REPORT OF THE 27TH UCLA INTERNATIONAL KIR EXCHANGE

MAY 2, 2012

KIR

105-108

Dear Colleagues:

For the 27th KIR Exchange, 4 DNA samples (KDNA#105-108) were shipped to each laboratory on February 1, 2012. Sixty laboratories submitted their KIR typing results. The majority of the laboratories used either commercial or in-house developed sequence-specific primer (SSP) based PCR typing systems, and sequence-specific oligonucleotide probing (SSOP) method.

The results for the 27th KIR Exchange are summarized in Table 1 and individual laboratory results reported for each DNA sample are provided in Tables 2-5. Dr. Turner noted that all 4 samples carry a non-expressed 3DL1*004 allele. Subtyping results for KIR2DL2, 2DL3, 2DL5, 3DL1, 2DS1, 2DS4, and 3DP1 loci were reported by some laboratories. The positive/

negative assignments for all 4 DNA samples were reported without any discrepancy for 11 of the 16 tested KIR loci (KIR2DL1, 2DL4, 2DL5, 3DL1, 3DL2, 3DL3, 2DS1, 2DS4, 2DS5, 2DP1, 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. 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 # 0105:

KDNA#101 was derived from an Hispanic donor. The consensus KIR type of this sample is: 2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS4FULL-2DS5-2DP1-3DP1. This DNA was previously studied as KDNA#053 (2007). In the 2007 study, a number of discrepancies were reported (one laboratory reported 2DL3 as negative, 1 reported 3DL1 as negative, and a third reported 2DS1 and 2DS4 as negative). In this current typing, only 1 discrepancy was reported in which 1 laboratory reported 3DS1 as negative. Seven laboratories assigned 2DS4*001 and 9 laboratories reported 3DP1*003. This is one of the most common genotypes occurring at high frequencies across all populations (1).

KIR Exchange Sample: KDNA # 0106:

This sample was obtained from a Black donor. The consensus KIR type is: 2DL1-2DL2-2DL3-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS2-2DS3-2DS4 (FULL&DEL)-2DP1-3DP1. This sample was typed previously in the KIR

Exchange as KDNA#072 (2009). In the 2009 study, 1 laboratory reported this DNA as negative for 2DL2, 1 laboratory reported as negative for 2DL3, and another reported it as negative for 2DL5. In this present study, there were no discrepancies reported for this DNA. This genotype is the second most common KIR genotype in African populations, occurring at a frequency as high as 17% in Africans (2,3).

KIR Exchange Sample: KDNA # 0107:

The ethnic origin of KDNA#107 is unknown. The consensus KIR type is: 2DL1-2DL2-2DL3-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS1-2DS4DEL-2DS5-2DP1-3DP1. This sample was previously typed as KDNA#019 (2004). In the 2004 study, 4 laboratories reported this sample as negative for both 2DS4 and 2DS5. In the present study, the only reported discrepancy was for 2DL2 in which 1 laboratory reported it as negative. The rare genotype of this DNA has only been identified in Southeast Asian populations with a frequency of 1.3% (1,3).

KIR Exchange Sample: KDNA # 0108:

The consensus KIR type for KDNA#108 is: 2DL1-2DL2-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS2-2DS3-2DS4FULL-2DS5-2DP1-3DP1. This sample from a black donor was previously typed as KDNA#010 (2004). In the 2004 study, the majority of the participating laboratories did not report subtypes for 2DS4 or 3DP1. In this present study, 50% reported 2DS4FULL, with 5 reporting

2DS4*001. For 3DP1, 26% reported 3DP1DEL and 8 laboratories reported 3DP1*003. There were several discrepant results, with 2 laboratories reporting this DNA as positive for 2DL3 and 1 laboratory reporting it as negative for both 2DS2 and 2DS3. This genotype has been observed in African American populations at a frequency of 3.5% (2).

References

- 1. Yawata M, Yawata N, Abi-Rached L, and Parham P. 2002. Variation within the human killer cell immunoglobulin-like receptor (KIR) gene family. Crit Rev Immunol 22:463-482.
- 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 60:207-217.
- 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 3:86-95.

NEXT MAILING DATE: August 1, 2012

Arlene Locke, Marie Lau, Elaine F. Reed, and Rajalingam Raja

Tabl	e 1. S	umma	ry of	f the	27th KIR	Exc	hange (KDNA#	±105-1	108)									
KIR Ex.	DNA	# reporting labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
	#0105	60	POS	NEG			POS A [21] A*001/*005 [2] A*00101 [1] A*001/*005, B*002-*004/ *006/*007 [1]	POS *020 [1]				*002- *004 [1] *002- *008 [1]			POS FULL [18] *001 [6] *001/*002 [5] *00101-*00103 [1] *0010101-0010103/*00102/*002 [1] DEL [1]			POS DEL [13] *003 [8] *00301/ *00302 [1] *001-*006 [1] NT [3]
#27	#0106	60	POS	*001- *003/ *005 [1]		NT [2]	POS B [20] B*00201 [1] B*002/*004/*007 [1] B*002-*004/*006/*007 [1] B*002-*004/*006-*009 [1] B*009/*016 [1]		POS NT [1]		NEG	NEG	POS		POS FULL, DEL [17] *001, *003/ *004/ *006/ *007/ *009 [2] *001, *003/ *004/ *006-*009 [2] FULL [2] *001, *004 [1] *001/ *002, *003/ *007 [1] *001/ *002, *003-*007 [1] *001 [1] *001 [1] *0010101-0010103/ *00102/ *002-*004/ *006/ *007 [1]		POS NT [3]	POS DEL [13] *003 [8] *00301/*00302 [1] *001-*006[1] NT [3]
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KEY for Table

[] - 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

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

5488 Adams,Sharon P 234 Amador,Alexandra P 16 Askar,Medhat P 8050 Baxter-Lowe,Lee P 3224 Chen,Dong-Feng P 1108 Clark,Traci P 3632 Colombe,Beth P 189 Crowe,Deborah P 8039 Davidson,Maureen P 8051 Endres,Robert P 8051 Endres,Robert P 8038 Fernandez-Vina& P 762 Fischer&Mayr P 8047 Fuessel,Monika P 8040 Gladman/Pellett/P P 4985 Graff,Ralph J. P 8022 Hedlund, Anna P 1694 Hesse&Kissel P 1461 Hidajat,M. P 3808 Hogan,Patrick P 5000 Hsu,Susan H. P	POS	NEG	POS	POS	A POS A POS POS A A*001/*005 POS A POS A POS POS POS POS A POS POS POS POS POS	POS	POS	POS	POS	POS	NEG	NEG	*001/*002 POS FULL FULL POS FULL *001/*002 POS FULL *001/*002 POS FULL *001 *001/*002 POS *001	POS	POS	POS DEL POS DEL *003 POS DEL *003 POS DEL *003 POS DEL POS *003 POS POS	SSP SSOP SSOP,SSP SSP SSP,SSOP SSP SSP SSP SSP SSP SSOP SSP SSOP SSP SS
234 Amador,Alexandra P 16 Askar,Medhat P 8050 Baxter-Lowe,Lee P 3224 Chen,Dong-Feng P 1108 Clark,Traci P 3632 Colombe,Beth P 189 Crowe,Deborah P 8039 Davidson,Maureen P 8051 Endres,Robert P 8058 Fernandez-Vina& P 762 Fischer&Mayr P 8047 Fuessel,Monika P 8040 Gladman/Pellett/P P 4985 Graff,Ralph J. P 8022 Hedlund, Anna P 1694 Hesse&Kissel P 1461 Hidajat,M. P 8080 Hogan,Patrick P 5000 Hsu,Susan H.	POS POS POS POS POS POS POS POS POS POS	NEG	POS	POS POS POS POS POS POS POS POS POS POS	A A POS POS A A*001/*005 A A POS A POS A POS POS POS POS POS POS POS	POS POS POS POS POS POS POS POS POS POS	POS POS POS POS POS POS POS POS POS POS	POS POS POS POS POS POS POS POS POS POS	POS POS POS POS POS POS POS POS POS POS	POS POS POS *002- *008 POS POS POS POS POS POS	NEG	NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG	FULL FULL *001/*002 POS FULL *ULL *001/*002 POS FULL *001 *001/*002 POS	POS POS POS POS POS POS POS POS POS POS	POS POS POS POS POS POS POS POS POS POS	DEL POS POS DEL *003 POS DEL DEL POS POS POS DEL POS	SSOP,SSP SSP SSP,SSOP SSP SSP SSOP SSP SSOP SSP SSOP SSP SS
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2344 Hurley&Hartzman P	PU3	NEG	P05	PU3	PU3	PU3	PU3	PU3	PU3	PU3	NEG	NEG	PU3	PU3	PU3	PU3	SSP, SSOP, SB
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	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP
	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP,SSOP
	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	*001	POS	POS	*003	SSP
, ,	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	*001	POS	POS	POS	SSOP
	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	
3753 Reed&Rajalingam P 8064 Roberts,Chrissy P	= =	NEG NEG	POS POS	POS POS	POS POS	POS	POS POS	POS POS	POS POS	POS POS	NEG NEG	NEG NEG	*001	POS	POS	*003	SSOP WGA-SSP

Table 2. KIR Exchange	Samp	ole: KD	NA #105 (H	lispani	c)												
CTR Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
8060 Rost&Klein	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP
4251 Schiller, Jennifer	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP
3410 Schroeder,M.L.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
1426 Senitzer, David	POS	NEG	POS	POS	POS	*020	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	MULTIPLEX-SSP
769 Tavoularis,Sofia	POS	NEG	POS	POS	А	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSOP,SSP
					A*001/ *005, B*002-*004/								*0010101- 0010103/			*00301/	
747 Tiercy,Jean-Marie	POS	NEG	POS	POS	*006/ *007	POS	POS	POS	POS	POS	NEG	NEG	*00102/ *002	POS	POS	*00302	SSP
5451 Tilanus, Marcel	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP
4021 Trachtenberg, Eliz	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8024 Trowsdale, John	POS	NEG	POS	NT	POS	POS	NT	NT	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
5462 Turner,E.V.	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	*002- *004	NEG	NEG	*001	POS	POS	*001-*006	SSP
8053 Tyan,Dolly	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8028 Uhrberg, Markus	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	NEG	POS	POS	NT	NT	SSP
3775 Vidan-Jeras,Blan	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8023 Vilches, Carlos	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
705 Watkins,David I.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	*00101- *00103	POS	POS	POS	SSOP
3186 Watson, Narelle	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
124 Witt,Campbell	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	NT	NT	MULTIPLEX SSP
1466 Yu,Neng	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSOP,SSP
5282 Yu,Neng	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	DEL	SSP
713 Zachary, Andrea	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	DEL	SSP

Table 3. KIR Exchang	e Samp	ole: KD	NA #106 (B	lack)													
CTR Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5488 Adams, Sharon	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	*003	SSP
234 Amador, Alexandra	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
16 Askar,Medhat	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSOP,SSP
8050 Baxter-Lowe,Lee	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	DEL	SSP
3224 Chen,Dong-Feng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP,SSOP
1108 Clark,Traci	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	POS	SSOP
3632 Colombe,Beth	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSP
					B*002/ *004/												
189 Crowe, Deborah	POS	POS	POS	POS	*007	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	*003	SSP
8039 Davidson, Maureen	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
8051 Endres,Robert	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL	NEG	POS	DEL	SSP
			*0010101- *006/ *008N/														
2549 Fagoaga,Omar	POS	POS	*009/ *011+	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSP
8038 Fernandez-Vina&	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*001, *004	NEG	POS	POS	SSOP
762 Fischer&Mayr	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	*003	SSP
8047 Fuessel, Monika	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8026 Gardiner, Clair M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*001	NEG	POS	POS	SSP
8040 Gladman/Pellett/P	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
4985 Graff,Ralph J.	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8022 Hedlund, Anna	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
1694 Hesse&Kissel	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
1461 Hidajat,M.	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	NEG	POS	*003	SSP
3808 Hogan,Patrick	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSP
5000 Hsu,Susan H.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP,SSP
																	SSP, SSOP, SBT
2344 Hurley&Hartzman	POS	POS	POS	POS	B*00201	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	POS	2DL5
3261 Iwaki, Yui	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8035 Kanangat,Siva	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
4337 Kim,Tai-Gyu	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
,																	MULTIPLEX SSP
8046 Kusnierczyk,Piot	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	NT	NT	SSP
8071 Kwok, Janette	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
													*001/ *002,				
791 Lacelle, Chantale	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	*003/ *007	NEG	POS	*003	SSP
278 Lee,Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
8069 Maha, George	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSP
8067 Marino,Susan R.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP,SSOP
													*001, *003/ *004/ *006/				
5142 Marsh,Steven	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*007/ *009	NEG	POS	*003	SSP
8073 Mats, Bengtsson	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
733 Mytilineos, Joanni	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP

Table	3. KIR Exchange	e Sam	ole: KD	NA #106 (E	Black)													
CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
	Permpikul&Vejba	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
	Poulton,Kay V.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
	Ray&Balazs	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	POS	
	Reed&Rajalingam	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
	, ,													*001, *003/ *004/ *006-				
	Roberts, Chrissy	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*009	NEG	POS	*003	WGA-SSP
	Rost&Klein	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
	Schiller, Jennifer	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
3410	Schroeder,M.L.	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSP
1426	Senitzer,David	POS	POS	POS	POS	B*009/ *016	*007, *01501	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	POS	MULTIPLEX SSP
769	Tavoularis, Sofia	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	POS	SSOP,SSP
						D								*0010101- *0010103/ *00102/			***************************************	
						B*002-*004/								*002-*004/			*00301/	
	Tiercy, Jean-Marie	POS	POS	POS	POS	*006/ *007	POS	POS	POS	NEG	NEG	POS	POS	*006/ *007	NEG	POS	*00302	SSP
	Tilanus,Marcel	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSOP
	Trachtenberg,Eliz	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
	Trowsdale,John Turner,E.V.	POS	POS	POS	POS	POS B*002-*004, *006-*009	POS	POS	POS	NEG	NEG	POS	POS	*001, *003/ *004/ *006/ *007/ *009	NEG NEG	POS	*001-*006	SSP
9053	Tyan,Dolly	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	*001/ *002, *003-*007	NEG	POS	*003	SSP
	Uhrberg,Markus	POS	POS	POS	NT	POS	POS	POS	NT	NEG	NEG	POS	POS	POS	NEG	NT	NT	SSP
	Vidan-Jeras,Blan	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
	Vilches, Carlos	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSP
0023	Viicies, Carios	100	*001- *003/	NEG										*00101- *00103, *003/ *004/				301
	Watkins, David I.	POS	*005	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*006-*009	NEG	POS	POS	SSOP
	Watson, Narelle	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
	Witt,Campbell	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	NT	NT	MULTIPLEX SSP
	Yu,Neng	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSOP,SSP
	Yu,Neng	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL, DEL	NEG	POS	DEL	SSP
713	Zachary, Andrea	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	DEL	SSP

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
	Adams,Sharon	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	*003-*007	POS	POS	*003	SSP
	Amador, Alexandra	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
	Askar, Medhat	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSOP,SSP
	Baxter-Lowe,Lee	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
	Chen,Dong-Feng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP,SSOP
	Clark,Traci	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	POS	SSOP
											*002-							
3632	Colombe,Beth	POS	POS	POS	POS	В	POS	POS	POS	NEG	*008	NEG	NEG	DEL	POS	POS	DEL	SSP
						B*002/ *004/								*003/ *004/				
189	Crowe, Deborah	POS	POS	POS	POS	*007	POS	POS	POS	NEG	POS	NEG	NEG	*006/ *007	POS	POS	*003	SSP
8039	Davidson,Maureen	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
8051	Endres,Robert	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
				*0010101-														
				*006/														
				*008N/														
				*009/														
	Fagoaga,Omar	POS	POS	*011+	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
	Fernandez-Vina&	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	*004	POS	POS	POS	SSOP
	Fischer&Mayr	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	*003-*007	POS	POS	*003	SSP
	Fuessel,Monika	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Gardiner,Clair M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Gladman/Pellett/P	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Graff,Ralph J.	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Hedlund, Anna	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Hesse&Kissel	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Hidajat,M.	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	*003	SSP
	Hogan,Patrick	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
5000	Hsu,Susan H.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP,SSP
0044	Llouder Oldersteiner	DOC	DOC	DOC	DOC	D*00004	DOC	DOC	DOC	NEC	DOC	NEC	NEC	DEI	DOC	DOC	DOC	SSP, SSOP, SB
	Hurley&Hartzman	POS	POS	POS POS	POS	B*00601	POS	POS	POS	NEG	POS POS	NEG NEG	NEG NEG	DEL	POS	POS	POS	2DL5 SSP
	Iwaki, Yui	POS	POS	POS	POS	A, B POS	POS	POS POS	POS	NEG NEG	POS	NEG	NEG	POS POS	POS	POS	POS	SSOP
	Kanangat,Siva	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
4337	Kim,Tai-Gyu	FU3	FU3	FU3	FU3	F03	FU3	FU3	FU3	INEG	FU3	NEG	INEG	FU3	FU3	FU3	FU3	MULTIPLEX
8046	Kusnierczyk,Piot	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	NT	NT	SSP, SSP
	Kwok, Janette	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
	Lacelle, Chantale	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	*003-*007	POS	POS	*003	SSP
	Lee,Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
	Maha,George	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
	Marino,Susan R.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP,SSOP
5501	amo,ododni iki	. 55	. 55	. 55	. 55	. 55	. 55	. 55	. 55	.,_0	. 55	.,_0	.,_0	*003/ *004/	. 55	. 55	. 55	30.,000.
														*006/ *007/				
5142	Marsh,Steven	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	*009	POS	POS	*003	SSP
	Mats,Bengtsson	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Mytilineos, Joanni	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Permpikul&Vejba	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Poulton,Kay V.	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP

Table 4	4. KIR Exchange	Samp	le: KDI	NA #107														
CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
8057	Ray&Balazs	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	POS	
3753	Reed&Rajalingam	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
														*003/ *004/				
	Roberts, Chrissy	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	*006-*009	POS	POS	*003	WGA-SSP
	Rost&Klein	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
	Schiller, Jennifer	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
	Schroeder,M.L.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
	Senitzer,David	POS	POS	POS	POS	B*006	*007	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	POS	MULTIPLEX SSP
769	Tavoularis,Sofia	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	POS	SSOP,SSP
						B*002-*004/								*003/ *004/			*00301/	
	Tiercy,Jean-Marie	POS	POS	POS	POS	*006/ *007	POS	POS	POS	NEG	POS	NEG	NEG	*006/ *007	POS	POS	*00302	SSP
5451	Tilanus,Marcel	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSOP
4021	Trachtenberg, Eliz	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
8024	Trowsdale,John	POS	POS	POS	NT	POS	POS	NT	NT	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
														*003/ *004/				
						B*002-*004,					*002-			*006/ *007/				
	Turner,E.V.	POS	POS	POS	POS	*006-*009	POS	POS	POS	NEG	*004	NEG	NEG	*009	POS	POS	*001-*006	SSP
	Tyan,Dolly	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	*003-*007	POS	POS	*003	SSP
	Uhrberg,Markus	POS	POS	POS	NT	POS	POS	POS	NT	NEG	POS	NEG	NEG	POS	POS	NT	NT	SSP
	Vidan-Jeras,Blan	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
			*001-											*00103,				
		500	*003/	500	500	500								*003/ *004/			200	2005
	Watkins, David I.	POS	*005	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	*006-*009	POS	POS	POS	SSOP
3186	Watson, Narelle	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP
														*003/ *004/				
104	Witt Comphall	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	*006-*010, *012/ *013	POS	NT	NT	MULTIPLEX SSP
	Witt,Campbell Yu,Neng	POS	POS	POS	POS	P05 B	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSOP,SSP
	•	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	SSP SSP
	Yu,Neng	POS	POS	POS	POS	В	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	POS	DEL	SSP
713	Zachary, Andrea	PU3	PU3	PU5	PU5	В	PU3	PU3	PU3	INEG	PU3	INEG	NEG	PU5	PU3	PU3	DEL	337

CTR Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5488 Adams,Sharon	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	*001/ *002	POS	POS	*003	SSP
234 Amador, Alexandra	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
16 Askar, Medhat	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSOP,SSP
8050 Baxter-Lowe,Lee	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
3224 Chen,Dong-Feng	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP,SSOP
1108 Clark,Traci	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	POS	SSOP
3632 Colombe,Beth	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
					B*002/ *004/												
189 Crowe, Deborah	POS	POS	NEG	POS	*007	POS	POS	POS	NEG	NEG	POS	POS	*001/ *002	POS	POS	*003	SSP
8039 Davidson, Maureen	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
8051 Endres,Robert	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
2549 Fagoaga,Omar	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
8038 Fernandez-Vina&	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*001	POS	POS	POS	SSOP
762 Fischer&Mayr	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	*001/ *002	POS	POS	*003	SSP
8047 Fuessel, Monika	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
8026 Gardiner, Clair M.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*001	POS	POS	POS	SSP
8040 Gladman/Pellett/P	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
4985 Graff,Ralph J.	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
8022 Hedlund, Anna	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
1694 Hesse&Kissel	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
1461 Hidajat,M.	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	POS	POS	*003	SSP
3808 Hogan, Patrick	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
5000 Hsu,Susan H.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP,SSP
					B*00201,												SSP, SSOP, S
2344 Hurley&Hartzman	POS	POS	NEG	POS	*00601	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	POS	2DL5
3261 Iwaki, Yui	POS	POS	NEG	POS	A, B	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
8035 Kanangat,Siva	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
4337 Kim,Tai-Gyu	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
																	MULTIPLEX
8046 Kusnierczyk,Piot	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	NT	NT	SSP, SSP
8071 Kwok, Janette	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
791 Lacelle, Chantale	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	*001/ *002	POS	POS	*003	SSP
278 Lee,Jar-How	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
8069 Maha,George	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
8067 Marino,Susan R.	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP,SSOP
5142 Marsh, Steven	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*001	POS	POS	*003	SSP
8073 Mats,Bengtsson	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
733 Mytilineos, Joanni	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
3966 Permpikul&Vejba	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
8030 Poulton,Kay V.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
8057 Ray&Balazs	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	POS	
3753 Reed&Rajalingam	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
8064 Roberts, Chrissy	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*001	POS	POS	*003	WGA-SSP
8060 Rost&Klein	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
4251 Schiller, Jennifer	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
3410 Schroeder,M.L.	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP

Table	5. KIR Exchange	Samp	le: KDNA	#108 (Black)							I			1			
CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
							*01501,											
1426	Senitzer, David	POS	POS	NEG	POS	POS	*01502	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	POS	MULTIPLEX SSP
769	Tavoularis,Sofia	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	POS	SSOP,SSP
														*0010101-				
														*0010103/				
						B*002-*004/								*00102/			*00301/	
747	Tiercy, Jean-Marie	POS	POS	NEG	POS	*006/ *007	POS	POS	POS	NEG	NEG	POS	POS	*002	POS	POS	*00302	SSP
5451	Tilanus,Marcel	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSOP
4021	Trachtenberg,Eliz	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
8024	Trowsdale, John	POS	POS	NEG	NT	POS	POS	NT	NT	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
						B*002-*004,												
5462	Turner, E.V.	POS	POS	NEG	POS	*006-*009	POS	POS	POS	NEG	NEG	POS	POS	*001	POS	POS	*001-*006	SSP
8053	Tyan,Dolly	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	*001/ *002	POS	POS	*003	SSP
8028	Uhrberg,Markus	POS	POS	NEG	NT	POS	POS	POS	NT	NEG	NEG	POS	POS	POS	POS	NT	NT	SSP
3775	Vidan-Jeras,Blan	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
8023	Vilches, Carlos	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
			*001-*003/											*00101-				
705	Watkins, David I.	POS	*005	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	*00103	POS	POS	POS	SSOP
3186	Watson, Narelle	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	SSP
124	Witt,Campbell	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	NT	NT	MULTIPLEX SSF
1466	Yu,Neng	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSOP,SSP
5282	Yu,Neng	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	FULL	POS	POS	DEL	SSP
713	Zachary, Andrea	POS	POS	NEG	POS	В	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	POS	DEL	SSP

PARTICIPATING CENT	ERS								
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	
Baxter-Lowe	Lee Ann	Dr	San Francisco CA		Marsh	Steven	Dr	London	England
Carrington/Martin		Drs	Frederick MD		Mats	Bengtsson		Uppsala	Sweden
Chan	Soh Ha	Prof	Singapore	Singapore	Mytilineos	Joannis	MD	Ulm	Germany
Chen	Dongfeng	Dr	Durham NC		Permpikul/Vejbaesya		Drs	Bangkok	Thailand
Clark	Traci	PhD	Stamford CT		Poulton	Kay V.	Dr	Manchester	England
Colombe	Beth	PhD	Philadelphia PA		Ray/Balazs			Stamford CT	
Crowe	Deborah	PhD	Nashville TN		Reed/Rajalingam		Drs	Los Angeles CA	
Davidson	Maureen		Minneapolis MN		Roberts	Chrissy H.		London	England
Dinauer	David		Brown Deer WI		Rost/Klein		Drs	Martinsried	Germany
Endres	Robert	Dr	Tempe AZ		Schiller	Jennifer	PhD	Milwaukee WI	
Fagoaga	Omar	Dr	Detroit MI		Schroeder	M.L.	MD	Winnipeg MB	Canada
Fernandez-Vina/Cano/Cao		Drs	Houston TX		Senitzer	David	PhD		
Fischer/Mayr		Drs	Vienna	Austria	Tambur	Anat		Chicago IL	
Fuessel	Monika	PhD	Dresden	Germany	Tavoularis	Sofia	Dr	Ottawa ON	Canada
Gardiner	Clair M.	PhD	Dublin	Ireland	Tiercy	Jean-Marie	Dr	Geneva	Switzerland
Gladman/Pellett/Pollock			Toronto ON	Canada	Tilanus	Marcel	Dr	Maastricht	Germany
Graff	Ralph J.	Dr	St Louis MO		Trachtenberg	Elizabeth	PhD	Oakland CA	
Han	Hoon	Dr	Seoul	S. Korea	Trowsdale	John	Prof	Cambridge	UK
Hedlund, Anna			Saltsjobaden	Sweden	Turner	E.V.	PhD	Memphis TN	
Hesse&Kissel			Lich	Germany	Tyan	Dolly	Dr	Palo Alto CA	
Hidajat	Melanny		Brugge	Belgium	Uhrberg	Markus	Dr	Dusseldorf	Germany
Hogan	Patrick	Dr	Herston	Australia	Vidan-Jeras	Blanka		Ljubljana	Slovenia
Hsu	Susan H.	PhD	Philadelphia PA		Vilches	Carlos	Dr	Madrid	Spain
Hurley/Hartzman		Drs	Rockville MD		Watkins	David	PhD	Madison WI	
lwaki	Yui	Dr	San Bernardino CA		Watson	Narelle	PhD	Sydney NSW	Australia
Kanangat	Siva	PhD	Chicago IL		Witt	Campbell		Perth	Australia
Kim	Tai-Gyu	Prof	Seoul	S. Korea	Yu	Neng	MD	DedhamMA	
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		•				