

Supplemental Table 2: LD regression results of the 4 phenotypes with published GW

Regression between the 4 phenotypes and publicly available data on LD Hub. Only traits investigated in Europe, the largest dataset was considered. Traits for which no estimates could be obtained were excluded. The unpublished traits from the UK Biobank, of which three were hearing-related phenotypes. Bold in red is significant

trait2	PMID	Category
Parents age at death	27015805	aging
Birth weight	27680694	anthropometric
Body mass index	20935630	anthropometric
Child birth length	25281659	anthropometric
Child birth weight	23202124	anthropometric
Childhood obesity	22484627	anthropometric
Height_2010	20881960	anthropometric
Infant head circumference	22504419	anthropometric
Sitting height ratio	25865494	anthropometric
Waist-to-hip ratio	25673412	anthropometric
Asthma	17611496	autoimmune
Celiac disease	20190752	autoimmune
Crohns disease	26192919	autoimmune
Inflammatory Bowel Disease (Euro)	26192919	autoimmune
Multiple sclerosis	21833088	autoimmune
Primary biliary cirrhosis	26394269	autoimmune
Rheumatoid Arthritis	24390342	autoimmune
Systemic lupus erythematosus	26502338	autoimmune
Ulcerative colitis	26192919	autoimmune
ICV	25607358	brain_volume
Mean Accumbens	25607358	brain_volume
Mean Caudate	25607358	brain_volume
Mean Hippocampus	25607358	brain_volume
Mean Pallidum	25607358	brain_volume
Mean Putamen	25607358	brain_volume
Mean Thalamus	25607358	brain_volume
Lung adenocarcinoma	27488534	cancer
Lung cancer	27488534	cancer
Intelligence	28530673	cognitive
Childhood IQ	23358156	education
Years of schooling 2016	27225129	education
2hr glucose adjusted for BMI	20081857	glycemic
Fasting glucose main effect	22581228	glycemic
Fasting insulin main effect	22581228	glycemic
Fasting proinsulin	20081858	glycemic
HbA1C	20858683	glycemic
HOMA-B	20081858	glycemic
HOMA-IR	20081858	glycemic
Type 2 Diabetes	22885922	glycemic
Mean platelet volume	22139419	haematological
Platelet count	22139419	haematological

Leptin_adjBMI	26833098 hormone
Urinary albumin-to-creatinine ratio	26631737 kidney
HDL cholesterol	20686565 lipids
LDL cholesterol	20686565 lipids
Total Cholesterol	20686565 lipids
Triglycerides	20686565 lipids
18:2 linoleic acid (LA)	27005778 metabolites
22:6 docosahexaenoic acid	27005778 metabolites
Acetate	27005778 metabolites
Acetoacetate	27005778 metabolites
Alanine	27005778 metabolites
Albumin	27005778 metabolites
Apolipoprotein A-I	27005778 metabolites
Apolipoprotein B	27005778 metabolites
Average number of double bonds in a fatty acid chain	27005778 metabolites
Average number of methylene groups per a double bond	27005778 metabolites
Cholesterol esters in large HDL	27005778 metabolites
Cholesterol esters in large LDL	27005778 metabolites
Cholesterol esters in large VLDL	27005778 metabolites
Cholesterol esters in medium HDL	27005778 metabolites
Cholesterol esters in medium LDL	27005778 metabolites
Cholesterol esters in medium VLDL	27005778 metabolites
Citrate	27005778 metabolites
Concentration of chylomicrons and largest VLDL particles	27005778 metabolites
Concentration of IDL particles	27005778 metabolites
Concentration of large HDL particles	27005778 metabolites
Concentration of large LDL particles	27005778 metabolites
Concentration of large VLDL particles	27005778 metabolites
Concentration of medium HDL particles	27005778 metabolites
Concentration of medium LDL particles	27005778 metabolites
Concentration of medium VLDL particles	27005778 metabolites
Concentration of small LDL particles	27005778 metabolites
Concentration of small VLDL particles	27005778 metabolites
Concentration of very large HDL particles	27005778 metabolites
Concentration of very large VLDL particles	27005778 metabolites
Concentration of very small VLDL particles	27005778 metabolites
Creatinine	27005778 metabolites
Description of average fatty acid chain length; not actual carbon number	27005778 metabolites
Free cholesterol	27005778 metabolites
Free cholesterol in IDL	27005778 metabolites
Free cholesterol in large HDL	27005778 metabolites
Free cholesterol in large LDL	27005778 metabolites
Free cholesterol in large VLDL	27005778 metabolites
Free cholesterol in medium HDL	27005778 metabolites
Free cholesterol in medium VLDL	27005778 metabolites
Free cholesterol in small VLDL	27005778 metabolites
Free cholesterol in very large HDL	27005778 metabolites
Free cholesterol to esterified cholesterol ratio	27005778 metabolites
Glucose	27005778 metabolites
Glutamine	27005778 metabolites
Glycoprotein acetyls; mainly a1-acid glycoprotein	27005778 metabolites

Isoleucine	27005778 metabolites
Leucine	27005778 metabolites
Mean diameter for HDL particles	27005778 metabolites
Mean diameter for LDL particles	27005778 metabolites
Mean diameter for VLDL particles	27005778 metabolites
Mono-unsaturated fatty acids	27005778 metabolites
Omega-3 fatty acids	27005778 metabolites
Omega-9 and saturated fatty acids	27005778 metabolites
Phenylalanine	27005778 metabolites
Phospholipids in chylomicrons and largest VLDL particles	27005778 metabolites
Phospholipids in IDL	27005778 metabolites
Phospholipids in large HDL	27005778 metabolites
Phospholipids in large LDL	27005778 metabolites
Phospholipids in large VLDL	27005778 metabolites
Phospholipids in medium HDL	27005778 metabolites
Phospholipids in medium LDL	27005778 metabolites
Phospholipids in medium VLDL	27005778 metabolites
Phospholipids in small VLDL	27005778 metabolites
Phospholipids in very large HDL	27005778 metabolites
Phospholipids in very large VLDL	27005778 metabolites
Phospholipids in very small VLDL	27005778 metabolites
Ratio of bisallylic groups to double bonds	27005778 metabolites
Ratio of bisallylic groups to total fatty acids	27005778 metabolites
Serum total cholesterol	27005778 metabolites
Serum total triglycerides	27005778 metabolites
Total cholesterol in HDL	27005778 metabolites
Total cholesterol in IDL	27005778 metabolites
Total cholesterol in large HDL	27005778 metabolites
Total cholesterol in large LDL	27005778 metabolites
Total cholesterol in large VLDL	27005778 metabolites
Total cholesterol in LDL	27005778 metabolites
Total cholesterol in medium HDL	27005778 metabolites
Total cholesterol in medium LDL	27005778 metabolites
Total cholesterol in medium VLDL	27005778 metabolites
Total cholesterol in small LDL	27005778 metabolites
Total cholesterol in small VLDL	27005778 metabolites
Total cholesterol in very large HDL	27005778 metabolites
Total lipids in chylomicrons and largest VLDL particles	27005778 metabolites
Total lipids in IDL	27005778 metabolites
Total lipids in large HDL	27005778 metabolites
Total lipids in large LDL	27005778 metabolites
Total lipids in large VLDL	27005778 metabolites
Total lipids in medium HDL	27005778 metabolites
Total lipids in medium LDL	27005778 metabolites
Total lipids in medium VLDL	27005778 metabolites
Total lipids in small HDL	27005778 metabolites
Total lipids in small LDL	27005778 metabolites
Total lipids in small VLDL	27005778 metabolites
Total lipids in very large HDL	27005778 metabolites
Total lipids in very large VLDL	27005778 metabolites
Total lipids in very small VLDL	27005778 metabolites

Triglycerides in chylomicrons and largest VLDL particles	27005778	metabolites
Triglycerides in IDL	27005778	metabolites
Triglycerides in large VLDL	27005778	metabolites
Triglycerides in medium VLDL	27005778	metabolites
Triglycerides in small HDL	27005778	metabolites
Triglycerides in small VLDL	27005778	metabolites
Triglycerides in very large HDL	27005778	metabolites
Triglycerides in very large VLDL	27005778	metabolites
Triglycerides in very small VLDL	27005778	metabolites
Tyrosine	27005778	metabolites
Valine	27005778	metabolites
Ferritin	25352340	metal
Transferrin	25352340	metal
Alzheimers disease	24162737	neurological
Amyotrophic lateral sclerosis	27455348	neurological
Parkinsons disease	19915575	neurological
Anorexia Nervosa	24514567	psychiatric
Attention deficit hyperactivity disorder (GC)	27663945	psychiatric
Autism spectrum disorder	0	psychiatric
Bipolar disorder	21926972	psychiatric
Depressive symptoms	27089181	psychiatric
Major depressive disorder	22472876	psychiatric
PGC cross-disorder analysis	23453885	psychiatric
Subjective well being	27089181	psychiatric
Age at Menarche	25231870	reproductive
Age at Menopause	26414677	reproductive
Age of first birth	27798627	reproductive
Number of children ever born	27798627	reproductive
Chronotype	27494321	sleeping
Excessive daytime sleepiness	27992416	sleeping
Insomnia	28604731	sleeping
Sleep duration	27494321	sleeping
Age of smoking initiation	20418890	smoking_behaviour
Cigarettes smoked per day	20418890	smoking_behaviour
Ever vs never smoked	20418890	smoking_behaviour
Former vs Current smoker	20418890	smoking_behaviour
Alcohol intake frequency	0	ukbb
Arm fat mass (left)	0	ukbb
Arm fat percentage (left)	0	ukbb
Arm fat-free mass (left)	0	ukbb
Arm predicted mass (left)	0	ukbb
Average weekly beer plus cider intake	0	ukbb
Average weekly champagne plus white wine intake	0	ukbb
Average weekly fortified wine intake	0	ukbb
Average weekly intake of other alcoholic drinks	0	ukbb
Average weekly red wine intake	0	ukbb
Average weekly spirits intake	0	ukbb
Back pain for 3+ months	0	ukbb
Basal metabolic rate	0	ukbb
Birth weight	0	ukbb
Body fat percentage	0	ukbb

Body mass index (BMI)	0 ukbb
Breastfed as a baby	0 ukbb
Cancer code_ self-reported: basal cell carcinoma	0 ukbb
Cancer code_ self-reported: breast cancer	0 ukbb
Cancer code_ self-reported: lung cancer	0 ukbb
Cancer code_ self-reported: malignant melanoma	0 ukbb
Cancer code_ self-reported: prostate cancer	0 ukbb
Cancer code_ self-reported: small intestine/small bowel cancer	0 ukbb
Cancer code_ self-reported: squamous cell carcinoma	0 ukbb
Cancer diagnosed by doctor	0 ukbb
Chest pain or discomfort	0 ukbb
Creatinine (enzymatic) in urine	0 ukbb
Current tobacco smoking	0 ukbb
Daytime dozing / sleeping (narcolepsy)	0 ukbb
Diabetes diagnosed by doctor	0 ukbb
Diagnoses - main ICD10: C44 Other malignant neoplasms of skin	0 ukbb
Diagnoses - main ICD10: C50 Malignant neoplasm of breast	0 ukbb
Diagnoses - main ICD10: C61 Malignant neoplasm of prostate	0 ukbb
Diagnoses - main ICD10: D12 Benign neoplasm of colon_ rectum_ anus and	0 ukbb
Diagnoses - main ICD10: D25 Leiomyoma of uterus	0 ukbb
Diagnoses - main ICD10: E04 Other non-toxic goitre	0 ukbb
Diagnoses - main ICD10: F31 Bipolar affective disorder	0 ukbb
Diagnoses - main ICD10: G47 Sleep disorders	0 ukbb
Diagnoses - main ICD10: G56 Mononeuropathies of upper limb	0 ukbb
Diagnoses - main ICD10: H25 Senile cataract	0 ukbb
Diagnoses - main ICD10: H26 Other cataract	0 ukbb
Diagnoses - main ICD10: I10 Essential (primary) hypertension	0 ukbb
Diagnoses - main ICD10: I20 Angina pectoris	0 ukbb
Diagnoses - main ICD10: I21 Acute myocardial infarction	0 ukbb
Diagnoses - main ICD10: I25 Chronic ischaemic heart disease	0 ukbb
Diagnoses - main ICD10: I30 Acute pericarditis	0 ukbb
Diagnoses - main ICD10: I48 Atrial fibrillation and flutter	0 ukbb
Diagnoses - main ICD10: I80 Phlebitis and thrombophlebitis	0 ukbb
Diagnoses - main ICD10: I83 Varicose veins of lower extremities	0 ukbb
Diagnoses - main ICD10: I84 Haemorrhoids	0 ukbb
Diagnoses - main ICD10: J22 Unspecified acute lower respiratory infection	0 ukbb
Diagnoses - main ICD10: J33 Nasal polyp	0 ukbb
Diagnoses - main ICD10: J34 Other disorders of nose and nasal sinuses	0 ukbb
Diagnoses - main ICD10: J44 Other chronic obstructive pulmonary disease	0 ukbb
Diagnoses - main ICD10: K20 Oesophagitis	0 ukbb
Diagnoses - main ICD10: K21 Gastro-oesophageal reflux disease	0 ukbb
Diagnoses - main ICD10: K22 Other diseases of oesophagus	0 ukbb
Diagnoses - main ICD10: K29 Gastritis and duodenitis	0 ukbb
Diagnoses - main ICD10: K30 Dyspepsia	0 ukbb
Diagnoses - main ICD10: K35 Acute appendicitis	0 ukbb
Diagnoses - main ICD10: K40 Inguinal hernia	0 ukbb
Diagnoses - main ICD10: K43 Ventral hernia	0 ukbb
Diagnoses - main ICD10: K44 Diaphragmatic hernia	0 ukbb
Diagnoses - main ICD10: K50 Crohns disease [regional enteritis]	0 ukbb
Diagnoses - main ICD10: K51 Ulcerative colitis	0 ukbb
Diagnoses - main ICD10: K52 Other non-infective gastro-enteritis and coliti	0 ukbb

Diagnoses - main ICD10: K57 Diverticular disease of intestine	0 ukbb
Diagnoses - main ICD10: K60 Fissure and fistula of anal and rectal regions	0 ukbb
Diagnoses - main ICD10: K62 Other diseases of anus and rectum	0 ukbb
Diagnoses - main ICD10: K76 Other diseases of liver	0 ukbb
Diagnoses - main ICD10: K80 Cholelithiasis	0 ukbb
Diagnoses - main ICD10: L03 Cellulitis	0 ukbb
Diagnoses - main ICD10: M10 Gout	0 ukbb
Diagnoses - main ICD10: M16 Coxarthrosis [arthrosis of hip]	0 ukbb
Diagnoses - main ICD10: M17 Gonarthrosis [arthrosis of knee]	0 ukbb
Diagnoses - main ICD10: M20 Acquired deformities of fingers and toes	0 ukbb
Diagnoses - main ICD10: M23 Internal derangement of knee	0 ukbb
Diagnoses - main ICD10: M24 Other specific joint derangements	0 ukbb
Diagnoses - main ICD10: M25 Other joint disorders_ not elsewhere classifi	0 ukbb
Diagnoses - main ICD10: M54 Dorsalgia	0 ukbb
Diagnoses - main ICD10: M67 Other disorders of synovium and tendon	0 ukbb
Diagnoses - main ICD10: M70 Soft tissue disorders related to use_ overuse	0 ukbb
Diagnoses - main ICD10: M72 Fibroblastic disorders	0 ukbb
Diagnoses - main ICD10: N19 Unspecified renal failure	0 ukbb
Diagnoses - main ICD10: N20 Calculus of kidney and ureter	0 ukbb
Diagnoses - main ICD10: N32 Other disorders of bladder	0 ukbb
Diagnoses - main ICD10: N40 Hyperplasia of prostate	0 ukbb
Diagnoses - main ICD10: N81 Female genital prolapse	0 ukbb
Diagnoses - main ICD10: N92 Excessive_ frequent and irregular menstruati	0 ukbb
Diagnoses - main ICD10: O75 Other complications of labour and delivery_	0 ukbb
Diagnoses - main ICD10: R04 Haemorrhage from respiratory passages	0 ukbb
Diagnoses - main ICD10: R07 Pain in throat and chest	0 ukbb
Diagnoses - main ICD10: R10 Abdominal and pelvic pain	0 ukbb
Diagnoses - main ICD10: R11 Nausea and vomiting	0 ukbb
Diagnoses - main ICD10: R14 Flatulence and related conditions	0 ukbb
Diagnoses - main ICD10: R31 Unspecified haematuria	0 ukbb
Diagnoses - main ICD10: R35 Polyuria	0 ukbb
Diagnoses - main ICD10: R55 Syncope and collapse	0 ukbb
Diagnoses - main ICD10: R69 Unknown and unspecified causes of morbidit	0 ukbb
Diagnoses - main ICD10: S09 Other and unspecified injuries of head	0 ukbb
Diagnoses - main ICD10: S52 Fracture of forearm	0 ukbb
Diagnoses - main ICD10: S66 Injury of muscle and tendon at wrist and han	0 ukbb
Diagnoses - main ICD10: S76 Injury of muscle and tendon at hip and thigh	0 ukbb
Diagnoses - main ICD10: T84 Complications of internal orthopaedic prosth	0 ukbb
Diagnoses - main ICD10: Z09 Follow-up examination after treatment for cc	0 ukbb
Diagnoses - main ICD10: Z47 Other orthopaedic follow-up care	0 ukbb
Diagnoses - main ICD10: Z80 Family history of malignant neoplasm	0 ukbb
Diastolic blood pressure_ automated reading	0 ukbb
Difficulty not smoking for 1 day	0 ukbb
Doctor diagnosed asthma	0 ukbb
Doctor diagnosed hayfever or allergic rhinitis	0 ukbb
Drive faster than motorway speed limit	0 ukbb
Duration of fitness test	0 ukbb
Duration of heavy DIY	0 ukbb
Duration of light DIY	0 ukbb
Duration of moderate activity	0 ukbb
Duration of other exercises	0 ukbb

Duration of strenuous sports	0 ukbb
Duration of vigorous activity	0 ukbb
Duration of walks	0 ukbb
Duration walking for pleasure	0 ukbb
Ever depressed for a whole week	0 ukbb
Ever highly irritable/argumentative for 2 days	0 ukbb
Ever manic/hyper for 2 days	0 ukbb
Ever smoked	0 ukbb
Ever stopped smoking for 6+ months	0 ukbb
Ever taken oral contraceptive pill	0 ukbb
Ever unenthusiastic/disinterested for a whole week	0 ukbb
Ever used hormone-replacement therapy (HRT)	0 ukbb
Exposure to tobacco smoke at home	0 ukbb
Exposure to tobacco smoke outside home	0 ukbb
Eye problems/disorders: Cataract	0 ukbb
Eye problems/disorders: Diabetes related eye disease	0 ukbb
Eye problems/disorders: Glaucoma	0 ukbb
Eye problems/disorders: Injury or trauma resulting in loss of vision	0 ukbb
Falls in the last year	0 ukbb
Fathers age at death	0 ukbb
Fed-up feelings	0 ukbb
Fluid intelligence score	0 ukbb
Former alcohol drinker	0 ukbb
Fracture resulting from simple fall	0 ukbb
Fractured bone site(s): Ankle	0 ukbb
Fractured bone site(s): Arm	0 ukbb
Fractured bone site(s): Other bones	0 ukbb
Fractured bone site(s): Wrist	0 ukbb
Fractured/broken bones in last 5 years	0 ukbb
Frequency of depressed mood in last 2 weeks	0 ukbb
Frequency of heavy DIY in last 4 weeks	0 ukbb
Frequency of light DIY in last 4 weeks	0 ukbb
Frequency of other exercises in last 4 weeks	0 ukbb
Frequency of stair climbing in last 4 weeks	0 ukbb
Frequency of tenseness / restlessness in last 2 weeks	0 ukbb
Frequency of tiredness / lethargy in last 2 weeks	0 ukbb
Frequency of unenthusiasm / disinterest in last 2 weeks	0 ukbb
Frequency of walking for pleasure in last 4 weeks	0 ukbb
Guilty feelings	0 ukbb
Hand grip strength (left)	0 ukbb
Handedness (chirality/laterality): Left-handed	0 ukbb
Handedness (chirality/laterality): Use both right and left hands equally	0 ukbb
Happiness	0 ukbb
Headaches for 3+ months	0 ukbb
Health satisfaction	0 ukbb
Hearing aid user	0 ukbb
Hearing difficulty/problems with background noise	0 ukbb
Hearing difficulty/problems: Yes	0 ukbb
Heel bone mineral density (BMD) T-score_ automated	0 ukbb
Hip circumference	0 ukbb
Impedance of arm (left)	0 ukbb

Impedance of leg (left)	0 ukbb
Impedance of whole body	0 ukbb
Irritability	0 ukbb
Knee pain for 3+ months	0 ukbb
Leg fat mass (left)	0 ukbb
Leg fat percentage (left)	0 ukbb
Leg fat-free mass (left)	0 ukbb
Leg pain on walking	0 ukbb
Leg predicted mass (left)	0 ukbb
Length of menstrual cycle	0 ukbb
Light smokers_ at least 100 smokes in lifetime	0 ukbb
Loneliness_ isolation	0 ukbb
Long-standing illness_ disability or infirmity	0 ukbb
Maternal smoking around birth	0 ukbb
Maximum heart rate during fitness test	0 ukbb
Maximum workload during fitness test	0 ukbb
Mean time to correctly identify matches	0 ukbb
Miserableness	0 ukbb
Mood swings	0 ukbb
Morning/evening person (chronotype)	0 ukbb
Most recent bowel cancer screening	0 ukbb
Mothers age at death	0 ukbb
Mouth/teeth dental problems: Bleeding gums	0 ukbb
Mouth/teeth dental problems: Dentures	0 ukbb
Mouth/teeth dental problems: Loose teeth	0 ukbb
Mouth/teeth dental problems: Mouth ulcers	0 ukbb
Mouth/teeth dental problems: Painful gums	0 ukbb
Mouth/teeth dental problems: Toothache	0 ukbb
Nap during day	0 ukbb
Neck/shoulder pain for 3+ months	0 ukbb
Nervous feelings	0 ukbb
Neuroticism score	0 ukbb
Non-cancer illness code_ self-reported: allergy or anaphylactic reaction to	0 ukbb
Non-cancer illness code_ self-reported: angina	0 ukbb
Non-cancer illness code_ self-reported: ankylosing spondylitis	0 ukbb
Non-cancer illness code_ self-reported: anxiety/panic attacks	0 ukbb
Non-cancer illness code_ self-reported: arthritis (nos)	0 ukbb
Non-cancer illness code_ self-reported: asthma	0 ukbb
Non-cancer illness code_ self-reported: back problem	0 ukbb
Non-cancer illness code_ self-reported: bladder problem (not cancer)	0 ukbb
Non-cancer illness code_ self-reported: bone disorder	0 ukbb
Non-cancer illness code_ self-reported: cholelithiasis/gall stones	0 ukbb
Non-cancer illness code_ self-reported: chronic obstructive airways disease	0 ukbb
Non-cancer illness code_ self-reported: crohns disease	0 ukbb
Non-cancer illness code_ self-reported: deep venous thrombosis (dvt)	0 ukbb
Non-cancer illness code_ self-reported: depression	0 ukbb
Non-cancer illness code_ self-reported: diabetes	0 ukbb
Non-cancer illness code_ self-reported: diverticular disease/diverticulitis	0 ukbb
Non-cancer illness code_ self-reported: eczema/dermatitis	0 ukbb
Non-cancer illness code_ self-reported: emphysema/chronic bronchitis	0 ukbb
Non-cancer illness code_ self-reported: enlarged prostate	0 ukbb

Non-cancer illness code_ self-reported: gastro-oesophageal reflux (gord) /	0 ukbb
Non-cancer illness code_ self-reported: glaucoma	0 ukbb
Non-cancer illness code_ self-reported: gout	0 ukbb
Non-cancer illness code_ self-reported: hayfever/allergic rhinitis	0 ukbb
Non-cancer illness code_ self-reported: heart attack/myocardial infarction	0 ukbb
Non-cancer illness code_ self-reported: hiatus hernia	0 ukbb
Non-cancer illness code_ self-reported: high cholesterol	0 ukbb
Non-cancer illness code_ self-reported: hypertension	0 ukbb
Non-cancer illness code_ self-reported: hyperthyroidism/thyrotoxicosis	0 ukbb
Non-cancer illness code_ self-reported: hypertrophic cardiomyopathy (hcr	0 ukbb
Non-cancer illness code_ self-reported: hypopituitarism	0 ukbb
Non-cancer illness code_ self-reported: hypothyroidism/myxoedema	0 ukbb
Non-cancer illness code_ self-reported: iron deficiency anaemia	0 ukbb
Non-cancer illness code_ self-reported: joint disorder	0 ukbb
Non-cancer illness code_ self-reported: kidney stone/ureter stone/bladder	0 ukbb
Non-cancer illness code_ self-reported: malabsorption/coeliac disease	0 ukbb
Non-cancer illness code_ self-reported: mania/bipolar disorder/manic dep	0 ukbb
Non-cancer illness code_ self-reported: migraine	0 ukbb
Non-cancer illness code_ self-reported: muscle or soft tissue injuries	0 ukbb
Non-cancer illness code_ self-reported: nasal polyps	0 ukbb
Non-cancer illness code_ self-reported: osteoarthritis	0 ukbb
Non-cancer illness code_ self-reported: osteoporosis	0 ukbb
Non-cancer illness code_ self-reported: pernicious anaemia	0 ukbb
Non-cancer illness code_ self-reported: pneumothorax	0 ukbb
Non-cancer illness code_ self-reported: polio / poliomyelitis	0 ukbb
Non-cancer illness code_ self-reported: psoriasis	0 ukbb
Non-cancer illness code_ self-reported: pulmonary embolism +/- dvt	0 ukbb
Non-cancer illness code_ self-reported: retinal detachment	0 ukbb
Non-cancer illness code_ self-reported: rheumatoid arthritis	0 ukbb
Non-cancer illness code_ self-reported: sleep apnoea	0 ukbb
Non-cancer illness code_ self-reported: type 2 diabetes	0 ukbb
Non-cancer illness code_ self-reported: ulcerative colitis	0 ukbb
Non-cancer illness code_ self-reported: uterine fibroids	0 ukbb
Non-cancer illness code_ self-reported: vaginal prolapse/uterine prolapse	0 ukbb
Non-cancer illness code_ self-reported: varicose veins	0 ukbb
Non-cancer illness code_ self-reported: vitiligo	0 ukbb
No-wear time bias adjusted acceleration standard deviation	0 ukbb
Number of cigarettes currently smoked daily (current cigarette smokers)	0 ukbb
Number of cigarettes previously smoked daily	0 ukbb
Number of days/week of moderate physical activity 10+ minutes	0 ukbb
Number of days/week of vigorous physical activity 10+ minutes	0 ukbb
Number of days/week walked 10+ minutes	0 ukbb
Number of depression episodes	0 ukbb
Number of live births	0 ukbb
Number of pregnancy terminations	0 ukbb
Number of self-reported cancers	0 ukbb
Number of self-reported non-cancer illnesses	0 ukbb
Number of treatments/medications taken	0 ukbb
Number of trend entries	0 ukbb
Number of unsuccessful stop-smoking attempts	0 ukbb
Other eye problems	0 ukbb

Other serious medical condition/disability diagnosed by doctor	0 ukbb
Overall health rating	0 ukbb
Pain type(s) experienced in last month: Back pain	0 ukbb
Pain type(s) experienced in last month: Facial pain	0 ukbb
Pain type(s) experienced in last month: Headache	0 ukbb
Pain type(s) experienced in last month: Hip pain	0 ukbb
Pain type(s) experienced in last month: Knee pain	0 ukbb
Pain type(s) experienced in last month: Neck or shoulder pain	0 ukbb
Pain type(s) experienced in last month: Pain all over the body	0 ukbb
Pain type(s) experienced in last month: Stomach or abdominal pain	0 ukbb
Past tobacco smoking	0 ukbb
Peak expiratory flow (PEF)	0 ukbb
Potassium in urine	0 ukbb
Prospective memory result	0 ukbb
Pulse rate	0 ukbb
Pulse rate_ automated reading	0 ukbb
Pulse wave Arterial Stiffness index	0 ukbb
Pulse wave peak to peak time	0 ukbb
Pulse wave reflection index	0 ukbb
Reason for glasses/contact lenses: For astigmatism	0 ukbb
Reason for glasses/contact lenses: For just reading/near work as you are g	0 ukbb
Reason for glasses/contact lenses: For long-sightedness_ i.e. for distance a	0 ukbb
Reason for glasses/contact lenses: For short-sightedness_ i.e. only or main	0 ukbb
Reason for reducing amount of alcohol drunk: Health precaution	0 ukbb
Relative age of first facial hair	0 ukbb
Relative age voice broke	0 ukbb
Reproducibility of spirometry measurement using ERS/ATS criteria	0 ukbb
Risk taking	0 ukbb
Seen a psychiatrist for nerves_ anxiety_ tension or depression	0 ukbb
Sensitivity / hurt feelings	0 ukbb
Shortness of breath walking on level ground	0 ukbb
Sitting height	0 ukbb
Sleep duration	0 ukbb
Sleeplessness / insomnia	0 ukbb
Snoring	0 ukbb
Sodium in urine	0 ukbb
Standing height	0 ukbb
Started insulin within one year diagnosis of diabetes	0 ukbb
Suffer from nerves	0 ukbb
Systolic blood pressure_ automated reading	0 ukbb
Taking other prescription medications	0 ukbb
Target heart rate achieved	0 ukbb
Tense / highly strung	0 ukbb
Tinnitus: Yes_ but not now_ but have in the past	0 ukbb
Tinnitus: Yes_ now most or all of the time	0 ukbb
Tinnitus: Yes_ now some of the time	0 ukbb
Tobacco smoking: Ex-smoker	0 ukbb
Trunk fat mass	0 ukbb
Trunk fat percentage	0 ukbb
Trunk fat-free mass	0 ukbb
Trunk predicted mass	0 ukbb

Usual walking pace	0 ukbb
Vascular/heart problems diagnosed by doctor: Angina	0 ukbb
Vascular/heart problems diagnosed by doctor: Heart attack	0 ukbb
Vascular/heart problems diagnosed by doctor: High blood pressure	0 ukbb
Vascular/heart problems diagnosed by doctor: None of the above	0 ukbb
Vitamin and mineral supplements: Multivitamins +/- minerals	0 ukbb
Vitamin and mineral supplements: Vitamin A	0 ukbb
Vitamin and mineral supplements: Vitamin B	0 ukbb
Vitamin and mineral supplements: Vitamin C	0 ukbb
Vitamin and mineral supplements: Vitamin D	0 ukbb
Vitamin and mineral supplements: Vitamin E	0 ukbb
Waist circumference	0 ukbb
Wears glasses or contact lenses	0 ukbb
Whole body fat mass	0 ukbb
Whole body fat-free mass	0 ukbb
Whole body water mass	0 ukbb
Worrier / anxious feelings	0 ukbb
Worry too long after embarrassment	0 ukbb

AS

mean ancestry samples were considered. If a trait was included multiple times, it is resulted in a total of 518 traits being investigated, including 339 traits that were significant after Bonferroni adjustment ($P < 9.65 \times 10^{-5}$).

HIGH		LOW/MID		WHO		HML	
rg	p	rg	p	rg	p	rg	p
-0.033	8.79E-01	0.22	3.96E-01	0.106	6.52E-01	-0.197	5.02E-01
0.006	9.56E-01	0.005	9.66E-01	-0.003	9.79E-01	-0.011	9.27E-01
0.172	8.46E-02	0.204	1.30E-01	0.228	5.01E-02	0.114	3.93E-01
-0.113	5.26E-01	-0.016	9.43E-01	-0.08	7.09E-01	-0.185	4.27E-01
0.254	1.07E-01	0.204	3.82E-01	0.244	2.01E-01	0.165	4.50E-01
0.085	5.48E-01	0.143	4.36E-01	0.217	1.92E-01	0.056	7.80E-01
0.131	1.42E-01	0.045	6.76E-01	0.097	3.32E-01	0.195	1.01E-01
0.241	3.02E-01	0.318	2.78E-01	0.277	2.69E-01	0.099	7.51E-01
-0.2	2.63E-01	-0.276	2.19E-01	-0.269	1.70E-01	-0.085	6.68E-01
0.237	3.78E-02	0.33	6.02E-02	0.328	2.14E-02	0.149	2.63E-01
0.211	3.83E-01	-0.031	9.24E-01	0.044	8.86E-01	0.257	5.54E-01
-0.285	2.64E-01	-0.491	3.39E-01	-0.462	2.68E-01	-0.144	7.32E-01
0.003	9.78E-01	-0.035	8.07E-01	-0.027	8.32E-01	0.04	7.70E-01
-0.126	2.92E-01	-0.204	1.91E-01	-0.208	1.36E-01	-0.033	8.03E-01
-0.514	1.86E-01	-0.279	5.12E-01	-0.361	3.99E-01	-0.735	3.78E-01
-0.025	8.62E-01	0.196	3.27E-01	0.13	4.79E-01	-0.191	2.48E-01
-0.018	8.71E-01	0.071	6.58E-01	0.03	8.28E-01	-0.099	4.56E-01
0.154	3.64E-01	0.357	1.01E-01	0.305	1.27E-01	-0.075	7.03E-01
-0.163	2.72E-01	-0.303	1.36E-01	-0.303	1.01E-01	-0.023	8.86E-01
0.363	1.35E-01	0.283	3.00E-01	0.348	1.59E-01	0.286	3.36E-01
-0.142	6.16E-01	-0.519	2.32E-01	-0.397	2.70E-01	0.2	5.79E-01
-0.061	7.31E-01	0.183	3.94E-01	0.11	5.66E-01	-0.202	3.78E-01
-0.182	4.67E-01	0.241	4.29E-01	0.025	9.25E-01	-0.429	2.50E-01
-0.348	1.25E-01	-0.244	4.12E-01	-0.3	2.51E-01	-0.264	3.81E-01
0.151	3.80E-01	0.254	2.29E-01	0.216	2.42E-01	0.039	8.63E-01
-0.143	5.78E-01	0.08	8.11E-01	-0.036	9.06E-01	-0.299	3.58E-01
-0.341	1.76E-01	-0.53	1.27E-01	-0.425	1.36E-01	-0.123	7.27E-01
-0.18	2.51E-01	-0.154	4.40E-01	-0.166	3.50E-01	-0.154	4.60E-01
0.025	8.05E-01	-0.195	1.62E-01	-0.142	2.63E-01	0.177	1.57E-01
0.059	7.64E-01	-0.123	5.96E-01	-0.1	6.66E-01	0.154	4.25E-01
-0.09	2.03E-01	-0.098	3.16E-01	-0.137	1.19E-01	-0.073	4.29E-01
-0.182	4.99E-01	-0.181	6.22E-01	-0.128	6.86E-01	-0.102	7.68E-01
-0.04	7.85E-01	0.016	9.32E-01	0.027	8.69E-01	-0.056	7.72E-01
0.237	2.18E-01	0.294	2.17E-01	0.277	1.75E-01	0.124	6.51E-01
0.261	3.22E-01	0.392	1.50E-01	0.314	2.10E-01	0.033	9.36E-01
0.262	1.48E-01	-0.018	9.31E-01	0.079	6.73E-01	0.441	1.18E-01
0.188	3.48E-01	0.195	4.37E-01	0.222	3.28E-01	0.144	5.89E-01
0.203	3.42E-01	0.192	4.64E-01	0.246	3.14E-01	0.221	4.54E-01
0.005	9.70E-01	-0.052	7.68E-01	-0.013	9.32E-01	0.068	7.11E-01
-0.3	5.25E-02	-0.1	5.92E-01	-0.144	4.04E-01	-0.385	7.72E-02
0.21	1.28E-01	0.062	6.84E-01	0.142	3.36E-01	0.236	1.25E-01

-0.113	5.51E-01	-0.119	6.56E-01	-0.122	5.90E-01	-0.129	6.12E-01
-0.407	7.68E-02	-0.508	1.30E-01	-0.528	8.91E-02	-0.283	3.16E-01
-0.234	6.35E-02	-0.174	2.64E-01	-0.241	1.03E-01	-0.233	2.32E-01
0.11	4.12E-01	0.061	7.12E-01	0.124	3.98E-01	0.129	4.73E-01
0.071	5.15E-01	0.095	5.02E-01	0.141	2.59E-01	0.02	8.99E-01
0.24	4.39E-02	0.218	1.26E-01	0.287	3.41E-02	0.193	1.98E-01
0.133	6.15E-01	-0.163	5.97E-01	-0.064	8.15E-01	0.293	3.94E-01
0.415	1.02E-01	0.38	2.80E-01	0.447	1.47E-01	0.389	2.14E-01
-0.181	5.26E-01	0.155	6.76E-01	0.067	8.38E-01	-0.405	2.43E-01
0.185	4.88E-01	0.469	2.30E-01	0.436	2.14E-01	-0.166	6.02E-01
-0.206	3.26E-01	-0.325	2.34E-01	-0.272	2.47E-01	-0.135	5.91E-01
-0.238	4.65E-01	-0.32	4.62E-01	-0.298	4.54E-01	-0.115	7.56E-01
-0.161	5.09E-01	-0.014	9.65E-01	0.043	8.79E-01	-0.226	4.68E-01
0.733	1.52E-02	0.29	3.51E-01	0.5	9.98E-02	0.801	4.41E-02
0.347	8.48E-02	0.287	2.80E-01	0.275	2.15E-01	0.334	2.14E-01
-0.356	9.37E-02	-0.48	1.00E-01	-0.413	9.32E-02	-0.22	3.88E-01
-0.428	2.80E-02	-0.074	7.61E-01	-0.165	4.51E-01	-0.568	3.50E-02
0.534	6.69E-02	0.041	8.92E-01	0.287	3.41E-01	0.699	6.29E-02
0.296	8.22E-02	0.145	5.49E-01	0.192	3.46E-01	0.274	2.05E-01
-0.926	7.00E-03	-0.866	4.02E-02	-0.942	1.65E-02	-0.61	1.23E-01
0.525	5.98E-02	0.019	9.49E-01	0.273	3.52E-01	0.703	5.72E-02
0.374	5.72E-02	0.007	9.77E-01	0.162	4.69E-01	0.49	7.21E-02
-0.016	9.36E-01	0.187	5.12E-01	0.044	8.59E-01	-0.224	3.80E-01
0.095	6.33E-01	0.026	9.17E-01	0.073	7.47E-01	0.06	8.10E-01
0.633	4.81E-02	0.133	6.85E-01	0.387	2.36E-01	0.787	5.34E-02
-0.458	2.33E-02	-0.144	5.59E-01	-0.229	3.06E-01	-0.548	3.73E-02
0.563	6.01E-02	0.049	8.74E-01	0.306	3.20E-01	0.736	5.65E-02
0.115	5.21E-01	-0.106	6.78E-01	-0.062	7.79E-01	0.221	3.41E-01
-0.728	1.41E-02	-0.748	5.67E-02	-0.763	2.97E-02	-0.416	2.29E-01
0.562	5.15E-02	0.025	9.33E-01	0.294	3.25E-01	0.747	4.94E-02
0.163	3.48E-01	-0.116	6.35E-01	-0.034	8.72E-01	0.299	1.79E-01
0.546	4.03E-02	0.023	9.37E-01	0.296	2.94E-01	0.718	4.33E-02
0.477	1.34E-02	0.12	6.37E-01	0.273	2.21E-01	0.585	3.39E-02
-0.251	3.35E-01	0.246	4.59E-01	0.213	4.72E-01	-0.661	8.97E-02
0.262	1.76E-01	0.039	8.77E-01	0.105	6.37E-01	0.327	1.87E-01
0.64	5.90E-03	0.246	3.77E-01	0.438	8.60E-02	0.743	2.22E-02
0.091	6.55E-01	0.435	1.26E-01	0.361	1.25E-01	-0.172	4.90E-01
0.378	2.03E-01	-0.136	7.08E-01	0.005	9.87E-01	0.676	1.37E-01
0.234	5.02E-01	-0.245	5.41E-01	-0.114	7.53E-01	0.535	2.55E-01
0.546	7.10E-02	0.214	5.16E-01	0.397	2.22E-01	0.582	1.03E-01
-0.419	3.94E-02	-0.126	6.13E-01	-0.17	4.43E-01	-0.504	5.67E-02
0.531	7.85E-02	-0.005	9.88E-01	0.254	4.02E-01	0.726	6.15E-02
0.253	1.59E-01	0.11	6.45E-01	0.17	4.23E-01	0.224	2.91E-01
-0.738	6.70E-03	-0.674	4.78E-02	-0.702	1.91E-02	-0.477	1.49E-01
0.358	9.12E-02	0.12	6.67E-01	0.202	3.99E-01	0.389	1.56E-01
0.596	9.60E-03	0.233	4.31E-01	0.388	1.32E-01	0.644	4.13E-02
-0.254	3.31E-01	0.004	9.91E-01	0.055	8.54E-01	-0.444	2.09E-01
0.096	7.67E-01	-0.061	8.77E-01	0.017	9.62E-01	0.209	5.98E-01
0.253	2.33E-01	0.222	4.05E-01	0.314	1.88E-01	0.232	4.22E-01
-0.515	1.29E-01	-0.502	2.15E-01	-0.615	1.18E-01	-0.338	3.37E-01
0.147	5.06E-01	-0.13	6.48E-01	0.018	9.41E-01	0.309	2.94E-01

0.103	6.33E-01	0.322	2.93E-01	0.267	3.14E-01	-0.11	6.61E-01
0.103	7.05E-01	0.351	3.30E-01	0.257	4.15E-01	-0.163	6.00E-01
-0.324	1.12E-01	-0.067	7.89E-01	-0.106	6.32E-01	-0.449	1.01E-01
-0.039	8.92E-01	0.137	7.16E-01	0.036	9.14E-01	-0.112	7.49E-01
0.064	7.41E-01	-0.072	7.73E-01	-0.022	9.22E-01	0.134	5.56E-01
0.019	9.42E-01	-0.285	3.93E-01	-0.198	5.02E-01	0.216	5.27E-01
0.136	5.83E-01	0.27	4.65E-01	0.281	3.84E-01	0.066	8.19E-01
-0.039	8.95E-01	-0.199	6.00E-01	-0.131	6.99E-01	0.082	8.25E-01
-0.088	7.50E-01	0.061	8.60E-01	0.025	9.34E-01	-0.187	6.28E-01
0.261	1.55E-01	0.222	4.15E-01	0.242	3.01E-01	0.144	5.22E-01
0.541	8.72E-02	0.103	7.60E-01	0.323	3.30E-01	0.658	8.91E-02
-0.486	1.98E-02	-0.172	5.00E-01	-0.263	2.58E-01	-0.565	3.74E-02
0.517	7.75E-02	-0.097	7.52E-01	0.195	5.09E-01	0.779	4.84E-02
0.243	2.07E-01	0.078	7.61E-01	0.147	5.07E-01	0.237	3.04E-01
-0.698	9.90E-03	-0.688	5.11E-02	-0.681	2.76E-02	-0.415	2.08E-01
0.614	2.97E-02	0.072	8.08E-01	0.32	2.70E-01	0.788	3.46E-02
0.338	1.18E-01	0.102	7.12E-01	0.193	4.32E-01	0.375	1.67E-01
0.536	1.25E-02	0.186	5.06E-01	0.344	1.60E-01	0.614	4.14E-02
-0.357	1.14E-01	0.038	8.93E-01	-0.026	9.19E-01	-0.62	5.47E-02
0.193	2.99E-01	0.088	7.30E-01	0.128	5.69E-01	0.146	5.07E-01
0.596	3.94E-02	0.216	5.12E-01	0.409	1.89E-01	0.692	6.43E-02
0.091	5.39E-01	0.199	3.18E-01	0.17	3.25E-01	0.014	9.42E-01
0.214	1.99E-01	0.303	1.82E-01	0.273	1.61E-01	0.123	5.73E-01
0.456	1.44E-01	0.212	5.45E-01	0.402	2.44E-01	0.429	2.27E-01
0.39	4.40E-02	0.179	4.93E-01	0.28	2.21E-01	0.377	1.24E-01
-0.483	2.47E-02	-0.324	2.52E-01	-0.327	1.81E-01	-0.426	1.16E-01
0.605	7.11E-02	0.157	6.44E-01	0.391	2.56E-01	0.721	7.52E-02
-0.464	2.42E-02	-0.19	4.62E-01	-0.238	2.99E-01	-0.51	5.40E-02
0.556	5.87E-02	-0.035	9.06E-01	0.247	4.03E-01	0.786	4.52E-02
0.288	1.15E-01	0.089	7.24E-01	0.169	4.42E-01	0.3	1.58E-01
0.62	3.97E-02	0.026	9.30E-01	0.299	3.10E-01	0.812	4.11E-02
-0.911	6.10E-03	-0.846	3.09E-02	-0.91	1.21E-02	-0.602	1.21E-01
0.605	3.61E-02	-0.004	9.90E-01	0.272	3.45E-01	0.817	3.74E-02
0.384	5.84E-02	0.092	7.36E-01	0.21	3.75E-01	0.446	1.01E-01
0.676	3.60E-02	0.093	7.67E-01	0.387	2.27E-01	0.836	4.55E-02
0.625	1.72E-02	0.238	4.69E-01	0.416	1.48E-01	0.684	5.45E-02
-0.095	7.66E-01	0.103	8.03E-01	0.241	5.24E-01	-0.284	4.84E-01
0.219	2.37E-01	0.066	7.99E-01	0.131	5.63E-01	0.22	3.31E-01
0.629	5.49E-02	0.131	6.93E-01	0.384	2.48E-01	0.779	5.78E-02
-0.447	2.40E-02	-0.116	6.35E-01	-0.202	3.62E-01	-0.556	3.47E-02
0.548	6.67E-02	0.037	9.04E-01	0.293	3.41E-01	0.723	6.03E-02
0.236	1.81E-01	-0.025	9.20E-01	0.065	7.59E-01	0.336	1.32E-01
-0.806	1.05E-02	-0.798	4.97E-02	-0.831	2.36E-02	-0.488	1.78E-01
0.54	5.25E-02	0.016	9.56E-01	0.278	3.40E-01	0.724	5.02E-02
0.285	1.14E-01	-0.02	9.37E-01	0.086	6.94E-01	0.409	8.99E-02
-0.394	1.80E-01	-0.442	2.17E-01	-0.447	1.62E-01	-0.169	6.47E-01
0.549	4.75E-02	-0.013	9.63E-01	0.273	3.42E-01	0.747	4.40E-02
0.516	1.03E-02	0.127	6.25E-01	0.296	1.97E-01	0.626	3.15E-02
-0.256	3.53E-01	0.14	6.86E-01	0.126	6.84E-01	-0.582	1.26E-01
0.27	1.12E-01	0.053	8.26E-01	0.124	5.57E-01	0.31	1.47E-01
0.67	8.60E-03	0.29	3.27E-01	0.488	7.70E-02	0.756	2.85E-02

0.29	1.69E-01	0.323	2.98E-01	0.323	2.19E-01	0.083	7.42E-01
0.663	6.30E-03	0.259	3.72E-01	0.462	8.38E-02	0.755	2.15E-02
0.243	2.18E-01	0.128	6.27E-01	0.158	4.94E-01	0.217	3.54E-01
0.305	1.70E-01	0.166	5.70E-01	0.213	4.05E-01	0.3	2.62E-01
0.491	5.61E-02	0.212	5.16E-01	0.359	2.26E-01	0.524	1.00E-01
0.486	1.93E-02	0.249	3.90E-01	0.355	1.54E-01	0.493	6.95E-02
0.317	2.63E-01	0.138	6.87E-01	0.335	2.76E-01	0.332	3.52E-01
0.256	1.55E-01	0.101	6.94E-01	0.16	4.77E-01	0.236	2.65E-01
0.596	3.50E-03	0.242	3.53E-01	0.417	7.12E-02	0.68	2.06E-02
-0.175	4.18E-01	0.241	3.82E-01	0.092	7.05E-01	-0.428	1.66E-01
0.256	2.88E-01	0.601	1.02E-01	0.461	1.14E-01	-0.068	8.09E-01
0.141	5.74E-01	0.658	7.15E-02	0.545	1.12E-01	-0.327	2.67E-01
0.106	6.77E-01	-0.356	2.49E-01	-0.178	5.00E-01	0.534	1.47E-01
-0.144	5.31E-01	-0.192	4.85E-01	-0.049	8.31E-01	-0.033	9.24E-01
0.336	1.80E-01	0.587	9.27E-02	0.517	8.01E-02	-0.002	9.95E-01
-0.014	9.47E-01	0.135	7.19E-01	0.147	6.87E-01	-0.13	6.75E-01
0.003	9.77E-01	0.012	9.26E-01	0.01	9.36E-01	-0.003	9.79E-01
0.546	9.15E-02	0.433	2.67E-01	0.553	1.35E-01	0.598	1.77E-01
0.21	1.79E-01	0.092	6.33E-01	0.136	4.35E-01	0.273	1.91E-01
0.101	4.62E-01	0.306	1.01E-01	0.267	8.66E-02	-0.117	5.74E-01
0.119	3.81E-01	0.248	1.61E-01	0.254	1.21E-01	-0.009	9.61E-01
-0.068	7.07E-01	0.1	6.86E-01	-0.005	9.81E-01	-0.127	5.72E-01
0.071	6.06E-01	0.338	6.76E-02	0.241	1.50E-01	-0.12	4.17E-01
-0.04	7.52E-01	-0.243	2.19E-01	-0.241	1.56E-01	0.178	3.49E-01
-0.146	7.74E-02	-0.033	7.68E-01	-0.058	5.51E-01	-0.23	1.36E-01
-0.218	4.91E-02	-0.266	8.20E-02	-0.247	5.15E-02	-0.12	4.38E-01
-0.318	1.20E-02	-0.277	6.57E-02	-0.315	2.49E-02	-0.286	1.01E-01
0.023	8.45E-01	0.062	6.94E-01	0.096	5.01E-01	-0.058	6.99E-01
0.089	3.69E-01	0.13	2.87E-01	0.099	3.71E-01	0.034	7.91E-01
0.145	2.85E-01	0.21	2.82E-01	0.23	1.74E-01	0.062	7.20E-01
0.17	2.60E-01	0.361	9.96E-02	0.384	4.82E-02	-0.047	8.14E-01
-0.08	5.60E-01	-0.077	6.59E-01	-0.101	5.21E-01	-0.057	7.49E-01
-0.57	5.16E-02	-0.301	3.50E-01	-0.413	1.68E-01	-0.584	1.58E-01
0.164	4.07E-01	0.437	1.79E-01	0.416	1.14E-01	-0.119	6.71E-01
0.187	2.18E-01	0.123	5.08E-01	0.169	2.96E-01	0.198	3.84E-01
-0.381	4.97E-02	-0.361	2.09E-01	-0.373	1.44E-01	-0.268	2.88E-01
0.209	1.21E-02	0.122	2.40E-01	0.163	9.55E-02	0.202	6.91E-02
0.215	3.60E-03	0.266	2.01E-02	0.291	4.00E-03	0.098	2.71E-01
0.15	4.29E-02	0.217	4.69E-02	0.225	1.86E-02	0.039	6.77E-01
0.246	5.00E-04	0.256	1.44E-02	0.297	2.30E-03	0.165	3.24E-02
0.257	4.00E-04	0.258	1.37E-02	0.306	1.90E-03	0.179	2.30E-02
0.168	1.17E-01	0.091	4.66E-01	0.147	2.13E-01	0.246	9.58E-02
-0.131	2.89E-01	-0.193	2.28E-01	-0.164	2.66E-01	-0.071	6.26E-01
0.003	9.86E-01	0.238	3.56E-01	0.142	5.44E-01	-0.12	5.99E-01
-0.497	2.99E-01	-1.001	1.77E-01	-0.797	2.02E-01	-0.002	9.97E-01
-0.154	1.74E-01	-0.072	5.94E-01	-0.119	3.48E-01	-0.17	2.19E-01
0.149	2.80E-01	0.192	2.35E-01	0.219	1.61E-01	0.054	7.34E-01
0.014	9.32E-01	0.119	6.38E-01	0.182	4.18E-01	-0.056	7.87E-01
0.238	6.00E-04	0.229	2.10E-02	0.277	2.90E-03	0.173	2.65E-02
0.099	2.77E-01	0.141	2.27E-01	0.131	2.00E-01	0.029	7.86E-01
0.184	1.54E-02	0.219	4.89E-02	0.24	1.57E-02	0.089	3.53E-01

0.201	6.40E-03	0.273	1.42E-02	0.29	3.50E-03	0.072	4.15E-01
0.052	6.75E-01	0.03	8.53E-01	0.008	9.58E-01	0.081	5.98E-01
-0.062	7.24E-01	0.022	9.19E-01	-0.039	8.44E-01	-0.148	4.94E-01
-0.174	3.77E-01	0.084	7.44E-01	-0.037	8.73E-01	-0.39	1.05E-01
0.113	7.92E-01	0.536	3.79E-01	0.344	5.04E-01	-0.102	8.37E-01
0.12	5.43E-01	0.196	4.89E-01	0.159	5.02E-01	-0.008	9.77E-01
0.111	5.90E-01	0.391	1.86E-01	0.38	1.62E-01	-0.233	3.92E-01
-0.316	5.11E-01	0.072	8.96E-01	-0.118	8.18E-01	-0.544	3.37E-01
-0.309	3.19E-01	-0.354	3.50E-01	-0.335	3.41E-01	-0.161	6.62E-01
-0.103	5.67E-01	0.059	8.22E-01	0.001	9.96E-01	-0.251	2.66E-01
-0.029	7.92E-01	0.147	3.23E-01	0.117	3.80E-01	-0.175	2.60E-01
-0.021	8.07E-01	-0.065	5.90E-01	-0.046	6.71E-01	0.026	8.02E-01
0.129	1.46E-01	0.083	4.59E-01	0.106	3.31E-01	0.13	2.12E-01
0.105	2.03E-01	0.178	2.16E-01	0.171	1.53E-01	0.05	6.53E-01
0.184	7.21E-02	0.197	1.88E-01	0.233	8.61E-02	0.109	3.35E-01
-0.084	6.26E-01	0.114	5.87E-01	0.108	5.70E-01	-0.222	3.21E-01
-0.037	8.44E-01	-0.115	6.15E-01	-0.158	4.55E-01	-0.002	9.94E-01
0.009	9.71E-01	0.416	2.62E-01	0.398	2.51E-01	-0.319	3.46E-01
-0.014	9.42E-01	0.046	8.34E-01	0.034	8.69E-01	-0.056	7.94E-01
0.025	8.96E-01	0.1	7.13E-01	0.009	9.69E-01	-0.043	8.44E-01
-0.018	9.35E-01	-0.305	2.76E-01	-0.152	5.49E-01	0.151	5.78E-01
0.229	3.03E-01	0.071	8.11E-01	0.058	8.25E-01	0.318	2.58E-01
0.282	1.98E-01	0.121	6.68E-01	0.141	5.80E-01	0.295	2.79E-01
0.085	5.80E-01	0.148	4.61E-01	0.151	4.17E-01	0.005	9.76E-01
-0.379	1.74E-01	-0.091	7.94E-01	-0.188	5.63E-01	-0.49	1.49E-01
0.005	9.75E-01	-0.095	6.74E-01	-0.047	8.08E-01	0.098	6.66E-01
0.128	6.71E-01	0.046	8.99E-01	-0.008	9.81E-01	0.204	5.66E-01
-0.126	4.97E-01	0.188	4.36E-01	0.143	4.96E-01	-0.33	2.17E-01
0.162	3.61E-01	0.208	3.40E-01	0.191	3.44E-01	0.072	7.34E-01
0.099	4.84E-01	0.159	3.33E-01	0.148	3.41E-01	0.029	8.55E-01
0.41	2.93E-01	-0.09	8.59E-01	0.12	7.91E-01	0.639	1.97E-01
-0.133	3.94E-01	-0.029	8.70E-01	-0.104	5.40E-01	-0.133	4.58E-01
0.005	9.78E-01	0.238	3.27E-01	0.139	5.16E-01	-0.112	6.14E-01
-0.231	1.22E-01	-0.095	5.71E-01	-0.155	3.29E-01	-0.285	1.03E-01
0.109	5.15E-01	0.08	7.27E-01	0.15	4.55E-01	0.075	7.41E-01
0.053	8.77E-01	0.077	8.68E-01	0.17	6.84E-01	0.009	9.84E-01
0.775	1.18E-01	0.851	1.69E-01	0.656	2.11E-01	0.404	4.03E-01
0.354	3.66E-01	0.516	3.05E-01	0.535	2.60E-01	0.03	9.43E-01
0.034	8.88E-01	-0.142	6.37E-01	-0.188	5.02E-01	0.147	6.19E-01
-0.069	8.39E-01	0.167	6.86E-01	0.052	8.93E-01	-0.283	4.65E-01
-0.313	1.53E-01	-0.45	1.29E-01	-0.406	1.27E-01	-0.208	4.22E-01
-0.113	6.63E-01	0.053	8.67E-01	-0.005	9.87E-01	-0.211	5.49E-01
0.112	5.64E-01	0.229	3.56E-01	0.217	3.22E-01	-0.011	9.63E-01
-0.107	7.36E-01	0.195	6.58E-01	0.053	8.89E-01	-0.309	4.42E-01
0.018	9.60E-01	0.65	2.12E-01	0.484	2.70E-01	-0.501	3.13E-01
-0.016	8.97E-01	-0.373	6.59E-02	-0.258	1.29E-01	0.246	1.20E-01
0.019	9.36E-01	0.217	4.71E-01	0.2	4.49E-01	-0.112	6.96E-01
-0.563	2.12E-02	-0.452	1.55E-01	-0.493	7.30E-02	-0.465	1.37E-01
-0.413	1.11E-01	-0.371	3.14E-01	-0.428	2.08E-01	-0.321	2.95E-01
0.067	7.81E-01	0.084	7.76E-01	0.148	5.85E-01	0.043	8.83E-01
-0.311	1.77E-01	0.199	5.27E-01	-0.025	9.27E-01	-0.556	6.27E-02

-0.51	6.50E-03	-0.197	3.13E-01	-0.307	9.93E-02	-0.605	1.44E-02
-0.1	6.29E-01	0.135	6.11E-01	0.018	9.38E-01	-0.243	3.63E-01
-0.429	8.54E-02	-0.154	6.16E-01	-0.213	4.51E-01	-0.537	1.09E-01
0.15	5.34E-01	0.16	6.18E-01	0.118	6.73E-01	0.17	5.84E-01
0.214	2.08E-01	0.225	3.79E-01	0.24	2.73E-01	0.246	2.27E-01
0.283	2.60E-01	0.063	8.39E-01	0.081	7.76E-01	0.225	4.59E-01
0.034	9.25E-01	0.064	8.84E-01	0.141	7.29E-01	0.034	9.37E-01
0.411	2.19E-02	0.222	2.96E-01	0.311	1.30E-01	0.433	3.90E-02
-0.086	5.70E-01	-0.206	3.43E-01	-0.118	5.26E-01	0.018	9.23E-01
-0.306	1.03E-01	-0.255	2.65E-01	-0.316	1.38E-01	-0.244	2.81E-01
0.025	9.09E-01	0.281	3.50E-01	0.207	4.32E-01	-0.249	3.01E-01
0.084	7.86E-01	-0.204	5.37E-01	-0.106	7.37E-01	0.203	5.84E-01
-0.543	3.55E-01	-0.655	3.66E-01	-0.449	4.61E-01	-0.484	4.71E-01
0.401	3.28E-02	0.501	6.09E-02	0.536	2.59E-02	0.16	4.44E-01
-0.08	8.19E-01	0.198	6.51E-01	0.25	5.39E-01	-0.275	5.13E-01
0.196	4.95E-01	-0.302	4.08E-01	-0.04	9.03E-01	0.488	1.77E-01
-0.145	4.11E-01	0.261	2.65E-01	0.146	4.82E-01	-0.407	9.27E-02
-0.508	1.41E-01	0.009	9.83E-01	-0.2	5.98E-01	-0.69	1.45E-01
-0.067	6.97E-01	-0.124	6.16E-01	-0.101	6.51E-01	-0.05	8.19E-01
-0.092	7.19E-01	0.269	4.74E-01	0.103	7.55E-01	-0.291	3.13E-01
0.057	8.04E-01	0.07	8.06E-01	0.133	6.08E-01	0.043	8.84E-01
-0.098	6.34E-01	-0.032	9.03E-01	0.012	9.61E-01	-0.09	7.34E-01
0.088	7.02E-01	0.244	3.79E-01	0.259	3.32E-01	-0.118	6.45E-01
-0.379	2.42E-01	-0.155	7.12E-01	-0.116	7.56E-01	-0.417	2.82E-01
-0.154	6.27E-01	-0.027	9.44E-01	-0.122	7.33E-01	-0.348	4.05E-01
-0.097	4.70E-01	0.053	7.74E-01	0.003	9.87E-01	-0.232	1.59E-01
0.052	7.51E-01	0.055	7.93E-01	0.025	8.91E-01	0.031	8.75E-01
-0.354	5.53E-01	-0.287	6.77E-01	-0.375	5.73E-01	-0.157	8.19E-01
-0.05	8.45E-01	0.142	6.36E-01	0.074	7.90E-01	-0.114	7.20E-01
-0.245	4.32E-01	-0.137	7.34E-01	-0.206	5.75E-01	-0.209	5.67E-01
-0.229	4.24E-01	-0.078	8.16E-01	-0.141	6.60E-01	-0.259	4.44E-01
0.042	8.54E-01	0.041	8.80E-01	0.101	6.83E-01	0.025	9.39E-01
-0.449	6.60E-02	-0.646	8.03E-02	-0.624	5.34E-02	-0.167	5.36E-01
0.045	8.82E-01	0.546	1.44E-01	0.286	3.70E-01	-0.286	4.55E-01
-0.092	6.64E-01	-0.19	4.72E-01	-0.174	4.72E-01	-0.043	8.61E-01
0.976	1.55E-02	0.629	1.66E-01	0.747	8.23E-02	0.925	4.66E-02
0.468	3.36E-01	0.811	2.43E-01	0.781	2.34E-01	-0.004	9.94E-01
0.155	4.68E-01	0.005	9.86E-01	0.124	6.32E-01	0.281	2.46E-01
-0.736	1.08E-02	-0.854	5.14E-02	-0.815	3.29E-02	-0.444	1.85E-01
-0.204	3.91E-01	-0.339	3.30E-01	-0.322	2.90E-01	-0.057	8.38E-01
-0.338	4.62E-01	-0.18	7.29E-01	-0.111	8.11E-01	-0.326	6.03E-01
0.137	9.73E-02	0.282	2.40E-02	0.241	2.33E-02	-0.01	9.12E-01
0.022	9.23E-01	0.121	6.56E-01	0.064	8.02E-01	-0.028	9.16E-01
-0.194	1.72E-01	-0.42	5.07E-02	-0.371	3.82E-02	0.053	7.50E-01
-0.02	8.84E-01	0.054	7.51E-01	0.023	8.84E-01	-0.062	6.99E-01
-0.096	2.88E-01	-0.129	2.70E-01	-0.118	2.62E-01	-0.045	6.78E-01
-0.672	1.25E-01	-0.624	2.57E-01	-0.768	1.50E-01	-0.556	2.91E-01
0.021	8.93E-01	0.096	6.43E-01	0.06	7.51E-01	-0.131	4.66E-01
0.058	6.80E-01	-0.002	9.92E-01	0.031	8.50E-01	0.08	6.23E-01
0.051	6.97E-01	0.03	8.55E-01	0.063	6.83E-01	0.042	7.80E-01
-0.241	1.94E-01	-0.193	3.67E-01	-0.273	1.71E-01	-0.27	2.30E-01

-0.089	7.63E-01	-0.004	9.90E-01	-0.054	8.75E-01	-0.119	7.23E-01
-0.114	3.73E-01	-0.368	5.02E-02	-0.332	4.02E-02	0.094	5.27E-01
0.061	5.33E-01	-0.229	1.27E-01	-0.13	3.05E-01	0.275	5.06E-02
0.085	5.18E-01	0.156	3.39E-01	0.114	4.46E-01	0.019	9.06E-01
0.014	9.21E-01	-0.11	5.45E-01	-0.074	6.55E-01	0.129	4.53E-01
0.191	2.20E-01	0.08	6.63E-01	0.183	3.14E-01	0.206	2.50E-01
0.023	9.33E-01	0.031	9.24E-01	0.03	9.20E-01	0.002	9.95E-01
0.088	3.06E-01	0.018	8.66E-01	0.036	7.23E-01	0.093	3.10E-01
-0.02	9.31E-01	0.088	7.70E-01	0.048	8.60E-01	-0.051	8.62E-01
0.093	5.31E-01	0.01	9.64E-01	0.078	6.69E-01	0.158	4.11E-01
0.142	3.31E-01	-0.028	8.78E-01	0.008	9.63E-01	0.241	1.79E-01
0.024	8.34E-01	0.285	8.05E-02	0.204	1.39E-01	-0.221	1.57E-01
-0.163	3.47E-01	0.171	4.09E-01	0.053	7.83E-01	-0.415	6.89E-02
0.052	6.57E-01	0.12	4.38E-01	0.118	3.93E-01	-0.027	8.40E-01
-0.215	3.22E-01	-0.201	4.60E-01	-0.217	3.93E-01	-0.126	5.87E-01
0.221	2.73E-01	0.192	4.70E-01	0.175	4.54E-01	0.131	6.19E-01
-0.363	2.52E-02	-0.113	5.51E-01	-0.244	1.63E-01	-0.498	4.38E-02
-0.052	9.11E-01	-0.289	6.07E-01	-0.179	7.15E-01	0.125	8.35E-01
-0.021	8.55E-01	0.193	2.24E-01	0.132	3.35E-01	-0.122	3.81E-01
-0.098	3.74E-01	-0.257	9.36E-02	-0.25	7.82E-02	0.057	6.83E-01
0.033	7.01E-01	0.064	5.98E-01	0.106	3.27E-01	-0.005	9.63E-01
0.051	5.12E-01	-0.029	7.92E-01	-0.005	9.57E-01	0.092	3.75E-01
0.528	7.60E-03	0.422	1.21E-01	0.505	4.27E-02	0.393	1.17E-01
-0.416	1.01E-01	-0.344	2.96E-01	-0.345	2.46E-01	-0.406	1.79E-01
0.086	6.97E-01	0.337	2.43E-01	0.241	3.31E-01	-0.124	6.56E-01
0.077	7.38E-01	-0.028	9.19E-01	0.079	7.56E-01	0.138	6.10E-01
0.003	9.86E-01	0.151	5.04E-01	0.12	5.67E-01	-0.06	7.90E-01
-0.033	8.65E-01	-0.266	3.01E-01	-0.277	2.30E-01	0.252	3.33E-01
0.032	8.01E-01	0.066	6.78E-01	0.056	6.90E-01	0.053	7.48E-01
0.151	1.57E-01	0.102	4.61E-01	0.155	2.08E-01	0.152	2.61E-01
0.187	2.89E-01	0.161	4.71E-01	0.265	1.97E-01	0.114	5.89E-01
0.262	1.47E-01	-0.008	9.73E-01	0.126	5.42E-01	0.383	8.14E-02
-0.103	5.32E-01	-0.382	1.12E-01	-0.33	1.16E-01	0.121	5.28E-01
-0.189	8.44E-02	-0.267	8.99E-02	-0.258	5.69E-02	-0.064	6.13E-01
0.075	4.69E-01	0.114	4.36E-01	0.13	3.18E-01	0.054	6.68E-01
0.112	2.55E-01	0.289	6.40E-02	0.287	3.64E-02	-0.051	6.79E-01
0.106	3.11E-01	0.153	3.06E-01	0.178	1.82E-01	0.044	7.12E-01
0.145	2.82E-01	0.009	9.58E-01	0.061	6.84E-01	0.232	1.77E-01
0.062	4.83E-01	0.036	7.76E-01	0.051	6.53E-01	0.074	5.17E-01
0.066	4.17E-01	0.023	8.05E-01	0.073	4.07E-01	0.068	4.55E-01
0.224	1.87E-01	0.106	6.31E-01	0.154	4.43E-01	0.196	3.30E-01
0.043	8.83E-01	0.134	7.43E-01	0.137	7.06E-01	-0.044	8.98E-01
0.026	8.40E-01	0.135	4.46E-01	0.153	3.19E-01	-0.046	7.71E-01
-0.1	5.71E-01	-0.323	1.54E-01	-0.238	2.51E-01	0.034	8.67E-01
0.019	8.73E-01	0.166	3.09E-01	0.143	3.32E-01	-0.091	5.51E-01
0.788	1.00E-04	1.342	1.50E-03	1.275	2.00E-04	0.057	7.97E-01
0.461	1.00E-04	0.605	3.80E-03	0.663	4.00E-04	0.214	9.19E-02
0.751	5.75E-07	0.984	1.20E-03	1.025	6.63E-05	0.338	1.82E-02
0.067	2.95E-01	0.062	4.46E-01	0.06	4.26E-01	0.039	6.32E-01
0.197	5.10E-03	0.19	5.60E-02	0.234	1.19E-02	0.139	1.05E-01
-0.173	1.43E-02	-0.25	1.47E-02	-0.262	6.00E-03	-0.059	4.08E-01

-0.128	4.84E-02	-0.184	3.50E-02	-0.193	1.50E-02	-0.037	5.98E-01
-0.155	1.89E-02	-0.234	1.58E-02	-0.24	6.30E-03	-0.045	5.19E-01
0.089	2.87E-01	-0.063	5.62E-01	0.005	9.57E-01	0.178	8.84E-02
0.434	5.51E-02	0.42	1.87E-01	0.448	1.04E-01	0.317	2.58E-01
0.24	1.80E-03	0.289	1.69E-02	0.316	3.40E-03	0.119	1.89E-01
0.189	1.58E-02	0.268	2.60E-02	0.275	9.50E-03	0.059	5.42E-01
0.232	8.00E-04	0.213	2.89E-02	0.262	4.00E-03	0.176	2.79E-02
0.277	7.50E-02	0.238	2.03E-01	0.318	7.82E-02	0.193	2.50E-01
0.231	8.00E-04	0.214	2.80E-02	0.263	3.80E-03	0.173	2.97E-02
-0.177	3.45E-01	-0.042	8.66E-01	-0.048	8.26E-01	-0.243	2.95E-01
0.188	1.25E-01	0.059	7.29E-01	0.147	3.40E-01	0.214	1.66E-01
0.266	3.31E-02	0.224	1.75E-01	0.27	7.06E-02	0.191	1.54E-01
0.347	3.70E-03	0.353	3.69E-02	0.371	1.62E-02	0.259	4.92E-02
0.069	4.47E-01	0.234	8.15E-02	0.217	6.85E-02	-0.083	4.23E-01
-0.167	3.66E-01	0.057	8.01E-01	0.038	8.55E-01	-0.29	1.96E-01
-0.641	8.60E-03	-0.453	1.21E-01	-0.559	4.68E-02	-0.54	5.39E-02
0.086	3.21E-01	-0.051	6.34E-01	-0.043	6.47E-01	0.161	2.13E-01
0.16	1.01E-01	0.133	2.93E-01	0.21	7.02E-02	0.138	2.53E-01
0.072	4.02E-01	0.037	7.56E-01	0.103	3.26E-01	0.065	5.61E-01
-0.122	1.04E-01	-0.08	4.21E-01	-0.079	3.78E-01	-0.119	2.12E-01
-0.273	4.39E-01	-0.423	3.38E-01	-0.369	3.54E-01	0.038	9.31E-01
-0.057	7.19E-01	0.136	4.72E-01	0.042	8.07E-01	-0.23	2.37E-01
-0.179	1.37E-01	0.05	7.42E-01	-0.032	8.22E-01	-0.327	3.86E-02
0.262	1.49E-02	0.05	6.60E-01	0.11	3.11E-01	0.263	3.84E-02
0.099	4.94E-01	-0.009	9.63E-01	0.083	6.57E-01	0.125	4.31E-01
0.086	4.77E-01	0.051	7.07E-01	0.058	6.49E-01	0.131	3.73E-01
0.18	3.90E-01	0.256	3.51E-01	0.209	3.98E-01	0.065	7.94E-01
0.47	3.34E-02	0.479	1.38E-01	0.557	5.55E-02	0.326	2.27E-01
0.212	1.04E-02	0.25	5.48E-02	0.229	3.53E-02	0.119	1.98E-01
-0.104	6.58E-01	-0.227	4.84E-01	-0.144	6.20E-01	-0.046	8.70E-01
-0.1	2.27E-01	-0.185	1.19E-01	-0.172	1.05E-01	0.008	9.44E-01
0.078	3.05E-01	0.067	5.32E-01	0.095	3.02E-01	0.063	5.32E-01
1.323	1.93E-01	1.606	2.39E-01	1.538	2.29E-01	0.519	4.46E-01
0.079	5.08E-01	0.078	5.90E-01	0.13	3.34E-01	0.065	6.55E-01
-0.25	6.13E-01	-0.604	4.18E-01	-0.693	3.36E-01	0.108	8.48E-01
-0.034	8.74E-01	0.163	5.78E-01	0.11	6.77E-01	-0.126	6.47E-01
0.584	2.10E-01	-0.093	8.49E-01	0.289	5.28E-01	0.864	1.96E-01
0.057	5.48E-01	0.024	8.30E-01	0.018	8.59E-01	0.064	5.73E-01
-0.012	9.63E-01	0.459	1.77E-01	0.382	2.14E-01	-0.351	3.02E-01
0.083	7.65E-01	0.269	4.59E-01	0.238	4.74E-01	-0.009	9.80E-01
-0.152	7.21E-01	0.083	8.72E-01	-0.029	9.50E-01	-0.233	6.50E-01
-0.134	5.13E-01	-0.284	2.80E-01	-0.277	2.63E-01	0.041	8.73E-01
-0.104	5.89E-01	0.084	7.21E-01	-0.032	8.82E-01	-0.215	4.03E-01
0.04	8.64E-01	-0.119	7.26E-01	-0.138	6.51E-01	0.153	6.31E-01
0.03	8.42E-01	0.322	1.47E-01	0.227	2.36E-01	-0.171	3.91E-01
0.052	7.15E-01	0.116	5.32E-01	0.102	5.37E-01	-0.006	9.75E-01
0.188	8.58E-02	0.195	2.20E-01	0.246	9.42E-02	0.107	3.72E-01
-0.016	9.04E-01	-0.226	2.57E-01	-0.173	3.12E-01	0.134	4.45E-01
0.04	8.32E-01	-0.26	3.30E-01	-0.194	3.99E-01	0.232	3.35E-01
-0.055	7.62E-01	-0.078	7.09E-01	-0.153	4.42E-01	-0.041	8.48E-01
0.035	8.57E-01	0.26	3.63E-01	0.318	2.19E-01	-0.24	3.41E-01

-0.116	4.82E-01	0.02	9.26E-01	0.024	9.08E-01	-0.193	3.16E-01
-0.214	1.68E-01	-0.092	6.58E-01	-0.149	4.27E-01	-0.279	1.89E-01
-0.089	5.57E-01	-0.012	9.50E-01	-0.062	7.22E-01	-0.117	4.94E-01
-0.165	1.86E-01	-0.266	1.33E-01	-0.261	9.16E-02	-0.055	7.06E-01
0.161	2.14E-01	0.213	1.82E-01	0.224	1.31E-01	0.088	5.53E-01
0.236	2.20E-01	0.445	1.32E-01	0.423	9.56E-02	-0.019	9.31E-01
0.335	4.00E-03	0.361	3.21E-02	0.415	7.00E-03	0.152	2.36E-01
0.247	2.90E-03	0.285	1.68E-02	0.274	8.90E-03	0.136	1.43E-01
0.107	5.26E-01	-0.027	9.07E-01	0.056	7.91E-01	0.234	2.61E-01
0.582	1.41E-01	0.518	2.50E-01	0.489	2.16E-01	0.545	2.60E-01
-0.123	7.96E-01	0.185	7.63E-01	-0.021	9.69E-01	-0.194	7.45E-01
0.074	4.78E-01	0.086	5.47E-01	0.07	6.07E-01	0.077	4.78E-01
-0.154	4.87E-01	-0.041	8.86E-01	-0.118	6.41E-01	-0.193	5.47E-01
0.434	3.96E-01	0.906	2.02E-01	0.801	2.20E-01	0.013	9.81E-01
0.236	1.50E-01	0.409	1.03E-01	0.444	4.75E-02	-0.005	9.82E-01
-0.068	6.88E-01	0.003	9.86E-01	-0.076	6.88E-01	-0.065	7.27E-01
0.252	2.85E-01	0.173	5.47E-01	0.158	5.43E-01	0.193	5.26E-01
0.123	3.37E-01	-0.18	3.27E-01	-0.087	5.75E-01	0.285	7.86E-02
-0.285	4.37E-01	-0.176	6.95E-01	-0.253	5.57E-01	-0.167	6.75E-01
-0.33	2.27E-01	0.056	8.73E-01	-0.092	7.67E-01	-0.571	9.65E-02
0.155	2.94E-01	0.344	8.61E-02	0.301	9.13E-02	-0.037	8.40E-01
0.103	4.97E-01	0.024	8.89E-01	0.032	8.46E-01	0.117	5.23E-01
-0.051	8.29E-01	0.011	9.72E-01	-0.052	8.56E-01	-0.065	8.27E-01
0.258	3.24E-01	-0.095	7.87E-01	-0.014	9.66E-01	0.449	1.79E-01
-0.321	2.93E-01	-0.393	3.31E-01	-0.356	3.13E-01	-0.217	5.66E-01
-0.042	8.19E-01	0.128	6.24E-01	0.111	6.40E-01	-0.138	5.05E-01
-0.002	9.92E-01	0.201	4.85E-01	0.135	6.15E-01	-0.129	6.06E-01
-0.268	3.59E-01	-0.467	2.41E-01	-0.317	3.25E-01	0.077	8.44E-01
0.19	4.51E-01	0.366	3.03E-01	0.342	2.79E-01	0.007	9.80E-01
-0.153	5.82E-01	0.091	7.78E-01	0.027	9.31E-01	-0.326	3.63E-01
0.052	7.92E-01	0.057	8.15E-01	0.042	8.47E-01	0.061	7.95E-01
0.166	4.49E-01	0.103	7.28E-01	0.154	5.65E-01	0.139	6.01E-01
0.018	9.17E-01	0.058	8.13E-01	0.054	8.02E-01	0.035	8.82E-01
-0.213	3.69E-01	-0.119	6.76E-01	-0.135	6.25E-01	-0.342	2.21E-01
-0.364	1.40E-01	-0.29	3.76E-01	-0.24	3.99E-01	-0.31	2.75E-01
-0.17	6.53E-01	0.251	6.19E-01	-0.065	8.82E-01	-0.466	3.68E-01
-0.186	1.92E-01	-0.352	9.09E-02	-0.31	9.85E-02	0.062	6.69E-01
0.211	2.80E-01	0.386	1.43E-01	0.343	1.58E-01	0.076	7.06E-01
0.294	2.79E-02	0.541	9.40E-03	0.484	6.30E-03	0.04	8.00E-01
0.094	3.53E-01	-0.083	5.49E-01	-0.008	9.47E-01	0.198	1.07E-01
0.15	1.26E-01	-0.093	4.85E-01	0.012	9.21E-01	0.284	3.38E-02
-0.098	3.14E-01	-0.222	1.50E-01	-0.205	1.18E-01	0.032	7.96E-01
0.248	3.77E-01	-0.124	6.91E-01	0.019	9.50E-01	0.485	1.67E-01
-0.067	5.37E-01	0.169	2.91E-01	0.137	3.33E-01	-0.263	4.29E-02
-0.022	8.98E-01	-0.452	8.64E-02	-0.28	2.00E-01	0.291	1.90E-01
-0.072	7.02E-01	0.223	4.29E-01	0.108	6.47E-01	-0.356	1.64E-01
0.273	1.18E-02	0.347	2.53E-02	0.335	1.48E-02	0.122	2.71E-01
0.204	4.78E-02	0.313	2.90E-02	0.294	2.44E-02	0.028	7.90E-01
-0.778	7.70E-03	-0.74	5.60E-02	-0.789	2.73E-02	-0.532	7.36E-02
0.144	3.66E-01	0.075	7.28E-01	0.105	5.83E-01	0.168	4.02E-01
-0.278	1.34E-01	-0.288	2.24E-01	-0.242	2.36E-01	-0.176	4.21E-01

0.257	6.74E-02	0.341	7.74E-02	0.294	8.95E-02	0.147	3.43E-01
0.162	7.22E-02	0.25	4.62E-02	0.253	2.80E-02	0.049	6.25E-01
0.016	8.81E-01	0.03	7.98E-01	0.06	6.04E-01	0.021	8.62E-01
0.112	5.93E-01	0.089	7.34E-01	0.15	5.45E-01	0.104	6.76E-01
0.049	5.99E-01	0.038	7.64E-01	0.053	6.34E-01	0.024	8.41E-01
0.133	3.07E-01	0.141	4.01E-01	0.165	2.91E-01	0.061	6.86E-01
0.159	1.32E-01	0.236	1.15E-01	0.239	7.91E-02	0.029	8.09E-01
0.1	3.01E-01	0.327	4.02E-02	0.306	2.69E-02	-0.1	3.90E-01
0.339	6.81E-02	0.151	5.21E-01	0.221	3.00E-01	0.38	9.64E-02
-0.009	9.47E-01	0.024	8.81E-01	0.089	5.57E-01	-0.015	9.28E-01
-0.181	2.90E-02	-0.118	2.76E-01	-0.143	1.55E-01	-0.141	1.13E-01
0.021	7.94E-01	-0.046	6.49E-01	-0.012	8.95E-01	0.087	3.97E-01
-0.075	4.73E-01	-0.022	8.70E-01	-0.059	6.38E-01	-0.084	4.81E-01
0.035	7.62E-01	-0.107	5.10E-01	-0.059	6.81E-01	0.153	3.27E-01
0.277	5.20E-03	0.365	2.65E-02	0.379	6.70E-03	0.135	2.84E-01
0.181	1.64E-02	0.163	1.16E-01	0.17	6.04E-02	0.152	1.00E-01
-0.058	6.84E-01	0.218	2.87E-01	0.181	3.17E-01	-0.314	1.02E-01
0.127	3.70E-01	-0.189	3.52E-01	-0.124	4.88E-01	0.398	4.29E-02
-0.241	6.97E-02	-0.01	9.50E-01	-0.085	5.72E-01	-0.377	3.24E-02
-0.15	3.46E-01	-0.113	6.24E-01	-0.199	3.34E-01	-0.107	6.08E-01
0.416	1.78E-01	0.128	7.03E-01	0.337	3.15E-01	0.554	1.72E-01
-0.061	7.15E-01	0.102	6.62E-01	0.021	9.18E-01	-0.164	4.04E-01
-0.225	8.74E-02	-0.336	7.14E-02	-0.341	3.87E-02	-0.057	7.03E-01
0.219	8.02E-02	0.143	4.24E-01	0.112	4.75E-01	0.144	3.60E-01
-0.129	2.18E-01	-0.114	3.56E-01	-0.125	2.90E-01	-0.106	3.64E-01
-0.259	3.16E-02	-0.189	2.25E-01	-0.231	1.11E-01	-0.28	4.85E-02
0.267	1.38E-01	0.339	1.66E-01	0.36	1.03E-01	0.141	5.22E-01
0.116	2.49E-01	0.108	4.25E-01	0.103	3.90E-01	0.058	6.01E-01
0.167	1.66E-01	0.322	4.80E-02	0.292	4.78E-02	-0.019	8.93E-01
0.031	7.24E-01	-0.023	8.39E-01	0.02	8.43E-01	0.059	5.96E-01
0.299	5.57E-02	0.641	1.74E-02	0.566	9.80E-03	-0.06	7.55E-01
0.118	8.74E-02	0.061	5.05E-01	0.1	2.51E-01	0.137	1.01E-01
-0.028	7.37E-01	0.013	9.06E-01	-0.007	9.46E-01	-0.063	5.49E-01
-0.073	3.74E-01	0.041	7.11E-01	0.037	7.07E-01	-0.14	2.14E-01
0.061	4.92E-01	-0.205	1.11E-01	-0.127	2.48E-01	0.27	4.22E-02
0.095	2.47E-01	0.095	4.25E-01	0.089	4.07E-01	0.08	4.02E-01
0.108	7.52E-02	0.001	9.87E-01	0.056	4.47E-01	0.167	3.49E-02
0.106	5.53E-01	-0.027	9.04E-01	-0.048	8.11E-01	0.144	5.58E-01
-0.013	9.00E-01	-0.01	9.35E-01	0.011	9.23E-01	0.035	8.04E-01
0.073	3.02E-01	0.128	2.24E-01	0.113	2.21E-01	0.009	9.23E-01
0.227	5.33E-02	0.227	1.07E-01	0.253	6.60E-02	0.132	2.80E-01
0.049	8.28E-01	0.495	1.39E-01	0.486	1.06E-01	-0.31	2.90E-01
0.205	3.10E-02	0.08	5.11E-01	0.125	2.65E-01	0.225	5.79E-02
-0.647	3.80E-03	-0.175	4.79E-01	-0.258	2.34E-01	-0.768	2.01E-02
0.526	3.40E-03	0.736	8.30E-03	0.743	2.50E-03	0.179	3.93E-01
0.25	5.27E-01	0.265	5.97E-01	0.397	3.93E-01	0.11	8.22E-01
0.069	5.71E-01	0.139	4.07E-01	0.121	4.17E-01	-0.069	6.22E-01
0.231	2.00E-03	0.233	3.72E-02	0.274	6.50E-03	0.149	1.07E-01
0.196	1.04E-02	0.195	7.26E-02	0.229	1.99E-02	0.126	1.99E-01
0.2	3.20E-03	0.199	3.11E-02	0.241	6.60E-03	0.143	5.64E-02
0.196	3.80E-03	0.197	3.23E-02	0.238	7.10E-03	0.138	6.37E-02

-0.187	1.95E-02	-0.45	7.40E-03	-0.4	2.70E-03	0.081	4.13E-01
0.073	5.42E-01	0.043	7.71E-01	0.097	4.75E-01	0.084	5.70E-01
0.153	2.40E-01	0.183	2.55E-01	0.211	1.60E-01	0.099	5.05E-01
0.223	6.40E-03	0.246	3.18E-02	0.244	1.80E-02	0.137	1.38E-01
-0.254	3.20E-03	-0.256	2.61E-02	-0.268	1.11E-02	-0.17	8.10E-02
-0.016	8.94E-01	-0.118	4.69E-01	-0.075	6.04E-01	0.008	9.56E-01
-0.55	4.40E-02	-0.178	6.10E-01	-0.341	2.61E-01	-0.837	2.71E-02
-0.418	4.27E-02	-0.423	1.16E-01	-0.452	5.92E-02	-0.38	1.41E-01
-0.497	4.10E-03	-0.195	3.59E-01	-0.295	1.37E-01	-0.595	1.02E-02
-0.223	3.85E-01	-0.301	3.48E-01	-0.26	3.80E-01	-0.281	3.49E-01
-0.245	2.41E-01	0.132	6.62E-01	0.069	7.90E-01	-0.52	6.05E-02
0.263	9.00E-04	0.276	1.71E-02	0.319	2.50E-03	0.167	7.63E-02
-0.114	3.93E-01	-0.031	8.56E-01	-0.059	7.13E-01	-0.161	3.24E-01
0.23	2.20E-03	0.253	2.55E-02	0.289	4.60E-03	0.133	1.47E-01
0.224	1.10E-03	0.218	2.35E-02	0.265	3.80E-03	0.163	3.28E-02
0.224	1.10E-03	0.221	2.24E-02	0.266	3.60E-03	0.161	3.44E-02
0.013	8.62E-01	-0.003	9.75E-01	0.004	9.67E-01	0.027	7.87E-01
0.003	9.72E-01	0.029	8.18E-01	0.031	7.69E-01	0.013	9.03E-01