

## LITERATURE REVIEW

### THE HINARI CORNER

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In this regular column, recent papers in PubMed's databases <<http://www.ncbi.nlm.nih.gov/pubmed>> relevant to medical health in Samoa and the South Pacific will be listed. PubMed comprises citations to over 19 million articles from Medline and life sciences journals. PubMed may provide links to the full text of the articles from the citations via PubMed Central or the publishers' web sites

It is hoped that our busy doctors and healthcare workers at the TTM hospital, Ministry of Health and the private sector in Samoa will find some of these articles interesting and become motivated to read the full papers.

For those in Samoa the full text of these articles will likely be available at the OUM Medical Library through its subscription to **HINARI**. For those of you who not familiar with HINARI, here is an extract from their website <<http://www.who.int/hinari/en/>>:

*The HINARI Programme, set up by WHO together with major publishers, enables developing countries to gain access to one of the world's largest collections of biomedical and health literature. Over 6400 journal titles are now available to health institutions in 108 countries, areas and territories benefiting many thousands of health workers and researchers, and in turn, contributing to improved world health.*

The following are articles on Medicine and Medical Sciences, relevant to Samoa and the South Pacific:

1: Barnes SS, Small C, Bennett J, Barnes J, Keogh R. Prevalence of smoking in rural Samoa. *N Z Med J.* 2010 Feb 19;123(1309):134-6. PubMed PMID: 20186235.

2: Vanderlaan DP, Vasey PL. Male Sexual Orientation in Independent Samoa: Evidence for Fraternal Birth Order and Maternal Fecundity Effects. *Arch Sex Behav.* 2009 Dec 29. [Epub ahead of print] PubMed PMID: 20039114.

3: Deka R, Xu L, Pal P, Toelupe PT, Laumoli TS, Xi H, Zhang G, Weeks DE, McGarvey ST. A tagging SNP in INSIG2 is associated with obesity-related phenotypes among Samoans. *BMC Med Genet.* 2009 Dec 22;10:143. PubMed PMID: 20028541; PubMed Central PMCID: PMC2804583.

4: Lambdin BH, Schmaedick MA, McClintock S, Roberts J, Gurr NE, Marcos K, Waller L, Burkot TR. Dry season production of filariasis and dengue vectors in American Samoa and comparison with wet season production. *Am J Trop Med Hyg.* 2009 Dec;81(6):1013-9. PubMed PMID: 19996430.

5: Gauvain M, Munroe RL. Contributions of societal modernity to cognitive development: a comparison of four cultures. *Child Dev.* 2009 Nov-Dec;80(6):1628-42. PubMed PMID: 19930342.

6: Aberg K, Dai F, Viali S, Tuitele J, Sun G, Indugula SR, Deka R, Weeks DE, McGarvey ST. Suggestive linkage detected for blood pressure related traits on 2q and 22q in the population on the Samoan islands. *BMC Med Genet.* 2009 Oct 23;10:107. PubMed PMID: 19852796; PubMed Central PMCID: PMC2770055.

7: Norris P, Fa'alau F, Va'ai C, Churchward M, Arroll B. Navigating between illness paradigms: treatment seeking by Samoan people in Samoa and New Zealand. *Qual Health Res.* 2009 Oct;19(10):1466-75. PubMed PMID: 19805808.

8: Mishra SI, Luce PH, Baquet CR. Increasing pap smear utilization among Samoan women: results from a community based participatory randomized trial. *J Health Care Poor Underserved.* 2009 May;20(2 Suppl):85-101. PubMed PMID: 19711495.

9: DiBello JR, McGarvey ST, Kraft P, Goldberg R, Campos H, Quested C, Laumoli TS, Baylin A. Dietary patterns are associated with metabolic syndrome in adult Samoans. *J Nutr.* 2009 Oct;139(10):1933-43. Epub 2009 Aug 26. PubMed PMID: 19710163; PubMed Central PMCID: PMC2744614.

10: Erdem G, Sinclair S, Marrone JR, l'atala TF, Tuua A, Tuua B, Tuumua F, Dodd A, Mizumoto C, Medina L. Higher rates of streptococcal colonization among children in the Pacific Rim Region correlates with higher rates of group A streptococcal disease and sequelae. *Clin Microbiol Infect.* 2009 Jul 20. [Epub ahead of print] PubMed PMID: 19681949.

11: Alefaio S. Reflections of a practitioner: purely a journey of the heart. *Pac Health Dialog.* 2009 Feb;15(1):171-6. PubMed PMID: 19585748.

- 12: Boyce DE, Tice AD, Ona FV, Akinaka KT, Lusk H. Viral hepatitis in a homeless shelter in Hawai'i. *Hawaii Med J.* 2009 Jun;68(5):113-5. PubMed PMID: 19583106.
- 13: Willoughby K. A sad farewell to Sulu Fesili. *Nurs N Z.* 2009 May;15(4):5. PubMed PMID: 19552120.
- 14: Adalja AA. Southern hemisphere influenza vaccine in American Samoa? *J Travel Med.* 2009 May-Jun;16(3):226; author reply 226. PubMed PMID: 19538588.
- 15: Huppatz C, Capuano C, Palmer K, Kelly PM, Durrheim DN. Lessons from the Pacific programme to eliminate lymphatic filariasis: a case study of 5 countries. *BMC Infect Dis.* 2009 Jun 12;9:92. PubMed PMID: 19523192; PubMed Central PMCID: PMC2702370.
- 16: Fischer GE, Thompson N, Chaves SS, Bower W, Goldstein S, Armstrong G, Williams I, Bialek S. The epidemiology of hepatitis A virus infections in four Pacific Island nations, 1995-2008. *Trans R Soc Trop Med Hyg.* 2009 Sep;103(9):906-10. Epub 2009 Jun 10. PubMed PMID: 19520409.
- 17: Duda TF Jr, Lee T. Ecological release and venom evolution of a predatory marine snail at Easter Island. *PLoS One.* 2009 May 20;4(5):e5558. PubMed PMID:19462001; PubMed Central PMCID: PMC2680045.
- 18: Little V. Palliative care needs in American Samoa. *J Palliat Med.* 2009 May;12(5):411-3. PubMed PMID: 19416035.
- 19: Chambers EW, McClintock SK, Avery MF, King JD, Bradley MH, Schmaedick MA, Lammie PJ, Burkot TR. Xenomonitoring of *Wuchereria bancrofti* and *Dirofilaria immitis* infections in mosquitoes from American Samoa: trapping considerations and a comparison of polymerase chain reaction assays with dissection. *Am J Trop Med Hyg.* 2009 May;80(5):774-81. PubMed PMID: 19407123.
- 20: Mladonicky JM, King JD, Liang JL, Chambers E, Pa'au M, Schmaedick MA, Burkot TR, Bradley M, Lammie PJ. Assessing transmission of lymphatic filariasis using parasitologic, serologic, and entomologic tools after mass drug administration in American Samoa. *Am J Trop Med Hyg.* 2009 May;80(5):769-73. PubMed PMID: 19407122.
- 21: McGrath BB, Edwards KL. When family means more (or less) than genetics: the intersection of culture, family and genomics. *J Transcult Nurs.* 2009 Jul;20(3):270-7. PubMed PMID: 19398610; PubMed Central PMCID: PMC2773542.
- 22: Oneha MF, Magnussen L, Shoultz J. When does abuse become abuse? *Issues Ment Health Nurs.* 2009 Apr;30(4):279-80. PubMed PMID: 19363733.
- 23: Middleton S, Vermeulen W, Byth K, Sullivan CE, Middleton PG. Treatment of obstructive sleep apnoea in Samoa progressively reduces daytime blood pressure over 6 months. *Respirology.* 2009 Apr;14(3):404-10. PubMed PMID: 19353775.
- 24: Brown IJ, Tzoulaki I, Candeias V, Elliott P. Salt intakes around the world: implications for public health. *Int J Epidemiol.* 2009 Jun;38(3):791-813. Epub 2009 Apr 7. PubMed PMID: 19351697.
- 25: Aberg K, Dai F, Sun G, Keighley ED, Indugula SR, Roberts ST, Zhang Q, Smelser D, Viali S, Tuitele J, Jin L, Deka R, Weeks DE, McGarvey ST. Susceptibility loci for adiposity phenotypes on 8p, 9p, and 16q in American Samoa and Samoa. *Obesity (Silver Spring).* 2009 Mar;17(3):518-24. Epub 2008 Dec 18. PubMed PMID: 19238140.
- 26: Rosenbloom JI, Kaluski DN, Berry EM. A global nutritional index. *Food Nutr Bull.* 2008 Dec;29(4):266-77. PubMed PMID: 19227051.
- 27: Capstick S, Norris P, Sopoaga F, Tobata W. Relationships between health and culture in Polynesia - a review. *Soc Sci Med.* 2009 Apr;68(7):1341-8. Epub 2009 Feb 3. Review. PubMed PMID: 19195751.
- 28: Christl SU, Seifert A, Seeler D. Toxic hepatitis after consumption of traditional kava preparation. *J Travel Med.* 2009 Jan-Feb;16(1):55-6. PubMed PMID: 19192130.
- 29: Rosen RK, DePue J, McGarvey ST. Overweight and diabetes in American Samoa: the cultural translation of research into health care practice. *Med Health R I.* 2008 Dec;91(12):372-3, 376-7. PubMed PMID: 19170313.
- 30: Pala C. Conservation. Scientists laud Bush's blue legacy but want more. *Science.* 2009 Jan 9;323(5911):192-3. PubMed PMID: 19131597.
- 31: Dibello JR, Baylin A, Viali S, Tuitele J, Bausserman L, McGarvey ST. Adiponectin and type 2 diabetes in Samoan adults. *Am J Hum Biol.* 2009 May-Jun;21(3):389-91. PubMed PMID: 19107905. May-Jun;21(3):389-91. PubMed PMID: 19107905.

FEATURED ABSTRACT

1. BMC Med Genet. 2009 Dec 22;10:143.

## **A tagging SNP in INSIG2 is associated with obesity-related phenotypes among Samoans**

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**BACKGROUND:** A genome wide association study found significant association of a sequence variant, rs7566605, in the insulin-induced gene 2 (INSIG2) with obesity. However, the association remained inconclusive in follow-up studies. We tested for association of four tagging SNPs (tagSNPs) including this variant with body mass index (BMI) and abdominal circumference (ABDCIR) in the Samoans of the Western Pacific, a population with high levels of obesity.

**METHODS:** We studied 907 adult Samoan participants from a longitudinal study of adiposity and cardiovascular disease risk in two polities, American Samoa and Samoa. Four tagSNPs were identified from the Chinese HapMap database based on pairwise  $r^2$  of  $\geq 0.8$  and minor allele frequency of  $\geq 0.05$ . Genotyping was performed using the TaqMan assay. Tests of association with BMI and ABDCIR were performed under the additive model.

**RESULTS:** We did not find association of rs7566605 with either BMI or ABDCIR in any group of the Samoans. However, the most distally located tag SNPs in Intron 3 of the gene, rs9308762, showed significant association with both BMI (p-value 0.024) and ABDCIR (p-value 0.009) in the combined sample and with BMI (p-value 0.038) in the sample from Samoa.

**CONCLUSION:** Although rs7566605 was not significantly associated with obesity in our study population, we can not rule out the involvement of INSIG2 in obesity related traits as we found significant association of another tagSNP in INSIG2 with both BMI and ABDCIR. This study suggests the importance of comprehensive assessment of sequence variants within a gene in association studies.

PMCID: PMC2804583  
PMID: 20028541 [PubMed - in process]

**Note:** Professor Steve McGarvey is a frequent visitor to Samoa and engages in high quality research.

The OUM library will monitor the publication of recent articles relevant to Samoa and the South Pacific. If you wish to join the OUM "PubMed Alert List" please send your email address to the OUM librarian at matila.faapopo or surindar.cheema at oceaniamed.org. Those on this list will receive regular updates via email and can thus come by the OUM library to read the full articles through HINARI. It is important that the medical community in Samoa takes an active role to keep its medical and clinical knowledge current in order to develop good life-long and independent learning habits which will ensure that their patients benefit from the latest discoveries and thinking about disease mechanisms, treatments and most of all prevention.