

REPORT OF THE 36th UCLA International KIR Exchange

APRIL 10, 2015

KIR

141-144

Dear Colleagues:

For the 36th KIR Exchange, 4 DNA samples (KDNA#141-144) were shipped to 77 participating laboratories. A total of 75 laboratories submitted their KIR typing results. The majority of the laboratories used either commercial or in-house developed sequence-specific primer (SSP) based PCR and sequence-specific oligonucleotide probe (SSOP) typing systems.

The results for the 36th 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 discrepancy for 9 of the 16 tested KIR loci (KIR2DL1, 2DL2, 2DL3, 2DL4, 2DL5, 2DS1, 2DS2, 2DS3, and 2DS4). Discrepant results from the consensus typing are italicized in tables 1-5 and described in the summation for each sample. Discrepancies at the allele level are not italicized.

We thank you for your continued participation in the UCLA KIR Exchange program.

KIR Exchange Sample: KDNA # 0141:

The consensus KIR type for this sample from a Hispanic Donor is KIR2DL2-2DL4-2DL5A&B-3DL2-3DL3-3DS1-2DS1-2DS2-2DS5-3DP1FULL. Three labs reported this sample as positive for 3DL1, and 2 labs reported it as positive for 2DP1. One lab reported 3DL2 as negative and another reported 3DL3 as negative. Two labs commented on the unusual haplotype present in this sample, referring to the presence of 2DL5B, in the absence of 2DL1. The genotype in this sample is observed in Native American populations, with the highest frequencies observed among the Wichis (8.9%) and Yucpa (28%) (1, 2). This is the first time this genotype has been typed in the KIR Exchange.

KIR Exchange Sample: KDNA # 0142:

The consensus KIR type for this sample from an Asian donor is KIR2DL1-2DL3-2DL4-3DL1-3DL2-3DL3-3DS1-2DS4FULL&DEL-2DP1-3DP1FULL&DEL. Only 2 discrepancies were reported for this sample, in which 1 lab reported 3DS1 as negative and 1 lab reported 3DP1 as negative. Hartzman and Hurley observed this sample as carrying a 3DL5A/3DP1 fusion gene, while Vilches noted the possibility of a 3DP1-2DL4-3DL1/S1 duplication associated to 3DP1*004. In addition, Arnold commented that an "A" haplotype appears to be present, along with an unusual haplotype that is 3DS1 positive, but negative for 2DL5A, 2DS3, 2DS5, and 2DS1. The genotype in this sample is observed in Southeast Asians, with the highest frequency occurring among Singapore Chinese populations (5.7%) (3, 4). It is absent in Mexican populations.

KIR Exchange Sample: KDNA # 0143:

The consensus KIR type for this sample from a Caucasian donor is KIR2DL1-2DL3-2DL4-3DL1-3DL2-3DL3-2DS4FULL&DEL-2DP1-3DP1DEL. This sample was well typed, as only 1 discrepancy was reported, in which 1 lab reported 3DP1 as negative. Arnold noted that this sample appears to carry 2 "A" haplotypes and is "positive for 3DL1 variants that are retained intracellularly." The genotype in this sample is observed commonly across all populations, occurring at an average frequency of 27.9%, in Caucasians (4, 5).

KIR Exchange Sample: KDNA # 0144:

The consensus KIR type for this sample is KIR2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS4FULL-2DS5-2DP1-3DP1DEL. One lab reported this sample as negative for 3DS1, 1 lab reported 2DS5 as negative, and 1 reported it as negative for 3DP1. This sample is observed in all populations, with the highest frequency seen in the Native American Bari (26.3%) and Mexican Tarahumara (41.5%) (1, 2).

References:

1. Ewerton PD, Leite Mde M, Magalhaes M, Sena L, Melo dos Santos EJ. Amazonian Amerindians exhibit high variability of KIR profiles. *Immunogenetics* 2007;59:625-630.
2. Rajalingam, R., Du, Z., Meenagh, A., Luo, L., Kavitha, V. J., Pavithra-Arulvani, R., Vidhyalakshmi, A., Sharma, S. K., Balazs, I., Reed, E. F., et al. (2008). Distinct diversity of KIR genes in three southern Indian populations: comparison with world populations revealed a link between KIR gene content and pre-historic human migrations. *Immunogenetics* 2008;60:207-217.
3. Lee, Y. C., S. H. Chan, and E. C. Ren. 2008. Asian population frequencies and haplotype distribution of killer cell immunoglobulin-like receptor (KIR) genes among Chinese, Malay, and Indian in Singapore. *Immunogenetics* 60:645-654.
4. Middleton D, Meenagh A, Moscoso J, et al. Killer immunoglobulin receptor gene and allele frequencies in Caucasoid, Oriental and Black populations from different continents. *Tissue Antigens* 2008;71:105-113.
5. Ashouri E, Farjadian S, Reed EF, et al. KIR gene content diversity in four Iranian populations. *Immunogenetics* 2009;61:483-492.

NEXT MAILING DATE: May 6, 2015

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Table 1. Summary of the 36 th KIR Exchange (KDNA #141-144)																		
KIR Ex.	DNA	Reporting Labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
#36	141	75	NEG[75]	POS[74] <i>*001/ *002/ *003/ *005[1]</i>	NEG[75]	POS[73] NT[2]	POS[63] A, B[8] A*001, B*008/013/01 4/015[1] A*00101, B*00801[1] B[2]	NEG[70] <i>POS[3] NT[2]</i>	POS[73] <i>NEG[1] NT[1]</i>	POS[72] <i>NEG[1] NT[2]</i>	POS[75]	POS[72] <i>*002[1] *0020101- *008[1] *002- *008[1]</i>	POS[75]	NEG[74]	NEG[74] NT[1]	POS[75]	NEG[71] <i>POS[2] NT[2]</i>	POS [58] FULL [12] FULL,DEL[1] NT[4]
	142	75	POS[75]	NEG[75]	POS[75]	POS[73] NT[2]	NEG[75]	POS[73] <i>*001[1] *01502[1]</i>	POS[74] NT[1]	POS[73] NT[2]	POS[74] <i>NEG[1]</i>	NEG[75]	NEG[75]	NEG[75]	POS[52] FULL, DEL[20] FULL[1] WT/DEL[1] NT[1]	NEG[75]	POS[73] NT[2]	POS[58] FULL,DEL[11] DEL[2] <i>NEG[1]</i> NT[3]
	143	75	POS[75]	NEG[75]	POS[75]	POS[73] NT[2]	NEG[75]	POS[74] <i>*004, *01502[1]</i>	POS[74] NT[1]	POS[73] NT[2]	NEG[75]	NEG[75]	NEG[75]	NEG[75]	POS[52] FULL, DEL [20] WT/DEL[1] FULL[1] NT[1]	NEG[75]	POS[73] NT[2]	POS[55] DEL[16] <i>NEG[1]</i> NT[3]
	144	75	POS[75]	NEG[75]	POS[75]	POS[73] NT[2]	POS[58] A[15] A*001, *008/ *013/ *014/ *015[1] A*00101[1]	POS[73] <i>*002[1] *001[1]</i>	POS[74] NT[1]	POS[73] NT[2]	POS[74] <i>NEG[1]</i>	POS[72] <i>*0020101- *008[1] *002[1] *002- *008[1]</i>	NEG[75]	NEG[74] NT[1]	POS[48] FULL[25] WT[1] NT[1]	POS[74] <i>NEG[1]</i>	POS[73] NT[2]	POS[55] DEL[16] <i>NEG[1]</i> NT[3]

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

SSP - Sequence-specific priming-based typing

SSOP - Sequence-specific oligonucleotide probing-based typing

SSO - Reverse Sequence-specific oligonucleotide probing-based typing

SBT - Sequencing-based typing

Table 2. KIR Exchange Sample: KDNA #141

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	NEG [75]	POS [74]	NEG [75]	POS [73]	POS + A,B [73]	NEG [70]	POS [73]	POS [72]	POS [75]	POS [75]	NEG [74]	NEG [74]	POS [75]	NEG [71]	POS + FULL [71]		
5488	Adams, Sharon	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
234	Amador, Alexandra	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	SSO
5462	Arnold, Paula	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	*002-*008	POS	NEG	NEG	POS	NEG	POS	SSP
16	Askar, Medhat Z.	NEG	POS	NEG	POS	B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	FULL	SSP SSO
8073	Bengtsson, Mats	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8038	Cao, Kai	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8025	Carrington, Martin &	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	NT	SSP
1461	Cauwelier, Barbara	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	
774	Cecka, J. Michael	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
3224	Chen, Dong-Feng	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
3632	Colombe, Beth W.	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	FULL	SSP
769	Coppage, Myra	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
189	Crowe, Deborah	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
1108	DeConinck, Martha	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
705	Ellis, Thomas	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
3410	Ellison, Cynthia	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8051	Endres, Robert O.	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
2549	Fagoaga, Omar	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
762	Fischer, Gottfried	NEG	POS	NEG	POS	B	NT	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
1778	Freed, Brian	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	DEL, FULL	SSP
8047	Fuessel, Monika	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8076	Gaitonde, Sujata	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8026	Gardiner, Clair M.	NEG	POS	NEG	POS	POS	NEG	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	NT	SSP
1647	Gautreaux, Michael	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
124	Gizzarelli, Laila	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NT	POS	NT	NT	SSP
8022	Hedlund, Anna	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	FULL	SSP
1694	Hesse, Nicole	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	
4985	Hoover, Beverly	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
5000	Hsu, Susan H.	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	
2344	Hurley, Hartzman&	NEG	POS	NEG	POS	A*00101, B*00801	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO SBT
3261	Iwaki, Yuichi	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
794	Jaatinen, Taina	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8086	Jie, Pan	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8093	Jindra, Peter	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8035	Kanangat, Siva	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8079	Kashi, Zahra M.	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
4337	Kim, Tai-Gyu	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8084	Kimball, Pam	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8046	Kusnierczyk, Piotr	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8071	Kwok, Janette	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
791	Lacelle, Chantale	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	FULL	SSP

Table 2. KIR Exchange Sample: KDNA #141

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
278	Lee, Jar-How	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8088	Liu, Cong	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
8069	Maha, George	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	FULL	SSP
8067	Marino, Susana R.	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
5142	Marsh, Steven	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	*001/ *002/ *004	SSP
8092	Morris, Gerald	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8091	Murphey, Cathi	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
733	Mytilineos, Joannis	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
5231	Nelson, Karen	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8083	Nikaein, Afzal	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	*002	POS	NEG	NEG	POS	NEG	*001	SSP
3966	Permpikul, Vejbaesya	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
8030	Poulton, Kay	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8050	Raja, Rajalingam	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	FULL	SSP
3753	Reed, Elaine F.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
3798	Reinsmoen, Nancy L.	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	
8064	Roberts, Chrissy H.	NEG	POS	NEG	POS	POS	NEG	NEG	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	SSP
8090	Rossi, Angela	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
8060	Rost, Klein &	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8039	Scalf, Carolyn	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
4251	Schiller, Jennifer	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
1426	Senitzer, David	NEG	POS	NEG	POS	A*001, B*0080/ *013/ *014/ *015	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	*001/ *002/ *004	SSP
8085	Shalini, Pereira	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SBT
8077	Shanahan, Thomas C	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
702	Spannagl, Michael	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	
2518	Tambur, Anat	NEG	*001/ *002/ *003/ *005	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
3808	Thornton, Alycia	NEG	POS	NEG	POS	A, B	NEG	POS	POS	POS	*0020101- *008	POS	NEG	NEG	POS	NEG	FULL	SSP
5451	Tilanus, Marcel G.J.	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO
8024	Trowsdale, John	NEG	POS	NEG	NT	POS	NEG	NT	NT	POS	POS	POS		NEG	POS	NEG	FULL	SSP
8053	Tyan, Fernandez-Vina	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP SSO
8028	Uhrberg, Markus	NEG	POS	NEG	NT	POS	NEG	POS	NT	POS	POS	POS	NEG	NEG	POS	NT	NT	SSP
8023	Vilches, Carlos	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	FULL	SSP
1466	Yu, Neng	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
5282	Yu, Neng	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSP
713	Zachary, Andrea	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	SSO

Table 3. KIR Exchange Sample: KDNA #142

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [75]	NEG [75]	POS [75]	POS [73]	NEG [75]	POS [75]	POS [74]	POS [73]	POS [74]	NEG [75]	NEG [75]	NEG [75]	POS + FULL,DEL[73]	NEG [75]	POS [73]	POS + FULL,DEL[71]	
5488	Adams, Sharon	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
234	Amador, Alexandra	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
5462	Arnold, Paula	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
16	Askar, Medhat Z.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP SSO
8073	Bengtsson, Mats	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8038	Cao, Kai	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSO
8025	Carrington, Martin &	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	NT	SSP
1461	Cauwelier, Barbara	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	
774	Cecka, J. Michael	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
3224	Chen, Dong-Feng	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
3632	Colombe, Beth W.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
769	Coppage, Myra	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP SSO
189	Crowe, Deborah	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
1108	DeConinck, Martha	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSO
705	Ellis, Thomas	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
3410	Ellison, Cynthia	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8051	Endres, Robert O.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
2549	Fagoaga, Omar	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
762	Fischer, Gottfried	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	DEL	SSP
1778	Freed, Brian	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
8047	Fuessel, Monika	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8076	Gaitonde , Sujata	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	NEG	SSP
1647	Gautreaux, Michael	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
124	Gizzarelli, Laila	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	NT	NEG	NT	NT	SSP
8022	Hedlund, Anna	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	FULL, DEL	SSP
1694	Hesse, Nicole	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	
4985	Hoover, Beverly	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
5000	Hsu, Susan H.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	
2344	Hurley, Hartzman&	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP SSO SBT
3261	Iwaki, Yuichi	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
794	Jaatinen, Taina	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8086	Jie, Pan	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8093	Jindra, Peter	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8035	Kanangat, Siva	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8079	Kashi, Zahra M.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
4337	Kim, Tai-Gyu	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8084	Kimball, Pam	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8046	Kusnierczyk, Piotr	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
8071	Kwok, Janette	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
791	Lacelle, Chantale	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP

Table 3. KIR Exchange Sample: KDNA #142

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
278	Lee, Jar-How	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8088	Liu, Cong	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8069	Maha, George	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
8067	Marino, Susana R.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
5142	Marsh, Steven	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	*001, *003/ *004/ *006/ *007	NEG	POS	*001/ *002/ *004,*003	SSP
8092	Morris, Gerald	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8091	Murphey, Cathi	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
733	Mytilineos, Joannis	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
5231	Nelson, Karen	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8083	Nikaein, Afzal	POS	NEG	POS	POS	NEG	*001	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
3966	Permpikul, Vejbaesya	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
8030	Poulton, Kay	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8050	Raja, Rajalingam	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
3753	Reed, Elaine F.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
3798	Reinsmoen, Nancy L.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	
8064	Roberts, Chrissy H.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
8090	Rossi, Angela	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
8060	Rost, Klein &	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8039	Scalf, Carolyn	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
1426	Senitzer, David	POS	NEG	POS	POS	NEG	*01502	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	*003	SSP
8085	Shalini, Pereira	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SBT
8077	Shanahan, Thomas C	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
702	Spannagl, Michael	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	
2518	Tambur, Anat	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL	NEG	POS	POS	SSO
3808	Thornton, Alycia	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
5451	Tilanus, Marcel G.J.	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8024	Trowsdale, John	POS	NEG	POS	NT	NEG	POS	NT	NT	POS	NEG	NEG	NEG	WT/DEL	NEG	POS	FULL, DEL	SSP
8053	Tyan, Fernandez-Vina	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
8028	Uhrberg, Markus	POS	NEG	POS	NT	NEG	POS	POS	NT	POS	NEG	NEG	NEG	POS	NEG	NT	NT	SSP
8023	Vilches, Carlos	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
5282	Yu, Neng	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
1466	Yu, Neng	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
713	Zachary, Andrea	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	NEG	NEG	NEG	POS	NEG	POS	POS	SSO

Table 4. KIR Exchange Sample: KDNA #143

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [75]	NEG [75]	POS [75]	POS [73]	NEG [75]	POS [74]	POS [74]	POS [73]	NEG [75]	NEG [75]	NEG [75]	NEG [75]	POS + FULL,DEL[73]	NEG [75]	POS [73]	POS + DEL[71]	
5488	Adams, Sharon	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
234	Amador, Alexandra	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
5462	Arnold, Paula	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
16	Askar, Medhat Z.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP SSO
8073	Bengtsson, Mats	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8038	Cao, Kai	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSO
8025	Carrington, Martin &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	NT	SSP
1461	Cauwelier, Barbara	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	DEL	
774	Cecka, J. Michael	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
3224	Chen, Dong-Feng	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
3632	Colombe, Beth W.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP
769	Coppage, Myra	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP SSO
189	Crowe, Deborah	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
1108	DeConinck, Martha	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSO
705	Ellis, Thomas	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
3410	Ellison, Cynthia	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	DEL	SSP
8051	Endres, Robert O.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
2549	Fagoaga, Omar	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
762	Fischer, Gottfried	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
1778	Freed, Brian	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP
8047	Fuessel, Monika	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8076	Gaitonde , Sujata	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	NEG	SSP
1647	Gautreaux, Michael	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
124	Gizzarelli, Laila	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	NT	NEG	NT	NT	SSP
8022	Hedlund, Anna	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	DEL	SSP
1694	Hesse, Nicole	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	
4985	Hoover, Beverly	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
5000	Hsu, Susan H.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	
2344	Hurley, Hartzman&	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP SSO SBT
3261	Iwaki, Yuichi	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
794	Jaatinen, Taina	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8086	Jie, Pan	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8093	Jindra, Peter	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8035	Kanangat, Siva	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8079	Kashi, Zahra M.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
4337	Kim, Tai-Gyu	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP

Table 4. KIR Exchange Sample: KDNA #143

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8084	Kimball, Pam	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8046	Kusnierczyk, Piotr	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
8071	Kwok, Janette	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
791	Lacelle, Chantale	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP
278	Lee, Jar-How	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8088	Liu, Cong	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8069	Maha, George	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP
8067	Marino, Susana R.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
5142	Marsh, Steven	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	*001, *003/ *004/ *006/ *007	NEG	POS	*003	SSP
8092	Morris, Gerald	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8091	Murphey, Cathi	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
733	Mytilineos, Joannis	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
5231	Nelson, Karen	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8083	Nikaein, Afzal	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	*003	SSP
3966	Permpikul, Vejbaesya &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
8030	Poulton, Kay	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8050	Raja, Rajalingam	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP
3753	Reed, Elaine F.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
3798	Reinsmoen, Nancy L.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	
8064	Roberts, Chrissy H.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	POS	SSP
8090	Rossi, Angela	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
8060	Rost, Klein &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8039	Scaff,Carolynn	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
1426	Senitzer, David	POS	NEG	POS	POS	NEG	*004, *01502	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	*003	SSP
8085	Shalini, Pereira	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SBT
8077	Shanahan, Thomas C.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
702	Spannagl, Michael	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	
2518	Tambur, Anat	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSO
3808	Thornton, Alycia	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP
5451	Tilanus, Marcel G.J.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8024	Trowsdale, John	POS	NEG	POS	NT	NEG	POS	NT	NT	NEG	NEG	NEG	NEG	WT/DEL	NEG	POS	DEL	SSP
8053	Tyan, Fernandez-Vina &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	DEL	SSP SSO
8028	Uhrberg, Markus	POS	NEG	POS	NT	NEG	POS	POS	NT	NEG	NEG	NEG	NEG	POS	NEG	NT	NT	SSP
8023	Vilches, Carlos	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL, DEL	NEG	POS	DEL	SSP
5282	Yu, Neng	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
1466	Yu, Neng	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
713	Zachary, Andrea	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO

Table 5. KIR Exchange Sample: KDNA #144

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS [75]	NEG [75]	POS [75]	POS [73]	POS + A [75]	POS [75]	POS [74]	POS [73]	POS [74]	POS [75]	NEG [75]	NEG [74]	POS + FULL[74]	POS [74]	POS [73]	POS + DEL[71]	
5488	Adams, Sharon	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
234	Amador, Alexandra	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	POS	SSP
16	Askar, Medhat Z.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP SSO
8073	Bengtsson, Mats	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	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	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	
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
769	Coppage, Myra	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSP SSO
189	Crowe, Deborah	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
1108	DeConinck, Martha	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSO
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
8051	Endres, Robert O.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
2549	Fagoaga, Omar	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
762	Fischer, Gottfried	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NT	FULL	POS	POS	DEL	SSP
1778	Freed, Brian	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
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	FULL	POS	POS	POS	SSP
8026	Gardiner, Clair M.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	SSP
1647	Gautreaux, Michael	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
124	Gizzarelli, Laila	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	NT	POS	NT	NT	SSP
8022	Hedlund, Anna	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	DEL	SSP
1694	Hesse, Nicole	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
4985	Hoover, Beverly	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
5000	Hsu, Susan H.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
2344	Hurley, Hartzman&	POS	NEG	POS	POS	A*00101	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSP SSO SBT
3261	Iwaki, Yuichi	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
794	Jaatinen, Taina	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8086	Jie, Pan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8093	Jindra, Peter	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	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
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	SSP
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
791	Lacelle, Chantale	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
278	Lee, Jar-How	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO

Table 5. KIR Exchange Sample: KDNA #144

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
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	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
8067	Marino, Susana R.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
5142	Marsh, Steven	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	*001	POS	POS	*003	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	NEG	POS	NEG	NEG	FULL	POS	POS	POS	SSP
5231	Nelson, Karen	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8083	Nikaein, Afzal	POS	NEG	POS	POS	A	*001	POS	POS	POS	POS	NEG	NEG	*001	POS	POS	POS	SSP
3966	Permpikul, Vejbaesya &	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
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 L.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
8064	Roberts, Chrissy H.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSP
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
8039	Scalf,Carolynn	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
1426	Senitzer, David	POS	NEG	POS	POS	A*001, A*008/ *013/ *014/ *015	*002	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	*003	SSP
8085	Shalini, Pereira	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SBT
8077	Shanahan, Thomas C.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
702	Spannagl, Michael	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
2518	Tambur, Anat	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
3808	Thornton, Alycia	POS	NEG	POS	POS	A	POS	POS	POS	POS	*0020101- *008	NEG	NEG	FULL	POS	POS	DEL	SSP
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
8053	Tyan, Fernandez-Vina &	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP SSO
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	NEG	POS	DEL	SSP
5282	Yu, Neng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
1466	Yu, Neng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
713	Zachary, Andrea	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO

PARTICIPATING CENTERS

Name			City/State	Country	Name			City/State	Country
Adams	Sharon		Bethesda MD		Kwok	Janette	Dr	Hong Kong	
Amador	Alexandra		Miami FL		Lacelle	Chantale	PhD	Dallas TX	
Arnold	Paula	PhD	Memphis TN		Lee	Jar-How	Dr	Canoga Park CA	
Askar	Medhat	MD PhD	Cleveland OH		Liu	Cong	PhD	Grand Rapids MI	
Bengtsson	Mats	MD	Uppsala	Sweden	Maha	George	PhD	Burlington NC	
Cao	Kai	Dr	Houston TX		Marino	Susana R.		Chicago IL	
Carrington	Martin/	Drs	Frederick MD		Marsh	Steven	Dr	London	England
Cauwelier	Barbara	Dr	Brugge	Belgium	Morris	Gerald	MD PhD	San Diego CA	
Cecka	J. Michael	PhD	Honolulu HI		Murphey	Cathi		San Antonio TX	
Chen	Dong-Feng	PhD	Durham NC		Mytilineos	Joannis	MD	Ulm	Germany
Colombe	Beth	PhD	Philadelphia PA		Nelson	Karen		Seattle WA	
Coppage	Myra	Dr	Ottawa ON	Canada	Nikaein	Afzal	Dr	Dallas TX	
Crowe	Deborah	PhD	Nashville TN		Permpikul	Vejbaesya/	Drs		
Deconinck	Martha		Stamford CT		Pollack	Marilyn S.	PhD	Oakland CA	
denHollander	Neal	Dr	Toronto ON	Canada	Poulton	Kay V.	Dr	Manchester	England
Ellis	Thomas	Dr	Madison WI		Raja	Rajalingam	Dr	San Francisco CA	
Ellison	Cynthia	PhD	Winnipeg MB	Canada	Reed	Elaine F.	Dr	Los Angeles CA	
Endres	Robert O.	Dr	Tempe AZ		Reinsmoen	Nancy L.	PhD	Los Angeles CA	
Fagoaga	Omar	Dr	Detroit MI		Roberts	Chrissy H.		London	England
Fischer	Gottfried	Dr	Vienna	Austria	Rossi	Angela	Dr	Piacenza	Italy
Freed	Brian	Dr	Aurora CO		Rost	Klein/	Drs	Martinstried	Germany
Fuessel	Monika	PhD	Dresden	Germany	Scalf	Carolynn		Minneapolis MD	
Gaitonde	Sujata	Dr	Chicago IL	Ireland	Schiller	Jennifer	PhD	Milwaukee WI	
Gardiner	Claire M.	PhD	Dublin	Ireland	Senitzer	David	PhD	Duarte CA	
Gautreaux	Michael	Dr	Winston-Salem NC		Shalini	Pereira		Seattle WA	
Hedlund	Ann		Saltsjobaden	Sweden	Shanahan	Thomas	PhD	Buffalo NY	
Hesse	Nicole		Lich	Germany	Spannagl	Michael	Dr	Munchen	Germany
Hsu	Susan H.	PhD	Philadelphia PA		Tambur	Anat		Chicago IL	
Hartzman	Hurley/	Drs	Rockville MD		Thornton	Alycia		Brisbane QLD	Australia
Iwaki	Yui	Dr	San Bernardino CA		Tiercy	Jean-Marie	Dr	Geneva	Switzerland
Jaatinene	Taina	Dr	Helsinki	Finland	Tilanus	Marcel G.J.	Dr	Maastricht	Germany
Jie	Pan		Shanghai	China	Trowsdale	John	Prof	Cambridge	England
Jindra	Peter	PhD	Houston TX		Tyan	Fernandez-Vina/	Dr	Palo Alto CA	
Kanangat	Siva	PhD	Chicago IL		Uhrberg	Markus	Dr	Dusseldorf	Germany
Kashi	Zahra	Dr	Portland OR		Vilches	Carlos	Dr	Madrid	Spain
Kim	Tai-Gyu	Prof	Seoul	S. Korea	Yu	Neng	MD	Dedham MA	
Kimball	Pam	PhD	Richmond VA		Yu	Neng	MD	Worcester MA	
Kusnierczyk	Piotr	PhD	Wroclaw	Poland	Zachary	Andrea	PhD	Baltimore MD	