

Supplementary information

The influence of evolutionary history on human health and disease

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Table S1. Example locally adapted genes in human populations with relevance to human traits and disease risk.

Gene	Pressure	Trait	Disease	Refs
<i>FADS1/2</i>	High/low-fat diet	Lipid metabolism	Cardio-metabolic disease	1–6
<i>CPT1A</i>	High-fat diet, cold temperatures	Lipid metabolism; energy homeostasis; height	Hypoketotic hypoglycemia; high infant mortality	2,4,7
<i>SLC22A4</i>	Low ergothioneine levels	Ergothioneine absorption	Celiac disease, ulcerative colitis, irritable bowel syndrome	2,8,9
<i>CREBRF</i>	Starvation	Fat storage; energy use	Type 2 diabetes; obesity	1,2,10
<i>HBB, G6PD, GYPA, GYPB, GYPC</i>	Malaria infection	Malaria resistance (through various mechanisms)	Sickle cell anemia; thalassemia; G6PD deficiency	1,2
<i>APOL1</i>	Trypanosome infection	Trypanosome resistance; cytotoxicity	Chronic kidney disease	1,2,11
<i>TRPM8</i>	Cold temperatures	Thermoregulation	Migraine	1,2,12
<i>SLC24A5, SLC45A2, MC1R, BNC2</i>	UV radiation	Skin pigmentation	Dermatological disorders (keratosis, sunburn)	2,9,13,14
<i>TLR6-TLR1-TLR10, HLA, STAT2, OAS</i>	Pathogens	Immune system sensitivity	Autoimmune and inflammatory disorders	15–20
<i>SLC16A11, SLC16A13</i>	Diet	Lipid metabolism	Type 2 diabetes	2,21
<i>EGLN1, EPAS1</i>	High altitude	Response to hypoxia	Erythrocytosis, pulmonary hypertension	22–25

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