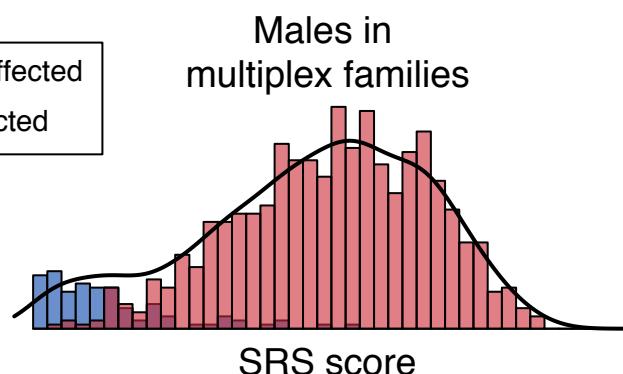
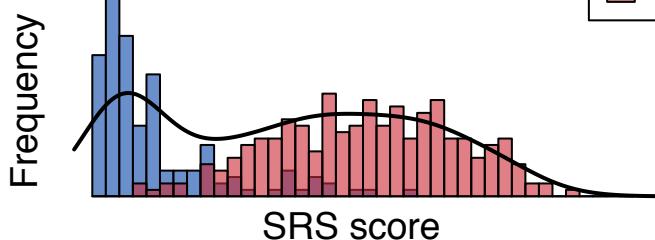


**A**

Females in multiplex families

Unaffected  
Affected

Males in multiplex families

**B**

Frequency

Protective effect  
No protective effect

SRS score

SRS score

**Hypothesis:** Two copies of the protective allele  $P$  confers ASD protection and reduces ASD incidence by 10-fold; a  $P$  allele with a population frequency of 87%, and a non-protective  $p$  allele at 13%, results in a 4:1 male sex bias.

**C**

	$PP$	$Pp$	$pP$	$pp$	$P$	$p$
--	------	------	------	------	-----	-----

Sex	Female				Male	
Protective effect	Present	Absent			Absent	
Population genotype frequency	37.8%	5.7%	5.7%	0.8%	43.5%	6.5%
ASD incidence in genotype	0.16%	1.6%	1.6%	1.6%	1.6%	1.6%
ASD incidence in population	0.006%	0.09%	0.09%	0.01%	0.70%	0.10%
Total ASD incidence	1.00%					
Total ASD incidence by sex	0.20%				0.80%	
Sex ratio of ASD incidence	1.0				4.0	