

REPORT OF THE 32ND UCLA INTERNATIONAL KIR EXCHANGE

DECEMBER 11, 2013

KIR 125-128

Dear Colleagues:

For the 32nd KIR Exchange, 4 DNA samples (KDNA#125-128) were shipped to participating laboratories on August 6, 2013. 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 32nd 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 KIR2DL1, 2DL2, 2DL3, 2DL5, 3DL1, 2DS1, 2DS3, 2DS4, 2DS5, 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 3 of the 16 tested KIR loci (KIR3DL3, 2DS2, and 2DP1). 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. Participants are encouraged to resolve the discrepancies so that the information can be shared to develop reliable KIR typing systems.

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

KIR Exchange Sample: KDNA # 0125:

The consensus KIR type for this sample from a Native American donor is: 2DL2-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS4DEL-2DS5-3DP1FULL. One laboratory reported this sample as negative for 2DL5, 1 reported it as negative for 3DL1, and another laboratory reported it as negative for 3DS1 and 2DS5. Two laboratories reported this sample as positive for 2DS3 and 1 reported it as positive for 2DL1.

This genotype is observed in a number of ethnic populations, with the highest frequencies observed among the Native American Chiriguano, 3.7%, and Wilches, 4.0%, (1,2).

KIR Exchange Sample: KDNA # 0126:

The consensus KIR type for this sample from a Black donor is: 2DL1-2DL2-2DL3-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS1-2DS2-2DS4DEL-2DS5-2DP1-3DP1DEL. This sample was previously typed in the KIR Exchange as KDNA#081 (2010). In this present retyping, a number of discrepancies were reported for this sample. One laboratory reported this sample as negative for 2DL2, 2 laboratories reported 2DL3 as negative, and 1 laboratory reported 3DL2 as negative. In addition, 2 laboratories reported 3DS1 as positive, 1 laboratory reported 2DS1 and 2DS5 as negative, and 2 laboratories reported 2DS3 as positive. Three laboratories reported 2DS4 as negative and 1 laboratory reported 3DP1 as negative.

Vilches commented that this sample may carry a deletion in the central framework gene of 1 haplotype. Hartzman and Hurley also made the same observation, noting the unexpected presence of 2DS1 (3) suggests that this sample carries a deletion.

This genotype is observed in African American populations at a frequency of 5.2% (4, 5).

KIR Exchange Sample: KDNA # 0127:

The consensus KIR type for this sample from a Hispanic donor is: 2DL1-2DL2-2DL4-2DL5A&B-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS3-2DP1-3DP1FULL&DEL. This sample was previously typed in the KIR Exchange as KDNA#082 (2010). In 2010, no discrepancies were reported for 2DS3, however 4 labs reported 2DS3 as positive in this present study. One laboratory reported 2DL1 as negative and 2DS4 and 2DS5 as positive. In addition, 3DP1 was reported as negative by 1 laboratory.

Hartzman and Hurley commented on the unexpected absence of 2DS4, noting that the absence of the 2DS4 gene suggests that this sample carries a 3DL1/3DL2 fusion gene.

This genotype is observed exclusively in Hispanic and Trinidad populations, with respective frequencies of 0.8% and 0.9% (1, 4).

KIR Exchange Sample: KDNA # 0128:

The consensus KIR type for this sample from a Caucasian donor is 2DL1-2DL2-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS2-2DS3-2DS4-2DP1-3DP1FULL&DEL. Two laboratories reported 2DL3 as positive for this sample, 2 reported 2DS3 as positive and 1 laboratory reported 2DL4 as negative. In

addition, 1 laboratory reported 3DS1 as positive, 1 laboratory reported 2DS1 and 2DS5 as positive, and 1 reported 2DS4 and 3DP1 as negative.

This genotype is observed in Asian Indian populations, with the highest frequency occurring among the Kanikar, 11.4% (6). It is also observed in Caucasians, 3.1%, and is absent in Native American populations.

References

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Table 1. Summary of the 32nd KIR Exchange (KDNA#125-128)

KIR Ex.	DNA	# reporting labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
#32	125	67	NEG[66] <i>POS[1]</i>	POS[67]	NEG[67]	POS[65] NT[2]	POS[42] A[22] A*00101[1] <i>NEG[1]</i> NT[1]	POS[64] *00401[1] *004[1] <i>NEG[1]</i>	POS[66] NT[1]	POS[65] NT[2]	POS[66] <i>NEG[1]</i>	POS[62] *002[1] *0020101- *008[1] *002-*008[1] *002 -*008[1] <i>NEG[1]</i>	POS[67] <i>POS[2]</i>	NEG[65] <i>POS[2]</i>	POS[38] DEL[29]	POS[66] <i>NEG[1]</i>	NEG[64] <i>NT[3]</i>	POS[47] FULL[17] NT[3]
	126	67	POS[67]	POS[65] *004[1] <i>NEG[1]</i>	POS[64] *0010101- *006/*008N- *009/*011[1] <i>NEG[2]</i>	POS[65] NT[2]	POS[44] B[15] B*003/ *00602[2] B*003/ *006[1] B*003[1] A,B[3] NT[1]	POS[65] *00401[1] *004[1]	POS[65] <i>NEG[1]</i> NT[1]	POS[65] NT[2]	NEG[65] <i>POS[2]</i>	POS[61] *0020101- *008[1] *002-*008[2] *002[1] *004/*008[1] <i>NEG[1]</i>	POS[67] <i>POS[2]</i>	NEG[65] <i>POS[2]</i>	POS[36] DEL[28] <i>NEG[3]</i>	POS[65] *003[1] <i>NEG[1]</i>	POS[65] <i>NT[2]</i>	POS[45] DEL[18] <i>NEG[1]</i> NT[3]
	127	67	POS[66] <i>NEG[1]</i>	POS[67]	NEG[67]	POS[65] NT[2]	POS[47] A,B[18] A*00501, B*00201[1] NT[1]	POS[66] *001[1]	POS[66] <i>NT[1]</i>	POS[65] NT[2]	POS[67]	POS[63] *002[1] *0020101- *008[1] *002-*008[2]	POS[67]	POS[63] <i>NEG[4]</i>	NEG[66] <i>POS[1]</i>	NEG[66] <i>POS[1]</i>	POS[65] <i>NT[2]</i>	POS[51] FULL, DEL[11] FULL[1] <i>NEG[1]</i> NT[3]
	128	67	POS[67]	POS[67]	NEG[64] *010[1] <i>POS[2]</i>	POS[64] <i>NEG[1]</i> NT[2]	POS[41] B[23] B*00201[1] B*002/*004- *00601/ *00603- *0130[1] NT[1]	POS[65] *001[1] *00101, *00701[1]	POS[66] <i>NT[1]</i>	POS[65] NT[2]	NEG[66] <i>POS[1]</i>	NEG[66] <i>POS[1]</i>	POS[67]	POS[64] *00103[1] <i>NEG[2]</i>	POS[37] DEL[29] <i>NEG[1]</i>	NEG[66] <i>POS[1]</i>	POS[65] <i>NT[2]</i>	POS[50] FULL, DEL[12] FULL[1] <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
 RSSOP - Reverse Sequence-specific oligonucleotide probing-based typing
 SBT - Sequencing-based typing

Table 2. KIR Exchange Sample: KDNA #125

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5488	Adams, Sharon	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FUL	SSP
234	Amador, Alexandra	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
16	Askar, Medhat Z.	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FULL	SSP SSO
8073	Bengtsson, Mats	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8038	Cao, Kai	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
8025	Carrington, Martin &	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	NT	SSP
1461	Cauwelier, Barbara	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
774	Cecka, J. Michael	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
3224	Chen, Dong-Feng	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
3632	Colombe, Beth W.	NEG	POS	NEG	POS	A	POS	POS	POS	POS	*002-*008	POS	NEG	DEL	POS	NEG	FULL	SSP
189	Crowe, Deborah	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
8039	Davidson, Maurine	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
124	De Santis, Dianne	POS	POS	NEG	POS	NT	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	NT	NT	SSP
8031	Dinauer, David	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
705	Ellis, Thomas	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
8051	Endres, Robert O.	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FUL	SSP
2549	Fagoaga, Omar	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
762	Fischer, Gottfried	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
8047	Fuessel, Monika	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8026	Gardiner, Clair M.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	SSP
8040	Gladman, Abji/Pelle	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	
4985	Graff, Ralph J.	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8022	Hedlund, Anna	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
3808	Hogan, Patrick	NEG	POS	NEG	POS	A	POS	POS	POS	POS	*0020101-	POS	NEG	DEL	POS	NEG	FULL	SSP
5000	Hsu, Susan H.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
2344	Hurley, Hartzman&	NEG	POS	NEG	POS	A*00101	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP SSO SBT
3261	Iwaki, Yuichi	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8076	Jaramillo, Gaitonde	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
8035	Kanangat, Siva	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
8079	Kashi, Zahra M.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
4337	Kim, Tai-Gyu	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8084	Kimball, Pam	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8046	Kusnierczyk, Piotr	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
8071	Kwok, Janette	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
791	Lacelle, Chantale	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
278	Lee, Jar-How	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
8069	Maha, George	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
8067	Marino, Susana R.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
5142	Marsh, Steven	NEG	POS	NEG	POS	POS	*00401	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	*001/ *002/ *004, -	SSP
733	Mytilineos, Joannis	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
5231	Nelson, Karen	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
8083	Nikaein, Afzal	NEG	POS	NEG	POS	A	POS	POS	POS	POS	*002	POS	NEG	*003	POS	NEG	*001	SSP
3966	Permpikul, Vejbaes	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8030	Poulton, Kay	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
8050	Raja, Rajalingam	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FUL	SSP

Table 2. KIR Exchange Sample: KDNA #125

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
3753	Reed, Elaine F.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
8064	Roberts, Chrissy H.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8060	Rost, Klein &	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
4251	Schiller, Jennifer	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
3410	Schroeder, M.L.	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
1426	Senitzer, David	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
8077	Shanahan, Thomas	NEG	POS	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP
702	Spannagl, Michael	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP SSO
1108	Sutherland, Leslie	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSO
2518	Tambur, Anat	NEG	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
769	Tavoularis, Sofia	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	POS	SSP SSO
5451	Tilanus, Marcel G.J	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
4021	Trachtenberg, Eliza	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8024	Trowsdale, John	NEG	POS	NEG	NT	POS	POS	NT	NT	POS	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
5462	Turner, E.V.	NEG	POS	NEG	POS	A	*004	POS	POS	POS	*002 - *008	POS	NEG	*003 -*004, *006, *007, *012-*013	POS	NEG	*001-*010	SSP
8053	Tyan, Fernandez-Vi	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	*003-*010/ *012/ *013	POS	NEG	*001/ *002/ *004 / *007/ *009	SSP SSO
8028	Uhrberg, Markus	NEG	POS	NEG	NT	POS	POS	POS	NT	POS	POS	POS	NEG	POS	POS	NT	NT	SSP
3775	Vidan-Jeras, Blanka	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
8023	Vilches, Carlos	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NT	FULL	SSP
5282	Yu, Neng	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSP
1466	Yu, Neng	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
713	Zachary, Andrea	NEG	POS	NEG	POS	A	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	NEG	FULL	SSO

Table 3. KIR Exchange Sample: KDNA #126

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	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
234	Amador, Alexandra	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
16	Askar, Medhat Z.	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP SSO
8073	Bengtsson, Mats	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8038	Cao, Kai	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8025	Carrington, Martin &	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	NT	SSP
1461	Cauwelier, Barbara	POS	POS	POS	POS	B*003/ *006	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
774	Cecka, J. Michael	POS	POS	NEG	POS	POS	POS	NEG	POS	NEG	POS	POS	NEG	NEG	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	*002-*008	POS	NEG	DEL	POS	POS	DEL	SSP
189	Crowe, Deborah	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
8039	Davidson, Maurine	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
124	De Santis, Dianne	POS	POS	NEG	POS	NT	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	NT	NT	SSP
8031	Dinauer, David	POS	POS	POS	POS	B*003/ *00602	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
705	Ellis, Thomas	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8051	Endres, Robert O.	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
2549	Fagoaga, Omar	POS	POS	*0010101- *006/ *008N- *009/ *011	POS	B*003/ *00602	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
762	Fischer, Gottfried	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
8047	Fuessel, Monika	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8026	Gardiner, Clair M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	SSP
8040	Gladman, Abji/Pellet/	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	
4985	Graff, Ralph J.	POS	POS	POS	POS	A, B	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8022	Hedlund, Anna	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	POS	POS	POS	POS	POS	POS	NEG	*0020101- *008	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*003	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP SSO SBT
3261	Iwaki, Yuichi	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8076	Jaramillo, Gaitonde &	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP
8035	Kanangat, Siva	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
8079	Kashi, Zahra M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
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	SSP
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
791	Lacelle, Chantale	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
278	Lee, Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
8069	Maha, George	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
8067	Marino, Susana R.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
5142	Marsh, Steven	POS	POS	POS	POS	POS	*00401	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	*003, -	SSP
733	Mytilineos, Joannis	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP
5231	Nelson, Karen	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO

Table 3. KIR Exchange Sample: KDNA #126

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8083	Nikaein, Afzal	POS	POS	POS	POS	A, B	POS	POS	POS	NEG	*002	POS	NEG	*003	POS	POS	POS	SSP
3966	Permpikul, Vejbaesya	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
8064	Roberts, Chrissy H.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
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
3410	Schroeder, M.L.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
1426	Senitzer, David	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP
8077	Shanahan, Thomas	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP
702	Spannagl, Michael	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	DEL	POS	POS	POS	SSP SSO
1108	Sutherland, Leslie	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSO
2518	Tambur, Anat	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
769	Tavoularis, Sofia	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	POS	SSP SSO
5451	Tilanus, Marcel G.J.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
4021	Trachtenberg, Elizabeth	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8024	Trowsdale, John	POS	*004	POS	NT	POS	POS	NT	NT	NEG	POS	POS	NEG	DEL	*003	POS	DEL	SSP
5462	Turner, E.V.	POS	POS	POS	POS	B	*004	POS	POS	NEG	*002-*008	POS	NEG	*003- *004,*006,* 007,*012- *013	POS	POS	POS	SSP
8053	Tyan, Fernandez-Vina	POS	POS	POS	POS	B	POS	POS	POS	NEG	POS	POS	NEG	NEG	POS	POS	*007/ *009, *003/ *005/ *006	SSP SSO
8028	Uhrberg, Markus	POS	POS	POS	NT	POS	POS	POS	NT	NEG	POS	POS	NEG	POS	POS	NT	NT	SSP
3775	Vidan-Jeras, Blanka	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	POS	DEL	SSP
5282	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
1466	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSO
713	Zachary, Andrea	POS	POS	POS	POS	A,B	POS	POS	POS	POS	POS	POS	NEG	DEL	POS	POS	DEL	SSO

Table 4. KIR Exchange Sample: KDNA #127

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5488	Adams, Sharon	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
234	Amador, Alexandra	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
16	Askar, Medhat Z.	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FULL, DEL	SSP SSO
8073	Bengtsson, Mats	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8038	Cao, Kai	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
8025	Carrington, Martin &	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	POS	NT	SSP
1461	Cauwelier, Barbara	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
774	Cecka, J. Michael	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
3224	Chen, Dong-Feng	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
3632	Colombe, Beth W.	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	*002-*008	POS	POS	NEG	NEG	POS	FULL, DEL	SSP
189	Crowe, Deborah	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
8039	Davidson, Maurine	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
124	De Santis, Dianne	NEG	POS	NEG	POS	NT	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NT	NT	SSP
8031	Dinauer, David	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FULL, DEL	SSP
705	Ellis, Thomas	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
8051	Endres, Robert O.	POS	POS	NEG	POS	AB	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FUL, DEL	SSP
2549	Fagoaga, Omar	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FULL	SSP
762	Fischer, Gottfried	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8047	Fuessel, Monika	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	POS	POS	SSP
8040	Gladman, Abji/Pellet/	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	
4985	Graff, Ralph J.	POS	POS	NEG	POS	A,B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8022	Hedlund, Anna	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	*0020101-	POS	POS	NEG	NEG	POS	FULL, DEL	SSP
5000	Hsu, Susan H.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
2344	Hurley, Hartzman&	POS	POS	NEG	POS	A*00501, B*00201	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO SBT
3261	Iwaki, Yuichi	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	POS	POS	SSP
8076	Jaramillo, Gaitonde &	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8035	Kanangat, Siva	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
8079	Kashi, Zahra M.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
4337	Kim, Tai-Gyu	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8084	Kimball, Pam	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8046	Kusnierczyk, Piotr	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8071	Kwok, Janette	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
791	Lacelle, Chantale	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FULL, DEL	SSP
278	Lee, Jar-How	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
8069	Maha, George	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FULL, DEL	SSP
8067	Marino, Susana R.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
5142	Marsh, Steven	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	*001/*002/* 004, *003	SSP
733	Mytilineos, Joannis	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP

Table 4. KIR Exchange Sample: KDNA #127

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5231	Nelson, Karen	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
8083	Nikaein, Afzal	POS	POS	NEG	POS	A, B	*001	POS	POS	POS	*002	POS	POS	NEG	NEG	POS	POS	SSP
3966	Permpikul, Vejbaesya	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8030	Poulton, Kay	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
8050	Raja, Rajalingam	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
3753	Reed, Elaine F.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
8064	Roberts, Chrissy H.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8060	Rost, Klein &	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
3410	Schroeder, M.L.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
1426	Senitzer, David	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8077	Shanahan, Thomas	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
702	Spannagl, Michael	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
1108	Sutherland, Leslie	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
2518	Tambur, Anat	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
769	Tavoularis, Sofia	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP SSO
5451	Tilanus, Marcel G.J.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
4021	Trachtenberg, Elizabeth	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8024	Trowsdale, John	POS	POS	NEG	NT	POS	POS	NT	NT	POS	POS	POS	POS	NEG	NEG	POS	DEL, FULL	SSP
5462	Turner, E.V.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	*002-*008	POS	POS	NEG	NEG	POS	POS	SSP
8053	Tyan, Fernandez-Vina	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	SSP SSO
8028	Uhrberg, Markus	POS	POS	NEG	NT	POS	POS	POS	NT	POS	POS	POS	POS	NEG	NEG	NT	NT	SSP
3775	Vidan-Jeras, Blanka	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FULL, DEL	SSP
5282	Yu, Neng	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSP
1466	Yu, Neng	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSO
713	Zachary, Andrea	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	FULL, DEL	SSO

Table 5. KIR Exchange Sample: KDNA #128

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
5488	Adams, Sharon	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
234	Amador, Alexandra	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
16	Askar, Medhat Z.	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP SSO
8073	Bengtsson, Mats	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8038	Cao, Kai	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8025	Carrington, Martin &	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	NT	SSP
1461	Cauwelier, Barbara	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
774	Cecka, J. Michael	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
3224	Chen, Dong-Feng	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
3632	Colombe, Beth W.	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
189	Crowe, Deborah	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP SSO
8039	Davidson, Maurine	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
124	De Santis, Dianne	POS	POS	POS	POS	NT	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NT	NT	SSP
8031	Dinauer, David	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
705	Ellis, Thomas	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8051	Endres, Robert O.	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FUL DEL	SSP
2549	Fagoaga, Omar	POS	POS	NEG	POS	B*002/ *004- *00601/ *00603-*0130	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL	SSP
762	Fischer, Gottfried	POS	POS	POS	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
8047	Fuessel, Monika	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	POS	POS	NEG	NEG	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	NEG	POS	POS	SSP
8040	Gladman, Abji/Pellet/	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	
4985	Graff, Ralph J.	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8022	Hedlund, Anna	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
5000	Hsu, Susan H.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
2344	Hurley, Hartzman&	POS	POS	NEG	POS	B*00201	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP SSO SBT
3261	Iwaki, Yuichi	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8076	Jaramillo, Gaitonde &	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
8035	Kanangat, Siva	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
8079	Kashi, Zahra M.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
4337	Kim, Tai-Gyu	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8084	Kimball, Pam	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8046	Kusnierczyk, Piotr	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
8071	Kwok, Janette	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
791	Lacelle, Chantale	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
278	Lee, Jar-How	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8069	Maha, George	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
8067	Marino, Susana R.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
5142	Marsh, Steven	POS	POS	NEG	POS	POS	*00101, *00701	POS	POS	NEG	NEG	POS	*00103	POS	NEG	POS	*001/ *002/ *004, *003	SSP
733	Mytilineos, Joannis	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
5231	Nelson, Karen	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8083	Nikaein, Afzal	POS	POS	NEG	POS	B	*001	POS	POS	NEG	NEG	POS	POS	*003	NEG	POS	POS	SSP
3966	Permpikul, Vejbaesya	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8030	Poulton, Kay	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO

Table 5. KIR Exchange Sample: KDNA #128

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8050	Raja, Rajalingam	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
3753	Reed, Elaine F.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
8064	Roberts, Chrissy H.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8060	Rost, Klein &	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
3410	Schroeder, M.L.	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
1426	Senitzer, David	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
8077	Shanahan, Thomas	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
702	Spannagl, Michael	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP SSO
1108	Sutherland, Leslie	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSO
2518	Tambur, Anat	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
769	Tavoularis, Sofia	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP SSO
5451	Tilanus, Marcel G.J.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
4021	Trachtenberg, Elizabeth	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8024	Trowsdale, John	POS	POS	NEG	NT	POS	POS	NT	NT	NEG	NEG	POS	POS	DEL	NEG	POS	DEL, FULL	SSP
5462	Turner, E.V.	POS	POS	NEG	POS	B	POS	POS	POS	NEG	NEG	POS	POS	*003 - *010/ *012/ *013	NEG	POS	POS	SSP
8053	Tyan, Fernandez-Vina	POS	POS	*010	POS	B	POS	POS	POS	NEG	NEG	POS	POS	NEG	NEG	POS	NEG	SSP SSO
8028	Uhrberg, Markus	POS	POS	NEG	NT	POS	POS	POS	NT	NEG	NEG	POS	POS	POS	NEG	NT	NT	SSP
3775	Vidan-Jeras, Blanka	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSP
5282	Yu, Neng	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
1466	Yu, Neng	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
713	Zachary, Andrea	POS	POS	NEG	POS	B	POS	POS	POS	POS	NEG	POS	POS	DEL	NEG	POS	FULL, DEL	SSO

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