

# SNPStats results

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## Descriptive statistics

**Response variable:** **status** **Type:** categorical

	n	missing	unique
All subjects	383	0	2
status=0-control	220 (57.44%)	---	---
status=1-cese	163 (42.56%)	---	---

**Covariate:** **age** **Type:** quantitative

	n	missing	unique	mean	.05	.10	.25	.50	.75	.90	.95
All subjects	383	0	64	52.08	26	30.2	41	53	63	70.8	75
status = 0-control	220	0	59	48.15	26	29	38	48	57.25	68	71.05
status = 1-cese	163	0	52	57.39	28.1	38.2	50.5	60	67	74	75.9

lowest: 18, 19, 20, 22, 23 highest: 79, 80, 81, 82, 84

**Covariate:** **gender** **Type:** categorical

	n	missing	unique
All subjects	383	0	2
status=0-control	220	0	2
status=1-cese	163	0	2

	Female	Male
All subjects	226 (59%)	157 (41%)
status=0-control	127 (58%)	93 (42%)
status=1-cese	99 (61%)	64 (39%)

## Single-SNP analysis

**SNP:** **rs4256**

**Percentage of typed samples:** 383/383 (100%)

rs4256 allele frequencies (n=383)						
	All subjects		status=0-control		status=1-cese	
Allele	Count	Proportion	Count	Proportion	Count	Proportion
A	462	0.6	264	0.6	198	0.61
C	304	0.4	176	0.4	128	0.39

rs4256 genotype frequencies (n=383)						
	All subjects		status=0-control		status=1-cese	
Genotype	Count	Proportion	Count	Proportion	Count	Proportion
A/A	135	0.35	75	0.34	60	0.37
A/C	192	0.5	114	0.52	78	0.48
C/C	56	0.15	31	0.14	25	0.15

rs4256 exact test for Hardy-Weinberg equilibrium (n=383)						
	N11	N12	N22	N1	N2	P-value
All subjects	135	192	56	462	304	0.39
status=0-control	75	114	31	264	176	0.26
status=1-cese	60	78	25	198	128	1

rs4256 association with response status (n=383, adjusted by age+gender)						
Model	Genotype	status=0-control	status=1-cese	OR (95% CI)	P-value	AIC BIC
Codominant	A/A	75 (34.1%)	60 (36.8%)	1.00		
	C/A	114 (51.8%)	78 (47.9%)	0.87 (0.55-1.39)	0.53	492.6 512.3
	C/C	31 (14.1%)	25 (15.3%)	1.25 (0.64-2.46)		
Dominant	A/A	75 (34.1%)	60 (36.8%)	1.00		
	C/A-C/C	145 (65.9%)	103 (63.2%)	0.94 (0.60-1.47)	0.8	491.7 507.5
Recessive	A/A-C/A	189 (85.9%)	138 (84.7%)	1.00		
	C/C	31 (14.1%)	25 (15.3%)	1.36 (0.73-2.52)	0.33	490.9 506.7
Overdominant	A/A-C/C	106 (48.2%)	85 (52.1%)	1.00		
	C/A	114 (51.8%)	78 (47.9%)	0.82 (0.54-1.26)	0.36	491 506.8
Log-additive	---	---	---	1.05 (0.76-1.45)	0.75	491.7 507.5

### SNP: rs0519

Percentage of typed samples: 383/383 (100%)

rs0519 allele frequencies (n=383)						
	All subjects	status=0-control	status=1-cese			
Allele	Count	Proportion	Count	Proportion	Count	Proportion
G	507	0.66	291	0.66	216	0.66
A	259	0.34	149	0.34	110	0.34

rs0519 genotype frequencies (n=383)						
	All subjects	status=0-control	status=1-cese			
Genotype	Count	Proportion	Count	Proportion	Count	Proportion
A/A	43	0.11	22	0.1	21	0.13
G/A	173	0.45	105	0.48	68	0.42
G/G	167	0.44	93	0.42	74	0.45

rs0519 exact test for Hardy-Weinberg equilibrium (n=383)						
	N11	N12	N22	N1	N2	P-value
All subjects	167	173	43	507	259	0.91
status=0-control	93	105	22	291	149	0.37
status=1-cese	74	68	21	216	110	0.38

rs0519 association with response status (n=383, adjusted by age+gender)						
Model	Genotype	status=0-control	status=1-cese	OR (95% CI)	P-value	AIC BIC
Codominant	G/G	93 (42.3%)	74 (45.4%)	1.00		
	A/G	105 (47.7%)	68 (41.7%)	0.82 (0.52-1.30)	0.32	491.5 511.3
	A/A	22 (10%)	21 (12.9%)	1.41 (0.69-2.90)		
Dominant	G/G	93 (42.3%)	74 (45.4%)	1.00		
	A/G-A/A	127 (57.7%)	89 (54.6%)	0.92 (0.60-1.41)	0.69	491.7 507.4
Recessive	G/G-A/G	198 (90%)	142 (87.1%)	1.00		
	A/A	22 (10%)	21 (12.9%)	1.55 (0.78-3.08)	0.21	490.2 506
Overdominant	G/G-A/A	115 (52.3%)	95 (58.3%)	1.00		
	A/G	105 (47.7%)	68 (41.7%)	0.77 (0.50-1.18)	0.23	490.4 506.2
Log-additive	---	---	---	1.05 (0.76-1.45)	0.77	491.7 507.5

### SNP: rs0270

Percentage of typed samples: 383/383 (100%)

rs0270 allele frequencies (n=383)						
	All subjects		status=0-control		status=1-cese	
Allele	Count	Proportion	Count	Proportion	Count	Proportion
A	439	0.57	251	0.57	188	0.58
G	327	0.43	189	0.43	138	0.42

rs0270 genotype frequencies (n=383)						
	All subjects		status=0-control		status=1-cese	
Genotype	Count	Proportion	Count	Proportion	Count	Proportion
A/A	121	0.32	68	0.31	53	0.33
A/G	197	0.51	115	0.52	82	0.5
G/G	65	0.17	37	0.17	28	0.17

rs0270 exact test for Hardy-Weinberg equilibrium (n=383)						
	N11	N12	N22	N1	N2	P-value
All subjects	121	197	65	439	327	0.35
status=0-control	68	115	37	251	189	0.41
status=1-cese	53	82	28	188	138	0.75

Model	Genotype		status=0-control	status=1-cese	OR (95% CI)	P-value	AIC	BIC
	status=0-control	status=1-cese						
Codominant	A/A	68 (30.9%)	53 (32.5%)	1.00				
	G/A	115 (52.3%)	82 (50.3%)	0.92 (0.57-1.49)	0.7	493.1	512.8	
	G/G	37 (16.8%)	28 (17.2%)	1.20 (0.62-2.29)				
Dominant	A/A	68 (30.9%)	53 (32.5%)	1.00				
	G/A-G/G	152 (69.1%)	110 (67.5%)	0.98 (0.62-1.55)		0.94	491.8	507.6
Recessive	A/A-G/A	183 (83.2%)	135 (82.8%)	1.00				
	G/G	37 (16.8%)	28 (17.2%)	1.26 (0.70-2.24)		0.44	491.2	507
Overdominant	A/A-G/G	105 (47.7%)	81 (49.7%)	1.00				
	G/A	115 (52.3%)	82 (50.3%)	0.87 (0.57-1.33)		0.52	491.4	507.2
Log-additive	---	---	---	1.06 (0.77-1.46)	0.72	491.7	507.5	

## Multiple-SNP analysis

### Linkage disequilibrium analysis

#### D statistic

rs4256	rs0519	rs0270
rs4256	.	0.2025 0.2274
rs0519	.	. 0.1923
rs0270	.	.

#### D' statistic

rs4256	rs0519	rs0270
rs4256	.	0.9931 0.9997
rs0519	.	. 0.9925
rs0270	.	.

#### r statistic

rs4256	rs0519	rs0270
rs4256	.	0.8751 0.9396
rs0519	.	. 0.822
rs0270	.	.

#### P-values

rs4256	rs0519	rs0270
rs4256	.	0 0
rs0519	.	0
rs0270	.	.

## Haplotype analysis

Haplotype frequencies estimation (n=383)							
	rs4256	rs0519	rs0270	Total	group.0.control	group.1.cese	Cumulative frequency
1	A	G	A	0.5717	0.5705	0.5734	0.5717
2	C	A	G	0.3367	0.3386	0.3342	0.9084
3	C	G	G	0.0601	0.0614	0.0585	0.9686
4	A	G	G	0.03	0.0295	0.0307	0.9986
5	A	A	A	0.0014	NA	0.0033	1

Haplotype association with response (n=383, adjusted by age+gender)							
	rs4256	rs0519	rs0270	Freq	OR (95% CI)	P-value	
1	A	G	A	0.5717	1.00	---	
2	C	A	G	0.3367	1.04 (0.74 - 1.46)	0.81	
3	C	G	G	0.0601	1.13 (0.57 - 2.24)	0.72	
4	A	G	G	0.03	1.09 (0.47 - 2.55)	0.84	
rare	*	*	*	0.0014	<b>375936981.90 (375936981.75 - 375936982.04)</b>	<0.0001	

Global haplotype association p-value: 0.65

<<< Step 3: Customize analysis