

Supplementary Table 1. Regions of interest (ROIs) with enriched association in the RLS symptom group vs. non-RLS group analysis

	Chromosome	Position	SNP ID	Allele	Allele	Minor allele frequency	Odd ratio	Confidence	p-value	Permutated	Gene	
				1	2			interval		P		
ROI1	chr6	144879811	rs9403563	A	G	0.4232	0.6309	0.52-0.77	3.67E-06	1.00E-06	UTRN	
	chr6	144893377	rs9390170	C	G	0.4631	0.6778	0.57-0.8	7.67E-06	5.00E-06	UTRN	
	chr6	144893683	rs9399478	G	T	0.1992	0.6828	0.54-0.86	0.0009435	0.000864	UTRN	
	chr6	144903639	rs10499231	A	G	0.1227	0.5731	0.42-0.77	0.0002745	0.0002374	UTRN	
	chr6	144904691	rs2876586	A	G	0.1065	0.5648	0.41-0.78	0.0006211	0.0006632	UTRN	
	chr6	144908398	rs7770106	C	T	0.1065	0.5648	0.41-0.78	0.0006211	0.0006632	UTRN	
	chr6	144908460	rs7749805	A	C	0.1065	0.5648	0.41-0.78	0.0006211	0.0006632	UTRN	
	chr6	144911478	rs1534443	A	G	0.3565	0.6403	0.52-0.79	2.48E-05	2.77E-05	UTRN	
	chr6	144911733	rs1534442	C	T	0.3618	0.6484	0.53-0.8	5.17E-05	4.95E-05	UTRN	
	chr6	144911975	rs3812247	A	G	0.2619	0.6303	0.5-0.8	0.0001139	0.0001369	UTRN	
	chr6	144915067	rs3812246	A	G	0.1064	0.5665	0.41-0.79	0.0006617	0.0007188	UTRN	
	chr6	144920030	rs2293536	G	T	0.4607	0.6845	0.58-0.81	1.21E-05	8.00E-06	UTRN	
	chr6	144922241	rs9373415	A	G	0.4165	0.6489	0.53-0.79	2.98E-05	2.30E-05	UTRN	
	chr6	144943208	rs6906465	A	G	0.4034	0.6761	0.57-0.81	1.66E-05	1.30E-05	UTRN	
	chr6	144950770	rs1918752	A	T	0.4475	0.6582	0.55-0.78	1.93E-06	2.00E-06	UTRN	
	chr6	144989290	rs12209027	C	T	0.4565	0.7142	0.6-0.85	0.0001088	7.50E-05	UTRN	
	chr6	144992509	rs4895646	A	G	0.4539	0.6966	0.59-0.83	2.86E-05	2.59E-05	UTRN	
	chr6	144994184	rs11155364	A	C	0.4539	0.6966	0.59-0.83	2.86E-05	2.59E-05	UTRN	
	chr6	144994627	rs2056744	G	T	0.4514	0.7009	0.59-0.83	3.24E-05	3.05E-05	UTRN	
	chr6	145000503	rs17073995	C	T	0.4568	0.7033	0.59-0.83	4.18E-05	3.71E-05	UTRN	
	chr6	145009257	rs9390184	G	T	0.4633	0.7033	0.59-0.83	3.79E-05	3.44E-05	UTRN	
	chr6	145009566	rs2056745	C	G	0.3944	0.7141	0.6-0.85	0.0001371	0.0001678	UTRN	
	chr6	145020197	rs6570639	C	G	0.4018	0.6842	0.57-0.82	2.26E-05	1.60E-05	UTRN	
	chr6	145024019	rs4896735	A	G	0.1127	0.5902	0.43-0.81	0.0008741	0.0008836	UTRN	
	chr6	145024814	rs9376835	A	G	0.4686	0.7038	0.6-0.83	4.12E-05	3.81E-05	UTRN	
	chr6	145037209	rs9399486	A	G	0.4621	0.6986	0.59-0.83	3.18E-05	4.05E-05	UTRN	
	chr6	145039781	rs9386076	A	G	0.3946	0.71	0.6-0.84	0.0001087	8.67E-05	UTRN	
	chr6	145041456	rs9376837	A	C	0.4652	0.6995	0.59-0.83	3.20E-05	2.51E-05	UTRN	
	chr6	145043580	rs11155370	C	T	0.4652	0.6995	0.59-0.83	3.20E-05	2.51E-05	UTRN	
	chr6	145044469	rs9399489	A	T	0.3976	0.7081	0.59-0.84	0.0001104	7.98E-05	UTRN	
	ROI2	chr16	80725520	rs9940865	A	G	0.2355	1.456	1.21-1.75	6.03E-05	6.47E-05	
		chr16	80725735	rs11647519	G	T	0.237	1.469	1.22-1.76	3.71E-05	3.01E-05	
		chr16	80726330	rs17804602	C	T	0.236	1.456	1.21-1.75	6.22E-05	7.42E-05	
		chr16	80727986	rs16956483	A	T	0.2362	1.462	1.22-1.76	4.96E-05	3.82E-05	
		chr16	80728018	rs13330853	C	T	0.2362	1.461	1.22-1.76	5.41E-05	4.83E-05	
chr16		80728084	rs4530129	C	T	0.2319	1.457	1.21-1.75	6.51E-05	8.60E-05		
chr16		80728189	rs2098749	A	G	0.2346	1.469	1.22-1.76	4.04E-05	3.16E-05		
chr16		80728226	rs2081257	C	G	0.2354	1.458	1.21-1.75	5.76E-05	7.00E-05		
chr16		80728273	rs2081256	A	G	0.2343	1.473	1.23-1.77	3.55E-05	3.16E-05		
chr16		80728868	rs11150443	C	T	0.2286	1.495	1.25-1.79	1.54E-05	1.10E-05		
chr16		80729192	rs12444846	C	G	0.2294	1.466	1.22-1.76	5.27E-05	5.73E-05		
chr16		80739083	rs12448672	A	G	0.3066	1.508	1.27-1.79	2.92E-06	2.00E-06		
chr16		80739299	rs1056690	A	T	0.3068	1.516	1.28-1.8	2.05E-06	1.00E-06	MPHOSPH6	
chr16		80739512	rs1056654	A	G	0.3053	1.523	1.28-1.81	1.55E-06	1.00E-06	MPHOSPH6	
chr16		80739605	rs1056629	C	T	0.2957	1.475	1.24-1.76	1.62E-05	1.50E-05	MPHOSPH6	
chr16		80739855	rs3751865	A	G	0.3066	1.518	1.28-1.8	1.99E-06	1.00E-06	MPHOSPH6	
chr16		80742474	rs2303268	A	G	0.3079	1.512	1.27-1.8	2.62E-06	2.00E-06	MPHOSPH6	
chr16		80743622	rs16956576	C	T	0.3234	1.52	1.28-1.81	2.12E-06	2.00E-06	MPHOSPH6	
chr16		80744073	rs11645604	A	G	0.3065	1.531	1.29-1.82	1.18E-06	1.00E-06	MPHOSPH6	
chr16		80744730	rs11643324	C	T	0.3222	1.513	1.28-1.79	1.95E-06	2.00E-06	MPHOSPH6	
chr16		80744812	rs3829542	G	T	0.3216	1.513	1.28-1.79	1.95E-06	2.00E-06	MPHOSPH6	
chr16		80745674	rs7202019	A	C	0.3229	1.507	1.27-1.79	2.65E-06	2.00E-06	MPHOSPH6	
chr16		80750997	rs11647563	C	T	0.2689	1.483	1.24-1.77	1.28E-05	1.40E-05	MPHOSPH6	
chr16		80759877	rs10514533	C	G	0.3224	1.516	1.28-1.8	1.72E-06	2.00E-06	MPHOSPH6	
chr16		80760775	rs2911428	C	G	0.216	1.514	1.2-1.91	0.0004876	0.000536	MPHOSPH6	
chr16		80763959	rs2967370	A	G	0.4539	0.7483	0.63-0.88	0.0007063	0.0004435		
chr16		80763987	rs3829552	A	C	0.4102	1.485	1.26-1.75	2.51E-06	2.00E-06		
chr16		80765783	rs1862820	C	G	0.4548	0.7566	0.64-0.89	0.001043	0.0007965		
chr16		80765856	rs2911391	C	G	0.4568	0.751	0.64-0.89	0.000785	0.0005819		
chr16		80770812	rs2967379	A	G	0.4533	0.7526	0.64-0.89	0.0009448	0.0007973		
chr16		80771018	rs2967381	A	T	0.4524	0.7497	0.63-0.89	0.0008177	0.0005308		
chr16		80774017	rs918759	A	C	0.4385	0.7745	0.65-0.92	0.003811	0.003972		
chr16		80774123	rs918760	G	T	0.4603	0.732	0.62-0.87	0.0003449	0.0003246		
chr16		80780986	rs1424153	A	C	0.3994	1.412	1.2-1.66	3.75E-05	3.64E-05		
chr16		80783067	rs1862819	A	T	0.3765	0.6901	0.58-0.82	3.66E-05	3.69E-05		
chr16	80787893	rs2967391	G	T	0.4158	1.322	1.12-1.56	0.000918	0.0008997			
chr16	80792804	rs2967399	A	C	0.3961	1.388	1.17-1.65	0.0001962	0.0001884			
chr16	80804121	rs12446685	C	T	0.3916	1.335	1.13-1.58	0.0008729	0.0009295			

SNP: single-nucleotide polymorphism, RLS: restless legs syndrome