulin heavy chain 6 (heavy chain of IgM)       | 3.13        |
| MoAg8f  | 0.16      | Fxyd2     | AA108723     | Mm.22742  | 11936      | 9   | FXD domain-containing ion transport regulator 2         | 3.13        |
| MoAg8f  | 0.18      | Sftpc     | AA222208     | Mm.24040  | 20389      | 14  | Surfactant associated protein C                         | 3.13        |
| MoAg8f  | 0.18      |           | AW496194     | Mm.321278 | 0          |     | Ig rearranged kappa-chain (NC9-B4) mRNA Vk32-Jk4 region | 3.13        |

| Dataset | Ratio M/F | Symbol    | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                  | q-value (%) |
|---------|-----------|-----------|--------------|-----------|------------|-----|--------------------------------------------------------------|-------------|
| MoAg8f  | 0.20      | Igj       | AA880295     | Mm.1192   | 16069      | 5   | Immunoglobulin joining chain                                 | 3.13        |
| MoAg8f  | 0.21      | Igh-VJ558 | AA146478     | Mm.240437 | 16061      |     | Immunoglobulin heavy chain (J558 family)                     | 3.13        |
| MoAg8f  | 0.21      | Lcn2      | AA087193     | Mm.9537   | 16819      | 2   | Lipocalin 2                                                  | 3.13        |
| MoAg8f  | 0.21      |           | AA871265     |           |            |     |                                                              | 3.13        |
| MoAg8f  | 0.24      | LOC545854 | AA152940     | Mm.333124 | 545854     | 6   | Immunoglobulin kappa chain                                   | 3.13        |
| MoAg8f  | 0.27      | Igh-6     | AA754696     | Mm.342177 | 16019      | 12  | Immunoglobulin heavy chain 6 (heavy chain of IgM)            | 3.13        |
| MoAg8f  | 0.29      | Igl-V1    | AA138265     | Mm.326349 | 16142      | 16  | Immunoglobulin lambda chain, variable 1                      | 3.13        |
| MoAg8f  | 0.31      | Cxcl5     | AA871143     | Mm.4660   | 20311      | 5   | Chemokine (C-X-C motif) ligand 5                             | 3.13        |
| MoAg8f  | 0.34      | Ptgds     | AA462585     | Mm.1008   | 19215      | 2   | Prostaglandin D2 synthase (brain)                            | 3.13        |
| MoAg8f  | 0.34      | Gla       | AI118621     | Mm.1114   | 11605      | X   | Galactosidase, alpha                                         | 3.13        |
| MoAg8f  | 0.36      | Igh-6     | AI158823     | Mm.342177 | 16019      | 12  | Immunoglobulin heavy chain 6 (heavy chain of IgM)            | 3.13        |
| MoAg8f  | 0.36      | Spp1      | AA563324     | Mm.288474 | 20750      | 5   | Secreted phosphoprotein 1                                    | 3.13        |
| MoAg8f  | 0.36      | Nppb      | W12084       | Mm.2740   | 18158      | 4   | Natriuretic peptide precursor type B                         | 3.13        |
| MoAg8f  | 0.37      | Timp1     | AA184223     | Mm.8245   | 21857      | X   | Tissue inhibitor of metalloproteinase 1                      | 3.13        |
| MoAg8f  | 0.37      | Saa3      | AA881525     | Mm.14277  | 20210      | 7   | Serum amyloid A 3                                            | 3.13        |
| MoAg8f  | 0.38      | Cyp2b10   | AI325330     | Mm.218749 | 13088      | 7   | Cytochrome P450, family 2, subfamily b, polypeptide 10       | 3.13        |
| MoAg8f  | 0.39      | Ccl7      | AA711435     | Mm.341574 | 20306      | 11  | Chemokine (C-C motif) ligand 7                               | 3.13        |
| MoAg8f  | 0.41      | Chi3l3    | AA673731     | Mm.387173 | 12655      | 3   | Chitinase 3-like 3                                           | 3.13        |
| MoAg8f  | 0.45      | Nt5e      | AI605613     | Mm.244235 | 23959      | 9   | 5' nucleotidase, ecto                                        | 3.13        |
| MoAg8f  | 0.46      | Serpina3n | AA821980     | Mm.22650  | 20716      | 12  | Serine (or cysteine) peptidase inhibitor, clade A, member 3N | 3.13        |
| MoAg8f  | 0.47      | Arntl     | AI550145     | Mm.12177  | 11865      | 7   | Aryl hydrocarbon receptor nuclear translocator-like          | 3.13        |
| MoAg8f  | 0.48      | Car2      | AA210505     | Mm.1186   | 12349      | 3   | Carbonic anhydrase 2                                         | 3.13        |
| MoAg8f  | 0.49      | Orm1      | AI117779     | Mm.4777   | 18405      | 4   | Orosomucoid 1                                                | 3.13        |
| MoAg8f  | 0.49      | Car5b     | AI465828     | Mm.180953 | 56078      | X   | Carbonic anhydrase 5b, mitochondrial                         | 3.13        |
| MoAg8f  | 0.49      | Nr4a1     | AA209882     | Mm.119    | 15370      | 15  | Nuclear receptor subfamily 4, group A, member 1              | 3.13        |
| MoAg8f  | 0.50      | Ltf       | AA763033     | Mm.282359 | 17002      | 9   | Lactotransferrin                                             | 3.13        |

#### d. Mouse hearts, 8 months old, Agilent platform, male-biased genes

| Dataset | Ratio M/F | Symbol  | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                     | q-value (%) |
|---------|-----------|---------|--------------|-----------|------------|-----|-----------------------------------------------------------------|-------------|
| MoAg8m  | 56.53     | Ddx3y   | AI646620     | Mm.302938 | 26900      | Y   | DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked              | 3.13        |
| MoAg8m  | 8.68      | Jarid1d | AA170509     | Mm.262676 | 20592      | Y   | Jumonji, AT rich interactive domain 1D (Rbp2 like)              | 3.13        |
| MoAg8m  | 3.84      | Eif2s3y | AI386390     | Mm.250909 | 26908      | Y   | Eukaryotic translation initiation factor 2, subunit 3, Y-linked | 3.13        |

**e. Human myocardium of donors <40 years old, Agilent platform, female-biased genes**

| Dataset  | Ratio M/F | Symbol   | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                   | q-value (%) |
|----------|-----------|----------|--------------|-----------|------------|-----|---------------------------------------------------------------|-------------|
| HuAg<40f | 0.16      | DHRS9    | AY017349     | Hs.179608 | 10170      | 2   | Dehydrogenase/reductase (SDR family) member 9                 | 0.19        |
| HuAg<40f | 0.19      | FKBP5    | U71321       | Hs.407190 | 2289       | 6   | FK506 binding protein 5                                       | 0.19        |
| HuAg<40f | 0.21      | FKBP5    | U42031       | Hs.407190 | 2289       | 6   | FK506 binding protein 5                                       | 0.19        |
| HuAg<40f | 0.29      | ADH1C    | M21692       | Hs.4      | 126        | 4   | Alcohol dehydrogenase 1C (class I), gamma polypeptide         | 0.19        |
| HuAg<40f | 0.29      | CHN2     | NM_004067    | Hs.151880 | 1124       | 7   | Chimerin (chimaerin) 2                                        | 0.19        |
| HuAg<40f | 0.29      | NEK7     | AL080111     | Hs.24119  | 140609     | 1   | NIMA (never in mitosis gene a)-related kinase 7               | 0.19        |
| HuAg<40f | 0.29      | PLA2G2A  | R64075       | Hs.466804 | 5320       | 1   | Phospholipase A2, group IIA (platelets, synovial fluid)       | 0.19        |
| HuAg<40f | 0.30      | ADH1B    | BG535501     | Hs.4      | 125        | 4   | Alcohol dehydrogenase 1B (class I), beta polypeptide          | 0.19        |
| HuAg<40f | 0.30      |          | M22431       |           |            |     |                                                               | 0.19        |
| HuAg<40f | 0.31      | PDK4     | U54617       | Hs.8364   | 5166       | 7   | Pyruvate dehydrogenase kinase, isoenzyme 4                    | 0.19        |
| HuAg<40f | 0.33      | HSPA5    | BI560455     | Hs.632687 | 3309       | 9   | Heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) | 0.19        |
| HuAg<40f | 0.34      | ADH1C    | NM_000669    | Hs.4      | 126        | 4   | Alcohol dehydrogenase 1C (class I), gamma polypeptide         | 0.19        |
| HuAg<40f | 0.38      |          | AP000351     |           |            |     |                                                               | 0.19        |
| HuAg<40f | 0.39      |          | M26326       |           |            |     |                                                               | 0.19        |
| HuAg<40f | 0.39      | CD163    | Z22971       | Hs.504641 | 9332       | 12  | CD163 antigen                                                 | 0.19        |
| HuAg<40f | 0.41      | PDK4     | U54617       | Hs.8364   | 5166       | 7   | Pyruvate dehydrogenase kinase, isoenzyme 4                    | 0.19        |
| HuAg<40f | 0.42      |          | M19645       |           |            |     |                                                               | 0.19        |
| HuAg<40f | 0.42      | HSPA5    | AF188611     | Hs.632687 | 3309       | 9   | Heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) | 0.19        |
| HuAg<40f | 0.43      |          | AF060568     |           |            |     |                                                               | 0.19        |
| HuAg<40f | 0.43      | IGHG1    | AF067420     | Hs.510635 | 3500       | 14  | Immunoglobulin heavy constant gamma 1 (G1m marker)            | 0.19        |
| HuAg<40f | 0.44      | ZBTB16   | Z19002       | Hs.171299 | 7704       | 11  | Zinc finger and BTB domain containing 16                      | 0.19        |
| HuAg<40f | 0.44      | POSTN    | AW608422     | Hs.136348 | 10631      | 13  | Periostin, osteoblast specific factor                         | 0.19        |
| HuAg<40f | 0.44      | KRT18    | BI160503     | Hs.406013 | 3875       | 12  | Keratin 18                                                    | 0.19        |
| HuAg<40f | 0.44      | CYP4B1   | J02871       | Hs.436317 | 1580       | 1   | Cytochrome P450, family 4, subfamily B, polypeptide 1         | 0.19        |
| HuAg<40f | 0.44      |          | AF060568     |           |            |     |                                                               | 0.19        |
| HuAg<40f | 0.45      | KRT18    | X12883       | Hs.406013 | 3875       | 12  | Keratin 18                                                    | 0.19        |
| HuAg<40f | 0.46      | IGHG1    | AF067420     | Hs.510635 | 3500       | 14  | Immunoglobulin heavy constant gamma 1 (G1m marker)            | 0.19        |
| HuAg<40f | 0.46      | VCL      | NM_014000    | Hs.500101 | 7414       | 10  | Vinculin                                                      | 0.19        |
| HuAg<40f | 0.46      | IGHG1    | BF663123     | Hs.510635 | 3500       | 14  | Immunoglobulin heavy constant gamma 1 (G1m marker)            | 0.19        |
| HuAg<40f | 0.46      | TSC22D3  | AL525317     | Hs.522074 | 1831       | X   | TSC22 domain family, member 3                                 | 0.19        |
| HuAg<40f | 0.47      | BAMBI    | U23070       | Hs.533336 | 25805      | 10  | BMP and activin membrane-bound inhibitor homolog              | 0.19        |
| HuAg<40f | 0.47      | CROT     | AF073770     | Hs.125039 | 54677      | 7   | Carnitine O-octanoyltransferase                               | 0.19        |
| HuAg<40f | 0.47      | TICAM2   | AK027512     | Hs.508765 | 353376     | 5   | Toll-like receptor adaptor molecule 2                         | 0.19        |
| HuAg<40f | 0.48      | MRC1     | J05550       | Hs.75182  | 4360       | 10  | Mannose receptor, C type 1                                    | 0.19        |
| HuAg<40f | 0.48      | SERPINA3 | BC003559     | Hs.534293 | 12         | 14  | Serine (or cysteine) proteinase inhibitor, clade A, member 3  | 0.19        |
| HuAg<40f | 0.48      | RARRES1  | U27185       | Hs.131269 | 5918       | 3   | Retinoic acid receptor responder (tazarotene induced) 1       | 0.19        |
| HuAg<40f | 0.48      | FADS1    | BG698967     | Hs.503546 | 3992       | 11  | Fatty acid desaturase 1                                       | 0.19        |

| Dataset  | Ratio M/F | Symbol   | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                  | q-value (%) |
|----------|-----------|----------|--------------|-----------|------------|-----|--------------------------------------------------------------|-------------|
| HuAg<40f | 0.48      | HSP90B1  | BG327949     | Hs.192374 | 7184       | 12  | Heat shock protein 90kDa beta (Grp94), member 1              | 0.19        |
| HuAg<40f | 0.48      | HP       | AL579899     | Hs.513711 | 3240       | 16  | Haptoglobin                                                  | 0.19        |
| HuAg<40f | 0.48      | SLC7A8   | AB037669     | Hs.632348 | 23428      | 14  | Solute carrier family 7, member 8                            | 0.19        |
| HuAg<40f | 0.49      | SERPINA3 | BG567810     | Hs.534293 | 12         | 14  | Serine (or cysteine) proteinase inhibitor, clade A, member 3 | 0.19        |
| HuAg<40f | 0.49      | CHN2     | AK026415     | Hs.151880 | 1124       | 7   | Chimerin (chimaerin) 2                                       | 0.19        |
| HuAg<40f | 0.49      | CSNK1G1  | NM_014736    | Hs.81892  | 53944      | 15  | Casein kinase 1, gamma 1                                     | 0.19        |
| HuAg<40f | 0.49      | FABP4    | BG287253     | Hs.391561 | 2167       | 8   | Fatty acid binding protein 4, adipocyte                      | 0.19        |
| HuAg<40f | 0.49      | ZBTB16   | BG820096     | Hs.171299 | 7704       | 11  | Zinc finger and BTB domain containing 16                     | 0.19        |
| HuAg<40f | 0.49      | MRC1     | X55635       | Hs.75182  | 4360       | 10  | Mannose receptor, C type 1                                   | 0.19        |
| HuAg<40f | 0.49      | ALOX15B  | BG696804     | Hs.111256 | 247        | 17  | Arachidonate 15-lipoxygenase, second type                    | 0.19        |
| HuAg<40f | 0.49      | DEFA1    | M26602       | Hs.380781 | 1667       | 8   | Defensin, alpha 1                                            | 0.19        |
| HuAg<40f | 0.50      | DOC1     | U53445       | Hs.104672 | 11259      | 3   | Downregulated in ovarian cancer 1                            | 0.19        |
| HuAg<40f | 0.50      | ITGB1    | AW513695     | Hs.429052 | 3688       | 10  | Integrin, beta 1                                             | 0.19        |
| HuAg<40f | 0.50      | PRELP    | BE836107     | Hs.632481 | 5549       | 1   | Proline/arginine-rich end leucine-rich repeat protein        | 0.19        |
| HuAg<40f | 0.50      | CA3      | BC004897     | Hs.82129  | 761        | 8   | Carbonic anhydrase III, muscle specific                      | 0.19        |
| HuAg<40f | 0.50      | RASSF4   | AF260335     | Hs.522895 | 83937      | 10  | Ras association (RalGDS/AF-6) domain family 4                | 0.19        |

#### f. Human myocardium of donors <40 years old, Agilent platform, male-biased genes

| Dataset  | Ratio M/F | Symbol    | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                 | q-value (%) |
|----------|-----------|-----------|--------------|-----------|------------|-----|-------------------------------------------------------------|-------------|
| HuAg<40m | 16.94     | TNFRSF11B | U94332       | Hs.81791  | 4982       | 8   | Tumor necrosis factor receptor superfamily, member 11b      | 0.19        |
| HuAg<40m | 6.52      | IL24      | AW008256     | Hs.58831  | 11009      | 1   | Interleukin 24                                              | 0.19        |
| HuAg<40m | 6.33      | USP9Y     | AF000986     | Hs.165856 | 8287       | Y   | Ubiquitin specific protease 9, Y-linked                     | 0.19        |
| HuAg<40m | 5.56      |           | AF093759     |           |            |     |                                                             | 0.19        |
| HuAg<40m | 4.67      | IL24      | U16261       | Hs.642714 | 11009      | 1   | Interleukin 24                                              | 0.19        |
| HuAg<40m | 4.64      | EGR3      | X63741       | Hs.534313 | 1960       | 8   | Early growth response 3                                     | 0.19        |
| HuAg<40m | 4.35      | EIF1AY    | AF000987     | Hs.461178 | 9086       | Y   | Eukaryotic translation initiation factor 1A, Y-linked       | 0.19        |
| HuAg<40m | 3.92      | THBS1     | X14787       | Hs.164226 | 7057       | 15  | Thrombospondin 1                                            | 0.19        |
| HuAg<40m | 3.88      | THBS1     | X14787       | Hs.164226 | 7057       | 15  | Thrombospondin 1                                            | 0.19        |
| HuAg<40m | 3.65      | GADD45A   | AI814872     | Hs.80409  | 1647       | 1   | Growth arrest and DNA-damage-inducible, alpha               | 0.19        |
| HuAg<40m | 3.65      | SLCO1A2   | AF085224     | Hs.46440  | 6579       | 12  | Solute carrier organic anion transporter family, member 1A2 | 0.19        |
| HuAg<40m | 3.57      | DGKD      | D63479       | Hs.471675 | 8527       | 2   | Diacylglycerol kinase, delta 130kDa                         | 0.19        |
| HuAg<40m | 3.51      | SMCY      | D87072       | Hs.80358  | 8284       | Y   | Smcy homolog, Y-linked (mouse)                              | 0.19        |
| HuAg<40m | 3.49      |           | M37719       |           |            |     |                                                             | 0.19        |
| HuAg<40m | 3.39      | TNC       | BG679767     | Hs.143250 | 3371       | 9   | Tenascin C (hexabrachion)                                   | 0.19        |
| HuAg<40m | 3.36      | TNC       | X78565       | Hs.143250 | 3371       | 9   | Tenascin C (hexabrachion)                                   | 0.19        |
| HuAg<40m | 3.33      | GSTT1     | AI281103     | Hs.268573 | 2952       | 22  | Glutathione S-transferase theta 1                           | 0.19        |
| HuAg<40m | 3.32      | GADD45A   | M60974       | Hs.80409  | 1647       | 1   | Growth arrest and DNA-damage-inducible, alpha               | 0.19        |

| Dataset  | Ratio M/F | Symbol  | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                           | q-value (%) |
|----------|-----------|---------|--------------|-----------|------------|-----|-------------------------------------------------------|-------------|
| HuAg<40m | 3.30      | EIF1AY  | BG498472     | Hs.461178 | 9086       | Y   | Eukaryotic translation initiation factor 1A, Y-linked | 0.19        |
| HuAg<40m | 3.22      | CCL11   | U46573       | Hs.54460  | 6356       | 17  | Chemokine (C-C motif) ligand 11                       | 0.19        |
| HuAg<40m | 3.21      | IER3    | AI911657     | Hs.76095  | 8870       | 6   | Immediate early response 3                            | 0.19        |
| HuAg<40m | 3.13      | SLN     | BC005261     | Hs.334629 | 6588       | 11  | Sarcolipin                                            | 0.19        |
| HuAg<40m | 3.11      | IL8     | M26383       | Hs.624    | 3576       | 4   | Interleukin 8                                         | 0.19        |
| HuAg<40m | 3.11      | ATF3    | BI834286     | Hs.460    | 467        | 1   | Activating transcription factor 3                     | 0.19        |
| HuAg<40m | 3.11      | HSPA1A  | BG674024     | Hs.520028 | 3303       |     | Heat shock 70kDa protein 1A                           | 0.19        |
| HuAg<40m | 3.04      |         | AP000503     |           |            |     |                                                       | 0.19        |
| HuAg<40m | 3.03      | ELF3    | AF017307     | Hs.67928  | 1999       | 1   | E74-like factor 3                                     | 0.19        |
| HuAg<40m | 3.03      |         | AP000503     |           |            |     |                                                       | 0.19        |
| HuAg<40m | 3.00      | IL8     | BG777366     | Hs.624    | 3576       | 4   | Interleukin 8                                         | 0.19        |
| HuAg<40m | 2.95      | EGR3    | X63741       | Hs.534313 | 1960       | 8   | Early growth response 3                               | 0.19        |
| HuAg<40m | 2.94      | CCL11   | AA127067     | Hs.54460  | 6356       | 17  | Chemokine (C-C motif) ligand 11                       | 0.19        |
| HuAg<40m | 2.93      | GSTT1   | BC007065     | Hs.268573 | 2952       | 22  | Glutathione S-transferase theta 1                     | 0.19        |
| HuAg<40m | 2.81      | PCDH20  | AF169693     | Hs.391781 | 64881      | 13  | Protocadherin 20                                      | 0.19        |
| HuAg<40m | 2.78      |         | M60119       |           |            |     |                                                       | 0.19        |
| HuAg<40m | 2.77      | FOSL1   | X16707       | Hs.283565 | 8061       | 11  | FOS-like antigen 1                                    | 0.19        |
| HuAg<40m | 2.70      | RRAD    | BC011645     | Hs.1027   | 6236       | 16  | Ras-related associated with diabetes                  | 0.19        |
| HuAg<40m | 2.69      | ARHE    | S82240       | Hs.6838   | 390        | 2   | Rho family GTPase 3                                   | 0.19        |
| HuAg<40m | 2.67      | AREG    | AL546917     | Hs.270833 | 374        | 4   | Amphiregulin (schwannoma-derived growth factor)       | 0.19        |
| HuAg<40m | 2.66      |         | AAK60925     |           |            |     |                                                       | 0.19        |
| HuAg<40m | 2.63      | ALDH1A3 | U07919       | Hs.459538 | 220        | 15  | Aldehyde dehydrogenase 1 family, member A3            | 0.19        |
| HuAg<40m | 2.63      | SLN     | BC005261     | Hs.334629 | 6588       | 11  | Sarcolipin                                            | 0.19        |
| HuAg<40m | 2.61      | IL6     | M54894       | Hs.512234 | 3569       | 7   | Interleukin 6 (interferon, beta 2)                    | 0.19        |
| HuAg<40m | 2.60      | NP      | X00737       | Hs.75514  | 4860       | 14  | Nucleoside phosphorylase                              | 0.19        |
| HuAg<40m | 2.57      | IL1RN   | X52015       | Hs.81134  | 3557       | 2   | Interleukin 1 receptor antagonist                     | 0.19        |
| HuAg<40m | 2.53      | KLF5    | AF287272     | Hs.508234 | 688        | 13  | Kruppel-like factor 5 (intestinal)                    | 0.19        |
| HuAg<40m | 2.52      | ELF3    | AL555767     | Hs.67928  | 1999       | 1   | E74-like factor 3                                     | 0.19        |
| HuAg<40m | 2.52      | RPS4Y1  | M58459       | Hs.282376 | 6192       | Y   | Ribosomal protein S4, Y-linked 1                      | 0.19        |
| HuAg<40m | 2.51      | RRAD    | AI186786     | Hs.1027   | 6236       | 16  | Ras-related associated with diabetes                  | 0.19        |
| HuAg<40m | 2.47      | PDE8B   | AW204224     | Hs.584830 | 8622       | 5   | Phosphodiesterase 8B                                  | 0.19        |
| HuAg<40m | 2.46      | PHLDA1  | AF220656     | Hs.484885 | 22822      | 12  | Pleckstrin homology-like domain, family A, member 1   | 0.19        |
| HuAg<40m | 2.39      | GZMK    | AA947915     | Hs.277937 | 3003       | 5   | Granzyme K (serine protease, granzyme 3; tryptase II) | 0.19        |
| HuAg<40m | 2.36      | DNAJB5  | AK023253     | Hs.237506 | 25822      | 9   | DnaJ (Hsp40) homolog, subfamily B, member 5           | 0.19        |
| HuAg<40m | 2.32      | TNNI1   | J04760       | Hs.320890 | 7135       | 1   | Troponin I, skeletal, slow                            | 0.19        |
| HuAg<40m | 2.24      |         | AP001751     |           |            |     |                                                       | 0.19        |
| HuAg<40m | 2.23      | PTX3    | X63613       | Hs.591286 | 5806       | 3   | Pentraxin-related gene, rapidly induced by IL-1 beta  | 0.19        |
| HuAg<40m | 2.23      | FOSB    | L49169       | Hs.75678  | 2354       | 19  | FBJ murine osteosarcoma viral oncogene homolog B      | 0.19        |
| HuAg<40m | 2.23      |         | U09937       |           |            |     |                                                       | 0.19        |

| Dataset  | Ratio M/F | Symbol | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                     | q-value (%) |
|----------|-----------|--------|--------------|-----------|------------|-----|-----------------------------------------------------------------|-------------|
| HuAg<40m | 2.22      | PLAU   | M15476       | Hs.77274  | 5328       | 10  | Plasminogen activator, urokinase                                | 0.19        |
| HuAg<40m | 2.21      | THBS2  | L12350       | Hs.371147 | 7058       | 6   | Thrombospondin 2                                                | 0.19        |
| HuAg<40m | 2.21      | BCL2A1 | Y09397       | Hs.227817 | 597        | 15  | BCL2-related protein A1                                         | 0.19        |
| HuAg<40m | 2.20      | NPPA   | BC005893     | Hs.75640  | 4878       | 1   | Natriuretic peptide precursor A                                 | 0.19        |
| HuAg<40m | 2.19      | NP     | BE266250     | Hs.75514  | 4860       | 14  | Nucleoside phosphorylase                                        | 0.19        |
| HuAg<40m | 2.19      |        | L26336       |           |            |     |                                                                 | 0.19        |
| HuAg<40m | 2.18      | CCL22  | U83171       | Hs.534347 | 6367       | 16  | Chemokine (C-C motif) ligand 22                                 | 0.19        |
| HuAg<40m | 2.15      | IL1RN  | BG288796     | Hs.81134  | 3557       | 2   | Interleukin 1 receptor antagonist                               | 0.19        |
| HuAg<40m | 2.15      | IL6    | X04430       | Hs.512234 | 3569       | 7   | Interleukin 6 (interferon, beta 2)                              | 0.19        |
| HuAg<40m | 2.14      | TREM1  | AF287008     | Hs.283022 | 54210      | 6   | Triggering receptor expressed on myeloid cells 1                | 0.19        |
| HuAg<40m | 2.13      | EGR1   | AA399119     | Hs.326035 | 1958       | 5   | Early growth response 1                                         | 0.19        |
| HuAg<40m | 2.12      | CYP2J2 | U37143       | Hs.152096 | 1573       | 1   | Cytochrome P450, family 2, subfamily J, polypeptide 2           | 0.19        |
| HuAg<40m | 2.12      | CCL7   | AI739337     | Hs.251526 | 6354       | 17  | Chemokine (C-C motif) ligand 7                                  | 0.19        |
| HuAg<40m | 2.12      | RXRG   | BC012063     | Hs.26550  | 6258       | 1   | Retinoid X receptor, gamma                                      | 0.19        |
| HuAg<40m | 2.11      | PCDH20 | AF169693     | Hs.391781 | 64881      | 13  | Protocadherin 20                                                | 0.19        |
| HuAg<40m | 2.11      | TANC1  | AB051515     | Hs.158728 | 85461      | 2   | Tetratricopeptide repeat, ankyrin repeat and coiled-coil 1      | 0.19        |
| HuAg<40m | 2.09      | BCL2A1 | BF677029     | Hs.227817 | 597        | 15  | BCL2-related protein A1                                         | 0.19        |
| HuAg<40m | 2.07      | RRAS2  | M31468       | Hs.502004 | 22800      | 11  | Related RAS viral (r-ras) oncogene homolog 2                    | 0.19        |
| HuAg<40m | 2.06      | RASSF5 | BC004270     | Hs.497579 | 83593      | 1   | Ras association (RalGDS/AF-6) domain family 5                   | 0.19        |
| HuAg<40m | 2.06      | PTGFRN | AK001863     | Hs.418093 | 5738       | 1   | Prostaglandin F2 receptor negative regulator                    | 0.19        |
| HuAg<40m | 2.05      | NR1D1  | NM_021724    | Hs.276916 | 9572       | 17  | Nuclear receptor subfamily 1, group D, member 1                 | 0.19        |
| HuAg<40m | 2.05      |        | L19592       |           |            |     |                                                                 | 0.19        |
| HuAg<40m | 2.05      | PPARD  | AI968278     | Hs.485196 | 5467       | 6   | Peroxisome proliferative activated receptor, delta              | 0.19        |
| HuAg<40m | 2.05      | CREM   | AL526053     | Hs.200250 | 1390       | 10  | CAMP responsive element modulator                               | 0.19        |
| HuAg<40m | 2.04      | PTP4A1 | U48296       | Hs.227777 | 7803       | 6   | Protein tyrosine phosphatase type IVA, member 1                 | 0.19        |
| HuAg<40m | 2.03      | PSCD4  | AF075458     | Hs.170944 | 27128      | 22  | Pleckstrin homology, Sec7 and coiled-coil domains 4             | 0.19        |
| HuAg<40m | 2.00      | TIE1   | X60957       | Hs.78824  | 7075       | 1   | Tyrosine kinase with immunoglobulin-like and EGF-like domains 1 | 0.19        |
| HuAg<40m | 2.00      | NPPA   | M30262       | Hs.75640  | 4878       | 1   | Natriuretic peptide precursor A                                 | 0.19        |

### g. Human myocardium of donors 50-65 years old, Agilent platform, female-biased genes

| Dataset    | Ratio M/F | Symbol   | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                           | q-value (%) |
|------------|-----------|----------|--------------|-----------|------------|-----|-----------------------------------------------------------------------|-------------|
| HuAg50-65f | 0.06      | NPPB     | NM_002521    | Hs.219140 | 4879       | 1   | Natriuretic peptide precursor B                                       | 0.10        |
| HuAg50-65f | 0.09      | TNC      | BG679767     | Hs.143250 | 3371       | 9   | Tenascin C (hexabrachion)                                             | 0.10        |
| HuAg50-65f | 0.10      |          | AB037521     |           |            |     |                                                                       | 0.10        |
| HuAg50-65f | 0.13      | TNC      | X78565       | Hs.143250 | 3371       | 9   | Tenascin C (hexabrachion)                                             | 0.10        |
| HuAg50-65f | 0.14      |          | AF252549     |           |            |     |                                                                       | 0.10        |
| HuAg50-65f | 0.14      | SERPINE1 | BG829624     | Hs.414795 | 5054       | 7   | Serpin peptidase inhibitor, clade E (nexin, plasminogen activator int | 0.10        |

| Dataset    | Ratio M/F | Symbol    | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                 | q-value (%) |
|------------|-----------|-----------|--------------|-----------|------------|-----|-------------------------------------------------------------|-------------|
| HuAg50-65f | 0.17      | TNFRSF11B | U94332       | Hs.81791  | 4982       | 8   | Tumor necrosis factor receptor superfamily, member 11b      | 0.10        |
| HuAg50-65f | 0.21      | ITGA5     | BC008786     | Hs.505654 | 3678       | 12  | Integrin, alpha 5                                           | 0.10        |
| HuAg50-65f | 0.27      | ITGB1     | AW513695     | Hs.429052 | 3688       | 10  | Integrin, beta 1                                            | 0.10        |
| HuAg50-65f | 0.28      | DHRS9     | AY017349     | Hs.179608 | 10170      | 2   | Dehydrogenase/reductase (SDR family) member 9               | 0.10        |
| HuAg50-65f | 0.28      |           | AAC53323     |           |            |     |                                                             | 0.10        |
| HuAg50-65f | 0.29      | TUBA1     | BE742772     | Hs.75318  | 7277       | 2   | Tubulin, alpha 1 (testis specific)                          | 0.10        |
| HuAg50-65f | 0.29      | ITGA5     | M13918       | Hs.505654 | 3678       | 12  | Integrin, alpha 5 (fibronectin receptor, alpha polypeptide) | 0.10        |
| HuAg50-65f | 0.29      | MYH9      | BG699149     | Hs.474751 | 4627       | 22  | Myosin, heavy polypeptide 9, non-muscle                     | 0.10        |
| HuAg50-65f | 0.29      | TAGLN     | BI561636     | Hs.632099 | 6876       | 11  | Transgelin                                                  | 0.10        |
| HuAg50-65f | 0.30      | CNN1      | AL046845     | Hs.465929 | 1264       | 19  | Calponin 1, basic, smooth muscle                            | 0.10        |
| HuAg50-65f | 0.30      | TGM2      | AL552373     | Hs.517033 | 7052       | 20  | Transglutaminase 2                                          | 0.10        |
| HuAg50-65f | 0.33      | DEFA1     | M26602       | Hs.380781 | 1667       | 8   | Defensin, alpha 1                                           | 0.10        |
| HuAg50-65f | 0.33      | DGKD      | D63479       | Hs.471675 | 8527       | 2   | Diacylglycerol kinase, delta 130kDa                         | 0.10        |
| HuAg50-65f | 0.33      |           | X06956       |           |            |     |                                                             | 0.10        |
| HuAg50-65f | 0.33      | CD44      | M24915       | Hs.502328 | 960        | 11  | CD44 molecule (Indian blood group)                          | 0.10        |
| HuAg50-65f | 0.33      | MYH9      | BF304650     | Hs.474751 | 4627       | 22  | Myosin, heavy polypeptide 9, non-muscle                     | 0.10        |
| HuAg50-65f | 0.34      | ITGA3     | M59911       | Hs.265829 | 3675       | 17  | Integrin, alpha 3                                           | 0.10        |
| HuAg50-65f | 0.34      | KLF6      | AU139931     | Hs.4055   | 1316       | 10  | Kruppel-like factor 6                                       | 0.10        |
| HuAg50-65f | 0.35      | COL1A1    | AW577407     | Hs.172928 | 1277       | 17  | Collagen, type I, alpha 1                                   | 0.10        |
| HuAg50-65f | 0.36      | TAGLN     | BC004927     | Hs.632099 | 6876       | 11  | Transgelin                                                  | 0.10        |
| HuAg50-65f | 0.36      | TXNRD1    | BE787478     | Hs.567352 | 7296       | 12  | Thioredoxin reductase 1                                     | 0.10        |
| HuAg50-65f | 0.36      | ACTG2     | X16940       | Hs.516105 | 72         | 2   | Actin, gamma 2, smooth muscle, enteric                      | 0.10        |
| HuAg50-65f | 0.36      | KLF6      | U51869       | Hs.4055   | 1316       | 10  | Kruppel-like factor 6                                       | 0.10        |
| HuAg50-65f | 0.36      |           | S37730       |           |            |     |                                                             | 0.10        |
| HuAg50-65f | 0.37      | FOSL1     | X16707       | Hs.283565 | 8061       | 11  | FOS-like antigen 1                                          | 0.10        |
| HuAg50-65f | 0.38      | LOH3CR2A  | BG534296     | Hs.591661 | 29931      |     | Loss of heterozygosity, 3, chromosomal region 2, gene A     | 0.10        |
| HuAg50-65f | 0.38      | ACTA2     | BF681347     | Hs.500483 | 59         | 10  | Actin, alpha 2, smooth muscle, aorta                        | 0.10        |
| HuAg50-65f | 0.38      | ADFP      | BC005127     | Hs.3416   | 123        | 9   | Adipose differentiation-related protein                     | 0.10        |
| HuAg50-65f | 0.38      | ZYX       | BI825951     | Hs.490415 | 7791       | 7   | Zyxin                                                       | 0.10        |
| HuAg50-65f | 0.38      | TNNT2     | X79861       | Hs.533613 | 7139       | 1   | Troponin T type 2 (cardiac)                                 | 0.10        |
| HuAg50-65f | 0.39      | CHST10    | AW956276     | Hs.516370 | 9486       | 2   | Carbohydrate sulfotransferase 10                            | 0.10        |
| HuAg50-65f | 0.39      | TAGLN     | BC004927     | Hs.632099 | 6876       | 11  | Transgelin                                                  | 0.10        |
| HuAg50-65f | 0.39      | XRCC4     | AI795996     | Hs.567359 | 7518       | 5   | X-ray repair complementing defective repair 4               | 0.10        |
| HuAg50-65f | 0.39      | ACTB      | BG481840     | Hs.520640 | 60         | 7   | Actin, beta                                                 | 0.10        |
| HuAg50-65f | 0.39      | CRYAB     | BF726634     | Hs.408767 | 1410       | 11  | Crystallin, alpha B                                         | 0.10        |
| HuAg50-65f | 0.40      | LPL       | X54516       | Hs.180878 | 4023       | 8   | Lipoprotein lipase                                          | 0.10        |
| HuAg50-65f | 0.40      | DNAJA4    | AL133096     | Hs.513053 | 55466      | 15  | DnaJ (Hsp40) homolog, subfamily A, member 4                 | 0.10        |
| HuAg50-65f | 0.40      | UCK2      | N29514       | Hs.458360 | 7371       | 1   | Uridine-cytidine kinase 2                                   | 0.10        |
| HuAg50-65f | 0.40      |           | M26326       |           |            |     |                                                             | 0.10        |

| Dataset    | Ratio M/F | Symbol  | GenBank Acc. | UniGene   | EntrezGene | Chr   | Description                                                       | q-value (%) |
|------------|-----------|---------|--------------|-----------|------------|-------|-------------------------------------------------------------------|-------------|
| HuAg50-65f | 0.41      | KRT18   | BI160503     | Hs.406013 | 3875       | 12    | Keratin 18                                                        | 0.10        |
| HuAg50-65f | 0.41      | CPEB4   | AB051460     | Hs.127126 | 80315      | 5     | Cytoplasmic polyadenylation element binding protein 4             | 0.10        |
| HuAg50-65f | 0.41      | ANXA5   | J03745       | Hs.480653 | 308        | 4     | Annexin A5                                                        | 0.10        |
| HuAg50-65f | 0.41      | MARCH3  | AW593996     | Hs.132441 | 115123     | 5     | Membrane-associated ring finger (C3HC4) 3                         | 0.10        |
| HuAg50-65f | 0.41      | ACTG2   | X16940       | Hs.516105 | 72         | 2     | Actin, gamma 2, smooth muscle, enteric                            | 0.10        |
| HuAg50-65f | 0.41      | KRT5    | BG681462     | Hs.433845 | 3852       | 12    | Keratin 5                                                         | 0.10        |
| HuAg50-65f | 0.41      | MYO1C   | BE395925     | Hs.286226 | 4641       | 17    | Myosin IC                                                         | 0.10        |
| HuAg50-65f | 0.41      | CRYAB   | BC007008     | Hs.408767 | 1410       | 11    | Crystallin, alpha B                                               | 0.10        |
| HuAg50-65f | 0.42      | TTN     | X90569       | Hs.134602 | 7273       | 2     | Titin                                                             | 0.10        |
| HuAg50-65f | 0.42      | DOC1    | U53445       | Hs.104672 | 11259      | 3     | Downregulated in ovarian cancer 1                                 | 0.10        |
| HuAg50-65f | 0.42      | MRCL3   | AA345289     | Hs.190086 | 10627      | 18    | Myosin regulatory light chain MRCL3                               | 0.10        |
| HuAg50-65f | 0.42      | KRT18   | X12883       | Hs.406013 | 3875       | 12    | Keratin 18                                                        | 0.10        |
| HuAg50-65f | 0.42      | NP      | X00737       | Hs.75514  | 4860       | 14    | Nucleoside phosphorylase                                          | 0.10        |
| HuAg50-65f | 0.42      | EIF3S2  | BG484643     | Hs.530096 | 8668       | 1     | Eukaryotic translation initiation factor 3, subunit 2 beta, 36kDa | 0.10        |
| HuAg50-65f | 0.42      | OPN1SW  | BG254319     | Hs.592258 | 611        | 7     | Opsin 1 (cone pigments), short-wave-sensitive                     | 0.10        |
| HuAg50-65f | 0.42      | P2RX5   | AI920988     | Hs.408615 | 5026       | 17    | Purinergic receptor P2X, ligand-gated ion channel, 5              | 0.10        |
| HuAg50-65f | 0.42      | PICALM  | U45976       | Hs.163893 | 8301       | 11    | Phosphatidylinositol binding clathrin assembly protein            | 0.10        |
| HuAg50-65f | 0.42      | CDKN1A  | AL542973     | Hs.370771 | 1026       | 6     | Cyclin-dependent kinase inhibitor 1A (p21, Cip1)                  | 0.10        |
| HuAg50-65f | 0.42      | HLA-DRA | BF795929     | Hs.520048 | 3122       | c6_CO | Major histocompatibility complex, class II, DR alpha              | 0.10        |
| HuAg50-65f | 0.43      |         | BF589043     | Hs.598421 | 0          | X     | Transcribed locus                                                 | 0.10        |
| HuAg50-65f | 0.43      | FCN1    | AL583593     | Hs.440898 | 2219       | 9     | Ficolin (collagen/fibrinogen domain containing) 1                 | 0.10        |
| HuAg50-65f | 0.43      | POSTN   | AW608422     | Hs.136348 | 10631      | 13    | Periostin, osteoblast specific factor                             | 0.10        |
| HuAg50-65f | 0.43      | YWHAH   | BI458375     | Hs.226755 | 7533       | 22    | Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activatio     | 0.10        |
| HuAg50-65f | 0.43      | EIF3S2  | BC003140     | Hs.530096 | 8668       | 1     | Eukaryotic translation initiation factor 3, subunit 2 beta, 36kDa | 0.10        |
| HuAg50-65f | 0.43      | TUBA3   | BC009314     | Hs.524390 | 7846       | 12    | Tubulin, alpha 3                                                  | 0.10        |
| HuAg50-65f | 0.44      |         | AW516955     | Hs.594474 | 0          |       | Transcribed locus                                                 | 0.10        |
| HuAg50-65f | 0.44      | CNN3    | S80562       | Hs.483454 | 1266       | 1     | Calponin 3, acidic                                                | 0.10        |
| HuAg50-65f | 0.44      | MRCL3   | X54304       | Hs.190086 | 10627      | 18    | Myosin regulatory light chain MRCL3                               | 0.10        |
| HuAg50-65f | 0.44      | COL1A1  | Z74615       | Hs.172928 | 1277       | 17    | Collagen, type I, alpha 1                                         | 0.10        |
| HuAg50-65f | 0.44      | CDKN1A  | U03106       | Hs.370771 | 1026       | 6     | Cyclin-dependent kinase inhibitor 1A (p21, Cip1)                  | 0.10        |
| HuAg50-65f | 0.44      | ZFP106  | AF205632     | Hs.511143 | 64397      | 15    | Zinc finger protein 106 homolog (mouse)                           | 0.10        |
| HuAg50-65f | 0.44      | MRCL3   | BG434307     | Hs.190086 | 10627      | 18    | Myosin regulatory light chain MRCL3                               | 0.10        |
| HuAg50-65f | 0.44      | RPL3    | AV756387     | Hs.119598 | 6122       | 22    | Ribosomal protein L3                                              | 0.10        |
| HuAg50-65f | 0.44      | CD1D    | J04142       | Hs.1799   | 912        | 1     | CD1d molecule                                                     | 0.10        |
| HuAg50-65f | 0.44      | COL1A1  | Z74615       | Hs.172928 | 1277       | 17    | Collagen, type I, alpha 1                                         | 0.10        |
| HuAg50-65f | 0.44      | CCL11   | U46573       | Hs.54460  | 6356       | 17    | Chemokine (C-C motif) ligand 11                                   | 0.10        |
| HuAg50-65f | 0.44      |         | BAB26321     |           |            |       |                                                                   | 0.10        |
| HuAg50-65f | 0.45      | NPM1    | AB042278     | Hs.557550 | 4869       | 5     | Nucleophosmin (nucleolar phosphoprotein B23, numatrin)            | 0.10        |
| HuAg50-65f | 0.45      | SLC38A2 | AF298897     | Hs.221847 | 54407      | 12    | Solute carrier family 38, member 2                                | 0.10        |

| Dataset    | Ratio M/F | Symbol   | GenBank Acc. | UniGene   | EntrezGene | Chr   | Description                                                            | q-value (%) |
|------------|-----------|----------|--------------|-----------|------------|-------|------------------------------------------------------------------------|-------------|
| HuAg50-65f | 0.45      | KRT8     | BC000654     | Hs.533782 | 3856       | 12    | Keratin 8                                                              | 0.10        |
| HuAg50-65f | 0.45      | ZYX      | BC009360     | Hs.490415 | 7791       | 7     | Zyxin                                                                  | 0.10        |
| HuAg50-65f | 0.45      | MAP2K3   | BE560878     | Hs.514012 | 5606       | 17    | Mitogen-activated protein kinase kinase 3                              | 0.10        |
| HuAg50-65f | 0.45      |          | L22569       |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.46      |          | X98248       |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.46      | CAST     | BG681089     | Hs.440961 | 831        | 5     | Calpastatin                                                            | 0.10        |
| HuAg50-65f | 0.46      |          | X00734       |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.46      | PPIB     | BE868117     | Hs.434937 | 5479       | 15    | Peptidylprolyl isomerase B (cyclophilin B)                             | 0.10        |
| HuAg50-65f | 0.46      | ANKRD2   | AB058599     | Hs.73708  | 26287      | 10    | Ankyrin repeat domain 2 (stretch responsive muscle)                    | 0.10        |
| HuAg50-65f | 0.46      | COL3A1   | X14420       | Hs.443625 | 1281       | 2     | Collagen, type III, alpha 1                                            | 0.10        |
| HuAg50-65f | 0.46      | PRG1     | X17042       | Hs.1908   | 5552       | 10    | Proteoglycan 1, secretory granule                                      | 0.10        |
| HuAg50-65f | 0.46      | RBM3     | AU143092     | Hs.301404 | 5935       | X     | RNA binding motif (RNP1, RRM) protein 3                                | 0.10        |
| HuAg50-65f | 0.46      | MCM7     | D28480       | Hs.438720 | 4176       | 7     | MCM7 minichromosome maintenance deficient 7                            | 0.10        |
| HuAg50-65f | 0.47      | RPLP0    | BF669160     | Hs.448226 | 6175       | 12    | Ribosomal protein, large, P0                                           | 0.10        |
| HuAg50-65f | 0.47      | HMGB1    | BG248148     | Hs.593339 | 3146       | 13    | High-mobility group box 1                                              | 0.10        |
| HuAg50-65f | 0.47      | TIMP1    | BC000866     | Hs.522632 | 7076       | X     | TIMP metalloproteinase inhibitor 1                                     | 0.10        |
| HuAg50-65f | 0.47      | FSTL3    | NM_005860    | Hs.529038 | 10272      | 19    | Follistatin-like 3 (secreted glycoprotein)                             | 0.10        |
| HuAg50-65f | 0.47      | HLA-DQA1 | X00033       | Hs.387679 | 3117       | c6_QB | Major histocompatibility complex, class II, DQ alpha 1                 | 0.10        |
| HuAg50-65f | 0.47      | YWHAZ    | AL556551     | Hs.492407 | 7534       | 8     | Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activatio          | 0.10        |
| HuAg50-65f | 0.47      | CA3      | NM_005181    | Hs.82129  | 761        | 8     | Carbonic anhydrase III, muscle specific                                | 0.10        |
| HuAg50-65f | 0.47      | PRG1     | BG489803     | Hs.1908   | 5552       | 10    | Proteoglycan 1, secretory granule                                      | 0.10        |
| HuAg50-65f | 0.47      | IFI30    | BG025622     | Hs.14623  | 10437      | 19    | Interferon, gamma-inducible protein 30                                 | 0.10        |
| HuAg50-65f | 0.47      | DAZAP2   | D31767       | Hs.369761 | 9802       | 12    | DAZ associated protein 2                                               | 0.10        |
| HuAg50-65f | 0.48      | FKBP5    | U42031       | Hs.407190 | 2289       | 6     | FK506 binding protein 5                                                | 0.10        |
| HuAg50-65f | 0.48      | MYC      | BG256267     | Hs.202453 | 4609       | 8     | V-myc myelocytomatosis viral oncogene homolog (avian)                  | 0.10        |
| HuAg50-65f | 0.48      | CLTB     | BE791502     | Hs.484241 | 1212       | 5     | Clathrin, light polypeptide (Lcb)                                      | 0.10        |
| HuAg50-65f | 0.48      |          | AF251295     |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.48      | KRT8     | BI255878     | Hs.596312 | 3856       | 12    | Keratin 8                                                              | 0.10        |
| HuAg50-65f | 0.48      | GNAI2    | BC014627     | Hs.77269  | 2771       | 3     | Guanine nucleotide binding protein (G protein), alpha inhibiting activ | 0.10        |
| HuAg50-65f | 0.48      |          | X07057       |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.48      | MSN      | NM_002444    | Hs.87752  | 4478       | X     | Moesin                                                                 | 0.10        |
| HuAg50-65f | 0.49      |          | M27024       |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.49      |          | AF125348     |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.49      | MTHFD2   | BI333682     | Hs.469030 | 10797      | 2     | Methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, r         | 0.10        |
| HuAg50-65f | 0.49      |          | X07979       |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.49      |          | AF168787     |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.49      |          | M21533       |           |            |       |                                                                        | 0.10        |
| HuAg50-65f | 0.49      | CYBA     | M21186       | Hs.513803 | 1535       | 16    | Cytochrome b-245, alpha polypeptide                                    | 0.10        |
| HuAg50-65f | 0.49      | ITGB1    | AA525231     | Hs.429052 | 3688       | 10    | Integrin, beta 1                                                       | 0.10        |

| Dataset    | Ratio M/F | Symbol   | GenBank Acc. | UniGene   | EntrezGene | Chr  | Description                                                       | q-value (%) |
|------------|-----------|----------|--------------|-----------|------------|------|-------------------------------------------------------------------|-------------|
| HuAg50-65f | 0.50      | TIMP1    | BC000866     | Hs.522632 | 7076       | X    | TIMP metalloproteinase inhibitor 1                                | 0.10        |
| HuAg50-65f | 0.50      | CA3      | BC004897     | Hs.82129  | 761        | 8    | Carbonic anhydrase III, muscle specific                           | 0.10        |
| HuAg50-65f | 0.50      | HSPA5    | AF188611     | Hs.632687 | 3309       | 9    | Heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa)     | 0.10        |
| HuAg50-65f | 0.50      | LOC90499 | AL137712     | Hs.458439 | 90499      | chr2 | Hypothetical protein LOC90499                                     | 0.10        |
| HuAg50-65f | 0.50      | DEFA1    | NM_021010    | Hs.380781 | 1667       | 8    | Defensin, alpha 1                                                 | 0.12        |
| HuAg50-65f | 0.50      | CSDA     | BC008801     | Hs.221889 | 8531       | 12   | Cold shock domain protein A                                       | 0.10        |
| HuAg50-65f | 0.50      | MLLT7    | AL544994     | Hs.584654 | 4303       | X    | Myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Dr | 0.10        |
| HuAg50-65f | 0.50      |          | AF153274     |           |            |      |                                                                   | 0.10        |
| HuAg50-65f | 0.50      | CTSB     | AL546380     | Hs.520898 | 1508       | 8    | Cathepsin B                                                       | 0.10        |
| HuAg50-65f | 0.50      | CYBA     | BG751568     | Hs.513803 | 1535       | 16   | Cytochrome b-245, alpha polypeptide                               | 0.10        |
| HuAg50-65f | 0.50      | CLTB     | BC006332     | Hs.484241 | 1212       | 5    | Clathrin, light polypeptide (Lcb)                                 | 0.10        |
| HuAg50-65f | 0.50      | PLP2     | BI912458     | Hs.77422  | 5355       | X    | Proteolipid protein 2 (colonic epithelium-enriched)               | 0.10        |
| HuAg50-65f | 0.50      | CCL11    | AA127067     | Hs.54460  | 6356       | 17   | Chemokine (C-C motif) ligand 11                                   | 0.10        |

#### h. Human myocardium of donors 50-65 years old, Agilent platform, male-biased genes

| Dataset    | Ratio M/F | Symbol   | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                           | q-value (%) |
|------------|-----------|----------|--------------|-----------|------------|-----|-------------------------------------------------------|-------------|
| HuAg50-65m | 6.37      | USP9Y    | AF000986     | Hs.165856 | 8287       | Y   | Ubiquitin specific peptidase 9, Y-linked              | 0.10        |
| HuAg50-65m | 5.19      | EIF1AY   | AF000987     | Hs.461178 | 9086       | Y   | Eukaryotic translation initiation factor 1A, Y-linked | 0.10        |
| HuAg50-65m | 4.69      | EIF1AY   | BG498472     | Hs.461178 | 9086       | Y   | Eukaryotic translation initiation factor 1A, Y-linked | 0.10        |
| HuAg50-65m | 3.51      |          | AA670369     | Hs.504844 | 0          | 12  | DKFZp686G08203 (from clone DKFZp686G08203)            | 0.10        |
| HuAg50-65m | 2.86      | MDK      | AI784469     | Hs.82045  | 4192       | 11  | Midkine (neurite growth-promoting factor 2)           | 0.10        |
| HuAg50-65m | 2.76      | HBD      | BG943559     | Hs.591988 | 3045       | 11  | Hemoglobin, delta                                     | 0.10        |
| HuAg50-65m | 2.74      | GSTT1    | AI281103     | Hs.268573 | 2952       | 22  | Glutathione S-transferase theta 1                     | 0.10        |
| HuAg50-65m | 2.72      | DTWD2    | AW499970     | Hs.14822  | 285605     | 5   | DTW domain containing 2                               | 0.12        |
| HuAg50-65m | 2.70      |          | M19480       |           |            |     |                                                       | 0.10        |
| HuAg50-65m | 2.50      | CAPN6    | AU136176     | Hs.496593 | 827        | X   | Calpain 6                                             | 0.10        |
| HuAg50-65m | 2.39      | TRIM25   | D21205       | Hs.528952 | 7706       | 17  | Tripartite motif-containing 25                        | 0.10        |
| HuAg50-65m | 2.35      | G0S2     | BE877502     | Hs.432132 | 50486      | 1   | G0/G1switch 2                                         | 0.10        |
| HuAg50-65m | 2.35      | HRG      | AV690714     | Hs.1498   | 3273       | 3   | Histidine-rich glycoprotein                           | 0.10        |
| HuAg50-65m | 2.30      |          | AE006462     |           |            |     |                                                       | 0.10        |
| HuAg50-65m | 2.29      | KIF22    | NM_007317    | Hs.613351 | 3835       | 16  | Kinesin family member 22                              | 0.10        |
| HuAg50-65m | 2.28      | KIF22    | AB017430     | Hs.613351 | 3835       | 16  | Kinesin family member 22                              | 0.10        |
| HuAg50-65m | 2.27      |          | M69199       |           |            |     |                                                       | 0.10        |
| HuAg50-65m | 2.27      | WISP2    | AA861514     | Hs.592145 | 8839       | 20  | WNT1 inducible signaling pathway protein 2            | 0.10        |
| HuAg50-65m | 2.26      | ALDOC    | T03444       | Hs.155247 | 230        | 17  | Aldolase C, fructose-bisphosphate                     | 0.10        |
| HuAg50-65m | 2.23      | CXCL3    | X53800       | Hs.89690  | 2921       | 4   | Chemokine (C-X-C motif) ligand 3                      | 0.10        |
| HuAg50-65m | 2.23      | KIAA0251 | AA318390     | Hs.370781 | 23042      | 16  | KIAA0251 protein                                      | 0.10        |

| Dataset    | Ratio M/F | Symbol   | GenBank Acc. | UniGene   | EntrezGene | Chr | Description                                                        | q-value (%) |
|------------|-----------|----------|--------------|-----------|------------|-----|--------------------------------------------------------------------|-------------|
| HuAg50-65m | 2.18      | HIST1H1C | AW316807     | Hs.7644   | 3006       | 6   | Histone 1, H1c                                                     | 0.10        |
| HuAg50-65m | 2.17      | MEGF6    | BG392803     | Hs.56186  | 1953       | 1   | Multiple EGF-like-domains 6                                        | 0.10        |
| HuAg50-65m | 2.16      | UNG2     | BI259616     | Hs.3041   | 10309      | 5   | Uracil-DNA glycosylase 2                                           | 0.10        |
| HuAg50-65m | 2.14      | RPS4Y1   | M58459       | Hs.282376 | 6192       | Y   | Ribosomal protein S4, Y-linked 1                                   | 0.10        |
| HuAg50-65m | 2.13      | AUTS2    | AK025298     | Hs.21631  | 26053      | 7   | Autism susceptibility candidate 2                                  | 0.10        |
| HuAg50-65m | 2.11      | HEPH     | AW960584     | Hs.31720  | 9843       | X   | Hephaestin                                                         | 0.10        |
| HuAg50-65m | 2.11      | ALAS2    | X60364       | Hs.522666 | 212        | X   | Aminolevulinate, delta-, synthase 2 (sideroblastic/hypochromic ane | 0.12        |
| HuAg50-65m | 2.07      | KIAA0265 | D87454       | Hs.520710 | 23008      | 7   | KIAA0265 protein                                                   | 0.10        |
| HuAg50-65m | 2.06      | CAND2    | AA971779     | Hs.343664 | 23066      | 3   | Cullin-associated and neddylation-dissociated 2 (putative)         | 0.10        |
| HuAg50-65m | 2.06      | ZNF559   | NM_003451    | Hs.172979 | 84527      | 19  | Zinc finger protein 559                                            | 0.10        |
| HuAg50-65m | 2.05      | ATP2A2   | AI620652     | Hs.506759 | 488        | 12  | ATPase, Ca++ transporting, cardiac muscle, slow twitch 2           | 0.10        |
| HuAg50-65m | 2.03      | GUCY2D   | NM_000180    | Hs.592109 | 3000       | 17  | Guanylate cyclase 2D, membrane (retina-specific)                   | 0.10        |
| HuAg50-65m | 2.03      | FLJ10916 | AK001778     | Hs.516179 | 55258      | 2   | Hypothetical protein FLJ10916                                      | 0.10        |
| HuAg50-65m | 2.03      | XPO7     | BG179617     | Hs.172685 | 23039      | 8   | Exportin 7                                                         | 0.10        |
| HuAg50-65m | 2.02      | ATXN7    | BG471299     | Hs.476595 | 6314       | 3   | Ataxin 7                                                           | 0.10        |
| HuAg50-65m | 2.01      | GSTT1    | BC007065     | Hs.268573 | 2952       | 22  | Glutathione S-transferase theta 1                                  | 0.10        |

#### i. Human myocardium, Affymetrix platform, female-biased genes

| Dataset | Ratio M/F | Symbol | GenBank Acc. | UniGene | EntrezGene | Chr | Description                      | q-value (%) |
|---------|-----------|--------|--------------|---------|------------|-----|----------------------------------|-------------|
| HuAffyf | 0.00      | XIST   | 224590_at    | 529901  | 7503       | X   | X (inactive)-specific transcript | 2.49        |
| HuAffyf | 0.00      | XIST   | 224588_at    | 529901  | 7503       | X   | X (inactive)-specific transcript | 2.49        |
| HuAffyf | 0.02      | XIST   | 227671_at    | 529901  | 7503       | X   | X (inactive)-specific transcript | 2.49        |
| HuAffyf | 0.02      | XIST   | 224589_at    | 529901  | 7503       | X   | X (inactive)-specific transcript | 2.49        |
| HuAffyf | 0.03      | XIST   | 214218_s_at  | 529901  | 7503       | X   | X (inactive)-specific transcript | 2.49        |
| HuAffyf | 0.05      | XIST   | 221728_x_at  | 529901  | 7503       | X   | X (inactive)-specific transcript | 2.49        |
| HuAffyf | 0.11      | EREG   | 205767_at    | 115263  | 2069       | 4   | epiregulin                       | 3.35        |
| HuAffyf | 0.30      | XIST   | 231592_at    | 529901  | 7503       | X   | X (inactive)-specific transcript | 2.49        |
| HuAffyf | 0.50      | AZI2   | 227904_at    | 631927  | 64343      | 3   | 5-azacytidine induced 2          | 2.49        |
| HuAffyf | 0.50      | GPM6B  | 209169_at    | 495710  | 2824       | X   | glycoprotein M6B                 | 3.35        |

#### j. Human myocardium, Affymetrix platform, male-biased genes

| Dataset | Ratio M/F | Symbol | GenBank Acc. | UniGene | EntrezGene | Chr | Description                                           | q-value (%) |
|---------|-----------|--------|--------------|---------|------------|-----|-------------------------------------------------------|-------------|
| HuAffym | 411.78    | EIF1AY | 204409_s_at  | 461178  | 9086       | Y   | eukaryotic translation initiation factor 1A, Y-linked | 2.49        |
| HuAffym | 93.46     | EIF1AY | 204410_at    | 461178  | 9086       | Y   | eukaryotic translation initiation factor 1A, Y-linked | 2.49        |
| HuAffym | 62.40     | DDX3Y  | 205000_at    | 99120   | 8653       | Y   | DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked    | 2.49        |
| HuAffym | 55.63     | RPS4Y1 | 201909_at    | 282376  | 6192       | Y   | ribosomal protein S4, Y-linked 1                      | 2.49        |
| HuAffym | 34.33     | USP9Y  | 206624_at    | 165856  | 8287       | Y   | ubiquitin specific peptidase 9, Y-linked              | 2.49        |

| Dataset | Ratio M/F | Symbol   | GenBank Acc. | UniGene | EntrezGene | Chr | Description                                                      | q-value (%) |
|---------|-----------|----------|--------------|---------|------------|-----|------------------------------------------------------------------|-------------|
| HuAffym | 27.12     | USP9Y    | 228492_at    | 165856  | 8287       | Y   | ubiquitin specific peptidase 9, Y-linked                         | 2.49        |
| HuAffym | 26.80     | ZFY      | 230760_at    | 522845  | 7544       | Y   | Zinc finger protein, Y-linked                                    | 2.49        |
| HuAffym | 24.82     | CD24     | 1560395_at   | 632285  | 934        | 6   | CD24 molecule                                                    | 2.49        |
| HuAffym | 19.72     | DDX3Y    | 205001_s_at  | 99120   | 8653       | Y   | DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked               | 2.49        |
| HuAffym | 16.16     | CYorf14  | 207063_at    | 138453  | 55410      | Y   | chromosome Y open reading frame 14                               | 2.49        |
| HuAffym | 13.69     | SMCY     | 206700_s_at  | 80358   | 8284       | Y   | Smcy homolog, Y-linked (mouse)                                   | 2.49        |
| HuAffym | 10.01     | UTY      | 211149_at    | 115277  | 7404       | Y   | ubiquitously transcribed tetratricopeptide repeat gene, Y-linked | 2.49        |
| HuAffym | 8.01      | CYorf15B | 214131_at    | 592254  | 84663      | Y   | chromosome Y open reading frame 15B                              | 2.49        |
| HuAffym | 7.65      | CD24     | 266_s_at     | 632285  | 934        | 6   | CD24 molecule                                                    | 2.49        |
| HuAffym | 5.66      | CYorf15B | 223645_s_at  | 592254  | 84663      | Y   | chromosome Y open reading frame 15B                              | 2.49        |
| HuAffym | 5.49      | CYorf15A | 236694_at    | 522863  | 246126     | Y   | chromosome Y open reading frame 15A                              | 2.49        |
| HuAffym | 5.09      | CD24     | 209771_x_at  | 632285  | 934        | 6   | CD24 molecule                                                    | 2.49        |
| HuAffym | 3.74      | CYorf15B | 223646_s_at  | 592254  | 84663      | Y   | chromosome Y open reading frame 15B                              | 2.49        |
| HuAffym | 2.92      | CD24     | 216379_x_at  | 632285  | 934        | 6   | CD24 molecule                                                    | 2.49        |
| HuAffym | 2.81      | DDX3Y    | 1570360_s_at | 99120   | 8653       | Y   | DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked               | 2.49        |
| HuAffym | 2.08      | POLR2J2  | 1558078_at   | 530089  | 246721     | 7   | DNA directed RNA polymerase II polypeptide J-related gene        | 3.35        |
| HuAffym | 2.07      | PRKY     | 206279_at    | 632287  | 5616       | Y   | protein kinase, Y-linked                                         | 3.35        |