	Control	Disease		Control	Disease		Control	Disease
Active	23	29	Active	25	23	Active	30	25
Lethargic	18	30	Lethargic	21	31_	Lethargic	19	26
	Control	Disease		Control	Disease		Control	Disease
Active	25	21	Active	26	19	Active	28	24
Lethargic	21	33	Lethargic	22	33	Lethargic	23	25
	Control	Disease		Control	Disease		Control	Disease
Active	23	30	Active	33	22	Active	29	15
Lethargic	19	28	Lethargic	23	22	Lethargic	26	30
	Control	Disease		Control	Disease		Control	Disease
Active	23	29	Active	26	19	Active	24	27
Lethargic	20	28	Lethargic	21	34	Lethargic	16	33
	Control	Diagona		Control	Diagona		Control	Diggggg
A		Disease	A		Disease		Control	Disease
Active	25	26	Active	28	24	Active	30	25
Lethargic	23	26	Lethargic	20	28	Lethargic	16	29
	Control	Disease		Control	Disease		Control	Disease
Active	31	22	Active	31	22	Active	25	32
Lethargic	22	25	Lethargic	19	28	Lethargic	14	29
	Control	Disease		Control	Disease		Control	Disease
Active	31	20	Active	23	24	Active	21	27
Lethargic	18	31	Lethargic	17	36	Lethargic	17	35
	Control	Disease		Control	Disease		Control	Disease
Active	23	19	Active	26	20	Active	19	33
Lethargic	26	32	Lethargic	15	39	Lethargic	12	36
	Control	Disease		Control	Disease		Control	Disease
Active	27	24	Active	23	24	Active	27	22
Lethargic	19	30	Lethargic	$\frac{23}{24}$	29	Lethargic	21	30
	10		Demargie	24		Lethargie	21	- 30
	Control	Disease		Control	Disease		Control	Disease
Active	28	22	Active	17	20	Active	27	23
Lethargic	24	26	Lethargic	25	38_	Lethargic	23	27
	Control	Disease		Control	Disease		Control	Disease
Active	25	24	Active	27	23	Active	21	27
Lethargic			Lethargic			Lethargic	18	34
	23	28	Lethargic	13	37		10	01
			Lethargic					
	Control	Disease		Control	Disease		Control	Disease
Active Lethargic			Active Lethargic			Active Lethargic		
Active	Control 26 22	Disease 21 31	Active	Control 21 17	Disease 29 33	Active	Control 18 21	Disease 23 38
Active Lethargic	Control 26 22 Control	Disease 21 31 Disease	Active Lethargic	Control 21 17 Control	Disease 29 33 Disease	Active Lethargic	Control  Control	Disease  23 38  Disease
Active	Control 26 22	Disease 21 31	Active	Control 21 17	Disease 29 33	Active	Control 18 21	Disease  23 38  Disease
Active Lethargic	Control	Disease  21 31  Disease  27 35	Active Lethargic Active	Control 21 17 Control 26 14	Disease  29 33  Disease  29 31	Active Lethargic Active	Control 21 Control 33 22	Disease  23 38  Disease 26 19
Active Lethargic Active Lethargic	Control  Control  Control  Control  Control	Disease  21 31  Disease  27 35  Disease	Active Lethargic Active Lethargic	Control Control Control Control Control	Disease  29 33  Disease 29 31  Disease	Active Lethargic  Active Lethargic	Control  Control  Control  Control  Control	Disease  23 38  Disease 26 19  Disease
Active Lethargic	Control	Disease  21 31  Disease  27 35	Active Lethargic Active	Control 21 17 Control 26 14	Disease  29 33  Disease  29 31	Active Lethargic Active	Control 21 Control 33 22	Disease  23 38  Disease 26 19

## Random p-values under the Null Hypothesis

 $0.79\ 0.2\ 0.77\ 0.9\ 0.25\ 0.39\ 0.14\ 0.92\ 0.47\ 0.35\ 0.75\ 0.47\ 0.36\ 0.047\ 0.27\ 0.041\ 0.33\ 0.22\ 0.66\ 0.24$  $0.32\ 0.43\ 0.58\ 0.57\ 0.015\ 0.47\ 0.73\ 0.35\ 0.32\ 0.42\ 0.95\ 0.27\ 0.14\ 0.73\ 0.12\ 0.59\ 0.52\ 0.072\ 0.77\ 0.48$  $0.16\ 0.84\ 0.95\ 0.55\ 0.77\ 0.85\ 0.73\ 0.75\ 0.97\ 0.4\ 0.61\ 0.95\ 0.3\ 0.64\ 0.5\ 0.016\ 0.047\ 0.051\ 0.61\ 0.76$  $0.9\ 0.15\ 0.47\ 0.97\ 0.56\ 0.67\ 0.98\ 0.24\ 0.3\ 0.93\ 0.73\ 0.52\ 0.4\ 0.67\ 0.7\ 0.84\ 0.41\ 0.1\ 0.83\ 0.51$  $0.53\ 0.11\ 0.26\ 0.86\ 0.59\ 0.29\ 0.45\ 0.26\ 0.71\ 0.59\ 0.94\ 0.49\ 0.34\ 0.71\ 0.58\ 0.36\ 0.45\ 0.9\ 0.28\ 0.59$  $0.2\ 0.26\ 0.35\ 0.72\ 0.17\ 0.73\ 0.075\ 0.36\ 0.18\ 0.65\ 0.73\ 0.64\ 0.93\ 0.3\ 0.27\ 0.33\ 0.86\ 0.83\ 0.03\ 0.26$  $0.41\ 0.44\ 0.87\ 0.9\ 0.47\ 0.57\ 0.89\ 0.23\ 0.59\ 0.8\ 0.74\ 0.46\ 0.89\ 0.96\ 0.044\ 0.054\ 0.35\ 0.1\ 0.076\ 0.66$  $0.48\ 0.83\ 0.038\ 0.22\ 0.18\ 0.74\ 0.21\ 0.79\ 1\ 0.84\ 0.96\ 0.94\ 0.78\ 0.12\ 0.81\ 0.85\ 0.69\ 0.74\ 0.96\ 0.93$  $0.44\ 0.058\ 0.21\ 0.43\ 0.62\ 0.31\ 0.95\ 0.068\ 0.7\ 0.4\ 0.49\ 0.64\ 0.72\ 0.22\ 0.51\ 0.54\ 0.79\ 0.87\ 0.3\ 0.9$  $0.56\ 0.3\ 0.14\ 0.1\ 0.59\ 0.1\ 0.93\ 0.89\ 0.78\ 0.57\ 0.88\ 0.46\ 0.64\ 0.51\ 0.85\ 0.54\ 0.13\ 0.79\ 0.89\ 0.89$  $0.93\ 0.4\ 0.28\ 0.067\ 0.75\ 0.15\ 0.3\ 0.7\ 0.81\ 0.54\ 0.48\ 0.41\ 0.64\ 0.95\ 0.57\ 0.88\ 0.12\ 0.28\ 0.8\ 0.45$  $0.93\ 0.6\ 0.6\ 0.072\ 0.052\ 0.23\ 0.47\ 0.78\ 0.35\ 0.92\ 0.87\ 0.29\ 0.64\ 0.21\ 0.093\ 0.36\ 0.43\ 0.063\ 0.44\ 0.53$  $0.44\ 0.15\ 0.89\ 0.48\ 0.92\ 0.68\ 0.92\ 0.22\ 0.7\ 0.2\ 0.053\ 0.4\ 0.25\ 0.91\ 0.25\ 0.49\ 0.56\ 0.51\ 0.81\ 0.25$  $0.41\ 0.84\ 0.44\ 0.069\ 0.41\ 0.75\ 0.48\ 0.13\ 0.47\ 0.44\ 0.25\ 0.68\ 0.46\ 0.26\ 0.77\ 0.8\ 0.28\ 0.35\ 0.1\ 0.51$  $0.0022\ 0.81\ 0.93\ 0.011\ 0.19\ 0.32\ 0.62\ 0.92\ 0.62\ 0.43\ 0.7\ 0.52\ 0.34\ 0.61\ 0.23\ 0.084\ 0.12\ 0.79\ 0.04\ 0.55$  $0.7\ 0.91\ 0.21\ 0.79\ 0.36\ 0.71\ 0.33\ 0.77\ 0.56\ 0.58\ 0.72\ 0.21\ 0.004\ 0.47\ 0.72\ 0.79\ 1\ 0.36\ 0.17\ 0.24$  $0.32\ 0.69\ 0.48\ 0.48\ 0.24\ 0.89\ 0.34\ 0.68\ 0.89\ 0.82\ 0.52\ 0.94\ 0.67\ 0.58\ 0.42\ 1\ 0.89\ 0.37\ 0.41\ 0.69$  $0.39\ 0.3\ 0.4\ 0.31\ 0.044\ 0.92\ 0.94\ 0.16\ 0.07\ 0.2\ 0.72\ 0.18\ 0.74\ 0.53\ 0.31\ 0.27\ 0.97\ 0.52\ 0.96\ 0.99$  $0.6\ 0.81\ 0.42\ 0.96\ 0.18\ 0.48\ 0.43\ 0.33\ 0.032\ 0.39\ 0.77\ 0.52\ 0.86\ 0.99\ 0.25\ 0.75\ 0.2\ 0.3\ 0.91\ 0.029$  $0.18\ 0.87\ 0.61\ 0.19\ 0.24\ 0.33\ 0.13\ 0.69\ 0.45\ 0.29\ 0.5\ 0.92\ 0.17\ 0.74\ 0.89\ 0.65\ 0.49\ 0.95\ 0.16\ 0.77$  $0.72\ 0.9\ 0.39\ 0.65\ 0.84\ 0.03\ 0.36\ 0.42\ 0.46\ 0.67\ 0.4\ 0.57\ 0.021\ 0.84\ 0.83\ 0.25\ 0.99\ 0.84\ 0.72\ 0.89$  $0.32\ 0.61\ 0.24\ 0.095\ 0.0038\ 0.89\ 0.67\ 0.7\ 0.5\ 0.8\ 0.96\ 0.22\ 0.45\ 0.68\ 1\ 0.11\ 0.7\ 0.87\ 0.93\ 0.21$  $0.24\ 0.46\ 0.33\ 0.63\ 0.35\ 0.79\ 0.25\ 0.18\ 0.38\ 0.13\ 0.26\ 0.7\ 0.68\ 0.39\ 0.34\ 0.12\ 0.52\ 0.92\ 0.76\ 0.51$  $0.4\ 0.71\ 0.38\ 0.26\ 0.6\ 0.0088\ 0.34\ 0.73\ 0.75\ 0.21\ 0.53\ 0.4\ 0.93\ 0.97\ 0.79\ 0.44\ 0.63\ 0.22\ 0.84\ 0.15$  $0.43\ 0.77\ 1\ 0.28\ 0.93\ 0.45\ 0.69\ 0.77\ 0.53\ 0.91\ 1\ 0.67\ 0.48\ 0.95\ 0.55\ 0.27\ 0.46\ 0.14\ 0.52\ 0.53$  $0.91 \,\, 0.15 \,\, 0.9 \,\, 0.67 \,\, 0.78 \,\, 0.62 \,\, 0.65 \,\, 0.57 \,\, 0.44 \,\, 0.32 \,\, 0.69 \,\, 0.5 \,\, 0.58 \,\, 0.28 \,\, 0.77 \,\, 0.25 \,\, 0.08 \,\, 0.63 \,\, 0.35 \,\, 0.061$  $0.74\ 0.073\ 0.065\ 0.13\ 0.16\ 0.71\ 0.29\ 0.97\ 0.83\ 0.32\ 0.51\ 0.95\ 0.86\ 0.28\ 0.93\ 0.6\ 0.84\ 0.68\ 0.98\ 0.26$  $0.48\ 0.63\ 0.98\ 0.45\ 0.47\ 0.34\ 0.81\ 0.39\ 0.33\ 0.83\ 0.48\ 0.64\ 0.71\ 0.66\ 0.3\ 0.51\ 0.52\ 0.054\ 0.0067\ 0.42$  $0.63\ 0.48\ 0.48\ 0.7\ 0.32\ 0.49\ 0.99\ 0.12\ 0.37\ 0.54\ 0.91\ 0.44\ 0.16\ 0.78\ 0.22\ 0.61\ 0.87\ 0.23\ 0.21\ 0.8$  $0.56\ 0.94\ 0.99\ 0.84\ 0.24\ 0.4\ 0.93\ 0.76\ 0.41\ 0.96\ 0.76\ 0.34\ 0.059\ 0.62\ 0.66\ 0.59\ 0.085\ 0.55\ 0.43\ 0.29$ 

 $0.65\ 0.92\ 0.018\ 0.92\ 0.81\ 0.81\ 0.81\ 0.2\ 0.86\ 0.97\ 0.14\ 0.5\ 0.98\ 0.15\ 0.9\ 0.85\ 0.49\ 0.54\ 0.87\ 0.64\ 0.17$   $0.25\ 0.18\ 0.052\ 0.33\ 0.69\ 0.81\ 0.23\ 0.94\ 0.79\ 0.8\ 0.78\ 0.19\ 0.55\ 0.55\ 0.35\ 0.58\ 0.31\ 0.91\ 0.38\ 0.43$   $0.42\ 0.32\ 0.31\ 0.76\ 0.54\ 0.91\ 0.11\ 0.025\ 0.35\ 0.94\ 0.72\ 0.81\ 0.85\ 0.85\ 0.13\ 0.48\ 0.82\ 0.46\ 0.98\ 0.42$   $0.59\ 0.097\ 0.17\ 0.41\ 0.81\ 0.62\ 0.12\ 0.31\ 0.37\ 0.33\ 0.42\ 0.62\ 0.033\ 0.95\ 0.97\ 0.73\ 0.21\ 0.43\ 0.55\ 0.56$   $0.84\ 0.53\ 0.84\ 0.43\ 0.85\ 0.12\ 0.51\ 0.22\ 0.6\ 0.77\ 0.51\ 0.35\ 0.13\ 0.068\ 0.48\ 0.14\ 0.29\ 0.48\ 0.95\ 0.46$   $0.11\ 0.9\ 0.88\ 0.12\ 0.98\ 0.16\ 0.15\ 0.59\ 0.039\ 0.9\ 0.46\ 0.87\ 0.42\ 0.64\ 0.34\ 0.019\ 0.04\ 0.94\ 0.069\ 0.56$   $0.38\ 0.17\ 0.97\ 1\ 0.53\ 0.021\ 0.16\ 0.39\ 0.72\ 0.83\ 0.19\ 0.49\ 0.061\ 0.44\ 0.8\ 0.74\ 0.56\ 0.67\ 0.74\ 0.99$   $0.098\ 0.85\ 0.78\ 0.6\ 0.027\ 0.54\ 0.0049\ 0.084\ 0.63\ 0.67\ 0.55\ 0.7\ 0.81\ 0.11\ 0.92\ 0.58\ 0.81\ 0.24\ 0.5\ 0.38$   $0.53\ 1\ 0.79\ 0.26\ 0.16\ 0.15\ 0.47\ 0.81\ 0.66\ 0.73\ 0.57\ 0.054\ 0.96\ 0.97\ 0.28\ 0.32\ 0.55\ 0.8\ 0.72\ 0.43$   $0.28\ 0.92\ 0.24\ 0.41\ 0.68\ 0.72\ 0.25\ 0.91\ 0.62\ 0.16\ 0.87\ 0.5\ 0.014\ 0.76\ 0.11\ 0.082\ 0.82\ 0.34\ 0.91\ 0.26$