

REPORT OF THE 33rd UCLA International KIR Exchange

APRIL 21, 2014

KIR

129-132

For the 33rd KIR Exchange, 4 DNA samples (KDNA#129-132) were shipped to participating laboratories on February 5, 2014. A total of 67 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 33rd 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 KIR2DL5, 3DL1, 2DS1, 2DS3, 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 4 of the 16 tested KIR loci (KIR3DL1, 2DS2, 2DS5, and 3DP1). 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 # 0129:

The consensus KIR type for this Black sample is 2DL1-2DL3-2DL4-3DL1-3DL2-3DL3-2DS2-2DS4FULL-2DP1-3DP1DEL. Two labs reported this sample as negative for 2DL3 and another reported it as negative for 2DL4. One lab reported 3DL2 and 2DS4 as negative and 1 lab reported 3DS1 and 2DS1 as positive. Lastly, 1 lab reported this sample as positive for 2DS3.

This is the first time this genotype has been typed in the KIR Exchange. Three labs commented on this cell as being 2DL2 negative, despite being 2DS2 positive. Hartzman and Hurley noted that the absence of 2DL2 may suggest that this sample carries a 2DS2/2DS3 fusion gene. In addition, Turner commented this sample may consist of 1 "A" KIR haplotype along with the KIR2DS2 positive/2DL2 negative haplotype. Vilches excluded KIR2DS2*005 (1) as a probable source of the unusual phenotype.

KIR Exchange Sample: KDNA # 0130:

The consensus KIR type for this Black sample is 2DL1-2DL2-2DL3-2DL4-2DL5A&B-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS3-2DS4FULL-2DS5-2DP1-3DP1DEL. Four labs reported this sample as negative for 2DL3. One lab reported it as negative for 2DP1 and 1 lab reported it as negative for 3DL2 and 2DS4.

The genotype in this cell is most commonly observed in Asian Indian populations, with the highest frequency occurring among the Kanikar (22.9%). It is observed less frequently in African Americans, 1.7% (2).

KIR Exchange Sample: KDNA # 0131:

The consensus KIR type for this Caucasian sample is 2DL1-2DL2-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS3-2DS4DEL-2DP1-3DP1FULL&DEL. One lab reported this sample as negative for 2DL1, 2DS1, and 2DS4. Another reported 2DL2 as negative and 1 lab reported 3DL2 and 2DS4 as negative. Four labs reported 2DL3 as negative.

The genotype in this cell is observed in Caucasians, with the highest frequency observed among the Basque, 10.0% (3). It has not been observed in Native American populations.

KIR Exchange Sample: KDNA # 0132:

The consensus KIR type for this Black sample is 2DL1-2DL2-2DL3-2DL4-3DL1-3DL2-3DL3-2DS2-2DS4FULL&DEL-2DP1-3DP1FULL&DEL. A number of discrepancies (n=13) were reported for this sample. Four labs reported 2DL3 as negative. Among the 4 labs, 1 also reported 2DL1 and 3DL3 as negative and another reported 3DL2 and 2DS4 as negative. One lab reported 2DL5 as positive, 2 labs reported 3DS1 as positive and 1 lab reported 2DL2 as negative and 2DS1 as positive.

The genotype in this sample is observed commonly across all populations, with respective frequencies of 6.9% and 8.1%, in African American and Afro-Caribbean populations (4).

References:

1. Ordonez D, Gomez-Lozano N, Rosales L, Vilches C 2011. Molecular characterization of KIR2DS2*005, a fusion gene associated with a shortened KIR haplotype. *Genes Immun* 12: 544–551.
2. Norman, P. J., C. V. Carrington, M. Byng, L. D. Maxwell, M. D. Curran, H. A. Stephens, D. Chandanayingyong, D. H. Verity, K. Hameed, D. D. Ramdath, and R. W. Vaughan. 2002. Natural killer cell immunoglobulin-like receptor (KIR) locus profiles in African and South Asian populations. *Genes Immun* 2002;3:86-95.
3. 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.
4. Cook, M. A., Moss, P. A. H. and Briggs, D. C. The distribution of 13 killer-cell immunoglobulin-like receptor loci in UK blood donors from three ethnic groups. *European Journal of Immunogenetics* 2003;30:213–221.

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Table 1. Summary of the 33rd KIR Exchange (KDNA #129-132)

KIR Ex.	DNA	Reporting Labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
#33	129	67	POS[66] NT[1]	NEG[66] NT[1]	POS[64] <i>NEG[2]</i> NT[1]	POS[63] NT[3] <i>NEG[1]</i>	NEG[66] NT[1]	POS[64] *001[1] *03101[1] NT[1]	POS[64] <i>NEG[1]</i> NT[2]	POS[64] NT[3]	NEG[65] <i>POS[1]</i> NT[1]	NEG[65] <i>POS[1]</i> NT[1]	POS[66] NT[1]	NEG[65] <i>POS[1]</i> NT[1]	POS[38] FULL[26] WT[1] <i>NEG[1]</i> NT[1]	NEG[66] NT[1]	POS[63] NT[4]	POS[44] DEL[18] NT[5]
	130	67	POS[67]	POS[67]	POS[63] <i>NEG[4]</i>	POS[65] NT[2]	POS[54] A, B[11] B[1] A*00101, B*00201[1]	POS[65] *001[1] *01701[1]	POS[65] <i>NEG[1]</i> NT[1]	POS[65] NT[2]	POS[67]	POS[63] *002[1] *002-008[2] *0020101- 008[1]	POS[67]	POS[66] *0010301[1]	POS[40] FULL[24] FULL,DEL[1] WT[1] <i>NEG[1]</i>	POS[67]	POS[63] <i>NEG[1]</i> NT[3]	POS[45] DEL[18] NT[4]
	131	67	POS[66] <i>NEG[1]</i>	POS[66] <i>NEG[1]</i>	POS[63] NEG[4]	POS[65] NT[2]	POS[46] A[20] A*00501[1]	POS[65] *001[1] *00101[1]	POS[65] <i>NEG[1]</i> NT[1]	POS[65] NT[2]	POS[67]	POS[62] *002[1] *0020101- 008[1] *002-008[2] <i>NEG[1]</i>	POS[67]	POS[66] *00201[1]	POS[37] DEL[28] <i>NEG[2]</i>	NEG[67]	POS[64] NT[3]	POS[52] DEL,FULL[11] NT[4]
	132	67	POS[66] <i>NEG[1]</i>	POS[66] <i>NEG[1]</i>	POS[63] <i>NEG[4]</i>	POS[65] NT[2]	NEG[66] <i>POS[1]</i>	POS[65] *00101, *01501[1] *001[1]	POS[65] <i>NEG[1]</i> NT[1]	POS[64] <i>NEG[1]</i> NT[2]	NEG[65] <i>POS[2]</i>	NEG[66] <i>POS[1]</i>	POS[67]	NEG[67]	POS[48] DEL, FULL[17] FULL[1] <i>NEG[1]</i>	NEG[67]	POS[64] NT[3]	POS[52] FULL, DEL[11] 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
 SSP - Sequence-specific priming-based typing
 SSOP - Sequence-specific oligonucleotide probing-based typing
 RSSOP - Reverse Sequence-specific oligonucleotide probing-based typing
 SBT - Sequencing-based typing

Table 2. KIR Exchange Sample: KDNA #129

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5488	Adams, Sharon	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
234	Amador, Alexandra	POS	NEG	NEG	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
16	Askar, Medhat Z.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP SSO
8073	Bengtsson, Mats	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8038	Cao, Kai	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	POS	SSO
8025	Carrington, Martin &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	NT	SSP
1461	Cauwelier, Barbara	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
774	Cecka, J. Michael	POS	NEG	NEG	POS	NEG	POS	NEG	POS	NEG	NEG	POS	NEG	NEG	NEG	POS	POS	SSO
3632	Colombe, Beth W.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
189	Crowe, Deborah	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
8039	Davidson, Maurine	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
124	De Santis, Dianne	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	NT	NT	SSP
8031	Dinauer, David	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
705	Ellis, Thomas	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8051	Endres, Robert O.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
2549	Fagoaga, Omar	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
762	Fischer, Gottfried	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
8047	Fuessel, Monika	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
4985	Graff, Ralph J.	POS	NEG	POS	NEG	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8022	Hedlund, Anna	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
1694	Hesse, Kessel &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
3808	Hogan, Patrick	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
5000	Hsu, Susan H.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
2344	Hurley, Hartzman&	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	POS	SSP SSO
8077	IMMCO Diagnostics	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
3261	Iwaki, Yuichi	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8076	Jaramillo, Gaitonde &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8086	Jie, Pan	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
859	Kamoun, Malek	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8035	Kanangat, Siva	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8079	Kashi, Zahra M.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
4337	Kim, Tai-Gyu	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8084	Kimball, Pam	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8046	Kusnierczyk, Piotr	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	NT	NT	SSP
8071	Kwok, Janette	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
791	Lacelle, Chantale	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
278	Lee, Jar-How	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8069	Maha, George	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
8067	Marino, Susana R.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
5142	Marsh, Steven	POS	NEG	POS	POS	NEG	*03101	POS	POS	NEG	NEG	POS	NEG	*001	NEG	POS	*003	
733	Mytilineos, Joannis	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	POS	SSP
1108	Osada, Masako	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	POS	SSO
3966	Permpikul, Vejbaesya &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8030	Poulton, Kay	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8050	Raja, Rajalingam	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP

Table 2. KIR Exchange Sample: KDNA #129

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
3753	Reed, Elaine F.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
8060	Rost, Klein &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
3410	Schroeder, M.L.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
1426	Senitzer, David	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8085	Shalini, Pereira	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SBT
702	Spannagl, Michael	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
2518	Tambur, Anat	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
769	Tavoularis, Sofia	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	POS	SSP SSO
747	Tiercy, Jean-Marie	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	
5451	Tilanus, Marcel G.J.	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSO
8024	Trowsdale, John	POS	NEG	POS	NT	NEG	POS	NT	NT	NEG	NEG	POS	NEG	WT	NEG	POS	DEL	SSP
5462	Turner, E.V.	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	POS	SSP
8053	Tyan, Fernandez-Vina &	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP SSO
8028	Uhrberg, Markus	POS	NEG	POS	NT	NEG	POS	POS	NT	NEG	NEG	POS	NEG	POS	NEG	NT	NT	SSP
3775	Vidan-Jeras, Blanka	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8023	Vilches, Carlos	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	DEL	SSP
5282	Yu, Neng	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
1466	Yu, Neng	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
713	Zachary, Andrea	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	POS	POS	SSP
8083	Texas Medical Specialty	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	*001	NEG	POS	POS	SSP

Table 3. KIR Exchange Sample: KDNA #130

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5488	Adams, Sharon	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
234	Amador, Alexandra	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
16	Askar, Medhat Z.	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP SSO
8073	Bengtsson, Mats	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	FULL	POS	POS	POS	SSO
8025	Carrington, Martin &	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	NT	SSP
1461	Cauwelier, Barbara	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
774	Cecka, J. Michael	POS	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	POS	SSO
3632	Colombe, Beth W.	POS	POS	POS	POS	A, B	POS	POS	POS	POS	*002-*008	POS	POS	FULL	POS	POS	DEL	SSP
189	Crowe, Deborah	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
8039	Davidson, Maurine	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
124	De Santis, Dianne	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NT	NT	SSP
8031	Dinauer, David	POS	POS	POS	POS	A,B	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
705	Ellis, Thomas	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8051	Endres, Robert O.	POS	POS	POS	POS	A B	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
2549	Fagoaga, Omar	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
762	Fischer, Gottfried	POS	POS	POS	POS	B	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	SSP
8047	Fuessel, Monika	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8026	Gardiner, Clair M.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
4985	Graff, Ralph J.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8022	Hedlund, Anna	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
1694	Hesse, Kissel &	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	POS	POS	A, B	POS	POS	POS	POS	*0020101 - *008	POS	POS	FULL	POS	POS	DEL	SSP
5000	Hsu, Susan H.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
2344	Hurley, Hartzman&	POS	POS	POS	POS	A*00101, B*00201	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	POS	SSP SSO
8077	IMMCO Diagnostics	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
3261	Iwaki, Yuichi	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8076	Jaramillo, Gaitonde &	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8086	Jie, Pan	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
859	Kamoun, Malek	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8035	Kanangat, Siva	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8079	Kashi, Zahra M.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
4337	Kim, Tai-Gyu	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8084	Kimball, Pam	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8046	Kusnierczyk, Piotr	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	NT	NT	SSP
8071	Kwok, Janette	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
791	Lacelle, Chantale	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
278	Lee, Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8069	Maha, George	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
8067	Marino, Susana R.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
5142	Marsh, Steven	POS	POS	POS	POS	POS	*01701	POS	POS	POS	POS	POS	*0010301	*001	POS	POS	*003	
733	Mytilineos, Joannis	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	FULL, DEL	POS	POS	POS	SSP
1108	Osada, Masako	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	POS	SSO

Table 3. KIR Exchange Sample: KDNA #130

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
3966	Permpikul, Vejbaesy	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8030	Poulton, Kay	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8050	Raja, Rajalingam	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
3753	Reed, Elaine F.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
8060	Rost, Klein &	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
3410	Schroeder, M.L.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
1426	Senitzer, David	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8085	Shalini, Pereira	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SBT
702	Spannagl, Michael	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
2518	Tambur, Anat	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
769	Tavoularis, Sofia	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	POS	SSP SSO
8083	Texas Medical Speci	POS	POS	NEG	POS	POS	*001	POS	POS	POS	*002	POS	POS	*001	POS	POS	POS	SSP
747	Tiercy, Jean-Marie	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	NEG	DEL	
5451	Tilanus, Marcel G.J.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8024	Trowsdale, John	POS	POS	POS	NT	POS	POS	NT	NT	POS	POS	POS	POS	WT	POS	POS	DEL	SSP
5462	Turner, E.V.	POS	POS	POS	POS	POS	POS	POS	POS	POS	*002-*008	POS	POS	FULL	POS	POS	POS	SSP
8053	Tyan, Fernandez-Vir	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP SSO
8028	Uhrberg, Markus	POS	POS	POS	NT	POS	POS	POS	NT	POS	POS	POS	POS	POS	POS	NT	NT	SSP
3775	Vidan-Jeras, Blanka	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL	POS	POS	DEL	SSP
5282	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
1466	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
713	Zachary, Andrea	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP

Table 4. KIR Exchange Sample: KDNA #131

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5488	Adams, Sharon	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
234	Amador, Alexandra	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
16	Askar, Medhat Z.	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP SSO
8073	Bengtsson, Mats	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	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	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
774	Cecka, J. Michael	POS	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
3632	Colombe, Beth W.	POS	POS	POS	POS	A	POS	POS	POS	POS	*002*008	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
189	Crowe, Deborah	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP SSO
8039	Davidson, Maurine	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
124	De Santis, Dianne	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NT	NT	SSP
8031	Dinauer, David	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
705	Ellis, Thomas	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
8051	Endres, Robert O.	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
2549	Fagoaga, Omar	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
762	Fischer, Gottfried	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
8047	Fuessel, Monika	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	NEG	POS	POS	SSP
4985	Graff, Ralph J.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8022	Hedlund, Anna	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
1694	Hesse, Kissel &	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	*0020101-	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
5000	Hsu, Susan H.	POS	POS	POS	POS	POS	POS	POS	POS	POS	*008	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
8077	IMMCO Diagnostics	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
3261	Iwaki, Yuichi	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8076	Jaramillo, Gaitonde &	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8086	Jie, Pan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
859	Kamoun, Malek	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	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	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	SSP
8046	Kusnierczyk, Piotr	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	NT	NT	SSP
8071	Kwok, Janette	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
791	Lacelle, Chantale	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
278	Lee, Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO

Table 4. KIR Exchange Sample: KDNA #131

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8069	Maha, George	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
8067	Marino, Susana R.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP SSO
5142	Marsh, Steven	POS	POS	POS	POS	POS	*00101	POS	POS	POS	POS	POS	*00201	*003/ *004/ *006/ *007	NEG	POS	*001/ *002/ *004, *003	
733	Mytilineos, Joannis	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
1108	Osada, Masako	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSO
3966	Permpikul, Vejbaesya	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
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
3410	Schroeder, M.L.	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP
1426	Senitzer, David	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8085	Shalini, Pereira	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SBT
702	Spannagl, Michael	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
2518	Tambur, Anat	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
769	Tavoularis, Sofia	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP SSO
8083	Texas Medical Specia	POS	POS	NEG	POS	A	*001	POS	POS	POS	*002	POS	POS	*003	NEG	POS	POS	SSP
747	Tiercy, Jean-Marie	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	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
5462	Turner, E.V.	POS	POS	POS	POS	A	POS	POS	POS	POS	*002-*008	POS	POS	DEL	NEG	POS	POS	SSP
8053	Tyan, Fernandez-Vina	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	POS	SSP SSO
8028	Uhrberg, Markus	POS	POS	POS	NT	POS	POS	POS	NT	POS	POS	POS	POS	POS	NEG	NT	NT	SSP
3775	Vidan-Jeras, Blanka	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
5282	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP
1466	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSO
713	Zachary, Andrea	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP

Table 5. KIR Exchange Sample: KDNA #132

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5488	Adams, Sharon	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
234	Amador, Alexandra	POS	POS	NEG	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
16	Askar, Medhat Z.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP SSO
8073	Bengtsson, Mats	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8038	Cao, Kai	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL	NEG	POS	POS	SSO
8025	Carrington, Martin &	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FUL, DEL	NEG	POS	NT	SSP
1461	Cauwelier, Barbara	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
774	Cecka, J. Michael	POS	POS	NEG	POS	NEG	POS	NEG	POS	NEG	NEG	POS	NEG	NEG	NEG	POS	POS	SSO
3632	Colombe, Beth W.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
189	Crowe, Deborah	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
8039	Davidson, Maurine	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
124	De Santis, Dianne	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	POS	POS	NEG	POS	NEG	NT	NT	SSP
8031	Dinauer, David	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FUL, DEL	NEG	POS	FULL, DEL	SSP
705	Ellis, Thomas	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8051	Endres, Robert O.	POS	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
2549	Fagoaga, Omar	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
762	Fischer, Gottfried	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8047	Fuessel, Monika	POS	POS	NEG	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	NEG	POS	NEG	POS	NEG	POS	POS	NEG	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
4985	Graff, Ralph J.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8022	Hedlund, Anna	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
1694	Hesse, Kissel &	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
5000	Hsu, Susan H.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
2344	Hurley, Hartzman&	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	POS	SSP SSO SBT
8077	IMMCO Diagnostics	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
3261	Iwaki, Yuichi	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8076	Jaramillo, Gaitonde &	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8086	Jie, Pan	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
859	Kamoun, Malek	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8035	Kanangat, Siva	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8079	Kashi, Zahra M.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
4337	Kim, Tai-Gyu	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8084	Kimball, Pam	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8046	Kusnierczyk, Piotr	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FUL, DEL	NEG	NT	NT	SSP
8071	Kwok, Janette	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
791	Lacelle, Chantale	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
278	Lee, Jar-How	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8069	Maha, George	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FUL, DEL	NEG	POS	FULL, DEL	SSP
8067	Marino, Susana R.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
5142	Marsh, Steven	POS	POS	POS	POS	NEG	*00101, *01501	POS	POS	NEG	NEG	POS	NEG	*001, *003/ *004/ *006/ *007	NEG	POS	*001/ *002/ *004, *003	
733	Mytilineos, Joannis	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	POS	SSP

Table 5. KIR Exchange Sample: KDNA #132

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
1108	Osada, Masako	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FUL, DEL	NEG	POS	POS	SSO
3966	Permpikul, Vejbaesya &	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8030	Poulton, Kay	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8050	Raja, Rajalingam	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
3753	Reed, Elaine F.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
8060	Rost, Klein &	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
3410	Schroeder, M.L.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
1426	Senitzer, David	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8085	Shalini, Pereira	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SBT
702	Spannagl, Michael	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
2518	Tambur, Anat	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
769	Tavoularis, Sofia	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	POS	SSP SSO
8083	Texas Medical Specialty	POS	POS	POS	POS	NEG	*001	POS	POS	NEG	NEG	POS	NEG	*001	NEG	POS	POS	SSP
747	Tiercy, Jean-Marie	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	
5451	Tilanus, Marcel G.J.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
8024	Trowsdale, John	POS	POS	POS	NT	NEG	POS	NT	NT	NEG	NEG	POS	NEG	WT, DEL	NEG	POS	FULL, DEL	SSP
5462	Turner, E.V.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8053	Tyan, Fernandez-Vina &	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP SSO
8028	Uhrberg, Markus	POS	POS	POS	NT	NEG	POS	POS	NT	NEG	NEG	POS	NEG	POS	NEG	NT	NT	SSP
3775	Vidan-Jeras, Blanka	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	FULL, DEL	NEG	POS	FULL, DEL	SSP
5282	Yu, Neng	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
1466	Yu, Neng	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSO
713	Zachary, Andrea	POS	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	POS	NEG	POS	POS	SSP

PARTICIPATING CENTERS

Name			City/State	Country	Name			City/State	Country
Adams	Sharon		Bethesda MD		Klein	Rost/	Drs	Martinsried	Germany
Amador	Alexandra		Miami FL		Kusnierczyk	Piotr	PhD	Wroclaw	Poland
Askar	Medhat	MD PhD	Cleveland OH		Kwok	Janette	Dr	Hong Kong	
Balazs	Ray/		Stamford CT		Lacelle	Chantale	PhD	Dallas TX	
Cao	Kai	Dr	Houston TX		Lee	Jar-How	Dr	Canoga Park CA	
Carrington/Martin		Drs	Frederick MD		Maha	George	PhD	Burlington NC	
Cauwelier	Barbara	Dr	Brugge	Belgium	Marino	Susana R		Chicago IL	
Cecka	J. Michael	PhD	Honolulu HI		Marsh	Steven	Dr	London	England
Colombe	Beth	PhD	Philadelphia PA		Masako	Osada		Stamford CT	
Crowe	Deborah	PhD	Nashville TN		Mytilineos	Joannis	MD	Ulm	Germany
Davidson	Maureen		Minneapolis MN		Nelson	Karen		Seattle WA	
De Santis	Dianne	Dr	Perth	Australia	Nikaein	Afzal	Dr	Dallas TX	
Dinauer	David		Brown Deer WI		Poulton	Kay V.	Dr	Manchester	England
Ellis	Thomas	Dr	Madison WI		Raja	Rajalingam	Dr	San Francisco CA	
Endres	Robert	Dr	Tempe AZ		Reed	Elaine F.	Dr	Los Angeles CA	
Fagoaga	Omar	Dr	Detroit MI		Roberts	Chrissy H.		London	England
Fischer	Gottfried	Dr	Vienna	Austria	Schiller	Jennifer	PhD	Milwaukee WI	
Fuessel	Monika	PhD	Dresden	Germany	Schroeder	M.L.	MD	Winnipeg MB	Canada
Gardiner	Clair M.	PhD	Dublin	Ireland	Senitzer	David	PhD	Duarte CA	
Gautreaux	Michael	Dr	Winston-Salem NC		Shalini	Pereira		Seattle WA	
Graff	Ralph J.	Dr	St Louis MO		Shanahan	Thomas	PhD	Buffalo NY	
Hedlund	Ann		Saltsjobaden	Sweden	Spannagl	Michael	Dr	Munchen	Germany
Kissel	Hesse &		Lich	Germany	Tambur	Anat		Chicago IL	
Hogan	Patrick	Dr	Herston	Australia	Tavoularis	Sofia	Dr	Ottawa ON	Canada
Hsu	Susan H.	PhD	Philadelphia PA		Texas Medical Specialty			Buffalo NY	
Hartzman	Hurley/	Drs	Rockville MD		Tiercy	Jean-Marie	Dr	Geneva	Switzerland
IMMCO Diagnostics			Buffalo NY		Tilanus	Marcel G.J.	Dr	Maastricht	Germany
Iwaki	Yui	Dr	San Bernardino CA		Trowsdale	John	Prof	Cambridge	England
Jaatinene	Taina	Dr	Helsinki	Finland	Turner	E.V.	PhD	Memphis TN	
Jaramillo	Gaitonde&	Drs	Chicago IL		Tyan	Fernandez-Vina/	Dr	Palo Alto CA	
Pan	Jie		Shanghai	China	Uhrberg	Markus	Dr	Dusseldorf	Germany
Kamoun	Malek	MD	Philadelphia PA		Vidan-Jeras	Blanka		Ljubljana	Slovenia
Kanangat	Siva	PhD	Chicago IL		Vilches	Carlos	Dr	Madrid	Spain
Kashi	Zahra	Dr	Portland OR		Yu	Neng	MD	Dedham MA	
Kim	Tai-Gyu	Prof	Seoul	S. Korea	Yu	Neng	MD	Worcester MA	
Kimball	Pam	PhD	Richmond VA		Zachary	Andrea	PhD	Baltimore MD	