		ORR			PFS		Tumor Shrinkage	
RP2D (n=213)	Genotype	n	CR/PR	Р	Median (months, 95% CI)	Р	Median (IQR, n)	Р
KIR/KIR-ligand	Present	19/83	22.9%	0.97	3.9 (2.1-5.6; n=83; e=65)	0.54	-1.4 (-34.8 to 13.0, n = 81)	0.7
	Missing	30/130	23.1%		3.7 (2.3-4.9; n=130; e=103)		-2.1 (-37.9 to 11.8, n = 129)	
	+/+	25/85	29.4%	0.08	4.2 (3.7-8.3; n=85; e=62)	0.06	-10.5 (-57.7 to 6.5, n = 85)	0.04
KIR2DL2/C1	not +/+	24/128	18.8%		3.3 (2-3.8; n=128; e=106)		0 (-24.2 to 12.8, n = 125)	
	+/+	35/151	23.2%	0.92	3.5 (2.1-4.7; n=151; e=121)	0.41	-1 (-35.3 to 12.2, n = 149)	0.44
KIR3DL1/Bw4	not +/+	14/62	22.6%		4.0 (2.1-6.3; n=62; e=47)		-3.8 (-47.2 to 11.3, n = 61)	
KIR2DL2/C1 and	+/+	20/59	33.9%	0.03	4.2 (2.3-10.9; n=59; e=43)	0.11	-13.0 (-63.5 to 8.6, n = 59)	0.11
KIR3DL1/Bw4	not +/+	29/154	18.8%		3.6 (2.1-4.1; n=154; e=125)		0 (-25.0 to 12.2, n = 151)	

Table S1: Four associations of KIR/KIR-ligand genotypes with outcome for the RP2D cohort of patients. For the RP2D cohort (n=213), including the 13 patients who had prior IO treatment, the associations of KIR-ligand present vs missing status (first row), KIR2DL2/HLA-C1 genotype (second row), KIR3DL1/HLA-Bw4 genotype (third row), and KIR2DL1/HLA-C1 *and* KIR3DL1/HLA-Bw4 genotype (fourth row) with the three clinical outcome parameters (OR, PFS, and tumor shrinkage) are shown. The definitions for the genotype categories are detailed in Supplemental Table S3 and S4. Abbreviations: RP2D, recommended phase II dose; CI, confidence interval; IQR, interquartile range.

KIR and KIR-Ligand Gene Status	% Genotype Presence
KIR2DL1	97
KIR2DL2	44
KIR2DL3	93
KIR3DL1	97
HLA-C1/C1	38
HLA-C1/C2	51
HLA-C2/C2	11
HLA-Bw4	73
KIR-ligands Present	39
KIR-ligands Missing	61

B

	FCGR SNP Gene Status	% Genotype Presence
	H/H	26
FCGR2A	H/R	49
	R/R	25
	V/V	7
FCGR3A	V/F	44
	F/F	49
	C/C	3
FCGR2C	C/T	27
	T/T	71

Table S2: KIR/KIR-ligand and FCGR SNP genotype frequencies for patients analyzed within the IO-naïve cohort. For each indicated KIR and KIR-ligand designation (A) and FCGR SNP status (B) shown, the frequency of patients in this genotyped population of 200 IO-naïve patients is shown. The definition of KIR-ligands present and KIR-ligand missing is detailed in Supplemental Table S3.

KIR-ligands present genotypes	KIR-ligand missing genotypes
n=78	n=122
KIR2DL1+ with KIR2DL2 and/or KIR2DL3+, C1/C2, with KIR3DL1+, Bw4+	KIR2DL1+ with KIR2DL2 and/or KIR2DL3+, C1/C1, with KIR3DL1+, Bw4+ or Bw4-
KIR2DL1- with KIR2DL2 and/or KIR2DL3+, C1/C1 or C1/C2, with KIR3DL1+, Bw4+	KIR2DL1+ with KIR2DL2 and/or KIR2DL3+, C1/C2, with KIR3DL1+, Bw4-
KIR2DL1+ with KIR2DL2 and/or KIR2DL3+, C1/C2, with KIR3DL1-, Bw4+ or Bw4-	KIR2DL1+ with KIR2DL2 and/or KIR2DL3+, C2/C2, with KIR3DL1+, Bw4+ or Bw4-
KIR2DL1- with KIR2DL2 and/or KIR2DL3+, C1/C1 or C1/C2, with KIR3DL1-, Bw4+ or Bw4-	

Table S3: KIR/KIR-ligand genotypes that determine KIR-ligand present/missing status. For this study, we defined individuals to be all KIR-ligands present if they fulfill all of the following criteria: (1) if KIR2DL1+, must have HLA-C2; (2) must have HLA-C1 (as all individuals will be positive for either, or both, KIR2DL2 and KIR2DL3); and (3) if KIR3DL1+, must have HLA-Bw4. An individual is missing at least one KIR-ligand if they fulfill any of the following criteria: (1) if KIR2DL1+ and missing the HLA-C2; and/or (2) if missing the HLA-C1 motif; and/or (3) if KIR3DL1+, and they are negative for HLA-Bw4.

KIR2DL2/KIR-li	gand genotypes	KIR3DL1/KIR-ligand genotypes			
KIR2DL2+/C1+ n=77	Not KIR2DL2+/C1+ n=123	KIR3DL1+/Bw4+ n=59	Not KIR3DL1+/Bw4+ n=141		
KIR2DL2+, HLA-C1+	KIR2DL2+, HLA-C1-	KIR3DL1+, HLA-Bw4+	KIR3DL1+, HLA-Bw4-		
	KIR2DL2-, HLA-C1+		KIR3DL1-, HLA-Bw4+		
	KIR2DL2-, HLA-C1-		KIR3DL1-, HLA-Bw4-		

KIR2DL2/KIR-ligand WITH KIR3DL1/KIR-ligand genotypes							
Group 1: KIR2DL2+/C1+ AND KIR3DL1+/Bw4+ n=52	Group 2: Not KIR2DL2+/C1+ AND KIR3DL1+/Bw4+ n=148						
KIR2DL2+, HLA-C1+,	KIR2DL2+, HLA-C1+,	KIR2DL2-, HLA-C1+,					
KIR3DL1+, HLA-Bw4+	KIR3DL1-, HLA-Bw4+ or -	KIR3DL1+ or -, HLA-Bw4+ or -					
	KIR2DL2+, HLA-C1+,	KIR2DL2+ or -, HLA-C1-,					
	KIR3DL1+, HLA-Bw4-	KIR3DL1+ or -, HLA-Bw4+ or -					

Table S4: KIR/ligand pair genotype categories discussed in manuscript. KIR2DL2/ligand and KIR3DL1/ligand genotypes that compose the KIR2DL2+/HLA-C1+ vs. not KIR2DL2+/HLA-C1+ (Figure 3); KIR3DL1+/HLA-Bw4+ vs. not KIR3DL1+/HLA-Bw4+ (Supplemental Figure 1); and KIR2DL2+/HLA-C1+ and KIR3DL1+/HLA-Bw4+ (Group 2) vs. not KIR2DL2+/HLA-C1+ and KIR3DL1+/HLA-Bw4+ (Group 1) (Figure 4) genotype categories. For each genotype category mentioned, the columns show the relevant KIR and KIR-ligand genotype possibilities that comprise the category. At the top of each column, the number of patients in this study with that genotype are also shown. For each of the 3 main columns, those with and those not with the indicated genotype add up to the total of 200 patients in this study.

4			Genotype		ORR		PFS		Tumor Shrinkage	
	Cohort	N	KIR/KIR-ligand	n	CR/PR	P P	Median (months, 95% CI)	Р	Median (IQR, n)	Р
	Melanoma	31	Present	3/10	30.0%	0.17	NR (1.1-NR; n=10; e=4)	0.9	-13 (-100 to 13, n = 10)	0.51
			Missing	11/21	52.4%		8.2 (2-NR; n=21; e=10)		-67 (-100 to 0, n = 21)	
	Renal Cell Carcinoma	37	Present Missing	4/15 6/22	26.7% 27.3%		10.1 (1.6-22.4; n=15; e=11) 5.3 (3.5-12.2; n=22; e=18)	0.46	3.6 (-22.8 to 8.6, n = 15) 0 (-54.1 to 6.4, n = 22)	0.5
	Metastatic	37		6/15	40.0%		4.1 (1.6-13; n=15; e=12)	0.91	-35.3 (-100 to -4.8, n = 15)	0.47
	Urothelial Cancer	r	Missing	7/22	31.8%		4.1 (2.1-12.6; n=22; e=17)		-16.1 (-53.4 to -2.1, n = 22)	
	Triple Negative	33		4/11	36.4%	0.009	2.0 (1.6-22.4; n=11; e=9)	0.06	-23.5 (-56.1 to 6.1, n = 9)	0.02
	Breast Cancer Non-Small Cell	21	Missing Present	0/22 1/8	0.0% QRB %	0.53	1.9 (1.6-3.5; n=22; e=22) 4.4 (1.3-8.4; n=8; \$=7)	0.73	12.8 (-2.2 to 50, n = 22) -1.3 (-11.1) 1003.5 hrinkage	0.23
	Lung Cancer	21	Missing	3/13	23.1%		3.7 (1.7-11.1; n=13; e=10)	0.73	-21.1 (-33.1 to 0, n = 13)	0.23
	IO-naïve	N	KIR/KIR-ligand Present		C24.4%	_	Median (months, 95% CI) 3.6 (2-5.8; n=78; e=60)	P _{0.63}	Median 110K m -4.8 (-39.4 to 12.4, n = 76)	0.66
	Melanoma		Missing		2 23.8%		3.7 (2.8-5.3; n=122; e=96)	0.00	-3.1 (-42.0 to 9.1, n = 121)	0.00
	Renal Cell									
	Carcinoma		Construe		ORR		PFS		Tumor Shrinkage	
	Metastatic Urothelial Cancer		Genotype		UKK		rrs		Tumor Sminkage	
		N	KIR2DL2/C1	n	CR/PR	P	Median (months, 95% CI)	Р	Median (IQR, n)	Р
		31	+/+	4/9	44.4%	0.95	NR (1.1-NR; n=9; e=3)	0.58	-22 (-100 to 15, n = 9)	0.62
	Non-Small Cell		not +/+	10/22	45.5%		8.2 (2-NR; n=22; e=11)		-25.5 (-100 to 0, n = 22)	
		37	+/+	6/19	31.6%	0.5	9.2 (3.5-16.1; n=19; e=15)	0.91	-10.5 (-56.3 to 4.1, n = 19)	0.12
	Carcinoma Metastatic	37	not +/+ +/+	4/18 7/13	22.2%	0.05	5.8 (2.1-10.1; n=18; e=14)	0.66	5.5 (-37.9 to 11.8, n = 18)	0.003
	Urothelial Cancer	31	+/+ not +/+	6/24	⁵³ 0RR 25.0%	0.05	10.9 (1.6-18.9; n=13; e=10) 3.5 (1.9-6.2; n=24; e=19)	0.66	-81.6 (-100 to -31.6 n = 13) -13.3 (-38.7 to -0.9, n = 24)	0.003
	Triple Negative	33 _N	+/+ KIR3DL1/Bw4 not +/+	2/10	20.0% CB/PR	0,42	3.9 (1.6-5.3; n=10; e=8) Median (months, 95% CI) 1.8 (1.6-2.0; n=23; e=23)	0.07	0.2 (-32.4 to 28.2, n = 10) Median (IOR, n) 7.7 (-6.4 to 34.2, n = 21)	0, 35
	Breast Cancer			2/23						
	Lung Cancer	21	+/+ not +/+	3/12 1/9	25R % 11.1%	0.41	5.8 (1.9-NR; n= 1-2; s e=8) 3.6 (1.7-7.4; n=9; e=9)	0.31	-18.7 (-34 art for \$ Arifika 26) 1.1 (-1.2 to 5.7, n = 9)	0.05
	Ronal Coll	N	KIR2DL2/C1		C3R1/.12R/s	P0.06	Mesti(3:07(-6):201th=3/735%459)	R0.04	MESIZA (1-6100R) 4)5, n = 77)	P0.01
	Melaeggatic		not +/+		19.5%		3.3 (2-4.1; n=123; e=101)		0 (-26.8 to 12.2, n = 120)	
	Urothelial Cancer									
	Re गर्ना गृबिशिegative Ca ाडांख डाउं रancer M eश्वितं डांस् Ur otingieb हिल्ल टer		Genotype		ORR		PFS PFS		Tumor Shrinkage	
	Re गर्गार्गहिः Wegative Ca ग्डांग्डाइग् टिancer M e्शान्त्रांग्डांग्डा Cell Ur ethelieb हिस्स्ट er T døhoN egative	N	KIR3DL1/Bw4	n 0/22	CR/PR		Median (months, 95% CI)	P 0.46	Median (IQR, n)	P 0.42
	Re गर्ना गृबिशिegative Ca ाडांख डाउं रancer M eश्वितं डांस् Ur otingieb हिल्ल टer		KIR3DL1/Bw4	9/22	CR/PR 40.9%	P 0.39	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11)	P 0.46	Median (IQR, n) -18 (-100 to 13, n = 22)	P 0.42
	Repape Megative Causieus Tancer Metestatikall Cell Urethelieb Keecer Topho Megative Bunett Gameer	N	KIR3DL1/Bw4		CR/PR		Median (months, 95% CI)		Median (IQR, n)	
	Remaiple Wegative Catsiessi Cancer Metest Sife all Cell Urethelie Meecer Topho Negative Branks Ganger Non-Small Cell Lens Apoen Carcinoma	N 31 37	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+	9/22 5/9 5/23 5/14	CR/PR 40.9% 55.6% 21.7% 35.7%	0.39	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9)	0.46	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14)	0.42
	Remaiple Wegative Cattlest Cancer Method Call Ureting lieb Reecer Tophonegative Branks Gamer Non-Small Cell Lettar Poetr Carcinoma Metastatic	N 31	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+	9/22 5/9 5/23 5/14 11/29	CR/PR 40.9% 55.6% 21.7% 35.7% 37.988	0.39	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2#\$=22)	0.46	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shringage	0.42
	Remaiple Wegative Catsings and Catsings and Cell Uretings in Acecer Topino Negative Branks Ganger Non-Small Cell LYCHOLOGY LYCHOLOGY Metatatic Urothelial Cancer	N 31 37	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KiR2£9/k2/C1 and	9/22 5/9 5/23 5/14 11/29 2/8	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0%	0.39 0.33 0.42	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹\$=22) 5.2 (1.9-14.8; n=8; e=7)	0.46 0.18 0.93	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unny saring) -20.8 (-50.3 to -7.4, n = 8)	0.42 0.3 0.47
	Remaiple Wegative Catsings and Catsings and Cell Uretings is heaver Topino Negative Bracks Ganger Non-Small Cell LINES APOERT Carcinoma Metastatic Urothelial Cancer	N 31 37	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+	9/22 5/9 5/23 5/14 11/29	CR/PR 40.9% 55.6% 21.7% 35.7% 37.988	0.39	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2#\$=22)	0.46	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shriphage -20.8 (-50.3 to -7.4, n = 8)	0.42
	Remaiple Wegative Cattle 1991 Cancer Melost 35 Mail Cell Ureting ieb Acecer Telphon Negative Bracks Genger Non-Small Cell LWES APOGER Carcinoma Metastatic Urothelial Cancer Golphet Negative	N 31 37	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KiR2D/iE2/C1 and KjR3DL1/Bw4	9/22 5/9 5/23 5/14 11/29 2/8 4/24	CR/PR 40.9% 55.6% 21.7% 35.7% 37.98/R 25.0% 16.7%	0.39 0.33 0.42	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹ =22) 5.2 (1.9-14.8; n=8; e=7) 1Median (months; 952€ CI)	0.46 0.18 0.93	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unny saring) -20.8 (-50.3 to -7.4, n = 8)	0.42 0.3 0.47
	Remain Remain Regative Cats 1989 Cancer Mq 1965 Shifall Cell Ureting lieb Reever Tipho Negative Branks Gamer Non-Small Cell LINES APOERT Carcinoma Metastatic Urothelial Cancer Gorbet Negative Breast Gamer Non-Small Cell Rungl Carlter	N 31 37 37 N33	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ +/+ KIR2D/b2/C1 and KIR3DL1/Bw4 not +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0%	0.39 0.33 0.42 0P2	Median (months, 95% Cl) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹\$=22) 1.1 (2.1-10.9; n=8; e=7) 1.1 (1.9-14.8; p=32 (1) 3.3 (1.2-5.3; n=9; e=9)	0.46 0.18 0.93 0P77	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unit of unity fair unity) -20.8 (-50.3 to -7.4, n = 8) 604(46)2074 (00,8/4), n = 22) 2.6 (-2.2 to 14.3, n = 9)	0.42 0.3 0.47 1P
	Remaiple Wegative Catsings and Call Ureting is been cer Money and Call Ureting is been cer Tophon legative Brants Ganger Non-Small Cell Litera Apoetr Carcinoma Metastatic Urothelial Cancer Gorput Negative Intel and Ganger Non-Small Cell Rung (Garter For-Hawyea	N 31 37 37 N33	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KIR2D[12/C1 and KIR3DL1/Bw4 not +/+ +/+ not +/+ +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1%	0.39 0.33 0.42 0P2	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=28; &=22) 5.2 (1.9-14.8; n=8; e=7) 1Median2.months; 9522[1) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112)	0.46 0.18 0.93 0P77	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shrindsage -20.8 (-50.3 to -7.4, n = 8)	0.42 0.3 0.47 1P
	Remaiple Wegative Catsings and and a color of the color o	N 31 37 37 N33	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ kiR2Dj\2/C1 and kiR3DL1/Bw4 not +/+ +/+ not +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3%	0.39 0.33 0.42 0P2 0.68	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=20; %=22) 5.2 (1.9-14.8; n=8; e=7) 1Median2months; 95%2CI) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5)	0.46 0.18 0.93 0P77 0.79	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to uno; saringage -20.8 (-50.3 to -7.4, n = 8) -3.6 (-2.2 to 14.3, n = 9) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7)	0.42 0.3 0.47 1P 0.16
	Remain Remain Regative Catifies Rancer Meyest-strikall Cell Ureting lieb Reever Tupino Negative Brants-Gamer Non-Small Cell Letter Carcinoma Metastatic Urothelial Cancer Guptet Negative Brants-Gamerer Non-Small Cell Rungl Carlter Vernavgea Metastatic Urothelial Cancer Triple Negative	N 31 37 37 N33	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KIR2D[12/C1 and KIR3DL1/Bw4 not +/+ +/+ not +/+ +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1%	0.39 0.33 0.42 0P2 0.68	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=28; &=22) 5.2 (1.9-14.8; n=8; e=7) 1Median2.months; 9522[1) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112)	0.46 0.18 0.93 0P77 0.79	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shrindsage -20.8 (-50.3 to -7.4, n = 8)	0.42 0.3 0.47 1P 0.16
	Remain Re	N 31 37 37 N33	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KIR2D[12/C1 and KIR3DL1/Bw4 not +/+ +/+ not +/+ +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1%	0.39 0.33 0.42 0P2 0.68	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=28; &=22) 5.2 (1.9-14.8; n=8; e=7) 1Median2.months; 9522[1) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112)	0.46 0.18 0.93 0P77 0.79	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shrindsage -20.8 (-50.3 to -7.4, n = 8)	0.42 0.3 0.47 1P 0.16
	Remaiple Wegative Catglest Cancer Mewst-Stiffall Cell Uretinglieb Reecer Tidphon Negative Braets Ganger Non-Small Cell Litters Apoetr Carcinoma Metastatic Urothelial Cancer Gaiple Negative Breats Desarer Non-Small Cell Rungl Celter Wetastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Rungl Celter Forthelial Cancer Triple Negative Breast Cancer Non-Small Cell	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KKP2Dls2/C1 and KIP3DL1/Bw4 not +/+ +/+ not +/+ +/+ central file of the control of the	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1%	0.39 0.33 0.42 0P2 0.68	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=28; &=22) 5.2 (1.9-14.8; n=8; e=7) 1Median2.months; 9522[1) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112)	0.46 0.18 0.93 0P77 0.79	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shrindsage -20.8 (-50.3 to -7.4, n = 8)	0.42 0.3 0.47 1P 0.16
	Remaiple Wegative Catsings and cell Ureting is Acacer Money is Acacer Topino Negative Bracks Ganger Non-Small Cell Little Acacer Carcinoma Metastatic Urothelial Cancer Goiple Negative Metastatic Rungl Carle Rungl Carle Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Little Cancer	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ kiR2D/k2/C1 and KiR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+ #/+ Renot +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 14.3% 24.1% 23.7%	0.39 0.33 0.42 0P2 0.68	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹\$=22) 5.2 (1.9-14.8; n=8; e=7) 1M(dian2(n)onths; 95%[Г]) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44)	0.46 0.18 0.93 0P77 0.79 0.35	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shrindyage -20.8 (-50.3 to -7.4, n = 8) 600edians (IQR,4n), n = 22) 2.6 (-2.2 to 14.3, n = 9) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58)	0.42 0.3 0.47 1P 0.16
	Remaiple Negative Catsing State News Action Ureting ich Reecer Tichno Negative Bracks Ganger Non-Small Cell Litter Carcinoma Metastatic Urothelial Cancer Golphet Negative Breash Ganger Non-Small Cell Rung (Carler Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Litter Non-Small Cell Litter Non-Small Cell Litter Carcinoma Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Litter Cancer Cohort	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ +/+ kiR2D/b2/C1 and kiR3DL1/Bw4 not +/+ +/+ not +/+ +/+ genotype KIR2DL2/C1 and KIR3DL1/Bw4	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59	CR/PR 40.9% 55.6% 21.7% 35.7% 37.98R 25.0% 16.7% 0.0% 14.3% 24.1% 23.7% ORR CR/PR	0.39 0.33 0.42 0P2 0.68 0.95	Median (months, 95% Cl) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹\$=22) 5.2 (1.9-14.8; n=8; e=7) 1Median (months, 95% Cl) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% Cl)	0.46 0.18 0.93 0P77 0.79 0.35	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unit unity fair uni	0.42 0.3 0.47 1P 0.16 0.35
	Remaiple Negative Catsing State News Action Ureting ich Reecer Tichno Negative Bracks Ganger Non-Small Cell Litter Carcinoma Metastatic Urothelial Cancer Golphet Negative Breash Ganger Non-Small Cell Rung (Carler Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Litter Non-Small Cell Litter Non-Small Cell Litter Carcinoma Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Litter Cancer Cohort	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ kiR2D/iL2/C1 and kiR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ KIR2DL2/C1 and kiR3DL1/Bw4 +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1% 23.7% ORR CR/PR 33.3%	0.39 0.33 0.42 0P2 0.68	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=20; %=22) 5.2 (1.9-14.8; n=8; e=7) 1Mqdian(months; 952cI) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% CI) 1.9 (1.1=NR; n=6; e=3)	0.46 0.18 0.93 0P77 0.79 0.35	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to durps; Saringage -20.8 (-50.3 to -7.4, n = 8) -604(ed2anc (IQR, n), n = 22) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6)	0.42 0.3 0.47 1P 0.16
	Remain Re	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ +/+ KIR2D/L2/C1 and KIR3DL1/Bw4 not +/+ +/+ not +/+ +/+ Renot +/+ Genotype KIR2DL2/C1 and KIR3DL1/Bw4	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59	CR/PR 40.9% 55.6% 21.7% 35.7% 37.98R 25.0% 16.7% 0.0% 14.3% 24.1% 23.7% ORR CR/PR	0.39 0.33 0.42 0P2 0.68 0.95	Median (months, 95% Cl) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹\$=22) 5.2 (1.9-14.8; n=8; e=7) 1Median (months, 95% Cl) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% Cl)	0.46 0.18 0.93 0P77 0.79 0.35	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unit unity fair uni	0.42 0.3 0.47 1P 0.16 0.35
	Remaiple Wegative Catsings Pancer Mental Cell Ureting in Academ Pancer Non-Small Cell Litera Proteir Carcinoma Metastatic Urothelial Cancer Goiple Negative Metastatic Urothelial Cancer Goiple Negative Metastatic Urothelial Cancer Triple Negative Breast Cancer Triple Negative Breast Cancer Non-Small Cell Lung Cancer Cohort Melanoma Renal Cell Carcinoma	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ not +/+ +/+ hot +/+ +/+ not +/+ +/+ not +/+ +/+ not +/+ Genotype KIR2DL2/C1 and KIR3DL1/Bw4 +/+ and +/+ not +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59 n 2/6 12/25 4/12 6/25	CR/PR 40.9% 55.6% 21.7% 35.7% 37.98R 25.0% 16.7% 0.0% 14.3% 24.1% 23.7% ORR CR/PR 33.3% 48.0%	0.39 0.33 0.42 0P2 0.68 0.95	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹ €=22) 5.2 (1.9-14.8; n=8; e=7) 1M(dian2(months, 95% CI) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% CI) 1.9 (1.1=NR; n=6; e=3) NR (3.7-NR; n=25; e=11) 12.2 (1.6-21.3; n=12; e=10) 5.5 (3.8-10.1; n=25; e=19)	0.46 0.18 0.93 0P77 0.79 0.35 P 0.56 0.91	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) 3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to unsy shrindyage -20.8 (-50.3 to -7.4, n = 8) 6Median (IQR, n), n = 22) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6) -37 (-100 to 0, n = 25) -6.8 (-62.0 to 5.7, n = 12) 0 (-48.8 to 7.3, n = 25)	0.42 0.3 0.47 1P 0.16 0.35
	Remaipfie Wegative Cattieger Cancer Meyest-zificall Cell Ureting les Reecer Tighto Negative Bratest-Garner Non-Small Cell Lessis-Brotest Urothelial Cancer Gerinoma Metastatic Urothelial Cancer Regative Regative Regative Regative Regative Resistatic Urothelial Cancer Triple Negative Breast Cancer Triple Negative Breast Cancer Triple Negative Breast Cancer Non-Small Cell Lung Cancer Mon-Small Cell Lung Cancer Ron-Small Cell Lung Cancer Ron-Small Cell Lung Cancer Cohort Melanoma Renal Cell Carcinoma Metastatic	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ +/+ KKR2D/L2/C1 and KIR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ Genotype KIR2DL2/C1 and KIR3DL1/Bw4 +/+ and +/+ not +/+ and +/+ not +/+ and +/+ +/+ and +/+ +/+ and +/+ +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59 n 2/6 12/25 4/12 6/25 7/12	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1% 23.7% ORR CR/PR 33.3% 48.0% 33.3% 24.0% 58.3%	0.39 0.33 0.42 0P2 0.68 0.95	Median (months, 95% Cl) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱f \$=22) 5.2 (1.9-14.8; n=8; e=7) 1.1 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% Cl) 1.9 (1.1=NR; n=6; e=3) NR (3.7-NR; n=25; e=11) 12.2 (1.6-21.3; n=12; e=10) 5.5 (3.8-10.1; n=25; e=19) 10.9 (1.6-18.9; n=12; e=9)	0.46 0.18 0.93 0.77 0.79 0.35	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 td Juny) Abrit shage -20.8 (-50.3 to -7.4, n = 8) -20.8 (-50.3 to -7.4, n = 8) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6) -37 (-100 to 0, n = 25) -6.8 (-62.0 to 5.7, n = 12) 0 (-48.8 to 7.3, n = 25) -90.8 (-100 to -23.7, n = 12)	0.42 0.3 0.47 1P 0.16 0.35
	Remain Re	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ kiR2D\L2/C1 and KiR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ +/+ not +/+ +/+ and +/+ not +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59 n 2/6 12/25 4/12 6/25	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1% 23.7% ORR CR/PR 33.3% 48.0% 33.3% 424.0%	0.39 0.33 0.42 0P2 0.68 0.95 P 0.42 0.53 0.02	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹\$=22) 5.2 (1.9-14.8; n=8; e=7) 1Mqdian2,months; 95%2CI) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% CI) 1.9 (1.1=NR; n=6; e=3) NR (3.7-NR; n=25; e=11) 12.2 (1.6-21.3; n=12; e=10) 5.5 (3.8-10.1; n=25; e=19) 10.9 (1.6-18.9; n=12; e=9) 3.5 (2-6.2; n=25; e=20)	0.46 0.18 0.93 0.97 0.79 0.35 P 0.56 0.91 0.48	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 tō uny, &arinyage -20.8 (-50.3 to -7.4, n = 8) -30 (-100 tō uny, &arinyage -20.8 (-50.3 to -7.4, n = 8) -30 (-100 tō uny, &arinyage -20.8 (-50.3 to -7.4, n = 9) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6) -37 (-100 to 0, n = 25) -6.8 (-62.0 to 5.7, n = 12) 0 (-48.8 to 7.3, n = 25) -90.8 (-100 to -23.7, n = 12) -91.5 (-42.0 to -1.8, n = 25)	0.42 0.3 0.47 1P 0.16 0.35 P 0.24 0.53 0.005
	Remain Re	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KIR2D\12/C1 and KIR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ +/+ not +/+ +/+ and +/+ not +/+ and +/+ +/+ and +/+ not +/+ and +/+ +/+ and +/+ not +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59 n 2/6 12/25 4/12 6/25 7/12 6/25 2/6	CR/PR 40.9% 55.6% 21.7% 35.7% 37.98% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1% 23.7% ORR CR/PR 33.3% 48.0% 33.3% 24.0% 58.3% 24.0% 33.3%	0.39 0.33 0.42 0P2 0.68 0.95	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=28; %=22) 5.2 (1.9-14.8; n=8; e=7) 1Median2months; 9522CI) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% CI) 1.9 (1.1=NR; n=6; e=3) NR (3.7-NR; n=25; e=11) 12.2 (1.6-21.3; n=12; e=10) 5.5 (3.8-10.1; n=25; e=19) 10.9 (1.6-18.9; n=12; e=9) 3.5 (2-6.2; n=25; e=20) 3.0 (1.6-NR; n=6; e=4)	0.46 0.18 0.93 0P77 0.79 0.35 P 0.56 0.91	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to dunsy shringage -20.8 (-50.3 to -7.4, n = 8) -3.6 (-34.7 to 8.0, n = 22) -3.6 (-2.2 to 14.3, n = 9) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6) -37 (-100 to 0, n = 25) -6.8 (-62.0 to 5.7, n = 12) 0 (-48.8 to 7.3, n = 25) -90.8 (-100 to -23.7, n = 12) -13.5 (-42.0 to 1.8, n = 25) -2.5 (-50 to 32.3, n = 6)	0.42 0.3 0.47 1P 0.16 0.35
	Remain Re	N 31 37 37 N3 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ kiR2D\L2/C1 and KiR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ +/+ not +/+ +/+ and +/+ not +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59 n 2/6 12/25 4/12 6/25	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1% 23.7% ORR CR/PR 33.3% 48.0% 33.3% 424.0%	0.39 0.33 0.42 0P2 0.68 0.95 P 0.42 0.53 0.02	Median (months, 95% CI) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=2₱₹\$=22) 5.2 (1.9-14.8; n=8; e=7) 1Mqdian2,months; 95%2CI) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% CI) 1.9 (1.1=NR; n=6; e=3) NR (3.7-NR; n=25; e=11) 12.2 (1.6-21.3; n=12; e=10) 5.5 (3.8-10.1; n=25; e=19) 10.9 (1.6-18.9; n=12; e=9) 3.5 (2-6.2; n=25; e=20)	0.46 0.18 0.93 0.97 0.79 0.35 P 0.56 0.91 0.48	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 tō uny, &arinyage -20.8 (-50.3 to -7.4, n = 8) -30 (-100 tō uny, &arinyage -20.8 (-50.3 to -7.4, n = 8) -30 (-100 tō uny, &arinyage -20.8 (-50.3 to -7.4, n = 9) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6) -37 (-100 to 0, n = 25) -6.8 (-62.0 to 5.7, n = 12) 0 (-48.8 to 7.3, n = 25) -90.8 (-100 to -23.7, n = 12) -91.5 (-42.0 to -1.8, n = 25)	0.42 0.3 0.47 1P 0.16 0.35 P 0.24 0.53 0.005
	Remain Re	N 31 37 N3 21 N3 37 33 33 33 21	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ KiR2Dl2/C1 and KiR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ +/+ not +/+ +/+ and +/+ not +/+ and +/+ +/+ and +/+ not +/+ and +/+ +/+ and +/+ not +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59 n 2/6 12/25 4/12 6/25 7/12 6/25 7/12 6/25 2/6 2/6 2/6	CR/PR 40.9% 55.6% 21.7% 35.7% 37.98/R 25.0% 16.7% 0.0% 21.4% 14.3% 24.1% 23.7% CR/PR 33.3% 48.0% 33.3% 24.0% 58.3% 24.0% 7.4%	0.39 0.33 0.42 0P2 0.68 0.95 P 0.42 0.53 0.02 0.12	Median (months, 95% Cl) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=28; %=22) 5.2 (1.9-14.8; n=8; e=7) 1Median2months; 8522Cl) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% Cl) 1.9 (1.1=NR; n=6; e=3) NR (3.7-NR; n=25; e=11) 12.2 (1.6-21.3; n=12; e=10) 5.5 (3.8-10.1; n=25; e=19) 10.9 (1.6-18.9; n=12; e=9) 3.5 (2-6.2; n=25; e=24) 1.9 (1.6-NR; n=6; e=4) 1.9 (1.6-NR; n=6; e=4) 1.9 (1.6-3.3; n=27; e=27)	0.46 0.18 0.93 0.79 0.79 0.35 P 0.56 0.91 0.48	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 to \(\frac{1}{3}\) (-100 to \(\frac{1}{3}\) (-10) to \(-14.0\), n = 22) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6) -37 (-100 to 0, n = 25) -6.8 (-62.0 to 5.7, n = 12) 0 (-48.8 to 7.3, n = 25) -90.8 (-100 to -23.7, n = 12) -13.5 (-42.0 to -1.8, n = 25) -2.5 (-50 to 32.3, n = 6) 6.1 (-6.4 to 28.8, n = 25)	0.42 0.3 0.47 1P 0.16 0.35 P 0.24 0.53 0.005
	Remaine Negative Catifies Name Catifies Name Negative Bracks Ganger Non-Small Cell Little Agencer Carcinoma Metastatic Urothelial Cancer Goinde Negative Bracks Ganger Non-Small Cell Rungi Carlie Rungi Carlie Rungi Carlie Rungi Carlie Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Lung Cancer Cohort Melanoma Renal Cell Carcinoma Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Carcinoma Metastatic Urothelial Cancer Triple Negative Breast Cancer Triple Negative Breast Cancer Non-Small Cell Serast Cancer Non-Small Cell Serast Cancer Non-Small Cell Serast Cancer	N 31 37 37 N3 21 	KIR3DL1/Bw4 +/+ not +/+ +/+ not +/+ +/+ +/+ KIR3DL1/Bw4 not +/+ +/+ not +/+ +/+ not +/+ +/+ not +/+ Genotype KIR2DL2/C1 and KIR3DL1/Bw4 +/+ and +/+ not +/+ and +/+ +/+ and +/+ not +/+ and +/+ +/+ and +/+ not +/+ and +/+	9/22 5/9 5/23 5/14 11/29 2/8 4/24 0/9 3/14 1/7 34/141 14/59 n 2/6 12/25 4/12 6/25 7/12 6/25 2/6 2/27 2/7	CR/PR 40.9% 55.6% 21.7% 35.7% 37.9% 25.0% 16.7% 0.0% 21.4% 14.3% 24.1% 23.7% ORR CR/PR 33.3% 48.0% 33.3% 24.0% 33.3% 24.0% 33.3% 24.0% 33.3% 24.0% 33.3% 24.0% 33.3% 34.0%	0.39 0.33 0.42 0P2 0.68 0.95 P 0.42 0.53 0.02 0.12	Median (months, 95% Cl) 8.2 (2-NR; n=22; e=11) NR (1.6-NR; n=9; e=3) 7.3 (3.7-21.3; n=30; e=22) 6.9 (2.1-NR; n=14; e=9) 4.1 (2.1-10.9; n=20; 5=22) 5.2 (1.9-14.8; n=8; e=7) 1Median(months, 95% Cl) 3.3 (1.2-5.3; n=9; e=9) 3.7 (1.9-8.4; n=14; e=12) 5.8 (1.7-NR; n=7; e=5) 3.6 (2.1-4.9; n=141; e=112) 4.1 (2.1-7.2; n=59; e=44) PFS Median (months, 95% Cl) 1.9 (1.1=NR; n=6; e=3) NR (3.7-NR; n=25; e=11) 12.2 (1.6-21.3; n=12; e=10) 5.5 (3.8-10.1; n=25; e=19) 10.9 (1.6-18.9; n=12; e=9) 3.5 (2-6.2; n=25; e=20) 3.0 (1.6-NR; n=6; e=4) 1.9 (1.6-3.3; n=27; e=27) 2.9 (1.3-NR; n=7; e=5)	0.46 0.18 0.93 0.79 0.79 0.35 P 0.56 0.91 0.48	Median (IQR, n) -18 (-100 to 13, n = 22) -100 (-100 to -4, n = 9) -3.6 (-34.7 to 8.0, n = 23) -5.5 (-63.8 to 5.4, n = 14) -30 (-100 td Juny) Abrit/Jage -20.8 (-50.3 to -7.4, n = 8) -60/46/2007 (IQR, n), n = 22) -2.6 (-2.2 to 14.3, n = 9) -1.3 (-16.3 to 5.1, n = 14) -23.7 (-29.0 to -14.0, n = 7) -1.4 (-37.5 to 11.9, n = 139) -5 (-48.8 to 7.3, n = 58) Tumor Shrinkage Median (IQR, n) -3.5 (-67 to 16, n = 6) -37 (-100 to 0, n = 25) -6.8 (-62.0 to 5.7, n = 12) 0 (-48.8 to 7.3, n = 25) -90.8 (-100 to -23.7, n = 12) -13.5 (-42.0 to -1.8, n = 25) -2.5 (-50 to 32.3, n = 6) -1.1 (-6.4 to 28.8, n = 25) -7.1 (-29.9 to -3.5, n = 7)	0.42 0.3 0.47 1P 0.16 0.35 P 0.24 0.53 0.005

Melanoma

Renal Cell
Carcinoma
Metastatic
Urothelial Cancer
Triple Negative
Breast Cancer
Non-Small Cell
Lung Cancer

Cohort Melanoma Renal Cell Carcinoma

Metastatic Urothelial Cancer Triple Negative Breast Cancer Non-Small Cell Lung Cancer

Cohort

Melanoma

Renal Cell
Carcinoma
Metastatic
Urothelial Cancer
Triple Negative
Breast Cancer

Non-Small Cell

Lung Cancer

Melanoma

Renal Cell
Carcinoma
Metastatic
Urothelial Cancer
Triple Negative
Breast Cancer
Non-Small Cell
Lung Cancer

KIR2DL2/C

KIR2DL2/

KIR3DL1/

KIR2DL2/C

KIR3DL1/B

Table S5: Overall associations of KIR/KIR-ligand genotypes with outcome for the specific groups of cancer patients analyzed.

0 (-28.6 to 11.8, n = 145)

3.6 (2.1-4.7; n=148; e=119)

29/148 19.6%

Associations of KIR-ligand present vs missing status (a), KIR2DL2/HLA-C1 genotype (b), KIR3DL1/HLA-Bw4 genotype (c), and KIR2DL1/HLA-C1 and KIR3DL1/HLA-Bw4 genotype (d) with the three clinical outcome parameters (OR, PFS, and tumor shrinkage) across the five cancer types analyzed. The definitions for the genotype categories are detailed in Supplemental Table S3 and S4. Abbreviations: CI, confidence interval; IQR, interquartile range; NR, reported where the median PFS is "not reached."

			FCGR3A	
		V/V	V/F	F/F
	H/H			
FCGR2A	H/R			
1	R/R			

		FCGR3A				
		V/V	V/F	F/F		
	C/C					
FCGR2C	C/T					
	T/T					

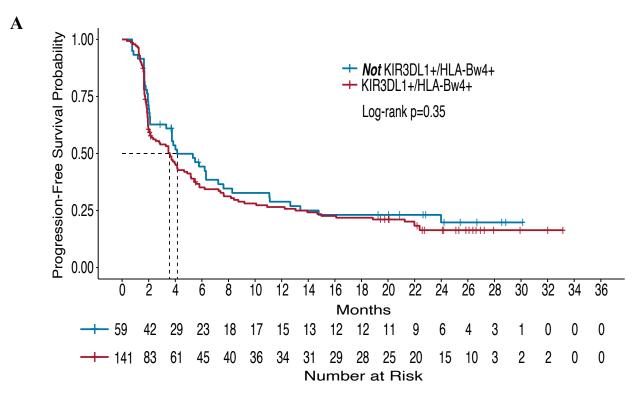
					FCGR3A		
				V/V	V/F	F/F	
	н/н		C/C				
		FCGR2C	C/T				
			T/T				
			_	FCGR3A			
	H/R			V/V	V/F	F/F	
FCGR2A		FCGR2C	c/c				
			C/T				
			T/T				
				FCGR3A			
				V/V	V/F	F/F	
	R/R		C/C				
		FCGR2C	C/T				
			T/T				

Table S6: FCγR genotype categories. The three separate genotypes for FCγR3A (V/V, V/F, and F/F), when combined with the three separate genotypes for FCγR2A: H/H (top); H/R (middle); and R/R (bottom) yield nine separate genotypes. Here, these are combined with the three separate genotypes for FCγR2C (C/C, C/T, and T/T). When genotypes for all three of these loci are combined (27 separate boxes), we divided them into favorable (shaded) vs unfavorable (unshaded) genotypes. The favorable group includes all patients homozygous for H/H or V/V as well as patients expressing one copy of V and one copy of H and at least one copy of FCγR2C-'C'. All others, namely those patients that do not have at least two copies of either high-affinity allele (F/F-R/R, V/F-R/R, or F/F-H/R), and those patients heterozygous for V/F and H/R but lacking any expression of FCγR2C, are unshaded and labeled as unfavorable.

		ORR		PFS		Tumor Shrinkage		
Genotype Group	n	CR/PR	P	Median (months; 95% CI)	P	Median (IQR, n)	P	
HH	14/52	26.9%	0.57	3.8 (2-7.7; n=52; e=41)	0.99	-5.6 (-58.9 to 8.3, n = 51)	0.84	
HR or RR	34/148	23.0%		3.7 (2.2-5.2; n=148; e=115)		-2.5 (-37.9 to 12.1, n = 146)		
CC or CT	18/58	31.0%	0.15	3.8 (1.9-7.3; n=58; e=45)	0.82	-6 (-70.6 to 7.7, n = 57)	0.34	
TT	30/142	21.1%		3.7 (2.3-5.2; n=142; e=111)		-2.6 (-35.0 to 11.6, n = 140)		
VV	4/14	28.6%	0.67	3.9 (1.7-14.7; n=14; e=11)	0.96	-4.4 (-60 to 5.4, n = 14)	0.7	
VF or FF	44/186	23.7%		3.7 (2.8-5.2; n=186; e=145)		-3.1 (-37.5 to 11.3, n = 183)		
Favorable	15/59	25.4%	0.76	3.7 (1.96.2; n=59; e=47)	0.72	-4.8 (-57.7 to 8.9, n = 58)	0.96	
Unfavorable	33/141	23.4%		3.9 (2.5-5.4; n=141; e=109)		-2.8 (-37.5 to 11.9, n = 139)		
Favorable	29/104	27.9%	0.17	3.8 (2.8-5.5; n=101; e=83)	0.88	-6.4 (-55.1 to 7.3, n = 103)	0.25	
Unfavorable	19/96	19.8%		3.7 (2.1-5.6; n=96; e=73)		-0.5 (-32.4 to 12.8, n = 94)		
Favorable	15/59	25.4%	0.76	3.7 (1.9-6.2; n=59; e=47)	0.72	-4.8 (-57.7 to 8.9, n = 58)	0.96	
Unfavorable	33/141	23.4%		3.9 (2.5-5.4; n=141; e=109)		-2.8 (-37.5 to 11.9, n = 139)		
	HH HR or RR CC or CT TT VV VF or FF Favorable Unfavorable Favorable Unfavorable Favorable	HH 14/52 HR or RR 34/148 CC or CT 18/58 TT 30/142 VV 4/14 VF or FF 44/186 Favorable 15/59 Unfavorable 33/141 Favorable 29/104 Unfavorable 19/96 Favorable 15/59	Genotype Group n CR/PR HH 14/52 26.9% HR or RR 34/148 23.0% CC or CT 18/58 31.0% TT 30/142 21.1% VV 4/14 28.6% VF or FF 44/186 23.7% Favorable 15/59 25.4% Unfavorable 29/104 27.9% Unfavorable 19/96 19.8% Favorable 15/59 25.4%	Genotype Group n CR/PR P HH 14/52 26.9% 0.57 HR or RR 34/148 23.0% 0.15 CC or CT 18/58 31.0% 0.15 TT 30/142 21.1% 0.67 VV 4/14 28.6% 0.67 VF or FF 44/186 23.7% 0.76 Favorable 15/59 25.4% 0.76 Unfavorable 29/104 27.9% 0.17 Unfavorable 19/96 19.8% 0.76 Favorable 15/59 25.4% 0.76	Genotype Group n CR/PR P Median (months; 95% CI) HH 14/52 26.9% 0.57 3.8 (2-7.7; n=52; e=41) HR or RR 34/148 23.0% 3.7 (2.2-5.2; n=148; e=115) CC or CT 18/58 31.0% 0.15 3.8 (1.9-7.3; n=58; e=45) TT 30/142 21.1% 3.7 (2.3-5.2; n=142; e=111) VV 4/14 28.6% 0.67 3.9 (1.7-14.7; n=14; e=11) VF or FF 44/186 23.7% 3.7 (2.8-5.2; n=186; e=145) Favorable 15/59 25.4% 0.76 3.7 (1.96.2; n=59; e=47) Unfavorable 29/104 27.9% 0.17 3.8 (2.8-5.5; n=101; e=83) Unfavorable 19/96 19.8% 3.7 (2.1-5.6; n=96; e=73) Favorable 15/59 25.4% 0.76 3.7 (1.9-6.2; n=59; e=47)	Genotype Group n CR/PR P Median (months; 95% CI) P HH 14/52 26.9% 0.57 3.8 (2-7.7; n=52; e=41) 0.99 HR or RR 34/148 23.0% 3.7 (2.2-5.2; n=148; e=115) 0.82 CC or CT 18/58 31.0% 0.15 3.8 (1.9-7.3; n=58; e=45) 0.82 TT 30/142 21.1% 3.7 (2.3-5.2; n=142; e=111) 0.96 VF or FF 44/186 23.7% 3.9 (1.7-14.7; n=14; e=11) 0.96 VF or FF 44/186 23.7% 0.76 3.7 (1.96.2; n=59; e=47) 0.72 Unfavorable 33/141 23.4% 0.76 3.9 (2.5-5.4; n=141; e=109) 0.72 Favorable 29/104 27.9% 0.17 3.8 (2.8-5.5; n=101; e=83) 0.88 Unfavorable 19/96 19.8% 0.76 3.7 (1.9-6.2; n=59; e=47) 0.72 Favorable 15/59 25.4% 0.76 3.7 (2.1-5.6; n=96; e=73) 0.72	Genotype Group n CR/PR P Median (months; 95% CI) P Median (IQR, n) HH 14/52 26.9% 0.57 3.8 (2-7.7; n=52; e=41) 0.99 -5.6 (-58.9 to 8.3, n = 51) HR or RR 34/148 23.0% 3.7 (2.2-5.2; n=148; e=115) -2.5 (-37.9 to 12.1, n = 146) CC or CT 18/58 31.0% 0.15 3.8 (1.9-7.3; n=58; e=45) 0.82 -6 (-70.6 to 7.7, n = 57) TT 30/142 21.1% 3.7 (2.3-5.2; n=142; e=111) -2.6 (-35.0 to 11.6, n = 140) VV 4/14 28.6% 0.67 3.9 (1.7-14.7; n=14; e=11) 0.96 -4.4 (-60 to 5.4, n = 14) VF or FF 44/186 23.7% 3.7 (2.8-5.2; n=186; e=145) -3.1 (-37.5 to 11.3, n = 183) Favorable 15/59 25.4% 0.76 3.7 (1.96.2; n=59; e=47) 0.72 -4.8 (-57.7 to 8.9, n = 58) Unfavorable 29/104 27.9% 0.17 3.8 (2.8-5.5; n=101; e=83) 0.88 -6.4 (-55.1 to 7.3, n = 103) Unfavorable 19/96 19.8% 3.7 (2.1-5.6; n=96; e=73) -0.5 (-32.4 to 12.8, n = 94) <tr< td=""></tr<>	

Table S7: FCγR results for IO-naïve patients. Associations of FCγR genotypes with the three clinical outcome parameters (OR, PFS, and tumor shrinkage) within the IO-naïve patients. The definitions for the FCγR genotype categories are detailed in Supplemental Table S6. Abbreviation: CI, confidence interval; IQR, interquartile range.

Supplementary Figure S1



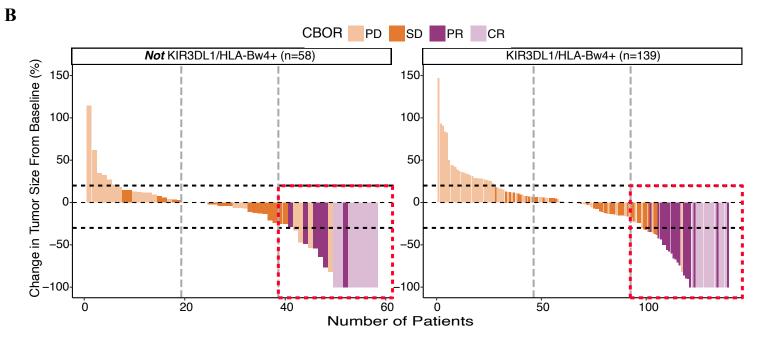


Figure S1: KIR3DL1 and its HLA-Bw4 ligand does not influence clinical outcome. Waterfall plots displaying OR and tumor shrinkage (a) compares patients who are KIR3DL1+/HLA-Bw4+ (right) with patients who are *not* KIR3DL1+/HLA-Bw4+ (left). CBOR is the confirmed best overall response by RECIST 1.1 criteria; PD, progressive disease (light orange); SD, stable disease (orange); PR, partial response (purple); CR, complete response (light purple). Vertical dotted lines divide the number of patients into thirds, and horizontal dotted lines indicate a +20% increase and -30% decrease in target lesion size from baseline. Dotted red box outlines the top third percent of patients with a positive clinical response. Kaplan-Meier curve for PFS (b) compares patients who are KIR3DL1+/HLA-Bw4+ (red line) to patients who are *not* KIR3DL1+/HLA-Bw4+ (blue line).