

# LINKS TO RELATED STUDIES:

## WEIGHT LOSS - METABOLISM

Obes Res. 2002 May;10(5):394-400. doi: 10.1038/oby.2002.54.

Leptin levels, leptin receptor gene polymorphisms, and energy metabolism in women.

<https://www.ncbi.nlm.nih.gov/pubmed/12006639>

Wauters M, Considine RV, Chagnon M, Mertens I, Rankinen T, Bouchard C, Van Gaal LF

Int J Obes (Lond). 2006 Jan;30(1):183-90. doi: 10.1038/sj.ijo.0803127.

Polymorphisms in the leptin and leptin receptor genes in relation to resting metabolic rate and respiratory quotient in the Québec Family Study.

<https://www.ncbi.nlm.nih.gov/pubmed/16231024>

Loos RJ, Rankinen T, Chagnon Y, Tremblay A, Pérusse L, Bouchard C

Am J Clin Nutr. 2006 Dec;84(6):1527-33. doi: 10.1093/ajcn/84.6.1527.

Resting metabolic rate and respiratory quotient: results from a genome-wide scan in the Quebec Family Study

<https://pubmed.ncbi.nlm.nih.gov/17158439/>

Peter Jacobson, Tuomo Rankinen, Angelo Tremblay, Louis Pérusse, Yvon C Chagnon, Claude Bouchard

PLoS One. 2012;7(12):e51954. doi: 10.1371/journal.pone.0051954. Epub 2012 Dec 14.

Novel genetic loci identified for the pathophysiology of childhood obesity in the Hispanic population

<https://www.ncbi.nlm.nih.gov/pubmed/23251661>

Anthony G Comuzzie, Shelley A Cole, Sandra L Laston, V Saroja Voruganti, Karin Haack, Richard A Gibbs, Nancy F Butte

Randomized Controlled Trial Am J Clin Nutr. 2014 Feb;99(2):392-9. doi: 10.3945/ajcn.113.072066. Epub 2013 Dec 11.

Variants in glucose- and circadian rhythm-related genes affect the response of energy expenditure to weight-loss diets: the POUNDS LOST Trial

<https://pubmed.ncbi.nlm.nih.gov/24335056/>

Khadijeh Mirzaei, Min Xu, Qibin Qi, Lilian de Jonge, George A Bray, Frank Sacks, Lu Qi

## WEIGHT LOSS - WEIGHT LOSS TENDENCY

Hum Hered. 2013;75(2-4):160-74. doi: 10.1159/000353181. Epub 2013 Sep 27.

Human cardiovascular disease IBC chip-wide association with weight loss and weight regain in the look AHEAD trial

<http://www.ncbi.nlm.nih.gov/pubmed/?term=24081232>

McCaffery JM, Papandonatos GD, Huggins GS, Peter I, Erar B, Kahn SE, Knowler WC, Lipkin EW, Kitabchi AE, Wagenknecht LE, Wing RR; Genetic Subgroup of Look AHEAD; Look AHEAD Research Group.

Diabetes. 2012 Nov;61(11):3005-11. doi: 10.2337/db11-1799. Epub 2012 Aug 13.

FTO genotype and 2-year change in body composition and fat distribution in response to weight-loss diets

<http://www.ncbi.nlm.nih.gov/pubmed/?term=22891219>

Zhang X, Qi Q, Zhang C, Smith SR, Hu FB, Sacks FM, Bray GA, Qi L.

Int J Obes (Lond). 2013 Dec;37(12):1545-52. doi: 10.1038/ijo.2013.54. Epub 2013 Apr 3.

FTO predicts weight regain in the Look AHEAD clinical trial

<http://www.ncbi.nlm.nih.gov/pubmed/?term=23628854>

McCaffery JM1, Papandonatos GD, Huggins GS, Peter I, Kahn SE, Knowler WC, Hudnall GE, Lipkin EW, Kitabchi AE, Wagenknecht LE, Wing RR; Genetic Subgroup of Look AHEAD; Look AHEAD Research Group.

# LINKS TO RELATED STUDIES:

Diabetes. 2010 Mar;59(3):747-50. doi: 10.2337/db09-1050. Epub 2009 Dec 22.

Gene variants of TCF7L2 influence weight loss and body composition during lifestyle intervention in a population at risk for type 2 diabetes

<http://www.ncbi.nlm.nih.gov/pubmed/?term=20028944>

Haupt A, Thamer C, Heni M, Ketterer C, Machann J, Schick F, Machicao F, Stefan N, Claussen CD, Häring HU, Fritsche A, Staiger H.

Am J Clin Nutr. 2012 Nov;96(5):1129-36. doi: 10.3945/ajcn.112.038125. Epub 2012 Oct 3.

TCF7L2 genetic variants modulate the effect of dietary fat intake on changes in body composition during a weight-loss intervention

<http://www.ncbi.nlm.nih.gov/pubmed/?term=23034957>

Mattei J, Qi Q, Hu FB, Sacks FM, Qi L.

Am J Clin Nutr. 2014 Feb;99(2):392-9. doi: 10.3945/ajcn.113.072066. Epub 2013 Dec 11

Variants in glucose- and circadian rhythm-related genes affect the response of energy expenditure to weight-loss diets

<http://www.ncbi.nlm.nih.gov/pubmed/?term=24335056>

Mirzaei K, Xu M, Qi Q, de Jonge L, Bray GA, Sacks F, Qi L.

Diabetes Care. 2012 Feb;35(2):363-6. doi: 10.2337/dc11-1328. Epub 2011 Dec 16.

Genetic predictors of weight loss and weight regain after intensive lifestyle modification, metformin treatment, or standard care in the Diabetes Prevention Program

<http://www.ncbi.nlm.nih.gov/pubmed/?term=22179955>

Delahanty LM, Pan Q, Jablonski KA, Watson KE, McCaffery JM, Shuldiner A, Kahn SE, Knowler WC, Florez JC, Franks PW; Diabetes Prevention Program Research Group.

Diabetes. 2002 Aug;51(8):2581-6.

Association of the Pro12Ala polymorphism in the PPAR-gamma2 gene with 3-year incidence of type 2 diabetes and body weight change in the Finnish Diabetes Prevention Study

<http://www.ncbi.nlm.nih.gov/pubmed/?term=12145174>

Lindi VI, Uusitupa MI, Lindström J, Louheranta A, Eriksson JG, Valle TT, Hämäläinen H, Ilanne-Parikka P, Keinänen-Kiukaanniemi S, Laakso M, Tuomilehto J; Finnish Diabetes Prevention Study.

Clin Genet. 2003 Feb;63(2):109-16.

The PPAR-gamma P12A polymorphism modulates the relationship between dietary fat intake and components of the metabolic syndrome

<http://www.ncbi.nlm.nih.gov/pubmed/?term=12145174>

Robitaille J, Després JP, Pérusse L, Vohl MC.

Clin Genet. 2003 Feb;63(2):109-16.

Interaction between a peroxisome proliferator-activated receptor gamma gene polymorphism and dietary fat intake in relation to body mass

<http://www.ncbi.nlm.nih.gov/pubmed/?term=14506127>

Memisoglu A, Hu FB, Hankinson SE, Manson JE, De Vivo I, Willett WC, Hunter DJ.

## WEIGHT LOSS - WEIGHT REGAIN

Randomized Controlled Trial Int J Obes (Lond). 2013 Dec;37(12):1545-52. doi: 10.1038/ijo.2013.54. Epub 2013 Apr 3.

FTO predicts weight regain in the Look AHEAD clinical trial

<https://pubmed.ncbi.nlm.nih.gov/23628854/>

J M McCaffery, G D Papanicolaou, G S Huggins, I Peter, S E Kahn, W C Knowler, G E Hudnall, E W Lipkin, A E Kitabchi, L E Wagenknecht, R R Wing, Genetic Subgroup of Look AHEAD; Look AHEAD Research Group

# LINKS TO RELATED STUDIES:

## WEIGHT LOSS - SATIETY

Diabetes. 2014 Nov;63(11):3955-9. doi: 10.2337/db14-0470. Epub 2014 Jun 4.

Fat mass and obesity-associated gene (FTO) is linked to higher plasma levels of the hunger hormone ghrelin and lower serum levels of the satiety hormone leptin in older adults

<https://www.ncbi.nlm.nih.gov/pubmed/24898142>

Christian Benedict, Tomas Axelsson, Stefan Söderberg, Anders Larsson, Erik Ingelsson, Lars Lind, Helgi B Schiöth

Physiol Behav. 2018 Aug 1;192:188-193. doi: 10.1016/j.physbeh.2017.12.013. Epub 2017 Dec 9.

FTO affects food cravings and interacts with age to influence age-related decline in food cravings

<https://www.ncbi.nlm.nih.gov/pubmed/29233619>

Linh C Dang, Gregory R Samanez-Larkin, Christopher T Smith, Jaime J Castellon, Scott F Perkins, Ronald L Cowan, Daniel O Claassen, David H Zald

Diabetes Metab Syndr Obes. 2018 May 14;11:199-207. doi: 10.2147/DMSO.S154978. eCollection 2018.

Influence of FTO rs9939609 polymorphism on appetite, ghrelin, leptin, IL6, TNF $\alpha$  levels, and food intake of women with morbid obesity

<https://www.ncbi.nlm.nih.gov/pubmed/29785132>

Fernanda Cristina Carvalho Mattos Magno, Helena Chrispim Guaraná, Ana Carolina Proença Fonseca, Giselda Maria Kalil Cabello, João Régis Ivar Carneiro, Aline Pereira Pedrosa, Ana Carolina Ximenes, Eliane Lopes Rosado

10.1172/JCI44403

A link between FTO, ghrelin, and impaired brain food-cue responsivity

<https://www.jci.org/articles/view/44403>

Efthimia Karra,1 Owen G. O'Daly,2 Agharul I. Choudhury,3 Ahmed Yousseif,1 Steven Millership,3 Marianne T. Neary,1 William R. Scott,1 Keval Chandarana,1 Sean Manning,1 Martin E. Hess,4,5,6 Hiroshi Iwakura,7 Takashi Akamizu,7 Queensta Millet,1 Cigdem Gelegen,1 Megan E. Drew,1 Sofia Rahman,1 Julian J. Emmanuel,1 Steven C.R. Williams,2 Ulrich U. Rüther,8 Jens C. Brüning,4,5,6 Dominic J. Withers,3 Fernando O. Zelaya,2 and Rachel L. Batterham1,9,10

## FOOD - PROTEIN UTILIZATION

Int J Obes (Lond). 2013 Dec;37(12):1545-52. doi: 10.1038/ijo.2013.54. Epub 2013 Apr 3.

FTO predicts weight regain in the Look AHEAD clinical trial

<http://www.ncbi.nlm.nih.gov/pubmed/?term=23628854>

McCaffery JM1, Papandonatos GD, Huggins GS, Peter I, Kahn SE, Knowler WC, Hudnall GE, Lipkin EW, Kitabchi AE, Wagenknecht LE, Wing RR; Genetic Subgroup of Look AHEAD; Look AHEAD Research Group.

## FOOD - FAT UTILIZATION

Diabetes Care. 2012 Feb;35(2):363-6. doi: 10.2337/dc11-1328. Epub 2011 Dec 16.

Genetic predictors of weight loss and weight regain after intensive lifestyle modification, metformin treatment, or standard care in the Diabetes Prevention Program

<http://www.ncbi.nlm.nih.gov/pubmed/?term=23628854>

Delahanty LM, Pan Q, Jablonski KA, Watson KE, McCaffery JM, Shuldiner A, Kahn SE, Knowler WC, Florez JC, Franks PW; Diabetes Prevention Program Research Group.

Diabetes. 2002 Aug;51(8):2581-6.

Association of the Pro12Ala polymorphism in the PPAR-gamma2 gene with 3-year incidence of type 2 diabetes and body weight change in the Finnish Diabetes Prevention Study

<http://www.ncbi.nlm.nih.gov/pubmed/?term=12145174>

Lindi Vi, Uusitupa MI, Lindström J, Louheranta A, Eriksson JG, Valle TT, Hämäläinen H, Ilanne-Parikka P, Keinänen-Kiukaanniemi S, Laakso M, Tuomilehto J; Finnish Diabetes Prevention Study.

# LINKS TO RELATED STUDIES:

Clin Genet. 2003 Feb;63(2):109-16.

The PPAR-gamma P12A polymorphism modulates the relationship between dietary fat intake and components of the metabolic syndrome

<http://www.ncbi.nlm.nih.gov/pubmed/?term=12630956>

Robitaille J, Després JP, Pérusse L, Vohl MC.

Hum Mol Genet. 2003 Nov 15;12(22):2923-9. Epub 2003 Sep 23.

Interaction between a peroxisome proliferator-activated receptor gamma gene polymorphism and dietary fat intake in relation to body mass.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=14506127>

Memisoglu A, Hu FB, Hankinson SE, Manson JE, De Vivo I, Willett WC, Hunter DJ.

Am J Clin Nutr. 2012 Nov;96(5):1129-36. doi: 10.3945/ajcn.112.038125. Epub 2012 Oct 3.

TCF7L2 genetic variants modulate the effect of dietary fat intake on changes in body composition during a weight-loss intervention.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=23034957>

Mattei J, Qi Q, Hu FB, Sacks FM, Qi L.

Circulation. 2006 May 2;113(17):2062-70. Epub 2006 Apr 24.

Dietary intake of n-6 fatty acids modulates effect of apolipoprotein A5 gene on plasma fasting triglycerides, remnant lipoprotein concentrations, and lipoprotein particle size: the Framingham Heart Study.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=16636175>

Lai CQ, Corella D, Demissie S, Cupples LA, Adiconis X, Zhu Y, Parnell LD, Tucker KL, Ordovas JM.

Clin Genet. 2005 Aug;68(2):152-4.

A polymorphism in the apolipoprotein A5 gene is associated with weight loss after short-term diet.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=15996212>

Aberle J, Evans D, Beil FU, Seedorf U.

J Mol Med (Berl). 2007 Feb;85(2):119-28. Epub 2007 Jan 9.

APOA5 gene variation modulates the effects of dietary fat intake on body mass index and obesity risk in the Framingham Heart Study.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=17211608>

Corella D, Lai CQ, Demissie S, Cupples LA, Manning AK, Tucker KL, Ordovas JM.

J Nutr. 2011 Mar;141(3):380-5. doi: 10.3945/jn.110.130344. Epub 2011 Jan 5.

APOA5 gene variation interacts with dietary fat intake to modulate obesity and circulating triglycerides in a Mediterranean population.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=21209257>

Sánchez-Moreno C, Ordovás JM, Smith CE, Baraza JC, Lee YC, Garaulet M.

Circulation. 2013 Mar 26;127(12):1283-9. doi: 10.1161/CIRCULATIONAHA.112.000586. Epub 2013 Feb 27.

Variants in glucose- and circadian rhythm-related genes affect the response of energy expenditure to weight-loss diets: the POUNDS LOST Trial.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=24335056>

Mirzaei K, Xu M, Qi Q, de Jonge L, Bray GA, Sacks F, Qi L.

# LINKS TO RELATED STUDIES:

Am J Clin Nutr. 2014 Feb;99(2):392-9. doi: 10.3945/ajcn.113.072066. Epub 2013 Dec 11.

Genetic determinant for amino acid metabolites and changes in body weight and insulin resistance in response to weight-loss diets: the Preventing Overweight Using Novel Dietary Strategies (POUNDS L OST trial).

<http://www.ncbi.nlm.nih.gov/pubmed/?term=23446828>

Xu M, Qi Q, Liang J, Bray GA, Hu FB, Sacks FM, Qi L.

## FOOD - CARB UTILIZATION

Circulation. 2011 Aug 2;124(5):563-71. doi: 10.1161/CIRCULATIONAHA.111.025767. Epub 2011 Jul 11.

Insulin receptor substrate 1 gene variation modifies insulin resistance response to weight-loss diets in a 2-year randomized trial

<http://www.ncbi.nlm.nih.gov/pubmed/?term=21747052>

Qi Q, Bray GA, Smith SR, Hu FB, Sacks FM, Qi L.

## FOOD SENSITIVITY - SWEETS PREFERENCE

Multicenter Study Physiol Genomics. 2008 May 13;33(3):355-60. doi: 10.1152/physiolgenomics.00148.2007. Epub 2008 Mar 18.

Genetic variant in the glucose transporter type 2 is associated with higher intakes of sugars in two distinct populations

<https://pubmed.ncbi.nlm.nih.gov/18349384/>

Karen M Eny, Thomas M S Wolever, Bénédicte Fontaine-Bisson, Ahmed El-Sohemy

Cell Metab. 2017 May 2;25(5):1045-1053.e6. doi: 10.1016/j.cmet.2017.04.009.

FGF21 Is a Sugar-Induced Hormone Associated with Sweet Intake and Preference in Humans

<https://pubmed.ncbi.nlm.nih.gov/28467924/>

Susanna Sørberg, Camilla H Sandholt, Naja Z Jespersen, Ulla Toft, Anja L Madsen, Stephanie von Holstein-Rathlou, Trisha J Grevengoed, Karl B Christensen, Wender L P Bredie, Matthew J Potthoff, Thomas P J Solomon, Camilla Scheele, Allan Linneberg, Torben Jørgensen, Oluf Pedersen, Torben Hansen, Matthew P Gillum, Niels Grarup

## FOOD SENSITIVITY - BITTERNESS SENSITIVITY

Crit Rev Food Sci Nutr. 2018 Jan 22;58(2):194-207. doi: 10.1080/10408398.2016.1152229. Epub 2017 Jul 21.

A review of the associations between single nucleotide polymorphisms in taste receptors, eating behaviors, and health

<https://pubmed.ncbi.nlm.nih.gov/27247080/>

Elie Chamoun, David M Mutch, Emma Allen-Vercoe, Andrea C Buchholz, Alison M Duncan, Lawrence L Spriet, Jess Haines, David W L Ma, Guelph Family Health Study

2003 Feb 21;299(5610):1221-5. doi: 10.1126/science.1080190.

Positional cloning of the human quantitative trait locus underlying taste sensitivity to phenylthiocarbamide

<https://pubmed.ncbi.nlm.nih.gov/12595690/>

Un-kyung Kim, Eric Jorgenson, Hilary Coon, Mark Leppert, Neil Risch, Dennis Drayna

2018 May 31;8(6):2107-2119. doi: 10.1534/g3.118.300547.

TAS2R38 Predisposition to Bitter Taste Associated with Differential Changes in Vegetable Intake in Response to a Community-Based Dietary Intervention

<https://pubmed.ncbi.nlm.nih.gov/29686110/>

Larissa Calancie, Thomas C Keyserling, Lindsey Smith Taillie, Kimberly Robasky, Cam Patterson, Alice S Ammerman, Jonathan C Schisler

# LINKS TO RELATED STUDIES:

## FOOD SENSITIVITY - CAFFEINE METABOLISM

Hum Mol Genet. 2016 Dec 15;25(24):5472-5482. doi: 10.1093/hmg/ddw334.

Genome-wide association study of caffeine metabolites provides new insights to caffeine metabolism and dietary caffeine-consumption behavior.

<https://www.ncbi.nlm.nih.gov/pubmed/27702941>

Cornelis MC, Kacprowski T, Menni C, Gustafsson S, Pivin E, Adamski J, Artati A, Eap CB, Ehret G, Friedrich N, Ganna A, Guessous I, Homuth G, Lind L, Magnusson PK, Mangino M, Pedersen NL, Pietzner M, Suhre K, Völzke H; Swiss Kidney Project on Genes in Hypertension (SKIPOGH) team, Bochud M, Spector TD, Grabe HJ, Ingelsson E.

## NUTRIENTS - VITAMIN A TENDENCY

FASEB J. 2009 Apr;23(4):1041-53. doi: 10.1096/fj.08-121962. Epub 2008 Dec 22.

Two common single nucleotide polymorphisms in the gene encoding beta-carotene 15,15'-monooxygenase alter beta-carotene metabolism in female volunteers.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=19103647>

Leung WC, Hessel S, Méplan C, Flint J, Oberhauser V, Tourniaire F, Hesketh JE, von Lintig J, Lietz G.

## NUTRIENTS - VITAMIN B6 TENDENCY

Am J Hum Genet. 2009 Apr;84(4):477-82. doi: 10.1016/j.ajhg.2009.02.011. Epub 2009 Mar 19.

Genome-wide association study of vitamin B6, vitamin B12, folate, and homocysteine blood concentrations.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=19303062>

Tanaka T, Scheet P, Giusti B, Bandinelli S, Piras MG, Usala G, Lai S, Mulas A, Corsi AM, Vestri A, So i F, Gori AM, Abbate R, Guralnik J, Singleton A, Abecasis GR, Schlessinger D, Uda M, Ferrucci L.

PLoS One. 2013 May 16;8(5):e64343. doi: 10.1371/journal.pone.0064343. Print 2013.

Imputation of variants from the 1000 Genomes Project modestly improves known associations and can identify low-frequency variant-phenotype associations undetected by HapMap based imputation

<https://pubmed.ncbi.nlm.nih.gov/23696881/>

Andrew R Wood, John R B Perry, Toshiko Tanaka, Dena G Hernandez, Hou-Feng Zheng, David Melzer, J Raphael Gibbs, Michael A Nalls, Michael N Weedon, Tim D Spector, J Brent Richards, Stefania Bandinelli, Luigi Ferrucci, Andrew B Singleton, Timothy M Frayling

## NUTRIENTS - VITAMIN B9 – FOLATE TENDENCY

Proc Nutr Soc. 2014 Feb;73(1):47-56. doi: 10.1017/S0029665113003613. Epub 2013 Oct 17.

MTHFR 677TT genotype and disease risk: is there a modulating role for B-vitamins?

<https://pubmed.ncbi.nlm.nih.gov/24131523/>

R Reilly, H McNulty, K Pentieva, J J Strain, M Ward

Gene. 2018 Oct 20;674:121-126. doi: 10.1016/j.gene.2018.06.080. Epub 2018 Jun 25.

Identification of three novel loci of ALDH2 Gene for Serum Folate levels in a Male Chinese Population by Genome-Wide Association Study

<https://pubmed.ncbi.nlm.nih.gov/29953918/>

Caiwang Deng, Shaomei Tang, Xiaoliang Huang, Jiamin Gao, Jiarong Tian, Xianguo Zhou, Yuanliang Xie, Ming Liao, Zengnan Mo, Qiuyan Wang

# LINKS TO RELATED STUDIES:

Am J Clin Nutr. 2018 Dec 1;108(6):1334-1341. doi: 10.1093/ajcn/nqy209.

The 677C>T variant of MTHFR is the major genetic modifier of biomarkers of folate status in a young, healthy Irish population

<https://pubmed.ncbi.nlm.nih.gov/30339177/>

Barry Shane, Faith Pangilinan, James L Mills, Ruzong Fan, Tingting Gong, Cheryl D Cropp, Yoonhee Kim, Per M Ueland, Joan E Bailey-Wilson, Alexander F Wilson, Lawrence C Brody, Anne M Molloy

## NUTRIENTS - VITAMIN B12 TENDENCY

Nat Genet. 2008 Oct;40(10):1160-2. doi: 10.1038/ng.210. Epub 2008 Sep 7.

Common variants of FUT2 are associated with plasma vitamin B12 levels.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=18776911>

Hazra A, Kraft P, Selhub J, Giovannucci EL, Thomas G, Hoover RN, Chanock SJ, Hunter DJ.

Am J Hum Genet. 2009 Apr;84(4):477-82. doi: 10.1016/j.ajhg.2009.02.011. Epub 2009 Mar 19.

Genome-wide association study of vitamin B6, vitamin B12, folate, and homocysteine blood concentrations.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=19303062>

Tanaka T, Scheet P, Giusti B, Bandinelli S, Piras MG, Usala G, Lai S, Mulas A, Corsi AM, Vestrini A, So i F, Gori AM, Abbate R, Guralnik J, Singleton A, Abecasis GR, Schlessinger D, Uda M, Ferrucci L.

Hum Mol Genet. 2012 Jun 1;21(11):2610-7. doi: 10.1093/hmg/ddx062. Epub 2012 Feb 24.

Genome-wide association study identifies novel loci associated with serum level of vitamin B12 in Chinese men

<https://pubmed.ncbi.nlm.nih.gov/22367966/>

Xiaoling Lin, Daru Lu, Yong Gao, Sha Tao, Xiaobo Yang, Junjie Feng, Aihua Tan, Haiying Zhang, Yanling Hu, Xue Qin, Seong-Tae Kim, Tao Peng, Li Li, Linjian Mo, Shijun Zhang, Jeffrey M Trent, Zengnan Mo, S Lilly Zheng, Jianfeng Xu, Jieli Sun

Published Erratum Hum Mol Genet. 2017 Jul 1;26(13):2589. doi: 10.1093/hmg/ddx156.

GWAS identifies population-specific new regulatory variants in FUT6 associated with plasma B12 concentrations in Indians

<https://pubmed.ncbi.nlm.nih.gov/28481999/>

Suraj S Nongmaithem, Charudatta V Joglekar, Ghattu V Krishnaveni, Sirazul A Sahariah, Meraj Ahmad, Swetha Ramachandran, Meera Gandhi, Harsha Chopra, Anand Pandit, Ramesh D Potdar, Caroline H D Fall, Chittaranjan S Yajnik, Giriraj R Chandak

## NUTRIENTS - VITAMIN C TENDENCY

Am J Clin Nutr. 2010 Aug;92(2):375-82. doi: 10.3945/ajcn.2010.29438. Epub 2010 Jun 2.

Genetic variation at the SLC23A1 locus is associated with circulating concentrations of L-ascorbic acid (vitamin C : evidence from 5 independent studies with >15,000 participants.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=20519558>

Timpson NJ, Forouhi NG, Brion MJ, Harbord RM, Cook DG, Johnson P, McConnachie A, Morris RW, Rodriguez S, Luan J, Ebrahim S, Padmanabhan S, Watt G, Bruckdorfer KR, Wareham NJ, Whincup PH, Chanock S, Sattar N, Lawlor DA, Davey Smith G.

## NUTRIENTS - VITAMIN D TENDENCY

Lancet. 2010 Jul 17;376(9736):180-8. doi: 10.1016/S0140-6736(10)60588-0. Epub 2010 Jun 10.

Common genetic determinants of vitamin D insufficiency: a genome-wide association study.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=20541252>

Wang TJ, Zhang F, Richards JB, Kestenbaum B, van Meurs JB, Berry D, Kiel DP, Streeten EA, Ohlsson C, Koller DL, Peltonen L, Cooper JD, O'Reilly PF, Houston DK, Glazer NL, Vandenput L, Peacock M, Shi J, Rivadeneira F, McCarthy MI, Anneli P, de Boer IH, Mangino M, Kato B, Smyth DJ, Booth SL, Jacques PF, Burke GL, Goodarzi M, Cheung CL, Wolf M, Rice K, Goltzman D, Hidiroglou N, Ladoceur M, Wareham NJ, Hocking LJ, Hart D, Arden NK, Cooper C, Malik S, Fraser WD, Hartikainen AL, Zhai G, Macdonald HM, Forouhi NG, Loos RJ, Reid DM, Hakim A, Dennison E, Liu Y, Power C, Stevens HE, Jaana L, Vasani RS, Soranzo N, Bojunga J, Psaty BM, Lorentzon M, Forouhi T, Harris TB, Hofman A, Jansson JO, Cauley JA, Uitterlinden AG, Gibson Q, Jarvelin MR, Karasik D, Siscovick DS, Econs MJ, Kritchevsky SB, Florez JC, Todd JA, Dupuis J, Hyppönen E, Spector TD.

# LINKS TO RELATED STUDIES:

Nat Commun. 2018 Jan 17;9(1):260. doi: 10.1038/s41467-017-02662-2.

## Genome-wide association study in 79,366 European-ancestry individuals informs the genetic architecture of 25-hydroxyvitamin D levels

<https://pubmed.ncbi.nlm.nih.gov/29343764/>

Xia Jiang, Paul F O'Reilly, Hugues Aschard, Yi-Hsiang Hsu, J Brent Richards, Josée Dupuis, Erik Ingelsson, David Karasik, Stefan Pilz, Diane Berry, Bryan Kestenbaum, Jusheng Zheng, Jianan Luan, Eleni Sofianopoulou, Elizabeth A Streeten, Demetrius Albanes, Pamela L Lutsey, Lu Yao, Weihong Tang, Michael J Econs, Henri Wallaschofski, Henry Völzke, Ang Zhou, Chris Power, Mark I McCarthy, Erin D Michos, Eric Boerwinkle, Stephanie J Weinstein, Neal D Freedman, Wen-Yi Huang, Natasja M Van Schoor, Nathalie van der Velde, Lisette C P G M de Groot, Anke Enneman, L Adrienne Cupples, Sarah L Booth, Ramachandran S Vasan, Ching-Ti Liu, Yanhua Zhou, Samuli Ripatti, Claes Ohlsson, Liesbeth Vandenput, Mattias Lorentzon, Johan G Eriksson, M Kyla Shea, Denise K Houston, Stephen B Kritchevsky, Yongmei Liu, Kurt K Lohman, Luigi Ferrucci, Munro Peacock, Christian Gieger, Marian Beekman, Eline Slagboom, Joris Deelen, Diana van Heemst, Marcus E Kleber, Winfried März, Ian H de Boer, Alexis C Wood, Jerome I Rotter, Stephen S Rich, Cassianne Robinson-Cohen, Martin den Heijer, Marjo-Riitta Jarvelin, Alana Cavadino, Peter K Joshi, James F Wilson, Caroline Hayward, Lars Lind, Karl Michaëlsson, Stella Trompet, M Carola Zillikens, Andre G Uitterlinden, Fernando Rivadeneira, Linda Broer, Lina Zgaga, Harry Campbell, Evropi Theodoratou, Susan M Farrington, Maria Timofeeva, Malcolm G Dunlop, Ana M Valdes, Emmi Tikkanen, Terho Lehtimäki, Leo-Pekka Lyytikäinen, Mika Kähönen, Olli T Raitakari, Vera Mikkilä, M Arfan Ikram, Naveed Sattar, J Wouter Jukema, Nicholas J Wareham, Claudia Langenberg, Nita G Forouhi, Thomas E Gundersen, Kay-Tee Khaw, Adam S Butterworth, John Danesh, Timothy Spector, Thomas J Wang, Elina Hyppönen, Peter Kraft, Douglas P Kiel

Front Genet. 2018 Mar 1;9:67. doi: 10.3389/fgene.2018.00067. eCollection 2018.

## Genome-Wide Association Study of Serum 25-Hydroxyvitamin D in US Women

<https://pubmed.ncbi.nlm.nih.gov/29545823/>

Katie M O'Brien, Dale P Sandler, Min Shi, Quaker E Harmon, Jack A Taylor, Clarice R Weinberg

PLoS Genet. 2019 Dec 16;15(12):e1008530. doi: 10.1371/journal.pgen.1008530. eCollection 2019 Dec.

## Genetic variation in GC and CYP2R1 affects 25-hydroxyvitamin D concentration and skeletal parameters: A genome-wide association study in 24-month-old Finnish children

<https://pubmed.ncbi.nlm.nih.gov/31841498/>

Anders Kämpe, Maria Enlund-Cerullo, Saara Valkama, Elisa Holmlund-Suila, Jenni Rosendahl, Helena Hauta-Alus, Minna Pekkinen, Sture Andersson, Outi Mäkitie

Am J Hum Genet. 2020 Mar 5;106(3):327-337. doi: 10.1016/j.ajhg.2020.01.017. Epub 2020 Feb 13.

## Genome-wide Association Study for Vitamin D Levels Reveals 69 Independent Loci

<https://pubmed.ncbi.nlm.nih.gov/32059762/>

Despoina Manousaki, Ruth Mitchell, Tom Dudding, Simon Haworth, Adil Harroud, Vincenzo Forgetta, Rupal L Shah, Jian'an Luan, Claudia Langenberg, Nicholas J Timpson, J Brent Richards

## EXERCISE - FAT LOSS RESPONSE TO CARDIO

J Appl Physiol (1985). 2001 Sep;91(3):1334-40.

## Evidence of LPL gene-exercise interaction for body fat and LPL activity : the HERITAGE Family Study.

<http://www.ncbi.nlm.nih.gov/pubmed/11509533>

Garenc C, Pérusse L, Bergeron J, Gagnon J, Chagnon YC, Borecki IB, Leon AS, Skinner JS, Wilmore JH, Rao DC, Bouchard C.

Obes Res. 2003 May;11(5):612-8.

## Effects of beta2-adrenergic receptor gene variants on adiposity: the HERITAGE Family Study.

<http://www.ncbi.nlm.nih.gov/pubmed/12740450>

Garenc C, Pérusse L, Chagnon YC, Rankinen T, Gagnon J, Borecki IB, Leon AS, Skinner JS, Wilmore JH, Rao DC, Bouchard C; HERITAGE Family Study.



# LINKS TO RELATED STUDIES:

## EXERCISE - FITNESS RESPONSE TO CARDIO

Physiol Genomics. 2003 Jul 7;14(2):161-6.

Associations between cardiorespiratory responses to exercise and the C34T AMPD1 gene polymorphism in the HERITAGE Family Study.

<http://www.ncbi.nlm.nih.gov/pubmed/12783984>

Rico-Sanz J, Rankinen T, Joannis DR, Leon AS, Skinner JS, Wilmore JH, Rao DC, Bouchard C; HERITAGE Family study.

Metabolism. 2004 Feb;53(2):193-202.

Apolipoprotein E genotype and changes in serum lipids and maximal oxygen uptake with exercise training.

<http://www.ncbi.nlm.nih.gov/pubmed/14767871>

Thompson PD, Tsongalis GJ, Seip RL, Bilbie C, Miles M, Zoeller R, Visich P, Gordon P, Angelopoulos TJ, Pescatello L, Bausserman L, Moyna N.

Metabolism. 2004 Jan;53(1):108-16.

Association of apolipoprotein E polymorphism with blood lipids and maximal oxygen uptake in the sedentary state and after exercise training in the HERITAGE family study.

<http://www.ncbi.nlm.nih.gov/pubmed/14681851>

Leon AS, Togashi K, Rankinen T, Després JP, Rao DC, Skinner JS, Wilmore JH, Bouchard C.

## EXERCISE - BODY COMPOSITION RESPONSE TO STRENGTH TRAINING

International Journal of Obesity (2015) 39, 1371–1375; doi:10.1038/ijo.2015.78; published online 26 May 2015

High genetic risk individuals benefit less from resistance exercise intervention

<http://www.nature.com/ijo/journal/v39/n9/abs/ijo201578a.html>

Y C Klimentidis, J W Bea, T Lohman, P-S Hsieh, S Going and Z Chen

## EXERCISE - HDL RESPONSE TO CARDIO

Metabolism. 2004 Jan;53(1):108-16.

Association of apolipoprotein E polymorphism with blood lipids and maximal oxygen uptake in the sedentary state and after exercise training in the HERITAGE family study.

<http://www.ncbi.nlm.nih.gov/pubmed/14681851>

Leon AS, Togashi K, Rankinen T, Després JP, Rao DC, Skinner JS, Wilmore JH, Bouchard C.

## EXERCISE - INSULIN SENSITIVITY RESPONSE TO CARDIO

Am J Physiol Endocrinol Metab. 2005 Jun;288(6):E1168-78. Epub 2005 Feb 1.

Endurance training-induced changes in insulin sensitivity and gene expression.

<http://www.ncbi.nlm.nih.gov/pubmed/15687108>

Teran-Garcia M, Rankinen T, Koza RA, Rao DC, Bouchard C.

Diabetes. 2005 Jul;54(7):2251-5.

Hepatic lipase gene variant -514C>T is associated with lipoprotein and insulin sensitivity response to regular exercise: the HERITAGE Family Study.

<http://www.ncbi.nlm.nih.gov/pubmed/15983229>

Teran-Garcia M, Santoro N, Rankinen T, Bergeron J, Rice T, Leon AS, Rao DC, Skinner JS, Bergman RN, Després JP, Bouchard C; HERITAGE Family Study.

# LINKS TO RELATED STUDIES:

## EXERCISE - GLUCOSE RESPONSE TO CARDIO

Am J Physiol Endocrinol Metab. 2005 Jun;288(6):E1168-78. Epub 2005 Feb 1.

Influence of Pro12Ala peroxisome proliferator-activated receptor gamma2 polymorphism on glucose response to exercise training in type 2 diabetes.

<http://www.ncbi.nlm.nih.gov/pubmed/15986237>

Adamo KB, Sigal RJ, Williams K, Kenny G, Prud'homme D, Tesson F.

Diabetologia. 2010 Apr;53(4):679-89. doi: 10.1007/s00125-009-1630-2. Epub 2009 Dec 31.

Improvements in glucose homeostasis in response to regular exercise are influenced by the PPARG Pro12Ala variant: results from the HERITAGE Family Study.

<http://www.ncbi.nlm.nih.gov/pubmed/20043145>

Ruchat SM, Rankinen T, Weisnagel SJ, Rice T, Rao DC, Bergman RN, Bouchard C, Pérusse L.

Metabolism. 2003 Feb;52(2):209-12.

PPARGgamma gene polymorphism is associated with exercise-mediated changes of insulin resistance in healthy men.

[www.ncbi.nlm.nih.gov/pubmed/12601634](http://www.ncbi.nlm.nih.gov/pubmed/12601634)

Kahara T, Takamura T, Hayakawa T, Nagai Y, Yamaguchi H, Katsuki T, Katsuki K, Katsuki M, Kobayashi K.