

### Reakcia na nasýtené tuky

Corella a kol. (2009). APOA2, dietary fat, and body mass index: replication of a gene-diet interaction in 3 independent populations. *Arch Intern Med* 169(20): 1897 – 1906

### Reakcia na mononenasýtené tuky

Warodomwicht a kol. (2009). ADIPOQ polymorphisms, monounsaturated fatty acids, and obesity risk: the GOLDN study. *Obesity* 17(3): 510 – 517

### Reakcia na polynenasýtené tuky

Tai a kol. (2005). Polyunsaturated fatty acids interact with the PPARA-L162V polymorphism to affect plasma triglyceride and apolipoprotein C-III concentrations in the Framingham Heart Study. *J Nutr* 135(3): 397 – 403

### Reakcia na sacharidy

Sonestedt a kol. (2009). Fat and carbohydrate intake modify the association between genetic variation in the FTO genotype and obesity. *Am J Clin Nutr* 90(5): 1418-1425

Junyent a kol. (2009). Novel variants at KCTD10, MVK, and MMAB genes interact with dietary carbohydrates to modulate HDL-cholesterol concentrations in the Genetics of Lipid Lowering Drugs and Diet Network Study. *Am J Clin Nutr*, 90(3): 686-694

### Pocit sýtosti

Frayling a kol. (2007). A common variant in the FTO gene is associated with body mass index and predisposes to childhood and adult obesity. *Science* 316(5826): 889 – 894

### Jojo efekt

Goyenechea a kol. (2009). The - 11391 G/A polymorphism of the adiponectin gene promoter is associated with metabolic syndrome traits and the outcome of an energy-restricted diet in obese subjects. *Horm Metab Res* 41(1): 55-61

### Vitamíny

de Bree et al. (2003). Effect of the methylenetetrahydrofolate reductase 677C-->T mutation on the relations among folate intake and plasma folate and homocysteine concentrations in a general population sample. *Am J Clin Nutr* 77(3): 687-693

Ferrucci et al. (2009). Common variation in the beta-carotene 15,15' monooxygenase 1 gene affects circulating levels of carotenoids: a genome-wide association study. *Am J Hum Genet* 84(2):123-33

Hazra et al. (2009). Genome-wide significant predictors of metabolites in the one-carbon metabolism pathway. *Hum Mol Genet* 18(23): 4677-4687

Major et al. (2012). Genome-wide association study identifies three common variants associated with serologic response to vitamin E supplementation in men. *J Nutr* 142(5): 866-871

Major et al. (2011). Genome-wide association study identifies common variants associated with circulating vitamin E levels. *Hum Mol Genet* 20(19): 3876-3883

Tanaka et al. (2009). Genome-wide association study of vitamin B6, vitamin B12, folate, and homocysteine blood concentrations. *Am J Hum Genet* 84(4): 477-482

Thuesen et al. (2010). Lifestyle and genetic determinants of folate and vitamin B12 levels in a general adult population. *Br J Nutr* 103(8): 1195-1204

Wang et al. (2010). Common genetic determinants of vitamin D insufficiency: a genome-wide association study. *Lancet* 376(9736): 180-188

Yazdanpanah et al. (2008). Low dietary riboflavin but not folate predicts increased fracture risk in postmenopausal women homozygous for the MTHFR 677 T allele. *J Bone Miner Res* 23(1):86-94

### Minerály

Barlassina et al. (2007). Common genetic variants and haplotypes in renal CLCNKA gene are associated to salt-sensitive hypertension. *Hum Mol Genet* 16(13): 1630-1638

Benjamin et al. (2009). Variants in TF and HFE explain approximately 40% of genetic variation in serum-transferrin levels. *Am J Hum Genet* 84(1): 60-65

Newhouse et al. (2009). Polymorphisms in the WNK1 gene are associated with blood pressure variation and urinary potassium excretion. *PLoS One* 4(4): e5003

Norat et al. (2008). Blood pressure and interactions between the angiotensin polymorphism AGT M235T and sodium intake: a cross-sectional population study. *Am J Clin Nutr* 88(2): 392-397

Tanaka et al. (2010). A genome-wide association analysis of serum iron concentrations. *Blood* 115(1): 94-96

### Metabolizmus alkoholu

Yokoyama a kol. (2005). Hangover susceptibility in relation to aldehyde dehydrogenase-2 genotype, alcohol flushing, and mean corpuscular volume in Japanese workers. *Alcohol Clin Exp Res* 29(7): 1165 – 1171

Martínez a kol. (2010). Variability in ethanol biodisposition in whites is modulated by polymorphisms in the ADH1B and ADH1C genes. *Hepatology* 51(2): 491 – 500

### Metabolizmus kofeín

Cornelis et al. (2006). Coffee, CYP1A2 genotype, and risk of myocardial infarction. *JAMA* 295(10): 1135-1141

Palatini et al. (2009). CYP1A2 genotype modifies the association between coffee intake and the risk of hypertension. *J Hypertens* 27(8): 1594-1601

### Metabolizmus laktózy

Bersaglieri a kol. (2004). Genetic signatures of strong recent positive selection at the lactase gene. *Am J Hum Genet* 74(6): 1111 – 1120

Enattah a kol. (2002). Identification of a variant associated with adult-type hypolactasia. *Nat Genet* 30(2): 233 – 237

### Gluténová intolerancia

Hunt et al. (2008). Newly identified genetic risk variants for celiac disease related to the immune response. *Nat Genet.* 40(4): 395-402.

van Heel et al. (2007). A genome-wide association study for celiac disease identifies risk variants in the region harboring IL2 and IL21. *Nat Genet.* 39(7): 827-829.

Monsuur et al. (2008). Effective detection of human leukocyte antigen risk alleles in celiac disease using tag single nucleotide polymorphisms. *PLoS One.* 3(5):e22720

Zhernakova et al. (2011). Meta-analysis of genome-wide association studies in celiac disease and rheumatoid arthritis identifies fourteen non-HLA shared loci. *PLoS Genet.* 7(2): e1002004

### Svalová štruktúra

Ahmetov et al. (2006). PPARalpha gene variation and physical performance in Russian athletes. *Eur J Appl Physiol* 97(1): 103-108

Eynon et al. (2010). Do PPARalpha polymorphisms influence sprint or endurance phenotypes? *Scand J Med Sci Sports.* 20(1):e145-50.

Eynon et al. (2012). The ACTN3 R577X polymorphism across three groups of elite male European athletes. *PLoS One* 7(8): e43132

Kikuchi et al. (2016). ACTN3 R577X genotype and athletic performance in a large cohort of Japanese athletes. *Eur J Sport Sci* 16(6): 694-701

Kikuchi et al. (2015). The ACTN3 R577X genotype is associated with muscle function in a Japanese population. *Appl Physiol Nutr Metab* 40(4): 316-322

Papadimitriou et al. (2016). ACTN3 R577X and ACE I/D gene variants influence performance in elite sprinters: a multi-cohort study. *BMC Genomics.* 17(1): 285

Yang et al. (2003). ACTN3 genotype is associated with human elite athletic performance. *Am J Hum Genet* 73(3): 627-631

### Posilňovanie

Orkunoglu-Suer a kol. (2008). INSIG2 gene polymorphism is associated with increased subcutaneous fat in women and poor response to resistance training in men. *BMC Med Genet* 9:117

### Výkonnosť srdca

Hagberg et al. (2002). ACE insertion/deletion polymorphism and submaximal exercise hemodynamics in postmenopausal women. *J Appl Physiol* (1985). 2002 Mar;92(3):1083-8

Rankinen et al. (2010). CREB1 is a strong genetic predictor of the variation in exercise heart rate response to regular exercise: the HERITAGE Family Study. *Circ Cardiovasc Genet.* 3(3):294-9

### Gén objemu svalov

Nielsen et al. (2007). Expression of interleukin-15 in human skeletal muscle effect of exercise and muscle fibre type composition. *J Physiol.* 584(Pt 1):305-12

Pistilli et al. (2008). Interleukin-15 and interleukin-15R alpha SNPs and associations with muscle, bone, and predictors of the metabolic syndrome. *Cytokine.* 43(1):45-53

Riechman et al. (2004). Association of interleukin-15 protein and interleukin-15 receptor genetic variation with resistance exercise training responses. *J Appl Physiol* (1985). 97(6):2214-9

### Biologické starnutie

Codd a kol. (2010). Common variants near TERC are associated with mean telomere length. *Nat Genet* 42(3): 197 – 199

### Zápaly

Jianf a kol. (2010). Interleukin-6 receptor gene polymorphism modulates interleukin-6 levels and the metabolic syndrome: GBCS-CVD. *Obesity* (Silver Spring) 18(10): 1969-1974

Kardys a kol. (2006). C-reactive protein gene haplotypes and risk of coronary heart disease: the Rotterdam Study. *Eur Heart J* 27(11): 1331-1337

Mori and Beilin. (2004). Omega-3 Fatty Acids and Inflammation. *Curr Atheroscler Rep.* 6(6): 461-467

Pai a kol. (2008). C-Reactive Protein (CRP) Gene Polymorphisms, CRP Levels, and Risk of Incident Coronary Heart Disease in Two Nested Case-Control Studies. *PLoS One* 3(1): e1395

Scheller a kol. (2011). The pro- and anti-inflammatory properties of the cytokine interleukin-6. *Biochim Biophys Acta* 1813(5): 878-888.

Simopoulos. (2002). Omega-3 Fatty Acids in Inflammation and Autoimmune Diseases. *J Am Coll Nutr* 21(6): 495-505

Vargas a kol. (2013). Influence of the 48867A>C (Asp358Ala) IL6R polymorphism on response to a lifestyle modification intervention in individuals with metabolic syndrome. *Genet Mol Res* 2(3): 3983-3991.

Walston a kol. (2010). Inflammation and stress-related candidate genes, plasma interleukin-6 levels, and longevity in older adults. *Exp Gerontol* 44(5): 350-355.  
Wypasek a kol. (2015). Association of the C-Reactive Protein Gene (CRP) rs1205 C>T Polymorphism with Aortic Valve Calcification in Patients with Aortic Stenosis. *Int J Mol Sci* 16(10): 23745-23759

### **Omega-3 mastné kyseliny**

Harsløf a kol. (2013). FADS genotype and diet are important determinants of DHA status: a cross-sectional study in Danish infants. *Am J Clin Nutr* 97(6): 1403-10  
Lemaitre a kol. (2011). Genetic loci associated with plasma phospholipid n-3 fatty acids: a meta-analysis of genome-wide association studies from the CHARGE Consortium. *PLoS Genet* 7(7): e1002193

### **Omega-3 a triglyceridy**

AlSaleh a kol. (2014). Genetic predisposition scores for dyslipidaemia influence plasma lipid concentrations at baseline, but not the changes after controlled intake of n-3 polyunsaturated fatty acids. *Genes Nutr* 9(4): 412  
Bradberry and Hilleman (2013). Overview of Omega-3 Fatty Acid Therapies. *PT* 38(11): 681-691  
Dumont a kol. (2011). FADS1 genetic variability interacts with dietary  $\alpha$ -linolenic acid intake to affect serum non-HDL-cholesterol concentrations in European adolescents. *J Nutr* 141(7): 1247-1253  
Lu a kol. (2010). Dietary n-3 and n-6 polyunsaturated fatty acid intake interacts with FADS1 genetic variation to affect total and HDL-cholesterol concentrations in the Doetinchem Cohort Study. *Am J Clin Nutr* 92(1): 258-265  
Harris and Bulchandani (2006). Why do omega-3 fatty acids lower serum triglycerides? *Curr Opin Lipidol* 17(4): 387-393

### **Citlivosť na inzulín**

Heni a kol. (2010). Association of obesity risk SNPs in PCSK1 with insulin sensitivity and proinsulin conversion. *BMC Med Genet*. 11:86  
Goyenechea a kol. (2009). The - 11391 G/A polymorphism of the adiponectin gene promoter is associated with metabolic syndrome traits and the outcome of an energy-restricted diet in obese subjects. *Horm Metab Res*. 41(1):55-61  
Palmer a kol. (2008). Association of TCF7L2 gene polymorphisms with reduced acute insulin response in Hispanic Americans. *J Clin Endocrinol Metab*. 93(1): 304-9

### **Adiponektín**

Nigro a kol. (2014). New insight into adiponectin role in obesity and obesity-related diseases. *Biomed Res Int* 2014: 658913.  
Hivert a kol. (2008). Common variants in the adiponectin gene (ADIPOQ) associated with plasma adiponectin levels, type 2 diabetes, and diabetes-related quantitative traits: the Framingham Offspring Study. *Diabetes* 57(12): 3353-3359  
Yoon a kol. (2006). Adiponectin increases fatty acid oxidation in skeletal muscle cells by sequential activation of AMP-activated protein kinase, p38 mitogen-activated protein kinase, and peroxisome proliferator-activated receptor alpha. *Diabetes* 55(9): 2562-2570