Stumvoll Insulin Sensitivity Index public data release- July, 2016- README.PDF

“Genome-wide association study of the modified Stumvoll Insulin Sensitivity Index identifies *BCL2* and *FAM19A2* as novel insulin sensitivity loci”

Geoffrey A Walford, Stefan Gustafsson, Denis Rybin et al., (2016) *Diabetes*

These files contain the association analysis results for the discovery effort presented in the paper above (1). A genome-wide association study (GWAS) was performed for the modified Stumvoll Insulin Sensitivity Index (ISI, (2)) as calculated according to the following formula: 0.156-(0.0000459\*insulin2hrs[pmol/L])-(0.000321\*insulinfasting [pmol/L))- (0.0054\* glucose2hrs [mmol/L]).

Association with ISI was tested in three different models: Model 1 was adjusted for age and sex; Model 2 was adjusted for age, sex, and body mass index; and Model 3 analyzed the combined influence of the genotype effect adjusted for BMI and the interaction effect between the genotype and BMI on ISI (Model 3) as developed by Manning and colleagues (3).

Results from the discovery effort are from up to 16,753 non-diabetic participants in Model 1 or from up to 16,735 non-diabetic participants in Models 2 and 3 from 7 studies. Replication was attempted for the 23 most significant novel loci in 13,354 independent individuals from 10 additional studies. The results of the replication and combined analysis of discovery and replication results are in the paper and its supplemental material (1).

When using data from the downloadable meta-analysis results please acknowledge the source of the data as follows: “Data on glycemic traits have been contributed by MAGIC investigators and have been downloaded from [www.magicinvestigators.org](http://www.magicinvestigators.org)” citing the paper (1).

**1.** Walford GA, Gustaffsson S, Rybin D, et al. Genome-wide association study of the modified Stumvoll Insulin Sensitivity Index identifies *BCL2* and *FAM19A2* as novel insulin sensitivity loci. Diabetes2016; Jul; db160199. <http://dx.doi.org/10.2337/db16-0199>

**2.** Stumvoll M, Van Haeften T, Fritsche A, Gerich J. Oral glucose tolerance test indexes for insulin sensitivity and secretion based on various availabilities of sampling times. Diabetes Care2001; 24:796-797

**3.** Manning AK, LaValley M, Liu CT, Rice K, An P, Liu Y, Miljkovic I, Rasmussen-Torvik L, Harris TB, Province MA, Borecki IB, Florez JC, Meigs JB, Cupples LA, Dupuis J. Meta-analysis of gene-environment interaction: joint estimation of SNP and SNP x environment regression coefficients. Genet Epidemiol2011; 35:11-18