## PPARG (Pro12Ala) genetic variant and risk of T2DM: a systematic review and meta-analysis

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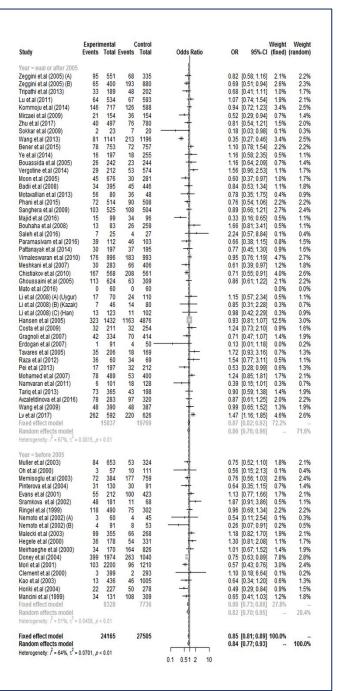
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Study	Events	mental Total		Total	Odds Ratio	OR	95%-CI	(fixed)	Weig (randor
Year = eual or after 2005									
Zeggini et.al (2005) (A)	99	1106	82	684	**		[0.53; 0.98]		1.7
Zeggini et.al (2005) (B)	69	804	211	1778	+		[0.52; 0.93]	1.8%	1.7
Tripathi et.al (2013)	35	380	64	420		0.56	[0.36; 0.87]	0.8%	1.4
Lu et al (2011)	64	1068	69	1188	#		[0.73; 1.47]	1.2%	1.6
Kommoju et.al (2014)	176	1464	138	1188	*	1.04		2.7%	1.8
Mirzaei et.al (2009)	25	312	40	312	<del></del> ∤		[0.35; 1.00]		1.2
Mtiraoui et.al (2012) (A) (Lebanes)	154	1502	138	1836	*		[1.11; 1.79]	2.6%	1.8
Mtiraoui et.al (2012) (B) (Tunisian)	246	2940	110	1676	1		[1.03; 1.64]	2.8%	1.9
Zhu et.al (2017)	40	994	80	1564	-1	0.78	[0.53; 1.15]	1.0%	1.5
Sokkar et.al (2009)	4	48	27	60	1	0.11	[0.04; 0.35]	0.1%	0.5
Wang et.al (2013)	89	2290	223	4002	7		[0.53; 0.88]	2.4%	1.8
Bener et.al (2015)	100	1528	86	1528	<u> </u>	1.17	[0.87; 1.58]	1.7%	1.7
Ye et.al (2014)	18	870	18	36	1		[0.01; 0.05]	0.2%	0.8
Bouassida et.al (2005)	26	484	27	492	1	0.98	[0.56; 1.70]	0.5%	1.3
Vergotine et.al (2014)	29	424	55	1150	3	1.46	[0.92; 2.33]	0.7%	1.4
Moon et al (2005)	47	1354	30	562	-4		[0.40; 1.02]		1.4
Badii et.al (2008)	44	800	53	800	1	0.82	[0.54; 1.24]	0.9%	1.5
Motavallian et.al (2013)	96	200	140	200	-1		[0.26; 0.60]		1.5
Phani et al (2015)	80	1036	110	1036	*		[0.52; 0.95]	1.7%	1.7
Sanghera et.al (2009)	107	1054	136	1036	*	0.75		2.1%	1.8
Majid et.al (2016)	17	200	42	200			[0.19; 0.64]		1.1
Bouhaha et.al (2008)	15	168	30	522	- 1	1.61		0.4%	1.0
Saleh et.al (2016)	7	50	6	56	-11-	1.36	[0.42; 4.35]	0.1%	0.5
Paramasivam et.al (2016)	55	240	82	242	+	0.58	[0.39; 0.87]	0.9%	1.5
Pattanayak et.al (2014)	36	400	47	400	-9	0.74	[0.47; 1.17]	0.7%	1.4
Vimaleswaran et.al (2010)	184	2000	197	2000	1	0.93	[0.75; 1.15]	3.4%	1.9
Meshkani et.al (2007)	32	568	78	824	+1	0.57	[0.37; 0.87]	0.8%	1.4
Chistiakov et.al (2010)	207	1176	279	1194	1		[0.57; 0.86]		1.9
Ghoussaini et.al (2005)	121	1256	81	636	*	0.73	[0.54; 0.99]		1.3
Mato et.al (2016)	0	120	0	120	1			0.0%	0.0
Lara-Riegos et.al (2015)	27	252	38	252		0.68	[0.40; 1.15]	0.5%	1.3
Li et.al (2008) (A) (Uygur)	18	142	25	221	1	1.14	[0.60; 2.17]	0.4%	1.0
Li et.al (2008) (B) (Kazak)	7	92	14	160	-		[0.33; 2.21]		0.6
Li et.al (2008) (C) (Han)	15	248	11	204	1	1.13	[0.51; 2.52]		0.0
Ho et.al (2012) (B) (Stage 1+2)	76	2922	46	1200	**		[0.46; 0.97]	1.1%	1.6
Hansen et.al (2005)	380	2922	1386	9972			[0.82; 1.05]		2.0
Costa et.al (2009)	32	422	32	508	1	1.22	[0.73; 2.03]	0.6%	1.3
Gragnoli et.al (2007)	44	670	76	834			[0.48; 1.03]		1.5
Erdogan et al (2007)	1	182	4	100	<del></del>	0.13	[0.01; 1.20]	0.0%	0.2
Tavares et.al (2005)	37	414	20	340	-	1.57	[0.89; 2.76]	0.5%	1.2
Raza et al (2012)	84	174	104	176	<b>→</b>		[0.42; 0.99]	0.8%	1.5
Pei et.al (2013)	17	394	32	424			[0.30; 1.01]	0.4%	1.1
Mohamed et.al (2007)	79	982	56	800	#		[0.81; 1.66]		1.6
Namvaran et.al (2011)	6	202	18	256		0.40	[0.16; 1.04]	0.2%	0.7
Tariq et.al (2013)	89	746	47	400	+	1.02	[0.70; 1.48]	1.1%	1.6
Avzaletdinova et.al (2016)	100	588	109	652	<b>#</b>		[0.76; 1.37]		1.7
Wang et.al (2009)	58	790	56	782	황		[0.70; 1.50]	1.0%	1.5
Lv et al (2017)	372	1294	268	1300	\$ ==	1.55	[1.30; 1.86]		1.9
Radha et.al (2006) (South Asian living in Chennai)	302	1598	323	1640	4	0.95	[0.80; 1.13]	4.9%	2.0
Radha et.al (2006) (South Asian living in Dallas)	33	162	265	1232	#		[0.62; 1.40]		1.5
Radha et.al (2006) (Caucasian living in Dallas)	22	246	141	668		0.37	[0.23; 0.59]		1.3
Martinez: Gómez et.al (2011) (Combined)	192	1438	200	1492	8	1.00	[0.80; 1.23]	3.3%	1.9
Fixed effect model		43716		51355	1		[0.85; 0.93]	74.5%	
Random effects model Heterogeneity: $r^2 = 82\%$ , $\tau^2 = 0.1232$ , $p < 0.01$					+	0.79	[0.70; 0.89]	-	72.
Year = before 2005									
Muller et.al (2003)	92	1314	61	656	4	0.73	[0.52; 1.03]	1.3%	1.6
Oh et.al (2000)	5	116	10	222		0.95	[0.32; 2.86]	0.1%	0.5
Memisoglu et.al (2003)	78	774	201	1542	#	0.75	[0.57; 0.99]	2.0%	1.8
Simon et.al (2002)	13	334	6	126	-#-	0.81	[0.30; 2.18]	0.2%	0.6
Pinterova et.al (2004)	37	266	42	194	<b>→</b> }	0.58	[0.36; 0.95]	0.6%	1.3
Evans et.al (2001)	69	438	112	858	-		[0.90; 1.72]		1.3
Gramkova et.al (2002)	52	366	13	138	-		[0.84; 3.03]	0.4%	1.0
Ringel et.al (1999)	144	1006	91	620	#	0.97	[0.73; 1.29]	1.9%	1.8
Nemoto et.al (2002) (A)	3	120	4	90	<del></del>	0.55	[0.12; 2.53]	0.1%	0.3
Nemoto et.al (2002) (B)	4	182	10	108		0.22	[0.07; 0.72]	0.1%	0.5
Hara et.al (2000)	14	830	46	1082		0.39	[0.21; 0.71]	0.4%	1.
Malecki et.al (2003)	121	732	86	556	#	1.08	[0.80; 1.46]	1.7%	1.7
Hegele et al (2000)	38	358	56	664	}-		[0.84; 1.99]	0.8%	1.4
Meirhaeghe et.al (2000)	34	340	190	1678	+	0.87		1.0%	1.5
Doney et.al (2004)	445	3994	303	2120	間	0.75	[0.64; 0.88]		2.0
Mori et.al (2001)	105	4402	100	2424	+	0.57	[0.43; 0.75]		1.8
Clement et.al (2000)	64	804	51	590	31		[0.62; 1.34]	1.0%	1.5
(ao et.al (2003)	13	872	46	2010	<del>8</del>		[0.35; 1.20]		1.
Horiki et al (2004)	22	454	50	556		0.52	[0.31; 0.86]	0.6%	1.3
Douglas et.al (2001)	157	1044	170	826	*	0.68	[0.54; 0.87]	2.6%	1.8
Mancini et.al (1999)	34	262	114	624	<del>-</del> -₹		[0.44; 1.01]		1.8
Fixed effect model		19008		17684	•	0.78	[0.73; 0.85]	25,5%	27.
Random effects model Heterogeneity: $r^2 = 57\%$ , $\tau^2 = 0.0460$ , $p < 0.01$						0.78	[0.69; 0.90]	-	21.
Fixed effect model		62724		69039		0.86	[0.83; 0.89]	100.0%	
Random effects model		V4124		55003	i		[0.72; 0.86]		100.

Study	Experir Events			Total	Odds Ratio OR	95%-CI	(fixed)	(random)
Year = eual or after 2005					8			
Zeggini et.al (2005) (A)	2	458	7	274	0.17	[0.03: 0.81]	0.9%	1.8%
Zeggini et.al (2005) (B)	2	337	9	696	0.46	[0.10; 2.12]	1.0%	1.8%
Tripathi et.al (2013)	1	157	8	162	0.12	[0.02; 1.00]	0.5%	1.2%
Lu et.al (2011)	0	470	1	527	0.37	[0.02; 9.18]	0.2%	0.6%
Kommoju et.al (2014)	15	586	6	468	* 2.02	[0.78; 5.25]	2.5%	3.1%
Mirzaei et.al (2009)	2	135	2	120	0.89	[0.12; 6.40]	0.6%	1.3%
Zhu et.al (2017)	0	457	2	706	0.31	[0.01; 6.43]	0.2%	0.6%
Sokkar et.al (2009)	1	22	10	23 -	0.06	[0.01; 0.54]	0.5%	1.1%
Wang et al (2013)	4	1064	5	1788	1.35	[0.36; 5.02]	1.3%	2.2%
	11	686	7	692	1.59	[0.61; 4.14]	2.5%	3.1%
Bener et.al (2015)								
re et.al (2014)	1 0	182	0	237 223	3.93	[0.16; 96.93]	0.2%	0.6%
Bouassida et.al (2005)								
/ergotine et.al (2014)	0	183	1	522 251	0.95	[0.04; 23.36]	0.2%	0.6%
Moon et.al (2005)		632		405	1.19	[0.05; 29.43]	0.2%	0.6%
Badii et.al (2008)	5	000	4		1.39	[0.37; 5.21]	1.3%	2.2%
Motavallian et.al (2013)	20	44	52	64	0.19	[0.08; 0.46]	3.1%	3.3%
Phani et al (2015)	4	446	10	428	0.38	[0.12; 1.22]	1.7%	2.5%
Sanghera et.al (2009)	2	424	14	410	0.13	[0.03; 0.59]	1.0%	1.9%
Majid et.al (2016)	1	85	4	66	0.18	[0.02; 1.69]	0.5%	1.1%
Bouhaha et.al (2008)	1	71	2	235	1.66	[0.15; 18.63]	0.4%	0.9%
Saleh et.al (2016)	0	18	1	24	0.42	[0.02; 11.01]	0.2%	0.6%
Paramasivam et.al (2016)	8	81	18	75	<del>*  </del> 0.35	[0.14; 0.86]	2.8%	3.2%
Pattanayak et.al (2014)	3	170	5	163	0.57	[0.13; 2.41]	1.1%	2.0%
/imaleswaran et.al (2010)	4	824	7	817	<del>- * </del> 0.56	[0.16; 1.94]	1.5%	2.4%
Meshkani et.al (2007)	1	254	6	346	0.22	[0.03; 1.87]	0.5%	1.1%
Chistiakov et.al (2010)	20	421	36	389	0.49	[0.28; 0.86]	7.2%	4.3%
Ghoussaini et.al (2005)	4	515	9	255	0.21	[0.07: 0.70]	1.6%	2.5%
Mato et.al (2016)	0	60	0	60	1	******	0.0%	0.0%
Li et.al (2008) (A) (Uygur)	1	54	1	87	162	[0.10; 26.49]	0.3%	0.7%
i et.al (2008) (B) (Kazak)	0	39	0	66		[0.10, 20.10]	0.0%	0.0%
Li et.al (2008) (C) (Han)	1	111	0	91	248	[0.10; 61.71]	0.2%	0.6%
Hansen et.al (2005)	29	1138	110	3823	0.00	[0.58; 1.34]	13.4%	4.7%
Costa et.al (2009)	0	179	0	222	0.88	[0.00, 1.04]	0.0%	0.0%
Gragnoli et.al (2007)	1	293	3	337	0.30	[0.04; 3.69]	0.4%	1.0%
Erdogan et.al (2007)	o	90	0	46	0.30	[0.04, 3.09]	0.4%	0.0%
Favares et.al (2005)	1	172	1	152	0.88	[0.05; 14.24]	0.0%	0.0%
	24	51	35	54	0.48		3.8%	3.6%
Raza et.al (2012) Pei et.al (2013)	0	180	0	180	0.40	[0.22; 1.06]	0.0%	0.0%
	2	413	0	347		10 00: 00 041	0.0%	0.0%
Mohamed et al (2007)	0		0	110	4.22	[0.20; 88.24]		0.0%
Namvaran et.al (2011)	8	95 300			212	10 15 10 101	0.0%	
Fariq et.al (2013)	•	000	2	157		[0.45; 10.12]	0.9%	1.8%
Avzaletdinova et.al (2016)	11	216	6	229	1.99	[0.72; 5.49]	2.2%	2.9%
Wang et al (2009)		347			1.24	[0.33; 4.65]	1.3%	
_v et.al (2017)	55	385	24	430	₹ 2.82	[1.71; 4.65]	9.2%	4.5%
Fixed effect model		13427		17100	2.82 0.78 0.65	[0.65; 0.94]	66.8%	-
Random effects model Heterogeneity: $\hat{f} = 58\%$ , $\tau^2 = 0$	.5024, p	0.01			0.65	[0.46; 0.92]	-	70.4%
rear = before 2005								
Muller et.al (2003)	4	573	4	275	0.48	[0.12; 1.92]	1.2%	2.1%
Oh et.al (2000)	1	55	0	101		[0.22; 139.49]	0.2%	0.6%
llemisoglu et.al (2003)	3	315	12	594	0.47	[0.13; 1.66]	1.4%	2.3%
Pinterova et.al (2004)	3	102	6	67	0.47	[0.07; 1.28]	1.1%	2.0%
Evans et.al (2001)	7	164	6	329	2.40	[0.07, 1.26]	1.9%	2.7%
Bramkova et.al (2002)	2	135	1	58	0.86	[0.79, 7.26]	0.4%	0.9%
	13	385	8	235	0.80		2.9%	3.2%
Ringel et.al (1999)	13			41	0.99	[0.40; 2.43]		
Nemoto et.al (2002) (A)		57	0			10.04: 4.04	0.0%	0.0%
Nemoto et.al (2002) (B)	0	87	1	46 -	0.17	[0.01; 4.34]	0.2%	0.6%
lalecki et.al (2003)	11	267	10	212	0.87	[0.36; 2.08]	3.0%	3.3%
legele et.al (2000)	1	143	1	278	1.50	[0.12; 31.42]	0.3%	0.7%
leirhaeghe et.al (2000)	0	136	13	675	0.18	[0.01; 3.04]	0.3%	0.7%
Doney et.al (2004)	23	1598	20	797	0.18	[0.31; 1.04]	6.3%	4.1%
lori et.al (2001)	1	2098	2	1116	0.27	[0.02; 2.93]	0.4%	0.9%
Clement et.al (2000)	60	399	47	293	0.93	[0.61; 1.40]	13.4%	4.7%
(2003) Yao et.al	0	423	0	959	I 0.55		0.0%	0.0%
Horiki et.al (2004)	0	205	0	228	1		0.0%	0.0%
Mancini et.al (1999)	o	97	3	204	0.30	[0.02; 5.77]	0.3%	0.7%
Fixed effect model	٠	7239		6508	0.79	[0.61; 1.03]	33.2%	2.1 /4
Random effects model		. 200			0.79	[0.61; 1.03]		29.6%
Heterogeneity: $f^2 = 0\%$ , $\tau^2 = 0$ ,	p = 0.47				0.30 0.79 0.79			
Fixed effect model		20666		23608	0.78 \$ 0.68	[0.67; 0.91] [0.53; 0.88]	100.0%	100.0%
Random effects model								

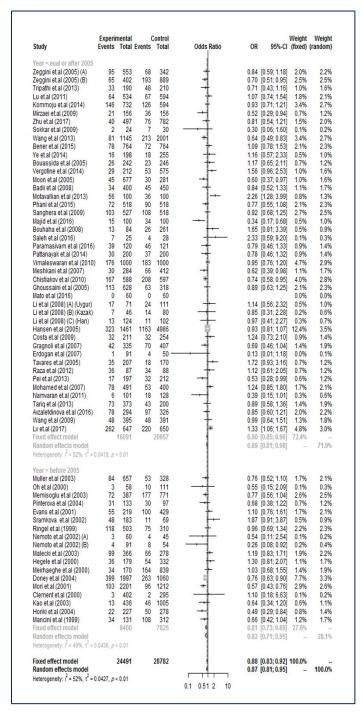


A

Study	Experimental Events Total	Control Events Total	Odds Ratio	OR	95%-CI	Weight (fixed)	Weigh (random
Year = eual or after 2005			1				
Zeggini et.al (2005) (A)	2 97	7 75		0.20	[0.04; 1.01]	1.1%	1.69
Zeggini et.al (2005) (B)	2 67	9 202	-+-	0.66	[0.14; 3.13]	1.1%	1.7%
Tripathi et.al (2013)	1 34	8 56	<del></del>	0.18	[0.02; 1.52]	0.6%	1.0%
Lu et.al (2011)	0 64	1 68		0.35	[0.01: 8.72]	0.3%	0.5%
Kommoju et.al (2014)	15 161	6 132	<del> </del> ★	2.16	[0.81; 5.73]	2.8%	3.39
Mirzaei et.al (2009)	2 23	2 38	-1	1.71	[0.22; 13.09]	0.7%	1.19
Zhu et.al (2017)	0 40	2 78		0.38	[0.02: 8.06]	0.3%	0.59
Sokkar et.al (2009)	1 3	10 17		0.35	[0.03; 4.65]	0.4%	0.79
Wang et al (2013)	4 85	5 218	4	2.10	[0.55; 8.03]	1.5%	2 1%
Bener et.al (2015)	11 89	7 79	1.	1.45	[0.53; 3.94]	2.7%	3.29
Ye et.al (2014)	1 17	0 18		3.36	[0.13; 88.39]	0.3%	0.5%
Bouassida et.al (2005)	0 26	2 25		0.18	[0.01; 3.89]	0.3%	0.5%
Vergotine et.al (2014)	0 29	1 54		0.60	[0.02; 15.31]	0.3%	0.59
Moon et.al (2005)	1 46	0 30		2.01	[0.08; 51.01]	0.3%	0.5%
Badii et.al (2008)	5 39	4 49	4.	1.65	[0.41; 6.63]	1.4%	2.0%
Motavallian et.al (2013)	20 76	52 88	- 1	0.25	[0.41, 0.03]	6.1%	4.9%
	4 76	10 100		0.50		1.9%	2.5%
Phani et.al (2015)	2 105	14 122		0.50	[0.15; 1.66]	1.9%	1.8%
Sanghera et al (2009)					[0.03; 0.68]		
Majid et.al (2016)	1 16	4 38		0.57	[0.06; 5.51]	0.5%	0.9%
Bouhaha et.al (2008)					[0.08; 12.07]		
Saleh et.al (2016)	0 7	1 5		0.20	[0.01; 6.04]	0.2%	0.4%
Paramasivam et.al (2016)		18 64	-1	0.52	[0.21; 1.34]	3.1%	3.5%
Pattanayak et.al (2014)	3 33	5 42	-31	0.74	[0.16; 3.35]	1.2%	1.8%
Vimaleswaran et al (2010)		7 190	-1	0.59	[0.17; 2.07]	1.7%	2.4%
Meshkani et.al (2007)	1 31	6 72		0.37	[0.04; 3.18]	0.6%	1.09
Chistiakov et.al (2010)	20 187	36 244	#	0.69	[0.39; 1.24]	7.9%	5.49
Ghoussaini et.al (2005)	4 117	9 72		0.25	[0.07; 0.84]	1.8%	2.49
Mato et.al (2016)	0 0	0 0	1			0.0%	0.0%
Li et.al (2008) (A) (Uygur)	1 18	1 25		1.41	[0.08; 24.18]	0.3%	0.6%
Li et.al (2008) (B) (Kazak)	0 7	0 14	1			0.0%	0.0%
Li et.al (2008) (C) (Han)	1 14	0 11	<del>-   ·</del>	2.56	[0.09; 69.00]	0.2%	0.4%
Hansen et.al (2005)	29 352	110 1273	*	0.95	[0.62; 1.46]	14.8%	6.5%
Costa et.al (2009)	0 32	0 32	1			0.0%	0.0%
Gragnoli et.al (2007)	1 43	3 73	<del></del>	0.56	[0.06; 5.52]	0.5%	0.9%
Erdogan et.al (2007)	0 1	0 4	1			0.0%	0.0%
Tavares et.al (2005)	1 36	1 19		0.51	[0.03; 8.71]	0.3%	0.6%
Raza et.al (2012)	24 63	35 53		0.32	[0.15; 0.68]	4.6%	4.3%
Pei et.al (2013)	0 17	0 32	3	Control of		0.0%	0.0%
Mohamed et al (2007)	2 79	0 53		3.45	[0.16; 73.34]	0.3%	0.5%
Namvaran et.al (2011)	0 6	0 18		0.10	[0.10, 10.01]	0.0%	0.0%
Tarig et.al (2013)	8 81	2 45	4.	2.36	[0.48; 11.61]	1.1%	1.6%
Avzaletdinova et.al (2016)	11 89	6 103	-	2.28	[0.81; 6.44]	2.5%	3.09
Wang et al (2009)	5 53	4 52	4.	1.25	[0.32; 4.94]	1.4%	2.09
Lv et.al (2017)	55 317	24 244	-	1.92	[1.15; 3.21]	10.3%	5.99
Fixed effect model	2917	4255	3	0.80	[0.67; 0.97]	77.1%	3.97
Random effects model	2311	4233	8	0.75	[0.56: 1.01]	11.170	73.79
Heterogeneity: $\hat{f} = 43\%$ , $\tau^2 =$	0.2820, p < 0.01		1	0.75	[0.50; 1.01]	-	13.17
Year = before 2005							
Muller et.al (2003)	4 88	4 57		0.63	[0.15; 2.63]	1.3%	1.99
Oh et.al (2000)	1 4	0 10	+	9.00	[0.29; 275.56]	0.2%	0.49
Memisoglu et.al (2003)	3 75	12 189		0.61	[0.17; 2.24]	1.6%	2.29
Pinterova et.al (2004)	3 34	6 36	<del></del>	0.48	[0.11; 2.11]	1.2%	1.89
Evans et.al (2001)	7 62	6 106	<del>   *  </del>	2.12	[0.68; 6.63]	2.1%	2.79
Sramkova et.al (2002)	2 50	1 12		0.46	[0.04; 5.52]	0.4%	0.89
Ringel et.al (1999)	13 131	8 83	4	1.03	[0.41; 2.61]	3.1%	3.59
Nemoto et.al (2002) (A)	0 3	0 4	1			0.0%	0.09
Nemoto et.al (2002) (B)	0 4	1 9		0.63	[0.02; 18.84]	0.2%	0.49
Malecki et.al (2003)	11 110	10 76	4	0.73	[0.29; 1.82]	3.3%	3.69
Hegele et.al (2000)	1 37	1 55		1.50	[0.09; 24.76]	0.3%	0.69
Meirhaeghe et.al (2000)	0 34	13 177		0.18	[0.01; 3.04]	0.3%	0.69
Doney et.al (2004)	23 422	20 283	1	0.76	[0.41; 1.41]	7.1%	5.29
	1 104	2 98	1	0.76	[0.41, 1.41]	0.5%	0.89
Mori et.al (2001) Clement et.al (2000)	60 63	47 49		0.47	[0.04, 5.22]	0.5%	1.39
		0 46	1	0.85	[0.14, 5.30]		
Kao et.al (2003)		0 46	3			0.0%	0.09
Horiki et al (2004)	0 22	0 00		0.45	10.00- 0.041	0.0%	0.07
Mancini et.al (1999)	0 34	3 111	<del>-1</del>	0.45	[0.02; 8.91]	0.3%	0.59
Fixed effect model Random effects model	1290	1451	1	0.81	[0.58; 1.15] [0.58; 1.15]	22.9%	26.39
Heterogeneity: $l^2 = 0\%$ , $\tau^2 = 0$	, ρ = 0.91						
Fixed effect model	4207	5706		0.81	[0.68; 0.95]	100.0%	400
Random effects model				0.77	[0.62; 0.97]		100.09
Heterogeneity: $f = 29\%$ , $\tau^2 = 1$							

Study	Experir Events			Total	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Year = eual or after 2005					i				
Zeggini et.al (2005) (A)	97	553	75	342	4	0.76	[0.54; 1.06]	2.0%	2.2%
Zeggini et.al (2005) (A)	67	402	202	889	4		[0.50; 0.92]	2.5%	2.3%
Tripathi et.al (2013)	34	190	56	210	-1	0.60	[0.37; 0.97]	1.0%	1.6%
	64	534	68	594	1	1.05	[0.73; 1.51]	1.7%	2 1%
Lu et al (2011)	161	732	132	594	I		[0.75, 1.51]	3.4%	2.1%
Kommoju et.al (2014)				001	. [				4.070
Mirzaei et al (2009)	23	156 497	38	156	7		[0.30; 0.95]	0.7%	1.3%
Zhu et.al (2017)			78	782	. 1		[0.53; 1.18]		1.9%
Sokkar et al (2009)	3	24	17	30	1	0.11	[0.03; 0.45]	0.1%	0.3%
Wang et al (2013)	85	1145	218	2001	*	0.66	[0.50; 0.85]	3.4%	2.5%
Bener et.al (2015)	89	764	79	764	*		[0.83; 1.58]	2.2%	2.2%
Ye et.al (2014)	17	198	18	255	+		[0.62; 2.47]	0.5%	1.1%
Bouassida et.al (2005)	26	242	25	246	+		[0.60; 1.90]	0.7%	1.3%
Vergotine et.al (2014)	29	212	54	575	<del>  -</del>		[0.94; 2.47]	1.0%	1.6%
Moon et.al (2005)	46	677	30	281	*	0.61	[0.38; 0.99]	1.0%	1.6%
Badii et.al (2008)	39	400	49	450	+	0.88	[0.57; 1.38]	1.2%	1.8%
Motavallian et.al (2013)	76	100	88	100	-+1	0.43	[0.20; 0.92]	0.4%	0.9%
Phani et al (2015)	76	518	100	518			[0.52; 1.00]	2.2%	2.2%
Sanghera et.al (2009)	105	527	122	518	#		[0.60; 1.08]	2.6%	2.3%
Majid et.al (2016)	16	100	38	100			[0.16; 0.61]	0.5%	1.1%
Bouhaha et.al (2008)	14	84	28	261	-	1.66	[0.83; 3.33]	0.5%	1.1%
Saleh et.al (2016)	7	25	5	28	4.	1.79	[0.49; 6.58]	0.1%	0.4%
Paramasivam et.al (2016)	47	120	64	121			[0.34; 0.96]	0.1%	1.5%
Pattanayak et.al (2014)	33	200	42	200	1		[0.45; 1.23]	0.9%	1.6%
			100		T.				
Vimaleswaran et.al (2010)	180	1000	190 72	1000	T		[0.75; 1.17]	4.5%	2.6%
Meshkani et.al (2007)					-		[0.37; 0.91]		
Chistiakov et.al (2010)	187	588	244	597	7	0.67	[0.53; 0.86]	4.1%	2.6%
Ghoussaini et.al (2005)	117	628	72	318	#	0.78	[0.56; 1.09]	2.1%	2.2%
Mato et.al (2016)	0	60	0	60	1			0.0%	0.0%
Li et.al (2008) (A) (Uygur)	18	71	25	111	+	1.17	[0.58; 2.34]	0.5%	1.1%
Li et.al (2008) (B) (Kazak)	7	46	14	80	-	0.85	[0.31; 2.28]	0.2%	0.6%
Li et.al (2008) (C) (Han)	14	124	11	102	-	1.05	[0.46; 2.43]	0.3%	0.8%
Hansen et.al (2005)	352	1461	1273	4986	+	0.93	[0.81; 1.06]	12.5%	3.0%
Costa et.al (2009)	32	211	32	254	₩-		[0.73; 2.10]	0.8%	1.5%
Gragnoli et al (2007)	43	335	73	407			[0.45; 1.01]	1.4%	1.9%
Erdogan et al (2007)	1	91	4	50 -			[0.01; 1.18]	0.0%	0.1%
Tavares et.al (2005)	36	207	19	170			[0.92; 3.04]	0.6%	1.3%
Raza et.al (2012)	63	87	53	88	100000	1.73		0.6%	1.2%
Pei et.al (2013)	17	197	32	212		0.53	[0.92; 3.27]	0.6%	1.2%
	79	491	53	400				1.6%	2.0%
Mohamed et.al (2007)	6	101	18	128		1.26	[0.86; 1.83]	0.2%	0.7%
Namvaran et.al (2011)							[0.15; 1.01]		
Tariq et.al (2013)	81	373	45	200	Ť		[0.63; 1.44]	1.3%	1.9%
Avzaletdinova et.al (2016)	89	294	103	326	T		[0.67; 1.32]	2.0%	2.1%
Wang et al (2009)	53	395	52	391	T		[0.67; 1.52]	1.4%	1.9%
Lv et.al (2017)	317	647	244	650	1 *		[1.28; 1.99]	4.7%	2.6%
Fixed effect model		16091		20957	1		[0.84; 0.94]	71.5%	-
Random effects model Heterogeneity: $\hat{f} = 65\%$ , $\tau^2 = 0$	0.0691, p <	< 0.01				0.85	[0.77; 0.95]		70.6%
Year = before 2005									
Muller et.al (2003)	88	657	57	328	<del>-  </del>	0.74	[0.51; 1.06]	1.7%	2.1%
Oh et.al (2000)	4	58	10	111	-#-		[0.22; 2.50]	0.2%	0.5%
Memisoglu et.al (2003)	75	387	189	771	*		[0.55; 1.00]	2.5%	2.3%
Pinterova et.al (2004)	34	133	36	97			[0.33; 1.03]	0.7%	1.4%
Evans et.al (2001)	62	219	106	429	1		[0.83; 1.74]	1.7%	2.0%
Sramkova et.al (2002)	50	183	12	69		1.79	[0.88; 3.60]	0.5%	1.0%
Ringel et.al (1999)	131	503	83	310	1	0.96		2.2%	2.2%
	131	60	4	45			[0.70; 1.33]	0.1%	0.3%
Nemoto et.al (2002) (A)	4	91	9	45 54			[0.11; 2.54]	0.1%	0.3%
Nemoto et.al (2002) (B)					100		[0.07; 0.79]		
Malecki et.al (2003)	110	366	76	278			[0.81; 1.61]	1.9%	2.1%
Hegele et.al (2000)	37	179	55	332	#		[0.83; 2.09]	1.1%	1.7%
Meirhaeghe et.al (2000)	34	170	177	839	#		[0.62; 1.41]	1.4%	1.9%
Doney et.al (2004)	422	1997	283	1060	100	0.74	[0.62; 0.87]	7.6%	2.8%
Mori et.al (2001)	104	2201	98	1212	*	0.56	[0.42; 0.75]	2.8%	2.4%
Clement et.al (2000)	63	402	49	295	#		[0.62; 1.40]	1.4%	1.9%
Kao et.al (2003)	13	436	46	1005	<del>  </del> -		[0.34; 1.20]	0.6%	1.2%
Horiki et.al (2004)	22	227	50	278			[0.29; 0.84]	0.8%	1.5%
Mancini et.al (1999)	34	131	111	312		0.43	[0.40; 1.00]	1.1%	1.7%
	34	8400	111	7825	Į.			28.5%	1.770
Fixed effect model		0400		1020	9		[0.73; 0.87]	20.0%	20.4
Random effects model Heterogeneity: $\hat{f}$ = 55%, $\tau^2$ = 0	).0496, p <	< 0.01			Y	0.81	[0.70; 0.94]	-	29.4%
Fixed effect model		24491		28782	į.	0.86	[0.82; 0.90]	100.0%	_
Random effects model Heterogeneity: $\hat{f}$ = 63%, $\tau^2$ = 0						0.84	[0.77; 0.92]		100.0%

Study	Experin Events			Control Total	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
/ear = eual or after 2005									
Zeggini et.al (2005) (A)	2	553	7	342		0.17	[0.04: 0.84]	0.9%	1.7%
eggini et.al (2005) (B)	2	402	9	889	<del></del>	0.49	[0.11; 2.27]	0.9%	1.7%
ripathi et.al (2013)	1	190	8	210		0.13	[0.02: 1.08]	0.5%	1.1%
u et.al (2011)	0	534	1	594		0.37	[0.02; 9.11]	0.2%	0.5%
(commoju et.al (2014)	15	732	6	594	<del>} -</del>	2.05	[0.79; 5.32]	2.4%	3.1%
Airzaei et.al (2009)	2	156	2	156		1.00	[0.14; 7.19]	0.6%	1.2%
?hu et.al (2017)	0	497	2	782	<del></del>	0.31	[0.02; 6.55]	0.2%	0.6%
Sokkar et.al (2009)	1	24	10	30	<del></del>	0.09	[0.01; 0.74]	0.5%	1.0%
Vang et.al (2013)	4	1145	5	2001	<del>3</del>  *	1.40	[0.38: 5.22]	1.3%	2.1%
Bener et.al (2015)	11	764	7	764	<del>   * -</del>	1.58	[0.61; 4.10]	2.4%	3.1%
'e et.al (2014)	1	198	0	255		3.88	[0.16; 95.78]	0.2%	0.5%
Bouassida et.al (2005)	0	242	2	246	<del></del>	0.20	[0.01; 4.22]	0.2%	0.6%
/ergotine et.al (2014)	0	212	1	575	<del>- }-</del>	0.90	[0.04; 22.21]	0.2%	0.5%
Moon et.al (2005)	1	677	0	281		1.25	[0.05; 30.74]	0.2%	0.5%
Badii et.al (2008)	5	400	4	450		1.41	[0.38: 5.29]	1.2%	2.1%
Notavallian et.al (2013)	20	100	52	100	-	0.23	[0.12; 0.43]	5.5%	4.2%
Phani et.al (2015)	4	518	10	518	<del></del>	0.40	[0.12; 1.27]	1.6%	2.5%
Sanghera et.al (2009)	2	527	14	518		0.14	[0.03; 0.61]	1.0%	1.8%
Majid et.al (2016)	1	100	4	100		0.24	[0.03; 2.21]	0.4%	1.0%
Bouhaha et.al (2008)	1	84	2	261		1.56	[0.14: 17.43]	0.4%	0.9%
Saleh et.al (2016)	0	25	1	28		0.36	[0.01; 9.23]	0.2%	0.5%
Paramasivam et.al (2016)	8	120	18	121	- <del></del>	0.41	[0.17; 0.98]	2.9%	3.3%
Pattanayak et.al (2014)	3	200	5	200	<del></del>	0.59	[0.14; 2.52]	1.0%	1.9%
/imaleswaran et.al (2010)	4	1000	7	1000	<del>#</del> -	0.57	[0.17; 1.95]	1.4%	2.3%
Meshkani et.al (2007)	1	284	6	412		0.24	[0.03; 2.00]	0.5%	1.1%
Chistiakov et.al (2010)	20	588	36	597	<u>=</u>	0.55	[0.31; 0.96]	7.0%	4.5%
Shoussaini et.al (2005)	4	628	9	318		0.22	[0.07; 0.72]	1.6%	2.4%
Mato et.al (2016)	0	60	ő	60	(		,,	0.0%	0.0%
i et.al (2008) (A) (Uygur)	1	71	1	111		1.57	[0.10; 25.53]	0.3%	0.7%
i et.al (2008) (B) (Kazak)	Ö	46	Ó	80			[0]	0.0%	0.0%
i et.al (2008) (C) (Han)	1	124	0	102		2 49	[0.10; 61.78]	0.2%	0.5%
Hansen et.al (2005)	29	1461	110	4986	#	0.90	[0.59; 1.36]	12.8%	5.0%
Costa et.al (2009)	0	211	0	254	Ī	0.00	[0.00, 1.00]	0.0%	0.0%
Gragnoli et.al (2007)	1	335	3	407		0.40	[0.04; 3.89]	0.4%	0.9%
Erdogan et.al (2007)	ó	91	ō	50		0.10	[0.01, 0.00]	0.0%	0.0%
Tavares et.al (2005)	1	207	1	170		0.82	[0.05; 13.21]	0.3%	0.7%
Raza et.al (2012)	24	87	35	88		0.58	[0.03, 10.21]	5.4%	4.2%
Pei et.al (2013)	-0	197	0	212	+	0.50	[0.51, 1.05]	0.0%	0.0%
Mohamed et.al (2007)	2	491	0	400	- 1	4.09	[0.20; 85.46]	0.2%	0.6%
Vamvaran et.al (2011)	0	101	0	128		4.03	[0.20, 03.40]	0.2%	0.0%
Tarig et.al (2013)	8	373	2	200	3	2 17	[0.46; 10.32]	0.0%	1.7%
vzaletdinova et.al (2016)	11	294	6	326	4	2.07	[0.76; 5.68]	2.1%	2.9%
Vang et.al (2009)	5	395	4	391		124	[0.70, 0.00]	1.2%	2.1%
v et.al (2017)	55	647	24	650	1 <del>-</del>	2.42	[1.48; 3.97]	9.0%	4.7%
ixed effect model		16091		20957	a -	0.77	[0.64; 0.92]	68.4%	7.1 /0
Random effects model leterogeneity: $\hat{f} = 55\%$ , $\tau^2 = 0$ .	.4119, <i>p</i> <	0.01			*	0.68	[0.49; 0.94]	-	70.7%
/ear = before 2005	4	657	4	328		0.50	IN 12: 2 NN	1 1%	2.0%
Muller et.al (2003) Oh et.al (2000)	1	58	0	111		0.00	[0.12; 2.00]	0.2%	0.5%
	3	387	12	771		0.49	[0.23, 145.07]	1.2%	2.2%
Memisoglu et.al (2003) Pinterova et.al (2004)	3	133	6	97		0.49	[0.14; 1.76]	1.4%	2.2%
	_	219	6		· L_	2.33			2.6%
Evans et al (2001)	7	183	1	429 69		0.75	[0.77; 7.01] [0.07; 8.42]	1.8%	0.9%
Gramkova et.al (2002)					31				
Ringel et.al (1999)	13 0	503 60	8	310 45		1.00	[0.41; 2.44]	2.7%	3.3%
Vernoto et.al (2002) (A)						0.40	ID 04: 4 073		
Vemoto et.al (2002) (B)	0	91	1	54		0.19	[0.01; 4.87]	0.2%	0.5%
Malecki et.al (2003)	11	366	10	278	<u> </u>	0.83	[0.35; 1.98]	2.9%	3.3%
legele et.al (2000)	1	179	1	332		1.86	[0.12; 29.91]	0.3%	0.7%
Meirhaeghe et.al (2000)	0	170	13	839	- 1	0.18	[0.01; 3.03]	0.3%	0.6%
Doney et al (2004)	23	1997	20	1060		0.61	[0.33; 1.11]	6.0%	4.3%
Mori et.al (2001)	1	2201	2	1212		0.28	[0.02; 3.04]	0.4%	0.9%
Clement et.al (2000)	60	402	47	295	莊	0.93	[0.61; 1.40]	12.7%	5.0%
(ao et.al (2003)	0	436	0	1005				0.0%	0.0%
Horiki et.al (2004)	0	227	0	278		001	10.00, 0.50	0.0%	0.0%
Mancini et.al (1999)	0	131	3	312		0.34	[0.02; 6.56]	0.2%	0.6%
ixed effect model		8400		7825	I	0.80	[0.62; 1.04]	31.6%	
Random effects model leterogeneity: $\hat{f} = 0\%$ , $\tau^2 = 0$ , j	p = 0.59					0.80	[0.62; 1.04]		29.3%
ixed effect model Random effects model		24491		28782	<b>*</b>	0.78 0.71	[0.67; 0.90] [0.56; 0.90]	100.0%	100.0%



**Figure S4**. Subgroup analysis according to publication year. "A" represents allele (G vs. C); "B" represents homozygote (GG vs. CC); "C" represents heterozygote (CG vs. CC); "D" represents additive (GG vs. CG); "E" represents dominant (CG/GG vs. CC); "F" represents recessive (GG vs. CC/CG); "G" co-dominant model (CG vs. CC+GG). Vertical and horizontal lines represent ORs and the corresponding 95% CIs of each study. 95% CI = 95% confidence interval, OR = odds ratio.