Genetic Appendix

Carter Tinkler

ALLERGY					
SNP	rsID	Minor Allele	Genotype	Phenotype	
C11ORF30	rs2155219	G	TT	-/-	
HLA-DQB1	rs7775228	C	TT	-/-	
CLEFT LIP/CLEFT PALATE					
SNP	rsID	Minor Allele	Genotype	Phenotype	
IRF6	rs861020	A	GG	-/-	
INTERGENIC	rs987525	A	CC	-/-	
CLOTTING FACTORS					
SNP	rsID	Minor Allele	Genotype	Phenotype	
CETP	rs1800775	C	AC	+/-	Increased risk of high cholesterol
CYP4V2	rs13146272	C	AC	+/-	Increased sensitivity to dietary fats
F10	rs3211719	G	AG	+/-	Increased risk of deep vein thrombosis
F11	rs2036914	T	CC	-/-	
F11	rs2289252	T	CT	+/-	Increased risk of deep vein thrombosis
F12	rs1801020	A	GG	-/-	
F12	rs2731672	T	CC	-/-	
F5	rs6025	T	CC	-/-	
F7	rs6046	A	GG	-/-	
F9	rs6048	G	AA	-/-	
GP6	rs1613662	G	AA	-/-	
ITGB3	rs5918	C	CT	+/-	Increased risk of cotting disorders
NR1I2	rs1523127	C	CC	+/+	Increased risk of cotting disorders
SERPINC1	rs2227589	T	CC	-/-	
DETOX					
SNP	rsID	Minor Allele	Genotype	Phenotype	
CTH	rs1021737	T	GG	-/-	
CYP1A1	rs1048943	C	TT	-/-	
CYP1A1	rs1799814	T	GT	+/-	Decreased estrogen metabolism
CYP1A1	rs4986883	C	TT	-/-	
CYP1A2	rs762551	C	AA	-/-	Increased caffeine metabolism
CYP1B1	rs1056836	C	CG	+/-	Decreased estrogen metabolism
CYP1B1	rs1800440	C	TT	-/-	
CYP2A6	rs1801272	T	AA	-/-	
CYP2C19	rs12248560	T	CT	+/-	Increased testosterone to estrogen conversion
CYP2C9	rs1057910	C	AA	-/-	
CYP2C9	rs1799853	T	CT	+/-	Altered estrogen and drug metabolism
CYP2E1	rs2070676	G	CC	-/-	
CYP2E1	rs55897648	A	GG	-/-	
CYP2E1	rs6413419	A	GG	-/-	
CYP3A4	rs12721627	C	GG	-/-	
CYP3A4	rs2740574	C	TT	-/-	
CYP3A4	rs55785340	G	AA	-/-	
GPX3	rs8177412	C	CT	+/-	Decreased metal detoxifiation
GSTM1	rs2239892	G	AA	-/-	
GSTP1	rs1138272	T	CC	-/-	
GSTP1	rs1695	G	AA	-/-	
NAT1	rs4986782	A	GG	-/-	
NAT2	rs1208	G	AG	+/-	
NAT2	rs1799930	A	GG	-/-	
NAT2	rs1799931	A	AG	+/-	
NAT2	rs1801279	A	GG	-/-	
NAT2	rs1801280	C	CT	+/-	
GLUTEN INTOLERANCE					
SNP	rsID	Minor Allele	Genotype	Phenotype	
HLA-DQA1	rs2187668	T	CC	-/-	
HLA-DQA2	rs2858331	G	AA	-/-	

IGA					
SNP	rsID	Minor Allele	Genotype	Phenotype	
CFH	rs6677604	A	AG	+/-	
HLA-DPB2	rs1883414	A	GG	-/-	
HLA-DQA2	rs9275224	A	AG	+/-	Gluten sensitivity
HLA-DRB1	rs9271366	G	AA	-/-	
HORMAD2	rs2412971	G	AG	+/-	Increased risk of type 1 diabetes
IFIH1	rs1990760	T	CT	+/-	Increased risk of autoimmune
IGF1R	rs2229765	A	AA	+/+	Decreased blood sugar regulation
IRF5	rs4728142	A	GG	-/-	
MTC03P1	rs2856717	A	AG	+/-	Increased risk of autoimmunity
PSMB8	rs9357155	A	GG	-/-	
TRAF1	rs3761847	G	AG	+/-	Increased risk of autoimmunity
IGE					
SNP	rsID	Minor Allele	Genotype	Phenotype	
ACKR1	rs2814778	C	TT	-/-	
FCER1A	rs2251746	C	CC	+/+	Increased risk of Athsma and Hay Fever
FCER1A	rs2427837	A	AA	+/+	Increased risk of Athsma and Hay Fever
FCER1A	rs2494262	A	AA	+/+	Increased risk of Athsma and Hay Fever
IL5	rs2069812	G	AG	+/-	Increased risk of immune dysfunction and inflammation
RAD50	rs17772565	T	CC	-/-	
RAD50	rs17772583	G	AG	+/-	
RAD50	rs2040704	G	AA	-/-	
RAG1	rs3740955	A	AG	+/-	
IGG					
SNP	rsID	Minor Allele	Genotype	Phenotype	
FCGR2A	rs1801274	G	AG	+/-	Increased risk of Rheumatoid Arthritis
GSTM3	rs7483	T	CT	+/-	Increased risk of Alzheimers Disease
MUC21	rs1634731	G	AA	-/-	
TNFRSF13B	rs4792800	G	AG	+/-	
METHYLATION					
SNP	rsID	Minor Allele	Genotype	Phenotype	
ACAT1	rs3741049	A	AG	+/-	Decreased ability to use fat for fuel
ACE	rs4343	G	AG	+/-	
AGT	rs699	A	AG	+/-	
BHMT	rs3733890	A	GG	-/-	
BHMT-02	rs567754	T	CT	+/-	Decreased methylaton potential
BHMT-04	rs617219	C	AC	+/-	Decreased methylaton potential
C1ORF167	rs4846048	G	AA	-/-	
CBS	rs2851391	T	TT	+/+	Possible sulfation issues
CBS	rs4920037	A	AG	+/-	Possible sulfation issues
CBS A360A	rs1801181	A	GG	-/-	
CBS C699T	rs234706	A	AG	+/-	Possible sulfation issues
CBS N212N	rs2298758	A	GG	-/-	
CLCN6	rs13306560	T	CC	-/-	
CLCN6	rs13306561	G	AA	-/-	
CLCN6	rs3737964	T	CC	-/-	
COMT	rs6269	G	AG	+/-	
COMT H62H	rs4633	T	CT	+/-	Decreased breakdown of dopamine/adrenaline/estrogen
COMT P199P	rs769224	A	AG	+/-	
COMT V158M	rs4680	A	AG	+/-	Decreased breakdown of dopamine/adrenaline/estrogen
DAO	rs2070586	A	AG	+/-	Decreased histamine metabolism
DAO	rs2111902	G	GG	+/+	Decreased histamine metabolism
FOLR1	rs2071010	A	GG	-/-	
FOLR2	rs651933	G	AG	+/-	
FOLR3	rs7925545	G	AA	-/-	
FOLR3	rs7926875	A	CC	-/-	
FUT2	rs492602	G	AG	+/-	Increased risk of pathogenic gut bacteria overgrowth
FUT2	rs601338	A	AG	+/-	Increased risk of pathogenic gut bacteria overgrowth
FUT2	rs602662	A	AG	+/-	Increased risk of pathogenic gut bacteria overgrowth
G6PD	rs1050828	T	CC	-/-	
G6PD	rs1050829	C	TT	-/-	

GAD1	rs2241165	C	CT	+/-	Increased risk of anxiety/altered gut function
GAD1	rs3749034	A	AG	+/-	Increased risk of anxiety/altered gut function
GAD1	rs3791850	A	AG	+/-	Increased risk of anxiety/altered gut function
GAD1	rs3828275	T	CC	-/-	
GAD1	rs701492	T	CT	+/-	Increased risk of anxiety/altered gut function
GAD1	rs769395	G	AG	+/-	Increased risk of anxiety/altered gut function
GAD2	rs1805398	T	GT	+/-	Increased risk of anxiety/altered gut function
GAMT	rs17851582	A	GG	-/-	
MAOA	rs6323	G	TT	-/-	Decreased breakdown of Serotonin/Adrenaline
MAOB	rs1799836	C	TT	-/-	Decreased breakdown of Dopamine/Histamine
MTHFD1	rs2236225	A	AA	+/+	Increased need for choline
MTHFD1L	rs11754661	A	GG	-/-	
MTHFD1L	rs17349743	C	CT	+/-	Increased need for choline
MTHFD1L	rs803422	A	AG	+/-	Increased need for choline
MTHFR	rs1476413	T	CC	-/-	
MTHFR	rs17037390	A	GG	-/-	
MTHFR	rs17037396	T	CC	-/-	
MTHFR	rs17367504	G	AA	-/-	
MTHFR	rs2066470	A	GG	-/-	
MTHFR	rs2274976	T	CC	-/-	
MTHFR A1298C	rs1801131	G	TT	-/-	
MTHFR C677T	rs1801133	A	AG	+/-	Decreased methylaton potential
MTHFS	rs6495446	T	CC	-/-	
MTR A2756G	rs1805087	G	AG	+/-	Increased need for B12
MTRR	rs10380	T	CC	-/-	
MTRR	rs1801394	G	GG	+/+	Increased need for B12
MTRR A664A	rs1802059	A	AA	+/+	Increased need for B12
MTRR K350A	rs162036	G	AA	-/-	
MTRR R415T	rs2287780	T	CC	-/-	
NOS2	rs2297518	A	GG	-/-	
NOS3	rs1800779	G	GG	+/+	Decreased antioxidant potential
NOS3	rs2070744	C	CC	+/+	Decreased antioxidant potential
NOS3	rs7830	T	GT	+/-	Decreased antioxidant potential
PEMT	rs4244593	T	GG	-/-	
SOD2	rs2758331	A	AC	+/-	Decreased antioxidant potential
SOD2	rs4880	G	AG	+/-	Decreased antioxidant potential
SOD3	rs2855262	C	CT	+/-	Decreased antioxidant potential
TCN1	rs526934	G	AA	-/-	
TCN2	rs1801198	G	CC	-/-	
TYMSOS	rs502396	T	TT	+/+	Increased need for folate
VDR BSM	rs1544410	T	TT	+/+	Increased need for Vitamin D
VDR TAQ	rs731236	G	GG	+/+	Increased need for Vitamin D

MITOCHONDRIAL FUNCTION

SNP	rsID	Minor Allele	Genotype	Phenotype	
ATP5C1	rs1244414	T	CC	-/-	
ATP5C1	rs1244422	T	CT	+/-	Increased need for mitochondrial support especially B vitamins
ATP5C1	rs2778475	A	AG	+/-	Increased need for mitochondrial support especially B vitamins
CCL2	rs1024611	G	AA	-/-	
COX6C	rs4626565	C	TT	-/-	
NDUFS7	rs1142530	T	CT	+/-	Increased need for mitochondrial support especially CoQ10
NDUFS7	rs11666067	A	AC	+/-	Increased need for mitochondrial support especially CoQ10
NDUFS7	rs7254913	G	AG	+/-	Increased need for mitochondrial support especially CoQ10
NDUFS8	rs1104739	C	AC	+/-	Increased need for mitochondrial support especially CoQ10
NDUFS8	rs2075626	C	CT	+/-	
NDUFS8	rs4147776	C	AA	-/-	
SLC19A1	rs1051266	C	CC	+/+	Increased need for folate
UQCRC2	rs6497563	C	TT	-/-	

OTHER IMMUNE FACTORS					
SNP	rsID	Minor Allele	Genotype	Phenotype	
ADD1	rs4961	T	GG	-/-	
ATG16L1	rs10210302	T	TT	+/+	Increased risk of inflammation and immune dysfunction
HLA-DRB1	rs660895	G	AG	+/-	
IL13	rs20541	A	GG	-/-	
IL4R	rs1801275	G	AA	-/-	
KIAA1109	rs6822844	T	GG	-/-	
MEFV	rs11466023	A	GG	-/-	
MEFV	rs3743930	G	CC	-/-	
TNF	rs1800629	A	GG	-/-	
TNF	rs361525	A	GG	-/-	
TYR	rs28940879	C	GG	-/-	
SULFOTRANSFERASE					
SNP	rsID	Minor Allele	Genotype	Phenotype	
SULT2A1	rs2547231	C	AC	+/-	Decreased phase 2 detoxification
SULT2A1	rs2910393	T	CT	+/-	Decreased phase 2 detoxification
SULT2A1	rs4149449	T	CC	-/-	
SULT2A1	rs4149452	T	CC	-/-	
THYROID					
SNP	rsID	Minor Allele	Genotype	Phenotype	
CTLA4	rs231775	G	AA	-/-	
FOXE1	rs10984009	A	GG	-/-	
BIOHACKING DIET					
SNP	rsID	Minor Allele	Genotype	Phenotype	
ABCG8	rs4299376	G	TT	-/-	
ABCG8	rs6544713	T	CC	-/-	
ACE DEL16	rs4343	G	AG	+/-	
ADIPOQ	rs17366568	A	AG	+/-	Decreased blood sugar regulation
ADRB2	rs1042713	A	AG	+/-	Increased risk of Diabetes, Obesity and Athsma
ADRB2	rs1042714	G	CC	-/-	
ADRB3	rs4994	G	AA	-/-	
ANKK1	rs1800497	A	AG	+/-	Increased dopamine due to lack of inhibitory receptor activity
APOA2	rs5082	G	AG	+/-	Increased risk of high cholesterol
APOA5	rs662799	G	AA	-/-	
APOB	rs1367117	A	GG	-/-	
APOE	rs7412	T	CC	-/-	
FABP2	rs11724758	A	AG	+/-	Sensitivity to polyunsaturated plant oils
FTO	rs1121980	A	AG	+/-	Decreased blood sugar regulation
FTO	rs9939609	A	AT	+/-	Decreased blood sugar regulation
FTO	rs9940128	A	AG	+/-	Decreased blood sugar regulation
GCKR	rs780094	T	CC	-/-	
IGF1	rs35767	A	GG	-/-	
MCM6	rs182549	T	CT	+/-	Likely lactose tolerant
MCM6	rs4988235	A	AG	+/-	Likely lactose tolerant
MIR4761 (COMT V1	rs4680	A	AG	+/-	
PPARD	rs2267668	G	AA	-/-	
PPARG	rs1801282	G	CC	-/-	
PPARGC1A	rs8192678	T	CT	+/-	Decreased blood sugar regulation
SLC2A2	rs5400	A	GG	-/-	
SNP?	rs17782313	C	TT	-/-	
SNP?	rs2943634	A	AC	+/-	Increased risk of stroke and CVD
TAS2R38	rs1726866	A	AG	+/-	Increased desire for sweet foods
TNF	rs1800629	A	GG	-/-	

IRON DISREGULATION					
SNP	rsID	Minor Allele	Genotype	Phenotype	
G6PD	rs1050828	T	CC	-/-	
G6PD	rs1050829	C	TT	-/-	
G6PD	rs2230037	A	AA	+/+	
G6PD	rs5030868	A	GG	-/-	
G6PD	rs72554664	C	CC	+/+	
HFE	rs1799945	G	CC	-/-	No genetic hemochromatosis
HFE	rs1800562	A	GG	-/-	No genetic hemochromatosis
HFE	rs2071303	C	TT	-/-	
HFE	rs2794719	G	GT	+/-	
HFE	rs9366637	T	CC	-/-	
SNP?	rs235756	G	GG	+/+	
SOD2	rs4880	G	AG	+/-	
GLUCURONIDATION					
SNP	rsID	Minor Allele	Genotype	Phenotype	
UGT1A10	rs4148323	A	GG	-/-	
UGT1A7	rs887829	T	CT	+/-	Decreased phase 2 detoxification
UGT1A8	rs4148325	T	CT	+/-	Decreased phase 2 detoxification
UGT1A8	rs6742078	T	GT	+/-	Decreased phase 2 detoxification
DOPAMINE BETA HYDROXYLASE					
SNP	rsID	Minor Allele	Genotype	Phenotype	
DBH	rs1108580	G	AG	+/-	Decreased conversion from Dopamine to Adrenaline
DBH	rs1611115	T	CT	+/-	Decreased conversion from Dopamine to Adrenaline
DBH	rs4531	T	GG	-/-	
DBH	rs77905	A	AG	+/-	Decreased conversion from Dopamine to Adrenaline
PON1					
SNP	rsID	Minor Allele	Genotype	Phenotype	
PON1	rs662	T	TT	+/+	Decreased ability to detoxify Organophosphates