

The LifeGenes™ Program CD References

Dietary Signals: from Nutrients to Genes

Prepared by Associate Professor Luis Vitetta

References

1. Muller M, Kersten S. Nutrigenomics: goals and strategies. *Nat Rev Genet* 2003;4:315–322

Nutrigenetics and Personalized Diets

Prepared by Associate Professor Luis Vitetta

References

1. Grody WW. Molecular genetic risk screening. *Annu Rev Med* 2003; 54:473–490.
2. Bailey LB, Gregory JF. Polymorphisms of methylenetetrahydrofolate reductase and other enzymes: metabolic significance, risks and impact on folate requirement. *J Nutr* 1999;129:919–922.
3. Omer RE, et al. Peanut butter intake, GSTM1 genotype and hepatocellular carcinoma: a case-control study in Sudan. *Cancer Causes Control* 2001;12: 23–32.
4. Venter JC, et al. The sequence of the human genome. *Science* 2001;291:1304–1351.
5. Willett WC. Balancing life-style and genomics research for disease prevention. *Science* 2002;296:695–698.
6. Sachidanandam R, et al. A map of human genome sequence variation containing 1.42 million single nucleotide polymorphisms. *Nature* 2001;409: 928–933.
7. Potter JD. At the interfaces of epidemiology, genetics and genomics. *Nature Rev Genet* 2001;2:142–147.
8. Kong A, et al. A high-resolution recombination map of the human genome. *Nature Genet* 2002;31:241–247.
9. Boomsma D, Busjahn A, Peltonen L. Classical twin studies and beyond. *Nature Rev Genet* 2002;3:872–882.

Nutrigenomics the Rationale—

Prepared by Associate Professor Luis Vitetta

To be included...Practitioner Master CD only

References

1. Lunetta KL, D'Agostino RB Sr, et al. Genetic correlates of longevity and selected age-related phenotypes: a genome-wide association study in the Framingham Study. *BMC Med Genet* 2007;8 Suppl 1:S13.]

Metabolomics —Nutritional Systems Biology Prepared by Assoc Professor Luis Vitetta**References**

1. Ideker T, et al. Integrated genomic and proteomic analyses of a systematically perturbed metabolic network. *Science* 2001;292:929–934.
2. Ideker T, Galitski T, Hood L. A new approach to decoding life: systems biology. *Annu Rev Genomics Hum Genet* 2001;2:343–372.
3. Jansen RC. Studying complex biological systems using multifactorial perturbation. *Nature Rev Genet* 2003;4:145–151.
4. Kitano H. Systems biology: a brief overview. *Science* 2002;295:1662–1664.
5. Watkins SM, German JB. Toward the implementation of metabolomic assessments of human health and nutrition. *Curr Opin Biotechnol* 2002;13:512–516.
6. Ideker T, Ozier O, et al. Discovering regulatory and signalling circuits in molecular interaction networks. *Bioinformatics* 2002;18(Suppl):233–240.
7. van Ommen B, Stierum R. Nutrigenomics: exploiting systems biology in the nutrition and health arena. *Curr Opin Biotechnol* 2002;13:517–521.
8. Watkins SM, Reifsnnyder PR, et al. Lipid metabolome-wide effects of the PPAR- γ agonist rosiglitazone. *J Lipid Res* 2002; 43:1809–1817.
9. Xu J, et al. Peroxisome proliferator-activated receptor- α (PPAR- α) influences substrate utilization for hepatic glucose production. *J Biol Chem* 2002;277: 50237–50244.
10. Ryals J. Metabolomics – An Important Emerging Science. *Business Briefing Pharmatech* 2004; [<http://www.touchbriefings.com/pdf/890/Ryals.pdf>]. Accessed March 2008.

Overview IN BRIEF—

Gene Groups Profiles / Why These Genes—

Prepared by Associate Professor Luis Vitetta

References

1. Mutch DM, Wahli W, Williamson G. Nutrigenomics and nutrigenetics: the emerging faces of nutrition. *FASEB J.* 2005;19:1602–1616.
2. OrdovasJM. Genetic interactions with diet influence the risk of cardiovascular disease. *Am J Clin Nutr* 2006;83(suppl):443S– 6S.
3. Ye SQ, Kwiterovich PO Jr. Influence of genetic polymorphisms or responsiveness to dietary fat and cholesterol. *Am J Clin Nutr* 2000;72: 1275S–84S.
4. Rattan SI. The science of healthy aging: genes, milieu, and chance. *Ann N Y Acad Sci* 2007;1114:1-10.

Nutrient Sensors

Prepared by Associate Professor Luis Vitetta

References

1. Francis GA, Fayard E, Picard F, Auwerx J. Nuclear receptors and the control of metabolism. *Annu Rev Physiol* 2002;65:261–311.
2. Lu TT, Repa JJ, Mangelsdorf DJ. Orphan nuclear receptors as eLiXiRs and FiXeRs of sterol metabolism. *J. Biol Chem* 2001;276:37735–37738.
3. Mangelsdorf, D. J. et al. The nuclear receptor superfamily: the second decade. *Cell* 1995;83:835–839.
4. Chawla A, Repa JJ, Evans RM, Mangelsdorf DJ. Nuclear receptors and lipid physiology: opening the X-files. *Science* 2001;294:1866–1870.
5. Jansen PL, Müller M, Sturm E. Genes and cholestasis. *Hepatology* 2001;34:1067–1074.
6. Chiang JY. Bile acid regulation of gene expression: roles of nuclear hormone receptors. *Endocr. Rev* 2002; 23:443–463.
7. Plass JR, et al. Farnesoid X receptor and bile salts are involved in transcriptional regulation of the gene encoding the human bile salt export pump. *Hepatology* 2002;35:589–596.
8. Pineda Torra, I. et al. Bile acids induce the expression of the human peroxisome proliferator-activated receptor- α gene via activation of the farnesoid X receptor. *Mol Endocrinol* 2003;17:259–272.
9. Ananthanarayanan M, Balasubramanian N, et al. Human bile salt export pump promoter is transactivated by the farnesoid X receptor/bile acid receptor. *J. Biol. Chem* 2001;276:28857–28865.
10. Hwang ST, Urizar NL, et al. Bile acids regulate the ontogenic expression of ileal bile acid binding protein in the rat via the farnesoid X receptor. *Gastroenterology* 2002;122:1483–1492.
11. Lu TT, et al. Molecular basis for feedback regulation of bile acid synthesis by nuclear receptors. *Mol Cell* 2000;6:507–515.
12. He K, et al. Fish consumption and risk of stroke in men. *JAMA* 2002;288:3130–3136 .
13. Albert CM, et al. Blood levels of long-chain n-3 fatty acids and the risk of sudden death. *N Engl J Med* 2002;346:1113–1118.

14. Jump DB, Clarke SD. Regulation of gene expression by dietary fat. *Annu Rev Nutr* 1999;19:63–90.
15. Jump DB. Dietary polyunsaturated fatty acids and regulation of gene transcription. *Curr Opin Lipidol* 2002;13:155–164.
16. Kersten S, Desvergne B, Wahli W. Roles of PPARs in health and disease. *Nature* 2000; 405:421–424.
17. Barbier O, et al. Pleiotropic actions of peroxisome proliferator-activated receptors in lipid metabolism and atherosclerosis. *Arterioscler Thromb Vasc Biol* 2002; 22:717–726.
18. Walczak R, Tontonoz P. PPARadigms and PPARadoxes: expanding roles for PPAR- γ in the control of lipid metabolism. *J Lipid Res* 2002;43:177–186.
19. Xu J, et al. Peroxisome proliferator-activated receptor- α (PPAR- α) influences substrate utilization for hepatic glucose production. *J Biol Chem* 2002; 277: 50237–50244.
20. Kersten S, et al. Peroxisome proliferator-activated receptor- α mediates the adaptive response to fasting. *J Clin Invest* 1999;103:1489–1498.
21. Jump DB, Thelen A, Mater M. Dietary polyunsaturated fatty acids and hepatic gene expression. *Lipids* 1999;34 (Suppl.):S209–S212.
22. Desvergne B, Wahli W. Peroxisome proliferators activated receptors: nuclear control of metabolism. *Endocr Rev* 1999;20:649–688.

Mind Body Medicine and Health: Stress and its Impact on Overall Health and Longevity

Prepared by Associate Professor Luis Vitetta

References

1. Vitetta L, Anton B, Cortizo F, Sali A. Mind-body medicine: stress and its impact on overall health and longevity. *Ann N Y Acad Sci*. 2005; 1057:492-505.
2. Song C, Leonard BE. *Fundamentals of Psychoneuroimmunology*. Wiley Press, New York, 2001.
3. Kiecolt-Glaser JK, McGuire L, Robles TF, Glaser R. Psychoneuroimmunology and psychosomatic medicine: back to the future. *Psychosom Med*. 2002; 64(1):15-28.
4. Young E et al. Psychoneuroendocrinology of depression: hypothalamic-pituitary-gonadal axis. In: Nemeroff CB (ed) *Psychoneuroendocrinology The Psychiatric Clin of Nth Amer* 1998. 21, 309-324
5. Plotsky PM et al. Psychoneuroendocrinology of depression: hypothalamic-pituitary-gonadal axis. In: Nemeroff CB (ed) *Psychoneuroendocrinology The Psychiatric Clin of Nth Amer* 1998. 21, 293-308
6. Ernst E et al. Complementary Therapies for Depression: An overview. *Arch Gen Psychiatry* 1998. 55:1026-1032
7. Mufson L et al. Efficacy of interpersonal psychotherapy for depressed adolescents. *Arch Gen Psychiatry* 1999. 56:573-579
8. Faba GA et al. Prevention of recurrent depression with cognitive behavioural therapy. *Arch Gen Psychiatry* 1998. 55:816-820
9. Cantor CH et al. Australian suicide trends 1964-1997: youth and beyond? *MJA* 1999. 171:137-141

10. De Groot M et al. Glycaemic control and major depression in diabetes with type 1 and type 2 diabetes mellitus. *J Psychosomatic Research* 1999. 46:425-435
11. Zorn BH. Urinary incontinence and depression. *J Urol* 1999. 162:82-84
12. Steffes BC et al. The effect of major depression on functional status in patients with coronary artery disease. *J Amer Geriac Soc* 1999. 47:319-322
13. Weatherall M. Biofeedback or pelvic floor muscle exercises for female genuine stress incontinence a meta analysis of trials identified in a systematic review. *BJU International* 1999. 83:1015-1016
14. Stein PC et al. Elevated urinary norepinephrine in intertissual cystitis. *Urol J* 1999. 53:1140-1143
15. Rosengren A et al. Stressful life events social support and morality in men born in 1933. *BMJ* 1993. 307:1102-1105
16. Hall SM et al. Nortriptyline and incognitive behavioural therapy in the treatment of cigarette smoking. *Arch Gen Psych* 1998. 55:683-690
17. Marcus BH et al. The efficacy of exercise as an aid for smoking cessation in women. *Arch Int Med* 1999. 159:1229-1234
18. Foulds J. The relationship between tobacco use and mental disorders. *Curr Opinions in Psych* 1999. 12:303-306
19. Buchanan TW, Tranel D, Adolphs R. Impaired memory retrieval correlates with individual differences in cortisol response but not autonomic response. *Learn Mem.* 2006; 13(3):382-7.
20. Newcomer JW et al. Decreased memory performance in healthy humans induced by stress level cortisol treatment. *Arch Gen Psych* 1999. 56:527-533
21. Stoll AL et al. Omega 3 fatty acids in bipolar disorder. *Arch Gen Psych* 1999. 174:4-7-412
22. Walker NP et al. Lipids in schizophrenia. *Br J Psych* 1999 174:101-104