

# Supplementary Materials: The Pharmacogenetics of Treatment with Quetiapine

María Ortega-Ruiz, Paula Soria-Chacartegui, Gonzalo Villapalos-García, Francisco Abad-Santos and Pablo Zubiaur

**Table S1.** List of screened publications, ordered by year of publication.

Publications Supporting Annotations	Year	doi
<b>Campbell et al.</b>	<b>2008</b>	<b>10.1016/j.biopsych.2007.04.018</b>
<i>Tiwari et al.</i>	<i>2010</i>	<i>10.1038/npp.2009.235</i>
<b>Monteleone et al.</b>	<b>2010</b>	<b>10.1097/JCP.0b013e3181e742c5</b>
<i>Opgen-Rhein et al.</i>	<i>2010</i>	<i>10.2217/pgs.10.50</i>
<b>Malhotra et al.</b>	<b>2012</b>	<b>10.1001/archgenpsychiatry.2012.191</b>
<b>Crisafulli et al.</b>	<b>2012</b>	<b>10.1007/s00406-011-0278-3</b>
<i>Liu et al.</i>	<i>2012</i>	<i>10.2217/pgs.12.105</i>
<b>Czerwensky et al.</b>	<b>2013</b>	<b>10.1017/S1461145713000849</b>
<i>Nurmi et al.</i>	<i>2013</i>	<i>10.1038/tp.2013.26</i>
<b>Clark et al.</b>	<b>2013</b>	<b>10.1097/FPC.0b013e32835ca260</b>
<b>López-Rodríguez et al.</b>	<b>2013</b>	<b>10.2217/pgs.13.106</b>
<b>Kim et al.</b>	<b>2014</b>	<b>10.1097/FPC.0000000000000020</b>
<i>Drago Antonio et al.</i>	<i>2014</i>	<i>10.1097/FPC.0000000000000052</i>
<b>van der Weide et al.</b>	<b>2014</b>	<b>10.1097/JCP.0000000000000070</b>
<b>Cabaleiro et al.</b>	<b>2015</b>	<b>10.1097/YIC.0000000000000047</b>
<b>Xu et al.</b>	<b>2016</b>	<b>10.1038/tpj.2015.61</b>
<b>Porcelli Stefano et al.</b>	<b>2016</b>	<b>10.1159/000445295</b>
<b>Delacretaz et al.</b>	<b>2017</b>	<b>10.1016/j.gene.2017.07.005</b>
<i>Puangpetch et al.</i>	<i>2018</i>	<i>10.1111/jphp.12892</i>
<b>Saiz-Rodríguez et al.</b>	<b>2020</b>	<b>10.3390/biomedicines8040094</b>
<i>Xu et al.</i>	<i>2020</i>	<i>10.3389/fphar.2020.00007</i>
<b>Zubiaur et al.</b>	<b>2021</b>	<b>10.3390/pharmaceutics13101573</b>

In bold, the included publications; in italics, the excluded publications.

**Table S2.** List of screened annotations ordered by gene.

Gene	Year	Paper	Annotation
CNR1 rs1049353	2013	10.1038/tp.2013.26	Allele C is associated with increased risk of weight gain when exposed to risperidone in children with Autism Spectrum Disorder as compared to allele T.
	2010	10.1038/npp.2009.235	Genotype CC is associated with decreased likelihood of weight gain when treated with clozapine or olanzapine in people with Schizophrenia as compared to genotype CT.
	2010	10.1097/JCP.0b013e3181e742c5	Allele T is not associated with increased likelihood of Weight gain when treated with aripiprazole, clozapine, haloperidol, olanzapine, quetiapine or risperidone in people with Psychotic Disorders as compared to allele C.
COMT	2016	10.1038/tpj.2015.61	rs5993883 T is associated with decreased response to quetiapine in people with Schizophrenia as compared to allele G
	2016	10.1038/tpj.2015.61	rs4818 C allele is associated with decreased response to quetiapine in people with Schizophrenia as compared to allele G.
	2016	10.1038/tpj.2015.61	rs6269 A is associated with decreased response to quetiapine in people with Schizophrenia as compared to allele G.
CYP3A4	2014	10.1097/JCP.0000000000000070	CYP3A4 *1/*22 + *22/*22 is associated with increased concentrations of quetiapine in people with Psychotic Disorders as compared to CYP3A4 *1/*1.
	2020	10.3390/biomedicines8040094	CYP3A4 *3 + *20 + *22 are associated with increased exposure to fentanyl, imatinib or quetiapine in healthy individuals as compared to CYP3A4 *1.
CYP3A5	2014	10.1097/FPC.0000000000000020	rs776746 CC genotype is associated with decreased metabolism of quetiapine in healthy individuals as compared to genotypes CT + TT.
DRD3 rs6280	2015	10.1097/YIC.0000000000000047	Genotype TT is associated with increased clearance of quetiapine in healthy individuals as compared to genotypes CC + CT.
EIF2AK4 rs2412459	2014	10.1097/FPC.0000000000000052	Genotype CT is associated with increased response to olanzapine, quetiapine, risperidone or ziprasidone in people with Schizophrenia as compared to genotype TT ( $p > 0.05$ )
EPM2A rs1415744	2016	10.1159/000445295	Allele C is associated with increased response to chlorpromazine, clozapine, haloperidol, olanzapine, quetiapine, risperidone or trifluoperazine in people with Schizophrenia as compared to allele T.
FAAH rs324420	2010	10.1097/JCP.0b013e3181e742c5	Allele A is associated with increased likelihood of Weight gain when treated with aripiprazole, clozapine, haloperidol, olanzapine, quetiapine or risperidone in people with Psychotic Disorders as compared to allele C.
	2013	10.1038/tp.2013.26	Allele A is not associated with risk of Weight gain when exposed to risperidone in children with Autism Spectrum Disorder as compared to allele C
GRIN2B rs1806201	2013	10.2217/pgs.13.106	Genotype AA is associated with increased likelihood of sleepiness when treated with quetiapine in healthy individuals as compared to genotypes AG + GG.
	2013	10.2217/pgs.13.106	Genotype AA is associated with increased neurological adverse reactions when treated with quetiapine in healthy individuals as compared to genotypes AG + GG
HTR1A	2012	10.1007/s00406-011-0278-3	Genotype TT is associated with increased response to amisulpride, antipsychotics, olanzapine, quetiapine or risperidone in people with Schizophrenia as compared to genotypes CC + CT
MC4R	2013	10.1017/S1461145713000849	rs17782313 genotype CC is associated with increased risk of Weight gain when exposed to amisulpride, clozapine, olanzapine, paliperidone, quetiapine or risperidone as compared to genotypes CT + TT.

	2012	10.1001/archgenpsychiatry.2012.191	rs489693 genotype is associated with increased likelihood of Hypertriglyceridemia and Weight gain when exposed to amisulpride, aripiprazole, clozapine, haloperidol, quetiapine, risperidone or ziprasidone in people with schizoaffective disorder and Schizophrenia as compared to genotypes AC + CC.
	2013	10.1017/S1461145713000849	rs489693 genotype AA is associated with increased risk of Weight gain when exposed to amisulpride, clozapine, olanzapine, paliperidone, quetiapine or risperidone as compared to genotypes AC + CC.
<i>MIR582;</i> <i>PDE4D</i> rs17742120	2013	10.1097/FPC.0b013e32835ca260	rs17742120 allele G is associated with increased response to quetiapine in people with Schizophrenia as compared to allele A.
<i>PDE4D</i>	2013	10.1097/FPC.0b013e32835ca260	rs2164660 allele A is associated with increased response to quetiapine in people with Schizophrenia as compared to allele G
<i>PDE4D</i>	2013	10.1097/FPC.0b013e32835ca260	rs17382202 allele T is associated with increased response to quetiapine in people with Schizophrenia as compared to allele C.
<i>RABEP1</i>	2017	10.1016/j.gene.2017.07.005	Genotypes AG + GG is associated with decreased concentrations of glucose in people with Bipolar Disorder, Depressive Disorder, Psychotic Disorders and schizoaffective disorder as compared to genotype AA
<i>RGS4</i> rs951439	2008	10.1016/j.biopsych.2007.04.018	Genotype CC is associated with increased likelihood of positive response when treated with olanzapine and perphenazine in people with Schizophrenia as compared to genotypes CT + TT.
	2008	10.1016/j.biopsych.2007.04.018	Genotype CT is associated with increased likelihood of response when treated with olanzapine in people with Schizophrenia
	2008	10.1016/j.biopsych.2007.04.018	Genotype TT is associated with increased response to quetiapine and ziprasidone in people with Schizophrenia as compared to genotype CC
<i>SH2B1</i> rs3888190	2017	10.1016/j.gene.2017.07.005	Genotype CC is associated with increased concentrations of low density lipoprotein in people with Bipolar Disorder, Depressive Disorder, Psychotic Disorders or schizoaffective disorder as compared to genotypes AA + AC.in patients who were administered amisulpride, aripiprazole, clozapine, olanzapine, quetiapine, paliperidone, risperidone, lithium, or valproate and or/and mirtazapine
rs7912580	2013	10.1097/FPC.0b013e32835ca260	Genotype AG is associated with increased response to olanzapine, quetiapine, risperidone or ziprasidone in people with Schizophrenia as compared to genotype GG.