

**ATTACHMENT 20**

**PLANS FOR TABULATION AND ANALYSIS AND PUBLICATION  
OF THE NESARC-III DATA**

Table 1. Tabulation Plans for the NESARC-III Data

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1. Prevalence of major outcome variables cross-classified by:  
(1) one another; and (2) demographic, socioeconomics, and environmental variables

Major Outcome Variables

- A. Alcohol consumption levels (e.g., quantity, frequency, duration, and volume) and drinking patterns (e.g., binge drinking and episodic drinking)
- B. Alcohol use disorders and their associated disabilities

2. Demographic and Socioeconomic Variables (Cross-Tabulation Variables)

- A. Age
  - B. Race-ethnicity
  - C. Sex
  - D. Marital status
  - E. Personal income
  - F. Household income
  - G. Education
  - H. Geographic region of residence
  - I. Population density of residence
  - J. Employment status
  - K. Occupation
  - L. Adverse childhood events
  - M. Stressfull life events
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**Table 2.** Weighted Allele Frequencies of Genetic Variants in the US Population by Race-Ethnicity

Gene Symbol	Gene Name [Chromosome Position]	Pathway	Variant	Nucleotide Position [Amino Acid Change]	Allele	Total US, %	Non-Hispanic White, %	Non-Hispanic Black, %	Mexican American	p value
ABCB1	ATP-binding cassette, subfamily B (MDR/TAP), member 1[7q21.1]	13	rs1045642		T (C)					
ACE	Angiotensin 1 converting enzyme (peptidyl-dipeptidase A) 1[17q23.3]	2, 12	rs4646994		ins(del)					
ADH1B	Alcohol dehydrogenase IB (class I), beta polypeptide [4q21-q23]	12, 13	rs1229984 rs17033 rs2066702		A(G) G(A) T(C)					
ADH1C	Alcohol dehydrogenase IC (class I), gamma polypeptide [4q21-q23]	12, 13	rs1693482 rs698		A(G) G(A)					
ADRB1	Adrenergic, beta-1- receptor [10q24-q26]	2, 3, 12	rs1801252		G(A)					
ADRB2	Adrenergic, beta-2- receptor, surface [5q311-q32]	2, 3, 12	rs1042713 rs1042714		A(G) G(C)					
ADRB3	Adrenergic, beta-3- receptor [8p12-p11.2]	12	rs4994		C(T)					
ALAD	Aminolevulinate, delta-dehydratase [9q33.1]	12, 13	rs1800435		C(G)					

**Table 3.** Results of Logistic Regression Analyses of Alcohol Dependence<sup>a</sup>

	European American		African American		Pooled	
	OR (95% CI)	P Value	OR (95% CI)	P Value	OR (95% CI)	P Value
Sex						
Age, y						
Ancestry proportion score						
Adult traumatic events						
Childhood adversity						
DRD2 genotype						
DRD2 × adult traumatic events						
DRD2 × childhood adversity						

Abbreviations: OR odds ratio; CI, confidence interval.

<sup>a</sup>Sex, age, adult traumatic events, and childhood adversity will be used as covariates in all the models. In addition, ancestry proportion scores will be included in the pooled model.

**Table 4.** Allele and Genotype Frequencies of CNR1 Markers in European Americans

Markers	Allele or Genotype	Control		DD&AD		DD		AD		Total SD	
		n	f	n	f	n	f	n	f	n	f
SNP1 rs1884830	C										
	G										
	CC										
	CG										
	GG										
SNP2 rs2180619	A										
	G										
	AA										
	AG										
	GG										
SNP3 rs6454674	T										
	G										
	TT										
	TG										
	GG										
SNP4 rs806379	A										
	T										
	AA										
	AT										
	TT										
SNP5 rs806377	T										
	C										
	TT										
	TC										
	CC										
SNP6 rs806371	T										
	G										
	TT										
	TG										
	GG										
SNP7 Rs1049353	A										
	G										
	AA										
	AG										
	GG										
SNP8 rs806368	T										
	C										
	TT										
	TC										
	CC										
SNP9 rs806365	T										
	C										
	TT										
	TC										
	CC										
SNP10 rs2146274	T										
	C										
	TT										
	TC										
	CC										

DD&AD, comorbid DD and AD; DD, drug dependence; AD, alcohol dependence; Total-SD, all the cases in the present study; n, number of chromosomes (for alleles) or individuals (for genotypes); f, frequency.

<sup>3</sup> $p \leq .05$ , <sup>4</sup> $p \leq .05$ , <sup>5</sup> $p \leq .007$ , (=  $\alpha$ ) for conventional case-control comparison.

<sup>4</sup> $p \leq .05$ , <sup>5</sup> $p \leq .05$ , <sup>6</sup> $p \leq .007$ , (=  $\alpha$ ) for structured association (SA) analysis using STRAT.

**Table 5.** Regression Analysis on the Association between SNP3 × SNP8 Interaction and Phenotypes in European Americans

Phenotype	Genotype Model						Mixed Model					
	Covariates	$\beta$	<i>p</i>	OR	95% CI for OR		Covariates	$\beta$	<i>p</i>	OR	95% CI for OR	
					Lower	Upper					Lower	Upper
DD&AD	Constant						Constant					
	Sex						Sex					
	Age						Age					
	SNP3 × SNP8						SNP3 × SNP8					
	SNP3 <sup>G/G</sup> × SNP8 <sup>T/T</sup>											
	SNP3 <sup>G/T</sup> × SNP8 <sup>T/T</sup>											
	SNP3 <sup>G/T</sup> × SNP8 <sup>T/C</sup>											
DD	SNP3 <sup>G/G</sup> × SNP8 <sup>T/C</sup>											
	Constant						Constant					
	Sex						Sex					
	Age						Age					
	SNP3 × SNP8						SNP3 × SNP8					
	SNP3 <sup>G/G</sup> × SNP8 <sup>T/T</sup>											
	SNP3 <sup>G/T</sup> × SNP8 <sup>T/T</sup>											
AD	SNP3 <sup>G/T</sup> × SNP8 <sup>T/C</sup>											
	SNP3 <sup>G/G</sup> × SNP8 <sup>T/C</sup>											
	Constant						Constant					
	Sex						Sex					
	Age						Age					
	SNP3						SNP3 × SNP8					
	SNP3 <sup>G/G</sup>											
Total SD	SNP3 <sup>G/T</sup>											
	SNP3 × SNP8											
	SNP3 <sup>G/G</sup> × SNP8 <sup>T/T</sup>											
	SNP3 <sup>G/T</sup> × SNP8 <sup>T/T</sup>											
	SNP3 <sup>G/T</sup> × SNP8 <sup>T/C</sup>											
	SNP3 <sup>G/G</sup> × SNP8 <sup>T/C</sup>											
	Constant						Constant					
Sex						Sex						
Age						Age						
SNP3 × SNP8						SNP3 × SNP8						

DD&AD, DD, AD and Total. Phenotypes, Covariates, Genotype model,  $\beta$ , OR, CI, and E - n. Mixed model, the genotypes of SNP3 and SNP8 are in an additive and recessive models respectively in the regression model, that is, SNP3<sup>T/T</sup> = 0, G/T = 1, G/G = 2, SNP8<sup>C/C</sup> = C/T = 0, and SNP8<sup>T/T</sup> = 1.