

REPORT OF THE 42nd UCLA INTERNATIONAL KIR EXCHANGE

APRIL 24, 2017

KIR 165-168

For the 42nd KIR Exchange, 4 DNA samples (KDNA#165 - 168) were shipped to 76 participating laboratories. A total of 74 laboratories submitted their KIR typing results.

The results for the 42nd KIR Exchange are summarized in Table 1 and individual laboratory results reported for each DNA sample are provided in Tables 2 - 5. Subtyping results for KIR2DL2, 2DL5, 3DL1, 2DS1, 2DS4, and 3DP1 loci were reported by some laboratories. The subtypes for 2DS4 and 3DP1 are denoted as FULL or DEL. The positive/negative assignments for

all 4 DNA samples were reported without any discrepancies for 9 of the 16 tested KIR loci (KIR2DL2, 2DL4, 2DL5, 3DL1, 3DL2, 3DL3, 2DS1, 2DS4, and 3DP1. Discrepant results from consensus are italicized in tables 1 - 5 and described in the summation for each sample. Discrepancies at the allele level are not italicized.

We would like to express our appreciation to Hartzman and Hurley for sharing their predicted haplotypes for the samples in this study.

KIR Exchange Sample: KDNA # 0165:

The consensus KIR type for this sample from a Hispanic donor is KIR2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS4FULL-2DS5-2DP1-3DP1DEL. Only a single discrepancy was reported for this sample, as 1 lab reporting by SSP noted 2DS3 as positive instead of negative. Based on the absence or presence of genes, Hartzman and Hurley predict the haplotypes in this sample to be cA01/cA01 and tA01/tB01. The KIR genotype in this sample is observed across all populations, with the highest frequency observed among the Native American Bari (26.3%), and the Purepecha (30.2%) and Tarahumara (41.5%) tribes in Mexico (1, 2).

KIR Exchange Sample: KDNA # 0166:

The consensus KIR type for this sample from a Hispanic donor is KIR2DL1-2DL2-2DL3-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS1-2DS2-2DS4DEL-2DS5-2DP1-3DP1DEL. Several discrepancies were reported for this sample. One lab reported 2DL3 as negative, 1 lab reported 2DS2 as negative, and a 1 lab reported 2DS3 as positive. Arnold noted this sample has an unusual haplotype, as 3DS1 and 2DL5A are absent, while 2DS1 is present. Hartzman and Hurley observed similar findings predicting cA01/cB01 and tA01/tBvar haplotypes are present, with a deletion of 3DS1 and 2DL5A. The genotype in this sample is observed most frequently in Amazonian Amerindians (10%) and in Cook Island populations of Southeast Asia (8.1%) (1, 3).

KIR Exchange Sample: KDNA # 0167:

The consensus KIR type for this sample from a Filipino donor is KIR2DL1-2DL2-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS3-2DS4DEL-2DP1-3DP1FULL&DEL. The only discrepancies reported for this sample were 2 labs reporting 2DS2 as negative instead of positive and 1 lab reporting 2DS5 as positive instead of negative. The predicted haplotypes reported by Hartzman and Hurley were cA01/cB02 and tA01/tB01. The genotype in this sample is observed most frequently among Basque (10%) populations and Australian Aborigines (14.9%) (4, 5).

KIR Exchange Sample: KDNA # 0168:

The consensus KIR type for this sample from a Black donor is KIR2DL2-2DL4-3DL1-3DL2-3DL3-3DS1-2DS2-2DS4FULL&DEL-3DP1FULL. A number of discrepancies (n=6) were reported for this sample, as 1 lab reported 2DL1 as positive and 2 labs reported 2DL3 as positive. In addition, 1 lab reported 3DS1 as negative and 2DS5 as positive, while another reported 2DS2 as negative and 2DP1 as positive. Arnold noted this sample appears to have a BA1 haplotype and a haplotype that is positive for 3DS1 but negative for 2DL5A-2DS3/S5-2DS1. Hartzman and Hurley further commented on the haplotypes in this cell observing it carries a 2DL5A/3DP1 fusion gene which was detected by an additional 2DL5A/3DP1-FG SSP (6). Finally, Vilches observed this sample appears to carry the KIR3DP1*004 allele, "associated with duplication of the central cluster of genes (3DP1-2DL4-3DL1/S1)," and further noted, "the donor's general KIR profile is consistent with such duplication."

References:

1. Gendzekhadze K., Norman PJ, Abi-Rached L, et al. High KIR diversity in Amerindians is maintained using few gene-content haplotypes. *Immunogenetics* 2006;58:474-480.
2. Gutierrez-Rodriguez ME, Sandoval-Ramirez L, Diaz-Flores M, et al. Human KIR Gene in Ethnic and Mestizo Populations from Mexico. *Human Immunology* 2006;67:85-93.
3. Velickovic M, Velickovic Z, and Dunckley H. Diversity of killer cell immunoglobulin-like receptor genes in Pacific Islands populations. *Immunogenetics*. 58: 523–532.
4. Ashouri E, Farjadian S, Reed EF, et al. KIR gene content diversity in four Iranian populations. *Immunogenetics*. 2009;61:483-492.
5. Norman PJ, Carrington CV, Byng M, Maxwell LD, Curran MD, et al. Natural killer cell immunoglobulin-like receptor (KIR) locus profiles in African and South Asian populations. *Genes Immun* 2002;3:86–95.
6. Vierra-Green C, Roe D, Hou L, et al. Allele-Level Haplotype Frequencies and Pairwise Linkage Disequilibrium for 14 KIR Loci in 506 European-American Individuals. *PLoS ONE*. 2012;7(11).

NEXT MAILING DATE: August 9, 2017

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Table 1. Summary of the 42nd KIR Exchange (KDNA #165-168)

KIR Ex.	DNA	# Labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
#42	165	74	POS[74]	NEG[74]	POS[74]	POS[72] NT[2]	POS[56] A[15] A*00101[1] A*001[1] A,B[1]	POS[72] *01502[1] *001[1]	POS[73] NT[1]	POS[72] NT[2]	POS[74]	POS[72] *002- *008[1] *002[1]	NEG[74]	NEG[73] <i>POS[1]</i>	POS[49] FULL[24] *001[1]	POS[74]	POS[72] NT[2]	POS[54] DEL[17] NT[3]
	166	74	POS[73] NT[1]	POS[72] *001/*002/ *003/*005[1] NT[1]	POS[72] <i>NEG[1]</i> NT[1]	POS[71] NT[3]	POS[54] B[17] B*008/*013/ *014/ *015[1] B*00801[1] NT[1]	POS[71] *001[2] NT[1]	POS[72] NT[2]	POS[71] NT[3]	NEG[73] NT[1]	POS[71] *002[1] *002- *008[1] NT[1]	POS[72] <i>NEG[1]</i> NT[1]	NEG[72] <i>POS[1]</i> NT[1]	POS[48] DEL[24] *003[1] NT[1]	POS[73] NT[1]	POS[71] NT[3]	POS[53] DEL[17] NT(4)
	167	74	POS[74]	POS[74]	POS[74]	POS[72] NT[2]	POS[56] A[15] A*00501[1] A*005[1] A,B[1]	POS[72] *001, *002[1] *001[1]	POS[73] NT[1]	POS[72] NT[2]	POS[74]	POS[72] *002-008[1] *002[1]	POS[72] <i>NEG[2]</i>	POS[74]	POS[49] DEL[24] *003[1]	NEG[73] <i>POS[1]</i>	POS[72] NT[2]	POS[60] FULL/ DEL[11] NT[3]
	168	74	NEG[72] <i>POS[1]</i> NT[1]	POS[73] NT[1]	NEG[71] <i>POS[2]</i> NT[1]	POS[71] NT[3]	NEG[73] NT[1]	POS[71] *001, *002[1] *001[1] NT[1]	POS[72] NT[2]	POS[71] NT[3]	POS[72] <i>NEG[1]</i> NT[1]	NEG[73] NT[1]	POS[72] <i>NEG[1]</i> NT[1]	NEG[73] NT[1]	POS[55] FULL, DEL[18] NT[1]	NEG[72] <i>POS[1]</i> NT[1]	NEG[70] <i>POS[1]</i> NT[3]	POS[50] FULL[18] *001/*002/ *004/*007/ *009/*011/ *012[1] *001[1] NT[4]

KEY for Table 1

[] - number of labs reporting allele assignment/POS/NEG/NT
 POS - Presence of gene
 NEG - Absence of gene
 NT - Not typed
 italics - assignment different from consensus
 Subtypes of 2DS4 and 3DP1 are designated as FULL and/or DEL

KEY for Tables 2-5

italics - assignment different from consensus
 NGS - Next-generation sequencing
 RT-PCR - Real-time PCR
 SSO - Sequence-specific oligonucleotide probe based typing
 SSP - Sequence-specific primer-based typing
 SBT - Sequencing-based typing

Table 2. KIR Exchange Sample: KDNA #165 (Pacific Islander)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [74]	NEG [74]	POS [74]	POS [72]	POS[56]+ A[17]	POS [74]	POS [73]	POS [72]	POS [74]	POS[74]	NEG [74]	NEG [73]	POS[49]+ FULL[25]	POS [74]	POS [72]	POS[56]+ DEL[17]	
8094	Ameen, Reem	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
5462	Arnold, Paula	POS	NEG	POS	POS	A	POS	POS	POS	POS	*002-*008	NEG	NEG	FULL	POS	POS	DEL	SSP
5133	Askar, Medhat	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	RT-PCR
8073	Bengtsson, Mats	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	RT-PCR
713	Bettinotti, Maria	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8026	Bittencourt, Vanessa	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	POS	SSP
8038	Cao, Kai	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSO
8025	Carrington, Martin	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	NT	SSP
1461	Cauwelier, Barbara	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
774	Cecka, J. Michael	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
3224	Chen, Dong-Feng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
3632	Colombe, Beth W.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
189	Crowe, Deborah	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
8095	denHollander, Neal	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
124	D'Orsogna, Lloyd	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	NT	NT	SSP
8086	Du, Keming	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
705	Ellis, Thomas	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
3410	Ellison, Cynthia	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
2549	Fagoaga, Omar	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
234	Fernandez, Casian	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8053	Fernandez-Vina, M	POS	NEG	POS	POS	A, B	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	RT-PCR
762	Fischer, Gottfried	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
1778	Freed, Brian M.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP SSO
8047	Fuessel, Monika	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8076	Gaitonde, Sujata	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
1647	Gautreaux, Michael	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	RT-PCR
1108	Glaser, Chris	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSO
4985	Graff, Ralph J.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
8022	Hedlund, Anna	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
1694	Hesse, Nicole	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
3808	Hogan, Patrick	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
5000	Hsu, Susan H.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
2344	Hurley & Hartzman	POS	NEG	POS	POS	A*00101	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSP SSO SBT
8093	Jindra, Peter	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8074	JunHe,	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSP SSO
8035	Kanangat, Siva	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8079	Kashi, Zahra M.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
5488	Khuu, Hanh	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP SSO
4337	Kim, Tai-Gyu	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8084	Kimball, Pam	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	RT-PCR

Table 2. KIR Exchange Sample: KDNA #165 (Pacific Islander)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [74]	NEG [74]	POS [74]	POS [72]	POS[56]+ A[17]	POS [74]	POS [73]	POS [72]	POS [74]	POS[74]	NEG [74]	NEG [73]	POS[49]+ FULL[25]	POS [74]	POS [72]	POS[56]+ DEL[17]	
8046	Kusnierczyk, Piotr	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSP
8071	Kwok, Janette	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
725	Lardy, N.M.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
278	Lee, Jar-How	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
2400	Liu, Chang	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8088	Liu, Cong	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8069	Maha, George	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
5142	Marsh, Steven	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8097	Meunier, Marie-Chr	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8080	Monos, Dimitrios	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8092	Morris, Gerald	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8091	Murphey, Cathi	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
733	Mytilineos, Joannis	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8083	Nikaein, Afzal	POS	NEG	POS	POS	A	*001	POS	POS	POS	*002	NEG	NEG	*001	POS	POS	POS	SSP
3966	Permpikul, Vejbaes	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
4021	Pollack, Marilyn S.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8030	Poulton, Kay	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8050	Raja, Rajalingam	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
3753	Reed, Elaine F.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
3798	Reinsmoen, Nancy	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
8090	Rossi, Angela	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
8060	Rost, Klein &	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
4251	Schiller, Jennifer	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO RT-PCR
8101	Seidl, Christian	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
1426	Senitzer, David	POS	NEG	POS	POS	A*001	*01502	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP RT-PCR
8085	Shalini, Pereira	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
3261	Stevens, Tait	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
5451	Tilanus, Marcel G.J	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8024	Trowsdale, John	POS	NEG	POS	NT	POS	POS	NT	NT	POS	POS	NEG	NEG	WT	POS	POS	DEL	SSP
8028	Uhrberg, Markus	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	NEG	POS	POS	NT	NT	SSP
8023	Vilches, Carlos	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
8098	Xu, Ri	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSO
5282	Yu, Neng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
1466	Yu, Neng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP

Table 3. KIR Exchange Sample: KDNA #166 (Hispanic)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [73]	POS[73]	POS [72]	POS [71]	POS[54]+ B[19]	POS [73]	POS [72]	POS [71]	NEG [73]	POS [73]	POS [72]	NEG [72]	POS[48]+ DEL[25]	POS [73]	POS [71]	POS[53]+ DEL[17]	
8094	Ameen, Reem	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
5462	Arnold, Paula	POS	POS	POS	POS	B	POS	POS	POS	NEG	*002-*008	POS	NEG	DEL	POS	POS	DEL	SSP
5133	Askar, Medhat	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSO NGS RT-PCR
8073	Bengtsson, Mats	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	RT-PCR
713	Bettinotti, Maria	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8026	Bittencourt, Vanessa	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	SSP
8038	Cao, Kai	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSO
8025	Carrington, Martin	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP
1461	Cauwelier, Barbara	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
774	Cecka, J. Michael	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
3224	Chen, Dong-Feng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
3632	Colombe, Beth W.	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
189	Crowe, Deborah	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
8095	denHollander, Neal	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSO
124	D'Orsogna, Lloyd	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NT	NT	SSP
8086	Du, Keming	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
705	Ellis, Thomas	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
3410	Ellison, Cynthia	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
2549	Fagoaga, Omar	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
234	Fernandez, Casian	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8053	Fernandez-Vina, M	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSO RT-PCR
762	Fischer, Gottfried	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
1778	Freed, Brian M.	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP SSO
8047	Fuessel, Monika	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8076	Gaitonde, Sujata	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
1647	Gautreaux, Michael	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	RT-PCR
1108	Glaser, Chris	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSO
4985	Graff, Ralph J.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	
8022	Hedlund, Anna	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
1694	Hesse, Nicole	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
5000	Hsu, Susan H.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
2344	Hurley & Hartzman	POS	POS	POS	POS	B*00801	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP SSO SBT
8093	Jindra, Peter	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8074	JunHe,	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP SSO
8035	Kanangat, Siva	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8079	Kashi, Zahra M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
5488	Khuu, Hanh	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP SSO

Table 3. KIR Exchange Sample: KDNA #166 (Hispanic)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [73]	POS[73]	POS [72]	POS [71]	POS[54]+ B[19]	POS [73]	POS [72]	POS [71]	NEG [73]	POS [73]	POS [72]	NEG [72]	POS[48]+ DEL[25]	POS [73]	POS [71]	POS[53]+ DEL[17]	
4337	Kim, Tai-Gyu	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8084	Kimball, Pam	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	RT-PCR
8046	Kusnierczyk, Piotr	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP
8071	Kwok, Janette	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
725	Lardy, N.M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
278	Lee, Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	
2400	Liu, Chang	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8088	Liu, Cong	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8069	Maha, George	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
5142	Marsh, Steven	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8097	Meunier, Marie-Chr	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8080	Monos, Dimitrios	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8092	Morris, Gerald	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8091	Murphey, Cathi	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
733	Mytilineos, Joannis	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8083	Nikaein, Afzal	POS	POS	POS	POS	B	*001	POS	POS	NEG	*002	POS	NEG	*003	POS	POS	POS	SSP
3966	Permpikul, Vejbaes	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
4021	Pollack, Marilyn S.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8030	Poulton, Kay	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8050	Raja, Rajalingam	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
3753	Reed, Elaine F.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
3798	Reinsmoen, Nancy	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
8090	Rossi, Angela	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
8060	Rost, Klein &	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO RT-PCR
8101	Seidl, Christian	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
1426	Senitzer, David	POS	POS	POS	POS	B*008/ *013/ *014/ *015	*001	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP RT-PCR
8085	Shalini, Pereira	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	
3261	Stevens, Tait	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	
5451	Tilanus, Marcel G.J	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8024	Trowsdale, John	POS	POS	POS	NT	POS	POS	NT	NT	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
8028	Uhrberg, Markus	POS	POS	POS	NT	POS	POS	POS	NT	NEG	POS	POS	NEG	POS	POS	NT	NT	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
8098	Xu, Ri	POS	*001/ *002/ *003/ *005	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSO
5282	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	
1466	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP

Table 4. KIR Exchange Sample: KDNA #167 (Asian)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [74]	POS [74]	POS [74]	POS [72]	POS[56]+ A[17]	POS [74]	POS [73]	POS [72]	POS [74]	POS [74]	POS [72]	POS [74]	POS [49]+ DEL[25]	NEG [73]	POS [72]	POS [60]+ FULL,DEL[11]	
8094	Ameen, Reem	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
5462	Arnold, Paula	POS	POS	POS	POS	A	POS	POS	POS	POS	*002-*008	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
5133	Askar, Medhat	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSO NGS RT-PCR
8073	Bengtsson, Mats	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	RT-PCR
713	Bettinotti, Maria	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
8026	Bittencourt, Vanessa	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8038	Cao, Kai	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSO
8025	Carrington, Martin	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	NT	SSP
1461	Cauwelier, Barbara	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
774	Cecka, J. Michael	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
3224	Chen, Dong-Feng	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP SSO
3632	Colombe, Beth W.	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
189	Crowe, Deborah	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP SSO
8095	denHollander, Neal	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
124	D'Orsogna, Lloyd	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NT	NT	SSP
8086	Du, Keming	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
705	Ellis, Thomas	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
3410	Ellison, Cynthia	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
2549	Fagoaga, Omar	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
234	Fernandez, Casian	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8053	Fernandez-Vina, M	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSO RT-PCR
762	Fischer, Gottfried	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
1778	Freed, Brian M.	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP SSO
8047	Fuessel, Monika	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8076	Gaitonde, Sujata	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
1647	Gautreaux, Michael	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	RT-PCR
1108	Glaser, Chris	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSO
4985	Graff, Ralph J.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	
8022	Hedlund, Anna	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
1694	Hesse, Nicole	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
5000	Hsu, Susan H.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP SSO
2344	Hurley & Hartzman	POS	POS	POS	POS	A*00501	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP SSO SBT
8093	Jindra, Peter	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
8074	JunHe,	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP SSO
8035	Kanangat, Siva	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
8079	Kashi, Zahra M.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
5488	Khuu, Hanh	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP SSO
4337	Kim, Tai-Gyu	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8084	Kimball, Pam	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	RT-PCR
8046	Kusnierczyk, Piotr	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP

Table 4. KIR Exchange Sample: KDNA #167 (Asian)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [74]	POS [74]	POS [74]	POS [72]	POS[56]+ A[17]	POS [74]	POS [73]	POS [72]	POS [74]	POS [74]	POS [72]	POS [74]	POS [49]+ DEL[25]	NEG [73]	POS [72]	POS [60]+ FULL,DEL[11]	
8071	Kwok, Janette	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
725	Lardy, N.M.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
278	Lee, Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	
2400	Liu, Chang	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8088	Liu, Cong	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8069	Maha, George	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
5142	Marsh, Steven	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8097	Meunier, Marie-Chr	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8080	Monos, Dimitrios	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8092	Morris, Gerald	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
8091	Murphey, Cathi	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
733	Mytilineos, Joannis	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8083	Nikaein, Afzal	POS	POS	POS	POS	A	*001	POS	POS	POS	*002	POS	POS	*003	NEG	POS	POS	SSP
3966	Permpikul, Vejbaes	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
4021	Pollack, Marilyn S.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8030	Poulton, Kay	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
8050	Raja, Rajalingam	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
3753	Reed, Elaine F.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP SSO
3798	Reinsmoen, Nancy	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP SSO
8090	Rossi, Angela	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP SSO
8060	Rost, Klein &	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO RT-PCR
8101	Seidl, Christian	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
1426	Senitzer, David	POS	POS	POS	POS	A*005	*001	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	FULL, DEL	SSP RT-PCR
8085	Shalini, Pereira	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	
3261	Stevens, Tait	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	
5451	Tilanus, Marcel G.J	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
8024	Trowsdale, John	POS	POS	POS	NT	POS	POS	NT	NT	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
8028	Uhrberg, Markus	POS	POS	POS	NT	POS	POS	POS	NT	POS	POS	POS	POS	POS	NEG	NT	NT	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
8098	Xu, Ri	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSO
5282	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	
1466	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP

Table 5. KIR Exchange Sample: KDNA #168 (Unknown)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	NEG [72]	POS [73]	NEG [71]	POS [71]	NEG [73]	POS [73]	POS [72]	POS [71]	POS [72]	NEG [73]	POS [72]	NEG [73]	POS [55]+ FULL,DEL[18]	NEG [72]	NEG [70]	POS [52]+ FULL[18]	
8094	Ameen, Reem	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
5462	Arnold, Paula	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSP
5133	Askar, Medhat	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSO NGS RT-PCR
8073	Bengtsson, Mats	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	RT-PCR
713	Bettinotti, Maria	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
8026	Bittencourt, Vanessa	NEG	POS	NEG	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	POS	NEG	POS	SSP
8038	Cao, Kai	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	POS	SSO
8025	Carrington, Martin	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	NT	SSP
1461	Cauwelier, Barbara	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
774	Cecka, J. Michael	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
3224	Chen, Dong-Feng	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP SSO
3632	Colombe, Beth W.	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSP
189	Crowe, Deborah	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP SSO
8095	denHollander, Neal	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSO
124	D'Orsogna, Lloyd	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NT	NT	SSP
8086	Du, Keming	POS	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
705	Ellis, Thomas	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
3410	Ellison, Cynthia	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	FULL	SSP
2549	Fagoaga, Omar	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
234	Fernandez, Casian	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8053	Fernandez-Vina, M	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	FULL	SSO RT-PCR
762	Fischer, Gottfried	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
1778	Freed, Brian M.	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	FULL	SSP SSO
8047	Fuessel, Monika	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8076	Gaitonde, Sujata	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
1647	Gautreaux, Michael	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	RT-PCR
1108	Glaser, Chris	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	POS	SSO
4985	Graff, Ralph J.	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	
8022	Hedlund, Anna	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSP
1694	Hesse, Nicole	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
3808	Hogan, Patrick	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSP
5000	Hsu, Susan H.	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP SSO
2344	Hurley & Hartzman	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	POS	SSP SSO SBT
8093	Jindra, Peter	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
8074	JunHe,	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	POS	SSP SSO
8035	Kanangat, Siva	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
8079	Kashi, Zahra M.	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
5488	Khuu, Hanh	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	FULL	SSP SSO
4337	Kim, Tai-Gyu	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8084	Kimball, Pam	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	RT-PCR

Table 5. KIR Exchange Sample: KDNA #168 (Unknown)

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	NEG [72]	POS [73]	NEG [71]	POS [71]	NEG [73]	POS [73]	POS [72]	POS [71]	POS [72]	NEG [73]	POS [72]	NEG [73]	POS [55]+ FULL,DEL[18]	NEG [72]	NEG [70]	POS [52]+ FULL[18]	
8046	Kusnierczyk, Piotr	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	*001/ *002/ *004/ *007/ *009/ *011/ *012	SSP
8071	Kwok, Janette	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
725	Lardy, N.M.	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
278	Lee, Jar-How	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	
2400	Liu, Chang	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8088	Liu, Cong	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8069	Maha, George	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSP
5142	Marsh, Steven	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8097	Meunier, Marie-Chr	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8080	Monos, Dimitrios	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8092	Morris, Gerald	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
8091	Murphey, Cathi	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
733	Mytilineos, Joannis	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8083	Nikaein, Afzal	NEG	POS	NEG	POS	NEG	*001	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	*001	SSP
3966	Permpikul, Vejbaes	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
4021	Pollack, Marilyn S.	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP
8030	Poulton, Kay	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
8050	Raja, Rajalingam	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSP
3753	Reed, Elaine F.	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP SSO
3798	Reinsmoen, Nancy	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP SSO
8090	Rossi, Angela	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP SSO
8060	Rost, Klein &	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
4251	Schiller, Jennifer	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO RT-PCR
8101	Seidl, Christian	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	FULL	SSP
1426	Senitzer, David	NEG	POS	NEG	POS	NEG	*001, *002	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL	SSP RT-PCR
8085	Shalini, Pereira	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	
3261	Stevens, Tait	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	
5451	Tilanus, Marcel G.J	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSO
8024	Trowsdale, John	NEG	POS	NEG	NT	NEG	POS	NT	NT	POS	NEG	POS	NEG	WT, DEL	NEG	NEG	FULL	SSP
8028	Uhrberg, Markus	NEG	POS	NEG	NT	NEG	POS	POS	NT	POS	NEG	POS	NEG	POS	NEG	NT	NT	SSP
8023	Vilches, Carlos	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	FULL	SSP
8098	Xu, Ri	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	NEG	POS	SSO
5282	Yu, Neng	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	
1466	Yu, Neng	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	NEG	POS	SSP

Table 6. Participating Centers												
Name			City	State	Country		Name			City	State	Country
Ameen	Reem	Dr	Jabriya		Kuwait		Kim	Tai-Gyu	Prof	Seoul		S. Korea
Arnold	Paula	PhD	Memphis	TN			Kimball	Pam	Dr	Richmond	VA	
Askar	Medhat	Dr	Dallas	TX			Kusnierczyk	Piotr	PhD	Wroclaw		Poland
Bengtsson	Mats	MD	Uppsala		Sweden		Kwok	Janette	Dr			Hong Kong
Bettinotti	Maria	PhD	Baltimore	MD			Lardy	N.M.	Dr	Amsterdam		Netherlands
Bittencourt	Vanessa Zaiatz		Dublin		Ireland		Lee	Jar-How	Dr	Woodland Hills	CA	
Cao	Kai	Dr	Houston	TX			Liu	Chang	MD, PhD	St Louis	MO	
Carrington	Martin &	Drs	Frederick	MD			Liu	Cong	PhD	Grand Rapids	MI	
Cauwelier	Barbara	Dr	Brugge		Belgium		Maha	George	PhD	Burlington	NC	
Cecka	J. Michael	PhD	Honolulu	HI			Marsh	Steven	Prof	London		United Kingdom
Chen	Dong-Feng	PhD	Durham	NC			Meunier	Marie-Christine	PhD	Montreal, Quebec		Canada
Colombe	Beth W.	PhD	Philadelphia	PA			Monos	Dimitrios	PhD	Philadelphia	PA	
Crowe	Deborah	PhD	Nashville	TN			Morris	Gerald	MD, PhD	San Diego		
denHollander	Neal	Dr	Toronto, ON		Canada		Murphey	Cathi	PhD	San Antonio	TX	
D'Orsogna	Lloyd	Dr	Murdoch		Australia		Mytilineos	Joannis	MD	Ulm		Germany
Du	Keming		Shanghai		China		Nikaein	Afzal	PhD	Dallas	TX	
Ellis	Thomas	Dr	Madison	WI			Permpikul	Vejbaesya &	Drs	Bangkok		Thailand
Ellison	Cynthia	PhD	Winnipeg, MB		Canada		Pollack	Marilyn S.	PhD	Oakland	CA	
Fagoaga	Omar	Dr	Detroit	MI			Poulton	Kay	Dr	Manchester		United Kingdom
Fernandez	Casiana		Miami	FL			Raja	Rajalingam	PhD	San Francisco	CA	
Fernandez-Vina	Marcelo	Dr	Palo Alto	CA			Reed	Elaine F.	PhD	Los Angeles	CA	
Fischer	Gottfried	Dr	Vienna		Austria		Reinsmoen	Nancy L.	PhD	Los Angeles	CA	
Freed	Brian	PhD	Aurora	CO			Roberts	Chrissy H.		London		United Kingdom
Fuessel	Monika	PhD	Dresden		Germany		Rombola	Giovanni	Dr	Firenze		Italy
Gaitonde	Sujata	Dr	Chicago	IL			Rossi	Angela	Dr	Piacenza		Italy
Gautreaux	Michael	Dr	Winston-Salem	NC			Rost	Klein &	Drs	Martinsried		Germany
Glaser	Chris		Waukesha	WI			Schiller	Jennifer	PhD	Milwaukee	WI	
Graff	Ralph J	Dr	St Louis	MO			Seidl	Christian	Prof Dr	Frankfurt		Germany
Hedlund	Anna		Stockholm		Sweden		Senitzer	David	PhD	Duarte	CA	
Hesse	Nicole		Lich		Germany		Shalini	Pereira		Seattle	WA	
Hogan	patrick	Dr	Brisbane QLD		Australia		Stevens	Tait	Dr	Loma Linda	CA	
Hsu	Susan H.	PhD	Philadelphia	PA			Tilanus	Marcel G.J.	Prof Dr	Maastricht		Netherlands
Hurley	Hartzman&	Drs	Rockville	MD			Trowsdale	John	Prof	Cambridge		United Kingdom
Jindra	Peter	PhD	Houston	TX			Uhrberg	Markus	Dr	Dusseldorf		Germany
JunHe			Beijing		China		Vilches	Carlos	Dr	Majadahonda		Spain
Kanangat	Siva	PhD	Chicago	IL			Xu	Ri		BDA Beijing		China
Kashi	Zahra M.	Dr	Portland	OR			Yu	Neng	Dr	Dedham	MA	
Khuu	Hanh	Dr	Bethesda	MD			Yu	Neng	Dr	Worcester	MA	