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Mendelian Randomization Analysis Reveals No Causal Relationship Between Nonalcoholic Fatty Liver Disease and Severe COVID-19

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BACKGROUND & AIMS: The coronavirus disease 2019 (COVID-19) pandemic has witnessed more than 4.5 million deaths as of the time of writing. Whether nonalcoholic fatty liver disease (NAFLD) increases the risk for severe COVID-19 remains unclear. We sought to address this question using 2-sample Mendelian randomization (TSMR) analysis approaches in large cohorts.

METHODS: We performed large-scale TSMR analyses to examine whether there is a causal relationship between NAFLD, serum alanine aminotransferase, grade of steatosis, NAFLD Activity Score, or fibrosis stage and severe COVID-19. To maximize the power of this analysis, we performed a genome-wide meta-analysis to identify single nucleotide polymorphisms associated with NAFLD. We also examined the impact of 20 major comorbid factors of NAFLD on severe COVID-19.
Univariate analysis of the UK Biobank data demonstrated a significant association between NAFLD and severe COVID-19 (odds ratio [OR], 3.06; \( P = 1.07 \times 10^{-8} \)). However, this association disappeared after demographic and comorbid factors were adjusted (OR, 1.57; \( P = .09 \)). TSMR study indicated that NAFLD (OR, 0.97; \( P = .61 \)), alanine aminotransferase level (OR, 1.03; \( P = .47 \)), grade of steatosis (OR, 1.08; \( P = .41 \)), NAFLD Activity Score (OR, 1.02; \( P = .39 \)), and fibrosis stage (OR, 1.01; \( P = .87 \)) were not associated with severe COVID-19. Among all NAFLD-related comorbid factors, body mass index (OR, 1.73; \( P = 7.65 \times 10^{-9} \)), waist circumference (OR, 1.76; \( P = 2.58 \times 10^{-5} \)), and hip circumference (OR, 1.33; \( P = 7.26 \times 10^{-5} \)) were the only ones demonstrated a causal impact on severe COVID-19.

CONCLUSIONS:
There is no evidence supporting that NAFLD is a causal risk factor for severe COVID-19. Previous observational associations between NAFLD and COVID-19 are likely attributed to the correlation between NAFLD and obesity.

Keywords: Nonalcoholic Fatty Liver Disease; Severe COVID-19; Genome-Wide Association Study; Mendelian Randomization.
on NAFLD, which in total covered 3711 NAFLD cases and 426,252 controls (Supplementary Table 3). Additional large-scale GWASs are also available, e.g., the unpublished study in the Million Veteran Program (MVP) cohort. However, the definition of NAFLD is primarily based on the liver function measurement of ALT levels. The single nucleotide polymorphism (SNPs) identified in this MVP cohort were then used as instrumental variables for ALT level to perform an additional TSMR to examine the causal role of ALT level (liver injury) and severe COVID-19. GWMA was performed using a fixed-effect inverse variance-weighted model with METAL. The autosomal SNPs with the same direction of effect across the 3 GWASs were used in this study.

GWMA on Severe COVID-19 Based on the COVID-19 Host Genetics Initiative Study

The GWAS statistics with severe COVID-19 were obtained from the COVID-19 Host Genetics Initiative Study. To avoid sample overlapping between the exposure and the outcome in our TSMR analysis, we used the round 5 release that does not involve the UKB cohort or the round 6 release that involves the UKB cohort as the outcome, depending on whether the exposure GWAS involved the UKB cohort (Supplementary Table 4). Two GWAS details are included in the Supplementary Materials. The autosomal SNPs with minor allele frequency >0.01, imputation INFO score >0.6, and heterogeneity P value >0.05 were used in this study.

Instrumental Variable Selection for TSMR

SNPs selected as instrumental variables (IVs) for TSMR analyses were chosen based on the following criteria: (1) associated with exposure at the genome-wide–significant level (P < 5 × 10^{-8}) in GWAS or GWMA with samples of European ancestry without sample overlap with the severe COVID-19 GWAS to our best knowledge or (2) independent from each other (linkage disequilibrium I^2 < 0.05, within 10-Mb distance).

Mendelian Randomization Analysis

As shown in Figure 1, to comprehensively examine the causal role of NAFLD, NAFLD severity, as well as 20 NAFLD comorbid factors (exposures) in the development of severe COVID-19 (outcome), TSMR analyses were performed using the GWAS statistical summary data of each exposure and severe COVID-19, for which GWAS were performed in separate sample sets. Homogeneous genetic variant-exposure associations in the 2 samples are the basic assumption of TSMR and might be violated if samples are from different subpopulations (e.g., age, sex, ethnicity). To hold this assumption, we limited our study in cohorts that are mainly of European ancestry and involve both sexes (Supplementary Table 4).

What You Need to Know

Background

Observational studies did not draw a clear conclusion on the association between nonalcoholic fatty liver disease (NAFLD) and coronavirus disease 2019 (COVID-19). Causal relationship between NAFLD and severe COVID-19 remains unclear.

Findings

There is no evidence supporting that NAFLD, alanine aminotransferase level, grade of steatosis, waist circumference, and hip circumference were the only ones demonstrated causal impact on severe COVID-19.

Implications for patient care

NAFLD may not be a causal risk factor for severe COVID-19. Bodyweight control in patients with NAFLD is important for the prevention of severe COVID-19.

We performed the primary TSMR via an inverse variance-weighted approach with an assumption that all SNPs are valid instrumental variables (e.g., no pleiotropic effects). However, the pleiotropy effects of instrumental variables are common and inevitable in practice. We performed the sensitivity analyses using the MR-Egger, weighted median, or MR-PRESSO methods to limit the bias of pleiotropic effects. The assumptions based on by each Mendelian randomization (MR) method are included in the Supplementary Materials.

Statistical Analysis

The NAFLD GWMA was performed using METAL. The TSMR analysis was conducted using the “TwoSampleMR” package of R (version 0.5.6). Univariate and multivariate logistic regression analysis were conducted using R software (version 4.0.2; R Foundation for Statistical Computing, Vienna, Austria). The calculation methods for the F-statistic, R^2, and MR power are included in the Supplementary Materials.

Results

Observational Association Between NAFLD and Severe COVID-19

As of May 13, 2021, the UKB recorded 8267 unrelated individuals of European ancestry with positive test results of SARS-CoV-2. Of these, 556 developed severe COVID-19. The detailed demographic information of these samples is summarized in Supplementary Table 5.
We first investigated the association of NAFLD and nondisease risk factors (age, sex) with severe COVID-19. NAFLD is highly associated with a wide variety of metabolic perturbations that are risk factors for severe COVID-19, (eg, obesity, T2D, CVD, hypertension) (Figure 1). Previous observational associations between NAFLD and severe COVID-19 may be due to the confounding effect of these metabolic comorbid factors of NAFLD. We therefore also examined the association of these factors and severe COVID-19.

Our univariate regression analysis revealed that age (odds ratio [OR], 1.13; \(P = 1.27 \times 10^{-82}\); FDR = 1.02 \(\times 10^{-61}\)), male sex (OR, 2.08; \(P = 2.02 \times 10^{-15}\); FDR = 1.27 \(\times 10^{-82}\)), BMI (OR, 1.07; \(P = 3.34 \times 10^{-19}\); FDR = 6.68 \(\times 10^{-19}\)), T2D (OR, 3.63; \(P = 1.36 \times 10^{-33}\); FDR = 5.44 \(\times 10^{-33}\)), CVD (OR, 3.71; \(P = 2.12 \times 10^{-45}\); FDR = 8.49 \(\times 10^{-45}\)), SBP (OR, 1.02; \(P = 1.43 \times 10^{-16}\); FDR = 2.29 \(\times 10^{-16}\)), NAFLD (OR, 3.06; \(P = 1.07 \times 10^{-6}\); FDR = 1.07 \(\times 10^{-6}\)), and cirrhosis (OR, 7.59; \(P = 9.24 \times 10^{-11}\); FDR = 1.06 \(\times 10^{-10}\)) were all significantly associated with the risk for severe COVID-19 (Figure 2, Supplementary Table 6). However, in our multivariate regression analysis including these 8 risk factors, NAFLD was not associated with severe COVID-19 (OR, 1.57; \(P = .09\)), while age, male sex, BMI, T2D, CVD, and cirrhosis still remained significantly associated with severe COVID-19 (\(P < .05\)) (Figure 2, Supplementary Table 6). While this result may be limited by the small sample size as well as by other unknown clinical covariates, it suggests that NAFLD is not an independent risk factor for severe COVID-19.

GWMA for NAFLD and Selection Of Instrumental Variables Associated With NAFLD, ALT Level, Grade of Steatosis, NAFLD Activity Score, and Fibrosis Stage

We next aimed to examine the causal relationship between NAFLD, as well as multiple NAFLD severity traits, and severe COVID-19 using TSMR analyses. The NAFLD severity traits include degree of liver injury (ALT level), grade of steatosis, NAFLD Activity Score (NAS), and fibrosis stage. To maximize the power of our analyses, we first conducted a GWMA of 3 independent, large-scale GWASs on NAFLD (Supplementary Table 3). Five independent SNPs \((r^2 < 0.05)\) reached genome-wide significance \((P < 5 \times 10^{-8})\) in the GWMA were selected as instrumental variables of NAFLD. These included rs738409 in PNPLA3, rs1260326 in GCKR, rs112875651 near TRIB1, rs58542926 in TM6SF2, and rs429358 in APOE (Table 1). While variants in PNPLA3, GCKR, and TM6SF2 were well established among multiple GWAS, the variants in TRIB1 and APOE loci were recently demonstrated to be associated with NAFLD in large-scale GWMAs.29 rs738408 was used as a proxy for rs738409.
in the TSMR analysis because the latter is a palindromic SNP. The instrumental variables for NAFLD severity traits were identified in largest-to-date GWAS of the respective trait.22,23 All candidate IVs are summarized in Supplementary Table 7. The instrument strength and MR power are available in Supplementary Table 8.

Causal Association Between NAFLD, ALT Level, Grade of Steatosis, NAS, Fibrosis Stage, and Severe COVID-19

Our TSMR analysis revealed that there is no significant causal relationship between NAFLD and severe COVID-19 based on the aforementioned 5 IVs (OR, 0.97; 95% confidence interval [CI], 0.88–1.08; \( P = .61 \)), the change in severe COVID-19 for each 2.72-fold increase in NAFLD). The result also remained insignificant (OR, 1.03; 95% CI, 0.95–1.13; \( P = .47 \)) when using all 40 SNPs associated with ALT level (liver injury) based on the MVP study as IVs. We found that other NAFLD severity traits, ie, grade of steatosis (OR, 1.08; 95% CI, 0.90–1.29; \( P = .41 \)), NAS (OR, 1.02; 95% CI, 0.98–1.05; \( P = .39 \)), and fibrosis stage (OR, 1.01; 95% CI, 0.94–1.08; \( P = .87 \)), were also not associated with severe COVID-19 (Figure 3, Supplementary Table 9). To maximize power, we also used SNPs associated with NAS and fibrosis stage at a relaxed significance level (\( P < 1 \times 10^{-5} \)) as IVs. No significant association was observed either (Supplementary Table 9). The MR-Egger, weighted median estimates, and MR-PRESSO also showed the consistent results.

Causal Association Between Common NAFLD Comorbid Factors and Severe COVID-19

To further test the hypothesis that other NAFLD-associated comorbid factors may causally confound the positive associations observed between NAFLD and severe COVID-19, we further performed TSMR analyses to examine the causal association between common NAFLD comorbid factors and severe COVID-19. These factors, including obesity, glycemic, lipidemic, and cardiometabolic features, have been broadly reported to be associated with NAFLD.10,30 Candidate IVs were selected from large GWAs or GWMAs of multiple GWASs, and the associations of IVs with exposures and severe COVID-19 are available in Supplementary Table 7. The instrument strength and MR power are available in Supplementary Table 8.

Our TSMR analysis revealed that among all 20 common NAFLD comorbid factors, BMI (OR, 1.73; 95% CI, 1.44–2.08; \( P = 7.65 \times 10^{-5} \)), waist circumference (OR,
were also demonstrated to be significant with the same direction of the causal effects (P < .05). The estimates of MR-Egger were not significant but were in the same direction (Supplementary Table 9).

### Discussion

In this study, we comprehensively examined the relationship between NAFLD and severe COVID-19. Our study demonstrated that while at the population level NAFLD may be associated with severe COVID-19 disease, this association is likely confounded by other metabolic perturbations underlying the comorbidities of NAFLD. This notion is particularly supported by the lack of causal association between NAFLD and severe COVID-19. Our thorough analyses utilizing large-scale independent sets of samples and data do not support the notion that NAFLD or histologic severity of NAFLD, eg, grade of steatosis, fibrosis or liver injury (ALT level), and NAS

| Exposure                          | Nsnp |
|-----------------------------------|------|
| Body mass index                   | 81   |
| Waist circumference               | 44   |
| Hip circumference                 | 54   |
| Waist-to-hip ratio                | 34   |
| Type 2 diabetes                   | 29   |
| Fasting glucose                   | 98   |
| Fasting insulin                   | 40   |
| 2h glucose                        | 13   |
| HbA1c                             | 106  |
| HOMA-B                            | 11   |
| HOMA-IR                           | 9    |
| Coronary heart disease            | 43   |
| Dastolic blood pressure           | 689  |
| Systolic blood pressure           | 650  |
| Serum total cholesterol           | 29   |
| Serum total triglycerides         | 11   |
| Total cholesterol in LDL          | 39   |
| Total cholesterol in HDL          | 18   |
| Apolipoprotein B                  | 23   |
| C-reactive protein                | 410  |
| Serum alanine aminotransferase    | 40   |
| Grade of steatosis (IVs provided by Anstee QM et al) | 2 |
| NAFLD activity score (IVs provided by Namjou B et al) | 2 |
| Fibrosis stage (IVs provided by Namjou B et al) | 3 |
| Nonalcoholic fatty liver diseases | 5    |

Figure 3. The causal association between NAFLD, ALT level (liver injury), grade of steatosis, NAS, fibrosis stage, other risk factors and severe COVID-19. HOMA-B, homeostatic model assessment for beta cell function; Nsnp, the number of IVs used in MR.
play a causal role in the development of severe COVID-19. On the other hand, our screening on 20 common metabolic factors associated with NAFLD revealed that obesity (indexed by BMI, waist circumference, and hip circumference) is the only causal risk factor for severe COVID-19. Our finding has important implications on the relationship between chronic liver conditions and the severity of COVID-19, which may help direct the clinical management for NAFLD patients who experience SARS-CoV-2 infection. The causal relationship between obesity and severe COVID-19 further highlighted the importance of body weight control in the prevention of severe COVID-19.

Given the large impact of both NAFLD and COVID-19 on human health, understanding the relationship between NAFLD and COVID-19, especially the severe form of COVID-19, is of importance for disease treatment and prevention. Unfortunately, despite numerous epidemiological studies thus far in the area, this relationship remains controversial, which is mainly due to the limitation of observational studies where the causal relationship between NAFLD and severe COVID-19 cannot be examined. MR analysis provides a possibility to examine such a causal relationship, and a previous MR study has suggested a nonsignificant causal role of NAFLD in the infection of SARS-CoV-2. However, this study was mainly focused on risk for COVID-19 rather than the severe forms, which is more relevant to public health. It also primarily utilized the UKB samples and data in which many confounding factors may influence the statistical estimation. Meanwhile, this study only studied liver fat as the exposure, which does not allow examining whether histologic severity of NAFLD is more likely to contribute to the risk for severe COVID-19. More importantly, this one-sample-based MR analysis design may be vulnerable to bias, and the conclusion may be limited to the specific population. Two-sample MR analysis utilizes nonoverlapping, independent data and sample sets for exposure and outcome groups, provided a more powerful and potentially more generalizable assessment for the causal relationship between the 2 diseases. Nevertheless, our data indicated that there is no sufficient evidence to support that key features of NAFLD progression spectrum are causal to severe COVID-19.

Consistent with previous TSMR studies, our TSMR analysis demonstrated that systemic obesity related indexes (BMI, waist circumference, and hip circumference) were the only causal comorbid risk factor for severe COVID-19, while T2D, CVD, and SBP were all not causally associated with severe COVID-19. On the contrary, the previous observational studies and our multivariate analysis in the UKB cohorts showed that T2D and CVD are independent risk factors for severe COVID-19. The discrepant findings of TSMR analysis and the observational studies might be attributed to the low proportion of variances in T2D and CVD (F statistics < 100) explained by the instrumental variable in the MR analysis, which is in contrast to that of NAFLD (F statistics = 16572.45) and obesity (F statistics > 250) indexes. Therefore, the causal relationship between T2D or CVD and severe COVID-19 may not be ruled out. Another potential limitation of our study is the unavailability of the causal relationship between liver cirrhosis and severe COVID-19. While cirrhosis was demonstrated as a potential independent risk factor for severe COVID-19 in our multivariate analysis, unfortunately, there are current no appropriate IVs for liver cirrhosis to examine their causal relationship using MR. Whether cirrhosis is a pathogenic risk factor for severe COVID-19 needs to be investigated in future studies.

It is now plausible that overall obesity, rather than NAFLD, plays a causal role in the development of severe COVID-19 symptoms. The potential mechanism underlying the increased risk of severe COVID-19 with BMI remains unclear, thus requiring urgent investigation. Preliminary hypotheses proposed for this mechanism included the lower cardiorespiratory reserve and immune dysregulation in patients with high BMI that worsen the symptoms of COVID-19. Taken together, weight control may be the most critical modifiable risk factors for preventing the development of severe COVID-19.

In conclusion, our study suggests that NAFLD or its disease severity is unlikely a causal risk factor for severe COVID-19.

Supplementary Material

Note: To access the supplementary material accompanying this article, visit the online version of Clinical Gastroenterology and Hepatology at www.cghjournal.org, and at https://doi.org/10.1016/j.cgh.2022.01.045.

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Conflicts of interest
The authors disclose no conflicts.

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SUPPLEMENTARY MATERIALS

METHODS

Observational study. The UK Biobank (UKB) cohort included over 500,000 adult individuals recruited from the UK population between 2006 and 2010. The extensive phenotypic and genotypic data were publicly available among all participants. The UKB released coronavirus disease 2019 (COVID-19) test results and hospital inpatient data in April 2020.

Genome-Wide Meta-Analysis on Severe COVID-19 based on the COVID-19 Host Genetics Initiative Study. Severe COVID-19 was defined by death, hospitalization or respiratory support due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Control samples were individuals who were not confirmed for SARS-CoV-2 infection. A total of 1,161,073 participants (5870 cases and 1,155,203 controls) and 7,564,248 variants were evaluated for genome-wide meta-analysis of severe COVID-19 in the round 5 release. For the round 6 release, a total of 1,010,654 participants (8779 cases and 1,001,875 controls) and 8,141,091 variants were evaluated for severe COVID-19 genome-wide association study meta-analysis. The round 6 release includes the UKB cohort (417 [4.7%] cases and 420,114 [41.9%] controls).

Mendelian Randomization Analysis. The MR-Egger regression estimates the effects of pleiotropy and produces a pleiotropy-corrected causal estimate which is a more robust method for causal estimates under the assumptions that NO Measurement Error (NOME) and the Instrument Strength Independent of Direct Effect (InSIDE). We assessed the NOME assumption by the $I^2$ statistic before implementing the MR-Egger analysis. If $I^2$ is $<90\%$, we calculated the causal estimates using MR-Egger SIMEX. The MR-Egger estimate might be biased when NOME holds but InSIDE is violated. Therefore, we complemented the MR-Egger estimate using the weighted median approach that does not rely on the InSIDE assumption and provides a consistent causal effect even when $<50\%$ of instrumental variables are valid. In addition, we conducted MR-PRESSO tests to correct for horizontal pleiotropic effect by removing IV outliers. Furthermore, we estimated the heterogeneity of instrumental variables using Cochran’s Q test.

Statistical Analysis. The $F$ statistic was calculated by the following formula to estimate the statistical power of instrumental variables:

$$F = \frac{N - K - 1}{K} \times \frac{R^2}{1 - R^2}$$

where $N$ is the sample size, $K$ is the number of instrumental variables, and $R^2$ is the proportion of the variability of the exposure explained by instrumental variables. $R^2$ was calculated with reference to the work of Papadimitriou et al. MR Power calculation was performed using mRnd.

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### Supplementary Table 1. Disease Codes for Severe COVID-19, NAFLD, Cirrhosis, Type 2 Diabetes, and Cardiovascular Disease in UK Biobank

| Disease                          | Diagnoses of ICD-10 | Diagnoses of ICD-9 | Noncancer Illness Code, Self-Reported | Other                                                                 |
|----------------------------------|----------------------|--------------------|---------------------------------------|----------------------------------------------------------------------|
| Severe COVID-19                  | U071                 |                    |                                       | Intensive care unit admission and ventilation machine use from 7 days before and up to 30 days after a patient’s first positive test for SARS-CoV-2 |
| NAFLD                            | K760                 |                    |                                       |                                                                      |
| Cirrhosis                        | K741–K746, K703, K717| 5712, 5716, 57150–  | 1074–1076, 1081–1083, 1086, 1491, 1583|                                                                      |
| Type 2 diabetes                  | E11                  | 25000, 25010       | 1223                                  |                                                                      |
| Cardiovascular disease           | F01, G45, G46, I20–25, I60–64, I690–I692, I694, I698, I699 | 410–414, 4292, 430–436 | 1074–1076, 1081–1083, 1086, 1491, 1583 |                                                                      |

COVID-19, coronavirus disease 2019; ICD-9, International Classification of Diseases–Ninth Revision; ICD-10, International Classification of Diseases–Tenth Revision; NAFLD, nonalcoholic fatty liver disease; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

### Supplementary Table 2. NAFLD GWAS Published in GWAS Catalog Before April 15,2021

| First Author | PMID      | Publication Date | Reported Trait                  | Summary Statistics |
|--------------|-----------|------------------|----------------------------------|--------------------|
| Adams LA     | 23213074  | 2012/12/5        | NAFLD histology (other)          | Not available      |
| Anstee QM    | 32298765  | 2020/4/13        | NAFLD                            | Available          |
| Chalasani N  | 20708005  | 2010/8/10        | NAFLD histology                  | Not available      |
| Chung GE     | 29271184  | 2017/12/26       | NAFLD                            | Not available      |
| Kawaguchi T  | 29385134  | 2018/1/31        | NAFLD                            | Not available      |
| Kawaguchi T  | 22719876  | 2012/6/14        | NAFLD                            | Not available      |
| Kitamoto T   | 23535911  | 2013/3/28        | Pediatric NAFLD score            | Not available      |
| Kozlitina J  | 24531328  | 2014/2/16        | NAFLD                            | Not available      |
| Namjou B     | 31311600  | 2019/7/17        | NAFLD                            | Available          |
| Park SL      | 32766472  | 2020/6/25        | NAFLD                            | Not available      |
| Speliotes EK | 21423719  | 2011/3/10        | NAFLD                            | Not available      |
| Wattacheril J| 28918882  | 2017/9/14        | Pediatric nonalcoholic steatohepatitis | Not available      |
| Yoshida K    | 32766473  | 2020/5/19        | Lean NAFLD                       | Not available      |

GWAS, genome-wide association study; NAFLD, nonalcoholic fatty liver disease.
**Supplementary Table 3.** Characteristics of NAFLD GWAS Included in Our GWMA

| PMID     | 32298765 | 31311600 | 32165250 |
|----------|----------|----------|----------|
| First author, Year | Quentin M Anstee, 2020 | Bahram Namjou, 2019 | Zhipeng Liu, 2020 |
| Population | European  | European  | European  |
| Sample size | 17,781 controls and 1483 cases | 8571 controls and 1106 cases | 399,900 controls and 1122 cases |
| NAFLD assessment | Liver biopsy | Imaging or histology | ICD-9 5718 and ICD-10 K760 |
| Quality control for GWAS | SNPs with a MAF $>0.1\%$, Hardy-$P \geq 10^{-7}$, INFO $\geq0.8$, call rate $\geq95\%$ were included | SNPs with a MAF $>1\%$, Hardy-$P \geq 10^{-4}$, INFO $\geq0.7$, call rate $>99\%$ were included | Not available |

GWAS, genome-wide association study; MAF, minor allele frequency; ICD-9, International Classification of Diseases–Ninth Revision; ICD-10, International Classification of Diseases–Tenth Revision; NAFLD, nonalcoholic fatty liver disease; SNP, single nucleotide polymorphism.
| Exposure                          | Involved UKB Cohort | First Author (Year) | Consortium | PMID          | Sample Size | Population       | Sex               |
|----------------------------------|---------------------|---------------------|------------|---------------|--------------|------------------|-------------------|
| NAFLD                            | Yes                 | Not applicable      | NA         | Not applicable| 3,711 cases and 426,252 controls | European | Males and females |
| Grade of steatosis               | No                  | Quentin M Anstee (2020) | NA         | 32298765      | 1483 cases | European | Males and females |
| NAFLD activity score             | No                  | Bahram Namjou (2019) | NA         | 31311600      | 235 cases  | European | Males and females |
| NAFLD activity score             | No                  | Quentin M Anstee (2020) | NA         | 32298765      | 1483 cases | European | Males and females |
| Fibrosis stage                   | No                  | Bahram Namjou (2019) | NA         | 31311600      | 235 cases  | European | Males and females |
| Fibrosis stage                   | No                  | Quentin M Anstee (2020) | NA         | 32298765      | 1483 cases | European | Males and females |
| Diastolic/systolic blood pressure| Yes                 | Evangelos Evangelou (2018) | NA         | 30224653      | 757,601    | European | Males and females |
| C-reactive protein               | Yes                 | Xikun Han (2020)    | NA         | 31900758      | 418,642    | European | Males and females |
| Serum ALT levels                 | No                  | Marijana Vujkovic (2020) | NA         | medRxiv       | 164,197    | European | Males and females |
| Body mass index                  | No                  | Adam E Locke (2015) | GIANT      | 25673413      | 322,154    | European | Males and females |
| Waist circumference              | No                  | Dmitry Shungin (2015) | GIANT      | 25673412      | 232,101    | European | Males and females |
| Hip circumference                | No                  | Dmitry Shungin (2015) | GIANT      | 25673412      | 213,038    | European | Males and females |
| Waist-to-hip ratio               | No                  | Dmitry Shungin (2015) | GIANT      | 25673412      | 212,248    | European | Males and females |
| Type 2 diabetes                  | No                  | Robert A Scott (2017) | DIAGRAM   | 28566273      | 111,309    | European | Males and females |
| Fasting glucose                  | No                  | Ji Chen (2021)      | MAGIC     | 34059833      | 200,622    | European | Males and females |
| Fasting insulin                  | No                  | Ji Chen (2021)      | MAGIC     | 34059833      | 151,013    | European | Males and females |
| 2-h glucose postchallenge        | No                  | Ji Chen (2021)      | MAGIC     | 34059833      | 63,396     | European | Males and females |
| HbA1c                            | No                  | Ji Chen (2021)      | MAGIC     | 34059833      | 146,806    | European | Males and females |
| HOMA-B                            | No                  | Josée Dupuis (2010) | MAGIC     | 20081858      | 36,466     | European | Males and females |
| HOMA-IR                          | No                  | Josée Dupuis (2010) | MAGIC     | 20081858      | 37,037     | European | Males and females |
| Coronary heart disease           | No                  | Majid Nikpay (2015) | CARDioGRAMplusC4D | 26343387 | 60,801 cases and 123,504 controls | 75.3% European | Males and females |
| Serum total cholesterol          | No                  | Johannes Kettunen (2016) | NA         | 27005778      | 21,491     | European | Males and females |
| Serum total triglycerides        | No                  | Johannes Kettunen (2016) | NA         | 27005778      | 21,545     | European | Males and females |
| Total cholesterol in LDL         | No                  | Johannes Kettunen (2016) | NA         | 27005778      | 21,559     | European | Males and females |
| Total cholesterol in HDL         | No                  | Johannes Kettunen (2016) | NA         | 27005778      | 21,555     | European | Males and females |
**Supplementary Table 4. Continued**

| Exposure                                                   | Involved UKB Cohort | First Author (Year) | Consortium                                      | PMID         | Sample Size                  | Population                  | Sex                      |
|------------------------------------------------------------|---------------------|---------------------|------------------------------------------------|--------------|------------------------------|-----------------------------|--------------------------|
| Serum apolipoprotein B                                     | No                  | Johannes Kettunen (2016) | NA                                             | 27005778     | 20,690                       | European                   | Males and females         |
| Severe COVID-19 (the round 5 release)                     | No                  | Not applicable       | COVID-19 Host Genetics Initiative              | 32404885     | 5870 cases and 1,155,203 controls | 91.2% European             | Males and females         |
| Severe COVID-19 (the round 6 release)                     | Yes                 | Not applicable       | COVID-19 Host Genetics Initiative              | 32404885     | 8779 cases and 1,001,875 controls | 94.9% European             | Males and females         |

ALT, alanine aminotransferase; COVID-19, coronavirus disease 2019; GWAS, genome-wide association study; HbA1c, hemoglobin A1c; HDL, high-density lipoprotein; HOMA-B, homeostatic model assessment for beta cell function; HOMA-IR, homeostatic model assessment for insulin resistance; LDL, low-density lipoprotein; NAFLD, nonalcoholic fatty liver disease.
Supplementary Table 5. Sample Characteristics of UKB COVID-19 Cohort

|                        | Non-severe (n = 7711) | Severe (n = 556) |
|------------------------|-----------------------|-----------------|
| Age, y                 | 65.80 ± 8.51          | 73.87 ± 6.65    |
| Male                   | 3666 (47.54)          | 363 (65.29)     |
| Body mass index, kg/m² | 28.11 ± 4.96          | 30.13 ± 5.65    |
| NAFLD                  | 112 (1.45)            | 24 (4.31)       |
| Cirrhosis              | 30 (0.39)             | 16 (2.8)        |
| Type 2 diabetes        | 637 (8.26)            | 137 (24.64)     |
| Cardiovascular disease | 1135 (14.72)          | 217 (39.03)     |
| Systolic blood pressure, mm Hg | 137.60 ± 19.20 | 144.7 ± 19.45 |

Values are mean ± SD or n (%). Nonsevere patients who did not die and were not admitted to for SARS-CoV-2 in the intensive care unit; severe patients who died or entered the intensive care unit due to SARS-COV-2. NAFLD, nonalcoholic fatty liver disease; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

Supplementary Table 6. The Association Between the Risk Factors and Severe COVID-19 by Logistic Regression Analysis

|                        | Univariate Logistic Regression Analysis | Multivariate Logistic Regression Analysis |
|------------------------|----------------------------------------|------------------------------------------|
|                        | OR  Lower 95% CI Upper 95% CI P Value   | OR  Lower 95% CI Upper 95% CI P Value     |
| Age                    | 1.13 1.12 1.15 1.27E-82 1.02E-81 1.12 1.10 1.14 1.11E-55 |
| Male                   | 2.08 1.73 2.49 2.02E-15 2.69E-15 1.71 1.41 2.08 6.14E-08 |
| Body mass index        | 1.07 1.06 1.09 3.34E-19 6.68E-19 1.06 1.04 1.08 8.76E-10 |
| NAFLD                  | 3.06 1.95 4.80 1.07E-06 1.07E-06 1.57 0.93 2.67 .09 |
| Cirrhosis              | 7.59 4.11 14.00 9.24E-11 1.06E-10 4.44 2.13 9.24 6.68E-05 |
| Type 2 diabetes        | 3.63 2.95 4.48 1.36E-33 3.63E-33 1.42 1.11 1.82 5.05E-03 |
| Cardiovascular disease | 3.71 3.09 4.45 2.12E-45 8.49E-45 1.62 1.32 1.99 3.52E-06 |
| Systolic blood pressure| 1.02 1.01 1.02 1.43E-16 2.29E-16 1.00 0.99 1.00 .71 |

CI, confidence interval; COVID-19, coronavirus disease 2019; FDR, false discovery rate; NAFLD, nonalcoholic fatty liver disease; OR, odds ratio.
Supplementary Table 7. The Association of IVs With Exposure and Severe COVID-19

| Exposure                     | SNP       | EA | AA | Exposure Outcome | Beta   | SE  | P Value  | Outcome Outcome | Beta   | SE  | P Value  |
|------------------------------|-----------|----|----|------------------|--------|-----|----------|-----------------|--------|-----|----------|
| NAFLD                        | rs1260326 | T  | C  |                   | 0.19   | 0.03| 7.35E-14 |                 | -0.02  | 0.03| .45      |
| NAFLD                        | rs112875651 | G | A  |                   | 0.19   | 0.03| 6.81E-13 |                 | -0.02  | 0.03| .64      |
| NAFLD                        | rs738408  | T  | C  |                   | 0.52   | 0.03| 2.28E-73 |                 | 0.04   | 0.04| .27      |
| NAFLD                        | rs429358  | T  | C  |                   | 0.20   | 0.04| 4.92E-08 |                 | 0.04   | 0.04| .27      |
| NAFLD                        | rs58542926| T  | C  |                   | 0.39   | 0.05| 3.08E-16 |                 | 0.01   | 0.05| .77      |
| Serum alanine aminotransferase level | rs10195619 | T | C  |                   | -0.05  | 0.01| 8.78E-11 |                 | -0.03  | 0.02| .07      |
| Serum alanine aminotransferase level | rs10201587 | G | A  |                   | -0.05  | 0.01| 4.11E-10 |                 | -0.01  | 0.02| .63      |
| Serum alanine aminotransferase level | rs10883451 | C | T  |                   | -0.16  | 0.01| 3.60E-106|                 | -0.01  | 0.02| .74      |
| Serum alanine aminotransferase level | rs112128680 | A | G  |                   | 0.06   | 0.01| 3.70E-09 |                 | 0.01   | 0.03| .59      |
| Serum alanine aminotransferase level | rs11601507 | A | C  |                   | 0.09   | 0.01| 2.16E-10 |                 | -0.03  | 0.04| .36      |
| Serum alanine aminotransferase level | rs11621792 | T | C  |                   | 0.04   | 0.01| 1.11E-08 |                 | -0.03  | 0.02| .15      |
| Serum alanine aminotransferase level | rs1169292 | T  | C  |                   | 0.05   | 0.01| 4.45E-12 |                 | 0.02   | 0.02| .35      |
| Serum alanine aminotransferase level | rs12500824 | A | G  |                   | 0.05   | 0.01| 1.37E-09 |                 | 0.00   | 0.02| .90      |
| Serum alanine aminotransferase level | rs132665 | G  | A  |                   | -0.07  | 0.01| 1.84E-11 |                 | 0.01   | 0.03| .73      |
| Serum alanine aminotransferase level | rs1337101 | T | G  |                   | -0.05  | 0.01| 1.95E-10 |                 | 0.00   | 0.02| .98      |
| Serum alanine aminotransferase level | rs13409360 | A | G  |                   | -0.06  | 0.01| 1.95E-15 |                 | -0.04  | 0.02| .08      |
| Serum alanine aminotransferase level | rs148015593 | G | T  |                   | -0.04  | 0.01| 8.69E-09 |                 | -0.01  | 0.02| .63      |
| Serum alanine aminotransferase level | rs1497406 | A | G  |                   | -0.04  | 0.01| 1.46E-08 |                 | 0.00   | 0.02| .95      |
| Serum alanine aminotransferase level | rs168144 | C  | T  |                   | -0.05  | 0.01| 3.45E-12 |                 | 0.02   | 0.02| .39      |
| Serum alanine aminotransferase level | rs174535 | C  | T  |                   | -0.06  | 0.01| 3.11E-15 |                 | -0.01  | 0.02| .73      |
| Serum alanine aminotransferase level | rs1801689 | C  | A  |                   | 0.18   | 0.02| 1.39E-17 |                 | -0.09  | 0.05| .09      |
| Serum alanine aminotransferase level | rs2138157 | A  | C  |                   | -0.06  | 0.01| 3.49E-17 |                 | 0.00   | 0.02| .85      |
| Serum alanine aminotransferase level | rs2207132 | A  | G  |                   | 0.19   | 0.03| 7.96E-11 |                 | -0.06  | 0.05| .27      |
| Serum alanine aminotransferase level | rs2377957 | A  | G  |                   | -0.05  | 0.01| 1.53E-11 |                 | -0.02  | 0.02| .29      |
| Serum alanine aminotransferase level | rs2642438 | A  | G  |                   | -0.08  | 0.01| 8.04E-23 |                 | 0.02   | 0.02| .38      |
### Supplementary Table 7. Continued

| Exposure                      | SNP         | EA | AA  | Exposure | Outcome |
|-------------------------------|-------------|----|-----|----------|---------|
| Serum alanine aminotransferase level | rs2792751  | T  | C   | 0.07 0.01 | 1.28E-19 |
| Serum alanine aminotransferase level | rs28929474 | T  | C   | 0.48 0.03 | 1.03E-65 |
| Serum alanine aminotransferase level | rs2954038  | C  | A   | 0.14 0.01 | 2.12E-70 |
| Serum alanine aminotransferase level | rs3810367  | G  | T   | 0.05 0.01 | 3.51E-09 |
| Serum alanine aminotransferase level | rs4148824  | G  | A   | -0.06 0.01 | 2.62E-09 |
| Serum alanine aminotransferase level | rs429358   | C  | T   | -0.09 0.01 | 4.72E-19 |
| Serum alanine aminotransferase level | rs4484649  | C  | A   | 0.05 0.01 | 2.16E-09 |
| Serum alanine aminotransferase level | rs4684847  | T  | C   | -0.07 0.01 | 1.11E-10 |
| Serum alanine aminotransferase level | rs4734654  | G  | A   | -0.05 0.01 | 1.48E-11 |
| Serum alanine aminotransferase level | rs4841133  | A  | G   | 0.13 0.01 | 1.02E-24 |
| NAS (IVs provided by Namjou B et al) | rs5748926  | T  | C   | 0.91 0.16 | 3.81E-08 |
| NAS (IVs provided by Namjou B et al) | rs738408   | T  | C   | 0.85 0.15 | 3.94E-08 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs112279484| A  | G   | -0.91 0.20 | 9.76E-06 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs13192222 | G  | T   | -0.80 0.17 | 7.46E-06 |
| Exposure | SNP | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|---------|-----|----|----|-------|-----|---------|-------|-----|---------|
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs1456131 | T | C | 1.57 | 0.33 | 3.48E-06 | 0.01 | 0.04 | .83 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs2074800 | A | G | 1.62 | 0.34 | 4.42E-06 | −0.06 | 0.05 | .19 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs265994 | T | C | 0.88 | 0.18 | 1.55E-06 | −0.01 | 0.03 | .80 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs35888925 | G | T | −0.89 | 0.19 | 8.89E-06 | −0.01 | 0.03 | .65 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs378862 | T | C | 1.52 | 0.30 | 9.28E-07 | −0.02 | 0.03 | .62 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs4843577 | C | T | 1.09 | 0.23 | 4.52E-06 | −0.03 | 0.03 | .45 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs56166152 | G | A | −0.85 | 0.19 | 9.75E-06 | 0.05 | 0.03 | .13 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs5748926 | T | C | 0.91 | 0.16 | 3.81E-08 | 0.02 | 0.02 | .23 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs615854 | C | T | 0.83 | 0.17 | 1.77E-06 | 0.00 | 0.02 | .96 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs61861255 | A | G | 1.21 | 0.26 | 6.05E-06 | −0.04 | 0.04 | .30 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs75107135 | C | T | 1.46 | 0.32 | 9.92E-06 | −0.03 | 0.03 | .44 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs7867164 | C | T | 1.25 | 0.26 | 2.90E-06 | 0.02 | 0.04 | .56 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs7903018 | A | G | 0.76 | 0.16 | 2.25E-06 | −0.04 | 0.02 | 4.46E-02 |
| NAS (IVs with P<1e-5 provided by Namjou B et al) | rs9920556 | T | G | 1.00 | 0.22 | 8.38E-06 | 0.00 | 0.03 | .92 |
| Fibrosis stage (IVs provided by Namjou B et al) | rs117886001 | A | G | 2.34 | 0.38 | 5.37E-09 | −0.05 | 0.07 | .50 |
| Fibrosis stage (IVs provided by Namjou B et al) | rs698718 | A | G | 0.83 | 0.12 | 2.74E-11 | 0.05 | 0.02 | 3.23E-02 |
| Fibrosis stage (IVs provided by Namjou B et al) | rs73055425 | C | T | 1.64 | 0.29 | 3.74E-08 | −0.09 | 0.06 | .17 |
| Fibrosis stage (IVs with P<1e-5 provided by Namjou B et al) | rs114099685 | T | C | 1.58 | 0.33 | 4.07E-06 | 0.06 | 0.06 | .34 |
| Fibrosis stage (IVs with P<1e-5 provided by Namjou B et al) | rs116276034 | C | T | 1.71 | 0.37 | 6.82E-06 | −0.10 | 0.08 | .22 |
| Fibrosis stage (IVs with P<1e-5 provided by Namjou B et al) | rs116508175 | C | T | 2.18 | 0.47 | 7.49E-06 | −0.08 | 0.10 | .40 |
| Fibrosis stage (IVs with P<1e-5 provided by Namjou B et al) | rs116978893 | C | A | 1.18 | 0.24 | 2.17E-06 | −0.02 | 0.06 | .75 |
| Fibrosis stage (IVs with P<1e-5 provided by Namjou B et al) | rs117124075 | C | T | 1.28 | 0.27 | 4.00E-06 | 0.02 | 0.05 | .72 |
| Fibrosis stage (IVs with P<1e-5 provided by Namjou B et al) | rs117198762 | G | T | 1.81 | 0.40 | 9.33E-06 | 0.05 | 0.07 | .53 |
| Fibrosis stage (IVs with P<1e-5 provided by Namjou B et al) | rs117672359 | T | C | 2.49 | 0.46 | 1.87E-07 | 0.19 | 0.07 | 1.20E-02 |
| Exposure                                           | SNP                | EA | AA | Exposure | Beta  | SE  | P Value | Outcome | Beta  | SE  | P Value |
|---------------------------------------------------|--------------------|----|----|----------|-------|-----|---------|---------|-------|-----|---------|
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs117886001        | A  | G  |          | 2.34  | 0.38| 5.37E-09|         | -0.05| 0.07| .50     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs11789840         | T  | C  |          | 0.87  | 0.18| 2.00E-06|         | 0.02 | 0.04| .73     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs11794552         | T  | C  |          | 0.62  | 0.12| 1.41E-06|         | 0.01 | 0.03| .79     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs118128699        | C  | T  |          | 2.23  | 0.47| 3.58E-06|         | -0.02| 0.07| .75     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs12373751         | T  | C  |          | 0.58  | 0.12| 1.31E-06|         | 0.00 | 0.02| .95     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs13132061         | C  | A  |          | 0.55  | 0.11| 1.59E-06|         | 0.02 | 0.02| .27     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs139097639        | G  | A  |          | 1.29  | 0.28| 8.56E-06|         | 0.08 | 0.08| .32     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs140963555        | A  | G  |          | 1.81  | 0.38| 2.61E-06|         | 0.06 | 0.09| .49     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs144512335        | A  | G  |          | 1.83  | 0.37| 1.54E-06|         | 0.00 | 0.06| .99     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs145282424        | A  | G  |          | 1.86  | 0.40| 4.92E-06|         | -0.01| 0.06| .88     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs145689272        | T  | C  |          | 1.39  | 0.29| 3.65E-06|         | -0.10| 0.06| .10     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs146387929        | A  | G  |          | 1.71  | 0.37| 7.60E-06|         | -0.05| 0.05| .36     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs146434237        | C  | T  |          | 1.22  | 0.23| 4.23E-07|         | 0.00 | 0.07| .94     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs17741551         | G  | A  |          | 1.19  | 0.26| 8.78E-06|         | 0.00 | 0.04| .99     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs344507           | A  | G  |          | 1.78  | 0.37| 2.98E-06|         | 0.00 | 0.06| 1.00    |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs34637163         | A  | C  |          | 0.70  | 0.15| 8.09E-06|         | -0.03| 0.03| .25     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs4904585          | C  | T  |          | -0.59 | 0.13| 9.42E-06|         | -0.04| 0.03| .15     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs55756435         | T  | C  |          | 1.04  | 0.22| 3.69E-06|         | 0.02 | 0.04| .71     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs56284191         | C  | T  |          | 1.69  | 0.35| 2.65E-06|         | 0.05 | 0.07| .48     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs56755407         | A  | G  |          | 1.79  | 0.39| 5.94E-06|         | 0.00 | 0.06| .95     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs56872492         | A  | G  |          | 0.93  | 0.20| 5.45E-06|         | -0.02| 0.04| .58     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs59531931         | G  | A  |          | 0.74  | 0.15| 3.10E-06|         | 0.00 | 0.03| .99     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs60166288         | C  | T  |          | 1.55  | 0.32| 2.01E-06|         | -0.01| 0.05| .78     |
| Fibrosis stage (IVs with $P<1e^{-5}$ provided by Namjou B et al) | rs6545337          | T  | C  |          | 1.26  | 0.27| 4.47E-06|         | 0.05 | 0.05| .38     |
**Supplementary Table 7.** Continued

| Exposure | SNP | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|----------|-----|----|----|------|-----|---------|------|-----|---------|
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs698718 | A | G | 0.83 | 0.12 | 2.74E-11 | 0.05 | 0.02 | 3.23E-02 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs72680117 | A | G | -0.42 | 0.09 | 7.83E-06 | -0.05 | 0.02 | 1.65E-02 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs72943235 | A | G | 2.38 | 0.43 | 8.18E-08 | -0.05 | 0.06 | .46 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs72951651 | C | T | 1.33 | 0.26 | 8.28E-07 | 0.03 | 0.05 | .55 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs72991078 | A | G | 1.40 | 0.28 | 9.82E-07 | -0.06 | 0.05 | .22 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs73018373 | G | T | 1.75 | 0.38 | 7.07E-06 | -0.10 | 0.09 | .26 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs73055425 | C | T | 1.64 | 0.29 | 3.74E-08 | -0.09 | 0.06 | .17 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs75434839 | G | A | 1.37 | 0.28 | 2.78E-06 | -0.01 | 0.05 | .88 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs75986527 | A | G | 1.48 | 0.32 | 7.54E-06 | 0.08 | 0.06 | .14 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs76210196 | C | T | 0.93 | 0.19 | 2.25E-06 | 0.03 | 0.05 | .56 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs76219423 | C | T | 1.75 | 0.37 | 4.66E-06 | -0.02 | 0.06 | .78 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs76672291 | C | T | 1.82 | 0.36 | 7.34E-07 | -0.03 | 0.05 | .60 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs76966989 | C | T | 1.08 | 0.23 | 3.60E-06 | 0.05 | 0.05 | .30 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs77602516 | C | T | 2.05 | 0.40 | 6.31E-07 | -0.03 | 0.06 | .65 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs78210118 | C | T | 1.23 | 0.25 | 1.86E-06 | 0.00 | 0.06 | .99 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs78613755 | G | T | 2.46 | 0.45 | 1.44E-07 | 0.01 | 0.06 | .87 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs78999778 | G | A | 0.76 | 0.16 | 4.70E-06 | -0.01 | 0.05 | .76 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs7941548 | A | C | 1.66 | 0.34 | 2.31E-06 | 0.05 | 0.05 | .32 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs79673099 | G | A | 1.45 | 0.31 | 6.26E-06 | 0.10 | 0.06 | .08 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs79859092 | C | T | 1.12 | 0.23 | 1.57E-06 | 0.03 | 0.05 | .61 |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al) | rs859472 | G | A | 0.46 | 0.10 | 4.80E-06 | 0.03 | 0.02 | .17 |
| Grade of steatosis (IVs provided by Anstee QM et al) | rs62021874 | T | C | -0.30 | 0.06 | 8.16E-08 | -0.05 | 0.04 | .21 |
| Grade of steatosis (IVs provided by Anstee QM et al) | rs738408 | T | C | 0.18 | 0.03 | 2.37E-09 | 0.00 | 0.02 | .91 |
| NAS (IVs provided by Anstee QM et al) | rs738408 | T | C | 0.36 | 0.06 | 8.78E-09 | 0.00 | 0.02 | .91 |
| Exposure                                      | SNP       | EA | AA | Beta  | SE   | P  Value | Beta  | SE   | P  Value |
|----------------------------------------------|-----------|----|----|-------|------|----------|-------|------|----------|
| Fibrosis stage (IVs provided by              | rs738408  | T  | C  | 0.32  | 0.05 | 7.58E-11 | 0.00  | 0.02 | .91      |
| Anstee QM et al)                             |           |    |    |       |      |          |       |      |          |
| Body mass index                              | rs1000940 | G  | A  | 0.02  | 0.00 | 1.28E-08 | 0.01  | 0.02 | .51      |
| Body mass index                              | rs10132280| A  | C  | -0.02 | 0.00 | 1.14E-11 | 0.03  | 0.02 | .17      |
| Body mass index                              | rs1016287 | T  | C  | 0.02  | 0.00 | 2.25E-11 | 0.02  | 0.02 | .38      |
| Body mass index                              | rs10182181| A  | G  | -0.03 | 0.00 | 8.78E-24 | -0.01 | 0.02 | .67      |
| Body mass index                              | rs10736682| A  | G  | 0.02  | 0.00 | 1.83E-08 | -0.01 | 0.02 | .72      |
| Body mass index                              | rs10938397| A  | G  | -0.04 | 0.00 | 3.21E-38 | -0.03 | 0.02 | .13      |
| Body mass index                              | rs10968576| G  | A  | 0.02  | 0.00 | 6.61E-14 | 0.06  | 0.02 | 2.48E-03 |
| Body mass index                              | rs11030066| C  | T  | -0.03 | 0.00 | 2.14E-09 | -0.02 | 0.03 | .51      |
| Body mass index                              | rs11030104| A  | G  | 0.04  | 0.00 | 5.56E-28 | 0.03  | 0.02 | .15      |
| Body mass index                              | rs11057405| A  | G  | -0.03 | 0.01 | 2.02E-08 | 0.04  | 0.04 | .33      |
| Body mass index                              | rs11074446| C  | T  | -0.03 | 0.00 | 1.31E-08 | 0.03  | 0.03 | .26      |
| Body mass index                              | rs11126666| G  | A  | -0.02 | 0.00 | 1.33E-09 | -0.01 | 0.02 | .54      |
| Body mass index                              | rs11165643| C  | T  | -0.02 | 0.00 | 2.07E-12 | 0.02  | 0.02 | .25      |
| Body mass index                              | rs11191560| T  | C  | -0.03 | 0.01 | 8.45E-09 | 0.01  | 0.03 | .67      |
| Body mass index                              | rs11643744| A  | G  | 0.03  | 0.00 | 8.77E-17 | 0.02  | 0.02 | .30      |
| Body mass index                              | rs1167827 | A  | G  | -0.02 | 0.00 | 6.33E-10 | -0.01 | 0.02 | .62      |
| Body mass index                              | rs11688816| A  | G  | -0.02 | 0.00 | 1.89E-08 | 0.01  | 0.02 | .56      |
| Body mass index                              | rs11727676| C  | T  | -0.04 | 0.01 | 2.55E-08 | -0.01 | 0.03 | .86      |
| Body mass index                              | rs11847697| T  | C  | 0.05  | 0.01 | 3.99E-09 | -0.05 | 0.04 | .24      |
| Body mass index                              | rs12286929| G  | A  | 0.02  | 0.00 | 1.31E-12 | 0.01  | 0.02 | .48      |
| Body mass index                              | rs12401738| A  | G  | 0.02  | 0.00 | 1.15E-10 | 0.02  | 0.02 | .28      |
| Body mass index                              | rs1249545 | G  | A  | -0.03 | 0.00 | 1.09E-12 | -0.08 | 0.03 | 5.91E-03 |
| Body mass index                              | rs12446632| A  | G  | -0.04 | 0.00 | 1.48E-18 | 0.04  | 0.03 | .11      |
| Body mass index                              | rs12566985| G  | A  | 0.02  | 0.00 | 3.28E-15 | 0.01  | 0.02 | .60      |
| Body mass index                              | rs12714411| T  | G  | -0.02 | 0.00 | 2.77E-08 | -0.05 | 0.03 | 3.15E-02 |
| Body mass index                              | rs12885454| C  | A  | 0.02  | 0.00 | 1.94E-10 | 0.04  | 0.02 | 1.92E-02 |
| Body mass index                              | rs12940622| A  | G  | -0.02 | 0.00 | 2.49E-09 | -0.01 | 0.02 | .47      |
| Body mass index                              | rs13021737| A  | G  | -0.06 | 0.00 | 1.11E-50 | -0.01 | 0.02 | .62      |
| Body mass index                              | rs13078960| T  | G  | -0.03 | 0.00 | 1.74E-14 | 0.02  | 0.02 | .31      |
| Body mass index                              | rs13107325| C  | T  | -0.05 | 0.01 | 1.83E-12 | -0.06 | 0.04 | .08      |
| Body mass index                              | rs13191362| A  | G  | 0.03  | 0.00 | 7.34E-09 | 0.00  | 0.03 | .94      |
| Body mass index                              | rs1477199 | A  | G  | -0.02 | 0.00 | 4.56E-08 | -0.04 | 0.03 | .09      |
| Body mass index                              | rs1516725 | T  | C  | -0.05 | 0.00 | 1.89E-22 | -0.02 | 0.03 | .49      |
| Body mass index                              | rs1528435 | T  | C  | 0.02  | 0.00 | 1.20E-08 | 0.01  | 0.02 | .69      |
| Body mass index                              | rs16851483| G  | T  | -0.05 | 0.01 | 3.55E-10 | -0.03 | 0.03 | .30      |
| Body mass index                              | rs16951275| C  | T  | -0.03 | 0.00 | 1.91E-17 | 0.00  | 0.02 | .94      |
| Body mass index                              | rs17024393| C  | T  | 0.07  | 0.01 | 7.03E-14 | 0.04  | 0.06 | .46      |
| Exposure          | SNP       | EA | AA | Beta  | SE   | P Value | Beta  | SE   | P Value |
|-------------------|-----------|----|----|-------|------|---------|-------|------|---------|
| Body mass index   | rs17066842| G  | A  | 0.06  | 0.01 | 6.40E-14| 0.05  | 0.04 | .23     |
| Body mass index   | rs17094222| C  | T  | 0.02  | 0.00 | 5.94E-11| 0.03  | 0.02 | .24     |
| Body mass index   | rs17405819| C  | T  | -0.02 | 0.00 | 2.07E-11| 0.00  | 0.02 | .89     |
| Body mass index   | rs17724992| A  | G  | 0.02  | 0.00 | 3.42E-08| 0.00  | 0.02 | .92     |
| Body mass index   | rs1808579 | T  | C  | -0.02 | 0.00 | 4.17E-08| -0.05 | 0.02 | 6.15E-03|
| Body mass index   | rs1928295 | C  | T  | -0.02 | 0.00 | 7.91E-10| -0.01 | 0.02 | .47     |
| Body mass index   | rs2033732 | C  | T  | 0.02  | 0.00 | 4.89E-08| 0.02  | 0.02 | .44     |
| Body mass index   | rs205262  | A  | G  | -0.02 | 0.00 | 1.75E-10| -0.02 | 0.02 | .33     |
| Body mass index   | rs2075650 | A  | G  | 0.03  | 0.00 | 1.25E-08| 0.02  | 0.03 | .43     |
| Body mass index   | rs2112347 | G  | T  | -0.03 | 0.00 | 6.19E-17| -0.01 | 0.02 | .43     |
| Body mass index   | rs2121279 | T  | C  | 0.02  | 0.00 | 2.31E-08| -0.04 | 0.03 | .16     |
| Body mass index   | rs2176598 | T  | C  | 0.02  | 0.00 | 2.97E-08| 0.02  | 0.02 | .27     |
| Body mass index   | rs2207139 | G  | A  | 0.04  | 0.00 | 4.13E-29| 0.02  | 0.02 | .35     |
| Body mass index   | rs2245368 | T  | C  | -0.03 | 0.01 | 3.19E-08| -0.01 | 0.02 | .82     |
| Body mass index   | rs2287019 | C  | T  | 0.04  | 0.00 | 4.59E-18| 0.08  | 0.03 | 1.13E-03|
| Body mass index   | rs2365389 | C  | T  | 0.02  | 0.00 | 1.63E-10| 0.04  | 0.02 | 4.05E-02|
| Body mass index   | rs2820292 | A  | C  | -0.02 | 0.00 | 1.83E-10| -0.04 | 0.02 | 1.96E-02|
| Body mass index   | rs29941   | A  | G  | -0.02 | 0.00 | 2.41E-08| 0.04  | 0.02 | .08     |
| Body mass index   | rs3101336 | T  | C  | -0.03 | 0.00 | 2.66E-26| -0.01 | 0.02 | .72     |
| Body mass index   | rs3736485 | A  | G  | 0.02  | 0.00 | 7.41E-09| 0.02  | 0.02 | .35     |
| Body mass index   | rs3810291 | A  | G  | 0.03  | 0.00 | 4.81E-15| 0.04  | 0.02 | 4.79E-02|
| Body mass index   | rs3817334 | C  | T  | -0.03 | 0.00 | 5.15E-17| -0.02 | 0.02 | .24     |
| Body mass index   | rs3849570 | A  | C  | 0.02  | 0.00 | 2.60E-08| 0.01  | 0.02 | .55     |
| Body mass index   | rs3888190 | A  | C  | 0.03  | 0.00 | 3.14E-23| 0.02  | 0.02 | .25     |
| Body mass index   | rs4740619 | T  | C  | 0.02  | 0.00 | 4.56E-09| 0.06  | 0.02 | 1.40E-03|
| Body mass index   | rs543874  | G  | A  | 0.05  | 0.00 | 2.62E-35| 0.03  | 0.02 | .23     |
| Body mass index   | rs6477694 | C  | T  | 0.02  | 0.00 | 2.67E-08| 0.02  | 0.02 | .25     |
| Body mass index   | rs6567160 | C  | T  | 0.06  | 0.00 | 3.93E-53| 0.03  | 0.02 | .22     |
| Body mass index   | rs657452  | A  | G  | 0.02  | 0.00 | 5.48E-13| 0.00  | 0.02 | .88     |
| Body mass index   | rs6804842 | A  | G  | -0.02 | 0.00 | 2.38E-09| 0.00  | 0.02 | .95     |
| Body mass index   | rs7138803 | G  | A  | -0.03 | 0.00 | 8.15E-24| 0.00  | 0.02 | .95     |
| Body mass index   | rs7141420 | T  | C  | 0.02  | 0.00 | 1.23E-14| 0.00  | 0.02 | .89     |
| Body mass index   | rs7243357 | G  | T  | -0.02 | 0.00 | 3.86E-08| -0.05 | 0.02 | 4.40E-02|
| Body mass index   | rs758747  | C  | T  | -0.02 | 0.00 | 7.47E-10| 0.01  | 0.02 | .69     |
| Body mass index   | rs7599312 | G  | A  | 0.02  | 0.00 | 1.17E-10| 0.02  | 0.02 | .33     |
| Body mass index   | rs7899106 | A  | G  | -0.04 | 0.01 | 2.96E-08| -0.03 | 0.04 | .48     |
| Body mass index   | rs7903146 | T  | C  | -0.02 | 0.00 | 1.11E-11| -0.01 | 0.02 | .72     |
| Body mass index   | rs8097783 | A  | G  | -0.04 | 0.01 | 4.20E-11| -0.02 | 0.03 | .47     |
| Body mass index   | rs879620  | C  | T  | -0.02 | 0.00 | 1.06E-09| -0.01 | 0.02 | .55     |
| Exposure                     | SNP     | EA | AA | Beta  | SE   | P Value | Beta  | SE   | P Value |
|-----------------------------|---------|----|----|-------|------|---------|-------|------|---------|
| Body mass index             | rs9400239 | C  | T  | 0.02  | 0.00 | 1.61E-08 | -0.01 | 0.02 | .75     |
| Body mass index             | rs9675886 | G  | A  | 0.03  | 0.00 | 6.92E-25 | 0.02  | 0.02 | .46     |
| Body mass index             | rs9925964 | G  | A  | -0.02 | 0.00 | 8.11E-10 | -0.01 | 0.02 | .49     |
| Body mass index             | rs9945063 | C  | T  | -0.02 | 0.00 | 1.35E-08 | -0.01 | 0.02 | .51     |
| Body mass index             | rs9947301 | T  | C  | -0.04 | 0.01 | 3.70E-11 | 0.00  | 0.04 | .95     |
| Waist circumference         | rs10132280 | A  | C  | -0.02 | 0.00 | 2.20E-09 | 0.03  | 0.02 | .17     |
| Waist circumference         | rs10742178 | G  | A  | 0.03  | 0.00 | 2.10E-12 | 0.02  | 0.02 | .37     |
| Waist circumference         | rs10840100 | G  | A  | 0.02  | 0.00 | 5.40E-09 | 0.01  | 0.02 | .55     |
| Waist circumference         | rs10938397 | A  | G  | -0.03 | 0.00 | 6.10E-20 | -0.03 | 0.02 | .13     |
| Waist circumference         | rs10968576 | G  | A  | 0.03  | 0.00 | 1.20E-11 | 0.06  | 0.02 | 2.48E-03 |
| Waist circumference         | rs11165623 | A  | G  | 0.02  | 0.00 | 5.20E-09 | -0.01 | 0.02 | .52     |
| Waist circumference         | rs11643744 | A  | G  | 0.03  | 0.00 | 4.10E-14 | 0.02  | 0.02 | .30     |
| Waist circumference         | rs11873305 | A  | C  | 0.06  | 0.01 | 3.10E-10 | 0.05  | 0.04 | .29     |
| Waist circumference         | rs12429545 | G  | A  | -0.03 | 0.01 | 2.50E-09 | -0.08 | 0.03 | 5.91E-03 |
| Waist circumference         | rs12446632 | A  | G  | -0.04 | 0.01 | 5.20E-13 | 0.04  | 0.03 | .11     |
| Waist circumference         | rs12885454 | C  | A  | 0.02  | 0.00 | 2.60E-08 | 0.04  | 0.02 | 1.92E-02 |
| Waist circumference         | rs1516725 | T  | C  | -0.03 | 0.01 | 1.70E-09 | -0.02 | 0.03 | .49     |
| Waist circumference         | rs1549293 | T  | C  | -0.02 | 0.00 | 7.30E-09 | -0.03 | 0.02 | .16     |
| Waist circumference         | rs16894959 | C  | T  | 0.03  | 0.00 | 3.40E-08 | 0.01  | 0.03 | .66     |
| Waist circumference         | rs16996700 | T  | C  | 0.02  | 0.00 | 1.50E-09 | 0.02  | 0.02 | .39     |
| Waist circumference         | rs2075650 | A  | G  | 0.03  | 0.01 | 8.90E-10 | 0.02  | 0.03 | .43     |
| Waist circumference         | rs2112347 | G  | T  | -0.03 | 0.00 | 3.20E-13 | -0.01 | 0.02 | .43     |
| Waist circumference         | rs2287019 | C  | T  | 0.04  | 0.00 | 1.70E-14 | 0.08  | 0.03 | 1.13E-03 |
| Waist circumference         | rs2325036 | A  | C  | 0.02  | 0.00 | 2.10E-11 | 0.01  | 0.02 | .73     |
| Waist circumference         | rs2489623 | C  | A  | 0.02  | 0.00 | 3.40E-08 | -0.03 | 0.02 | .14     |
| Waist circumference         | rs2531992 | A  | G  | -0.03 | 0.00 | 3.00E-09 | -0.04 | 0.03 | .24     |
| Waist circumference         | rs2802092 | A  | C  | -0.02 | 0.00 | 2.40E-08 | -0.04 | 0.02 | 1.96E-02 |
| Waist circumference         | rs3127553 | G  | A  | 0.02  | 0.00 | 1.60E-10 | -0.01 | 0.02 | .67     |
| Waist circumference         | rs3810291 | A  | G  | 0.03  | 0.00 | 1.70E-10 | 0.04  | 0.02 | 4.79E-02 |
| Waist circumference         | rs3849570 | A  | C  | 0.02  | 0.00 | 2.20E-08 | 0.01  | 0.02 | .55     |
| Waist circumference         | rs4130548 | C  | T  | 0.02  | 0.00 | 3.40E-10 | 0.02  | 0.02 | .27     |
| Waist circumference         | rs6163   | C  | A  | -0.02 | 0.00 | 3.70E-08 | 0.00  | 0.02 | .89     |
| Waist circumference         | rs633715 | C  | T  | 0.04  | 0.00 | 3.30E-23 | 0.03  | 0.02 | .26     |
| Waist circumference         | rs6440003 | G  | A  | -0.02 | 0.00 | 2.90E-10 | 0.04  | 0.02 | 2.33E-02 |
| Waist circumference         | rs6545714 | G  | A  | 0.02  | 0.00 | 1.90E-10 | 0.02  | 0.02 | .35     |
| Waist circumference         | rs6567160 | C  | T  | 0.05  | 0.00 | 2.60E-33 | 0.03  | 0.02 | .22     |
| Waist circumference         | rs6755502 | T  | C  | -0.05 | 0.00 | 2.00E-30 | -0.01 | 0.02 | .67     |
| Waist circumference         | rs7138803 | G  | A  | -0.03 | 0.00 | 1.60E-15 | 0.00  | 0.02 | .95     |
| Waist circumference         | rs7144011 | T  | G  | 0.03  | 0.00 | 9.40E-16 | 0.01  | 0.02 | .63     |
### Supplementary Table 7. Continued

| Exposure                  | SNP     | EA | AA | Beta | SE  | P Value | Exposure | SNP     | EA | AA | Beta | SE  | P Value |
|---------------------------|---------|----|----|------|-----|---------|----------|---------|----|----|------|-----|---------|
| Waist circumference       | rs7239883 | G  | A  | 0.02 | 0.00 | 2.30E-09 | Waist circumference | rs7498665 | G  | A  | 0.03 | 0.00 | 1.40E-22 |
| Waist circumference       | rs7531118 | T  | C  | -0.03 | 0.00 | 1.50E-14 | Hip circumference   | rs10132280 | A  | C  | -0.02 | 0.00 | 4.80E-09 |
| Waist circumference       | rs7550711 | T  | C  | 0.06 | 0.01 | 3.40E-09 | Hip circumference   | rs10835197 | T  | C  | 0.02 | 0.00 | 3.20E-12 |
| Waist circumference       | rs7903146 | T  | C  | -0.02 | 0.00 | 3.90E-09 | Hip circumference   | rs11057405 | A  | G  | -0.04 | 0.01 | 2.10E-10 |
| Waist circumference       | rs806794  | G  | A  | -0.02 | 0.00 | 2.10E-09 | Hip circumference   | rs11165623 | A  | G  | 0.02 | 0.00 | 3.00E-10 |
| Hip circumference         | rs929641  | A  | G  | 0.02 | 0.00 | 1.20E-09 | Hip circumference   | rs11672660 | C  | T  | 0.03 | 0.00 | 7.10E-10 |
| Hip circumference         | rs9400239 | C  | T  | 0.02 | 0.00 | 1.90E-11 | Hip circumference   | rs12086130 | T  | C  | 0.04 | 0.01 | 2.60E-09 |
| Hip circumference         | rs943005  | T  | C  | 0.04 | 0.00 | 7.20E-19 | Hip circumference   | rs12446632 | A  | G  | -0.04 | 0.01 | 1.10E-11 |
| Hip circumference         | rs9675376 | A  | G  | 0.04 | 0.00 | 3.80E-21 | Hip circumference   | rs13098327 | G  | A  | -0.03 | 0.00 | 1.20E-09 |
| Hip circumference         | rs10132280 | A  | C  | -0.02 | 0.00 | 4.80E-09 | Hip circumference   | rs13333228 | C  | T  | 0.02 | 0.00 | 2.80E-10 |
| Hip circumference         | rs10835197 | T  | C  | 0.03 | 0.00 | 3.20E-12 | Hip circumference   | rs1351394 | T  | C  | 0.02 | 0.00 | 6.40E-11 |
| Hip circumference         | rs10929925 | C  | A  | 0.02 | 0.00 | 4.50E-08 | Hip circumference   | rs143384  | A  | G  | -0.03 | 0.00 | 3.90E-12 |
| Hip circumference         | rs10938397 | A  | G  | -0.03 | 0.00 | 9.30E-17 | Hip circumference   | rs1516725 | T  | C  | -0.03 | 0.01 | 1.00E-08 |
| Hip circumference         | rs10938397 | A  | G  | -0.03 | 0.00 | 9.30E-17 | Hip circumference   | rs1548457 | T  | C  | -0.03 | 0.00 | 1.70E-08 |
| Hip circumference         | rs11165623 | A  | G  | 0.02 | 0.00 | 3.00E-10 | Hip circumference   | rs1561277 | C  | A  | 0.02 | 0.00 | 6.00E-09 |
| Hip circumference         | rs11672660 | C  | T  | 0.03 | 0.00 | 7.10E-10 | Hip circumference   | rs16894959 | C  | T  | 0.04 | 0.00 | 9.60E-14 |
| Hip circumference         | rs12086130 | T  | C  | 0.04 | 0.01 | 2.60E-09 | Hip circumference   | rs16905212 | C  | T  | -0.02 | 0.00 | 1.90E-08 |
| Hip circumference         | rs12446632 | A  | G  | -0.04 | 0.01 | 1.10E-11 | Hip circumference   | rs17024393 | C  | T  | 0.06 | 0.01 | 2.80E-10 |
| Hip circumference         | rs13098327 | G  | A  | -0.03 | 0.00 | 1.20E-09 | Hip circumference   | rs17066842 | G  | A  | 0.06 | 0.01 | 1.70E-09 |
| Hip circumference         | rs13333228 | C  | T  | 0.02 | 0.00 | 2.80E-10 | Hip circumference   | rs17391694 | T  | C  | 0.04 | 0.01 | 3.00E-10 |
| Hip circumference         | rs13695   | C  | T  | -0.02 | 0.00 | 4.30E-08 | Hip circumference   | rs1808579 | T  | C  | -0.02 | 0.00 | 2.10E-10 |
| Hip circumference         | rs143384  | A  | G  | -0.03 | 0.00 | 3.90E-12 | Hip circumference   | rs2112347 | G  | T  | -0.03 | 0.00 | 9.70E-12 |
| Hip circumference         | rs1516725 | T  | C  | -0.03 | 0.01 | 1.00E-08 | Hip circumference   | rs2206277 | T  | C  | 0.04 | 0.00 | 3.10E-17 |
| Hip circumference         | rs1548457 | T  | C  | -0.03 | 0.00 | 1.70E-08 | Hip circumference   | rs2301573 | T  | C  | -0.04 | 0.01 | 2.10E-08 |
| Hip circumference         | rs1561277 | C  | A  | 0.02 | 0.00 | 6.00E-09 | Hip circumference   | rs2820443 | C  | T  | 0.03 | 0.00 | 4.90E-18 |
| Hip circumference         | rs16894959 | C  | T  | 0.04 | 0.00 | 9.60E-14 | Hip circumference   | rs3087591 | A  | G  | -0.02 | 0.00 | 2.50E-08 |
| Hip circumference         | rs17391694 | T  | C  | 0.04 | 0.01 | 3.00E-10 | Hip circumference   | rs355838  | T  | G  | -0.02 | 0.00 | 1.60E-09 |
| Exposure                  | SNP       | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|--------------------------|-----------|----|----|------|-----|---------|------|-----|---------|
| Hip circumference        | rs3800229 | T  | G  | 0.02 | 0.00| 3.20E-08| -0.01| 0.02| .64     |
| Hip circumference        | rs3810291 | A  | G  | 0.02 | 0.00| 2.40E-08| 0.04  | 0.02| 4.79E-02|
| Hip circumference        | rs3888190 | A  | C  | 0.04 | 0.00| 9.40E-22| 0.02  | 0.02| .25     |
| Hip circumference        | rs4132228 | C  | T  | -0.02| 0.00| 3.10E-08| 0.04  | 0.02| .08     |
| Hip circumference        | rs4883723 | G  | A  | -0.03| 0.01| 5.20E-10| -0.05 | 0.02| 4.46E-02|
| Hip circumference        | rs4889606 | G  | A  | -0.02| 0.00| 8.80E-09| -0.02 | 0.02| .43     |
| Hip circumference        | rs543874  | G  | A  | 0.05 | 0.00| 1.80E-23| 0.03  | 0.02| .23     |
| Hip circumference        | rs6163    | C  | A  | -0.02| 0.00| 1.60E-08| 0.00  | 0.02| .89     |
| Hip circumference        | rs6265    | C  | T  | 0.03 | 0.00| 1.50E-14| 0.03  | 0.02| .18     |
| Hip circumference        | rs6569648 | T  | C  | -0.03| 0.00| 6.50E-12| 0.00  | 0.02| .93     |
| Hip circumference        | rs663129  | A  | G  | 0.05 | 0.00| 1.40E-32| 0.03  | 0.02| .21     |
| Hip circumference        | rs6755002 | T  | C  | -0.05| 0.00| 2.40E-30| -0.01 | 0.02| .67     |
| Hip circumference        | rs7138803 | G  | A  | -0.03| 0.00| 1.90E-15| 0.00  | 0.02| .95     |
| Hip circumference        | rs7144011 | T  | G  | 0.03 | 0.00| 8.60E-13| 0.01  | 0.02| .63     |
| Hip circumference        | rs7183263 | G  | T  | 0.02 | 0.00| 4.80E-08| 0.01  | 0.02| .67     |
| Hip circumference        | rs7531118 | T  | C  | -0.02| 0.00| 4.00E-11| -0.01 | 0.02| .81     |
| Hip circumference        | rs7632381 | T  | C  | -0.04| 0.00| 5.30E-24| 0.05  | 0.02| 1.40E-02|
| Hip circumference        | rs7903146 | T  | C  | -0.03| 0.00| 2.10E-11| -0.01 | 0.02| .72     |
| Hip circumference        | rs798528  | A  | C  | 0.02 | 0.00| 1.70E-08| 0.02  | 0.02| .91     |
| Hip circumference        | rs806794  | G  | A  | -0.03| 0.00| 2.80E-16| -0.02 | 0.02| .28     |
| Hip circumference        | rs879620  | C  | T  | -0.03| 0.00| 8.90E-10| -0.01 | 0.02| .55     |
| Hip circumference        | rs887912  | T  | C  | 0.02 | 0.00| 1.60E-08| 0.02  | 0.02| .43     |
| Hip circumference        | rs951252  | G  | A  | -0.03| 0.00| 4.50E-15| -0.04 | 0.02| 3.34E-02|
| Hip circumference        | rs9675886 | G  | A  | 0.04 | 0.00| 6.80E-19| 0.02  | 0.02| .46     |
| Hip circumference        | rs9939973 | A  | G  | 0.07 | 0.00| 2.30E-86| 0.01  | 0.02| .73     |
| Waist-to-hip ratio       | rs1011731 | G  | A  | 0.02 | 0.00| 1.10E-08| -0.03 | 0.02| .24     |
| Waist-to-hip ratio       | rs1024535 | A  | C  | 0.03 | 0.00| 1.60E-10| 0.02  | 0.02| .49     |
| Waist-to-hip ratio       | rs10783615| G  | A  | 0.04 | 0.00| 7.00E-13| 0.01  | 0.03| .61     |
| Waist-to-hip ratio       | rs10876528| A  | C  | 0.03 | 0.00| 1.10E-12| -0.01 | 0.02| .62     |
| Waist-to-hip ratio       | rs11048470| T  | G  | 0.03 | 0.00| 6.30E-12| 0.03  | 0.02| .20     |
| Waist-to-hip ratio       | rs1121980 | A  | G  | 0.04 | 0.00| 1.30E-38| 0.01  | 0.02| .64     |
| Waist-to-hip ratio       | rs1128249 | G  | T  | 0.02 | 0.00| 1.60E-09| 0.02  | 0.02| .23     |
| Waist-to-hip ratio       | rs11643744| A  | G  | 0.02 | 0.00| 3.50E-08| 0.02  | 0.02| .30     |
| Waist-to-hip ratio       | rs11663816| C  | T  | 0.03 | 0.00| 2.70E-11| 0.01  | 0.02| .55     |
| Waist-to-hip ratio       | rs11755724| G  | A  | 0.02 | 0.00| 1.70E-08| -0.01 | 0.02| .50     |
| Waist-to-hip ratio       | rs12549058| G  | T  | 0.04 | 0.01| 3.20E-10| 0.01  | 0.04| .78     |
| Waist-to-hip ratio       | rs1294421 | G  | T  | 0.03 | 0.00| 6.90E-14| 0.00  | 0.02| .98     |
| Waist-to-hip ratio       | rs1316952 | T  | C  | 0.03 | 0.00| 7.30E-09| -0.06 | 0.03| 1.10E-02|
| Waist-to-hip ratio       | rs1440372 | C  | T  | 0.02 | 0.00| 7.60E-09| -0.02 | 0.02| .30     |
### Supplementary Table 7. Continued

| Exposure                  | SNP             | EA | AA | Beta  | SE   | P Value     | Beta  | SE   | P Value     |
|---------------------------|-----------------|----|----|-------|------|-------------|-------|------|-------------|
| Waist-to-hip ratio        | rs1563355       | T  | C  | -0.03 | 0.00 | 1.70E-12    | 0.01  | 0.02 | .60         |
| Waist-to-hip ratio        | rs1569135       | A  | G  | 0.02  | 0.00 | 1.00E-12    | 0.00  | 0.02 | .79         |
| Waist-to-hip ratio        | rs16996700      | T  | C  | 0.02  | 0.00 | 1.60E-08    | 0.02  | 0.02 | .39         |
| Waist-to-hip ratio        | rs17109256      | A  | G  | 0.02  | 0.00 | 3.00E-08    | 0.01  | 0.02 | .65         |
| Waist-to-hip ratio        | rs17451107      | T  | C  | 0.02  | 0.00 | 3.50E-11    | -0.03 | 0.02 | .11         |
| Waist-to-hip ratio        | rs2075650       | A  | G  | 0.03  | 0.00 | 6.40E-09    | 0.02  | 0.03 | .43         |
| Waist-to-hip ratio        | rs2179129       | A  | G  | 0.02  | 0.00 | 1.20E-09    | 0.01  | 0.02 | .47         |
| Waist-to-hip ratio        | rs2207139       | G  | A  | 0.03  | 0.00 | 1.40E-08    | 0.02  | 0.02 | .35         |
| Waist-to-hip ratio        | rs2287019       | C  | T  | 0.03  | 0.00 | 4.30E-09    | 0.08  | 0.03 | 1.13E-03    |
| Waist-to-hip ratio        | rs2745359       | C  | T  | 0.06  | 0.01 | 3.80E-13    | -0.10 | 0.04 | 1.70E-02    |
| Waist-to-hip ratio        | rs2765339       | C  | T  | -0.03 | 0.00 | 1.10E-12    | 0.02  | 0.02 | .35         |
| Waist-to-hip ratio        | rs2972164       | C  | T  | 0.02  | 0.00 | 2.40E-08    | 0.00  | 0.02 | .97         |
| Waist-to-hip ratio        | rs3786897       | G  | A  | 0.02  | 0.00 | 4.00E-11    | -0.02 | 0.02 | .27         |
| Waist-to-hip ratio        | rs459193        | A  | G  | 0.03  | 0.00 | 6.00E-12    | -0.02 | 0.02 | .41         |
| Waist-to-hip ratio        | rs4640244       | G  | A  | 0.02  | 0.00 | 3.10E-08    | 0.01  | 0.02 | .66         |
| Waist-to-hip ratio        | rs4929927       | G  | A  | 0.02  | 0.00 | 7.60E-09    | -0.01 | 0.02 | .53         |
| Waist-to-hip ratio        | rs904453        | T  | G  | 0.02  | 0.00 | 4.30E-08    | -0.01 | 0.02 | .43         |
| Waist-to-hip ratio        | rs929641        | A  | G  | 0.02  | 0.00 | 4.20E-09    | 0.03  | 0.02 | .05         |
| Waist-to-hip ratio        | rs9860730       | A  | G  | 0.02  | 0.00 | 2.80E-10    | 0.04  | 0.02 | .06         |
| Waist-to-hip ratio        | rs998584        | A  | C  | 0.03  | 0.00 | 5.00E-15    | 0.03  | 0.02 | .15         |
| Type 2 diabetes           | rs10510110      | T  | C  | 0.09  | 0.02 | 8.30E-10    | -0.01 | 0.02 | .72         |
| Type 2 diabetes           | rs10882098      | T  | C  | -0.14 | 0.02 | 1.70E-20    | 0.02  | 0.02 | .24         |
| Type 2 diabetes           | rs10885410      | A  | G  | -0.11 | 0.02 | 3.40E-10    | -0.01 | 0.03 | .81         |
| Type 2 diabetes           | rs10965250      | A  | G  | -0.13 | 0.02 | 4.70E-12    | 0.01  | 0.02 | .54         |
| Type 2 diabetes           | rs11616380      | T  | G  | -0.09 | 0.02 | 4.80E-08    | -0.02 | 0.02 | .40         |
| Type 2 diabetes           | rs11708067      | A  | G  | 0.12  | 0.02 | 2.20E-11    | -0.02 | 0.02 | .39         |
| Type 2 diabetes           | rs11709077      | A  | G  | -0.15 | 0.02 | 3.50E-12    | 0.03  | 0.03 | .38         |
| Type 2 diabetes           | rs11759026      | A  | G  | -0.11 | 0.02 | 5.90E-10    | 0.02  | 0.02 | .47         |
| Type 2 diabetes           | rs1333045       | T  | C  | -0.09 | 0.02 | 4.20E-09    | -0.01 | 0.02 | .44         |
| Type 2 diabetes           | rs140820620     | A  | G  | 0.40  | 0.06 | 8.80E-11    | -0.01 | 0.08 | .94         |
| Type 2 diabetes           | rs143304587     | T  | C  | -0.24 | 0.04 | 4.80E-09    | -0.02 | 0.06 | .76         |
| Type 2 diabetes           | rs149692182     | T  | C  | 0.54  | 0.09 | 4.10E-09    | -0.04 | 0.06 | .49         |
| Type 2 diabetes           | rs17031005      | A  | G  | 0.14  | 0.03 | 2.40E-08    | 0.03  | 0.03 | .26         |
| Type 2 diabetes           | rs2023681       | A  | G  | -0.14 | 0.03 | 2.80E-08    | -0.01 | 0.04 | .73         |
| Type 2 diabetes           | rs231360        | T  | C  | 0.09  | 0.02 | 4.80E-09    | 0.03  | 0.02 | .17         |
| Type 2 diabetes           | rs3129768       | T  | G  | 0.11  | 0.02 | 1.60E-09    | -0.02 | 0.02 | .43         |
| Type 2 diabetes           | rs35198068      | T  | C  | -0.33 | 0.02 | 1.10E-04    | 0.00  | 0.02 | .88         |
| Type 2 diabetes           | rs3821943       | T  | C  | 0.10  | 0.02 | 2.50E-11    | -0.01 | 0.02 | .53         |
| Type 2 diabetes           | rs4238013       | T  | C  | -0.13 | 0.02 | 4.80E-11    | -0.03 | 0.03 | .22         |
## Supplementary Table 7. Continued

| Exposure                  | SNP         | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|---------------------------|-------------|----|----|-------|-----|---------|-------|-----|---------|
| Type 2 diabetes           | rs4686696   | A  | G  | 0.15  | 0.02| 7.00E-23| -0.02 | 0.02| .41     |
| Type 2 diabetes           | rs4918791   | A  | G  | -0.11 | 0.02| 1.10E-08| -0.03 | 0.02| .22     |
| Type 2 diabetes           | rs5215      | T  | C  | -0.08 | 0.02| 1.90E-08| 0.00  | 0.02| .80     |
| Type 2 diabetes           | rs72832303  | A  | G  | -0.38 | 0.06| 1.60E-11| 0.01  | 0.07| .85     |
| Type 2 diabetes           | rs7428936   | T  | C  | 0.09  | 0.02| 1.90E-09| 0.05  | 0.02| 1.94E-02|
| Type 2 diabetes           | rs7451008   | T  | C  | -0.19 | 0.02| 1.10E-30| 0.01  | 0.02| .49     |
| Type 2 diabetes           | rs8056814   | A  | G  | -0.16 | 0.03| 1.30E-08| 0.01  | 0.03| .73     |
| Type 2 diabetes           | rs860262    | A  | C  | -0.10 | 0.02| 1.60E-11| 0.00  | 0.02| .90     |
| Type 2 diabetes           | rs9410573   | T  | C  | 0.09  | 0.02| 1.70E-08| 0.04  | 0.02| 4.34E-02|
| Type 2 diabetes           | rs9667947   | T  | C  | 0.11  | 0.02| 1.50E-08| 0.00  | 0.03| .88     |
| Fasting glucose           | rs10023     | A  | G  | -0.01 | 0.00| 2.81E-08| 0.02  | 0.02| .54     |
| Fasting glucose           | rs10181875  | T  | C  | 0.02  | 0.00| 1.86E-14| -0.06 | 0.04| .09     |
| Fasting glucose           | rs10305457  | T  | C  | 0.02  | 0.00| 1.21E-14| -0.02 | 0.03| .54     |
| Fasting glucose           | rs10811660  | A  | G  | -0.02 | 0.00| 7.94E-25| 0.02  | 0.02| .45     |
| Fasting glucose           | rs10830974  | T  | C  | 0.02  | 0.00| 7.81E-18| 0.02  | 0.02| .44     |
| Fasting glucose           | rs10974438  | A  | C  | -0.02 | 0.00| 9.85E-31| -0.03 | 0.02| .07     |
| Fasting glucose           | rs11020124  | T  | C  | -0.06 | 0.00| 1.00E-200| 0.01 | 0.02| .79     |
| Fasting glucose           | rs11020131  | A  | G  | 0.06  | 0.01| 7.73E-18| -0.08 | 0.06| .19     |
| Fasting glucose           | rs112508451 | T  | G  | -0.03 | 0.01| 9.79E-10| -0.07 | 0.07| .29     |
| Fasting glucose           | rs115545608 | T  | G  | 0.04  | 0.01| 7.66E-09| -0.14 | 0.09| .12     |
| Fasting glucose           | rs115941163 | T  | C  | 0.06  | 0.01| 3.51E-16| 0.15  | 0.10| .16     |
| Fasting glucose           | rs11598     | A  | G  | -0.03 | 0.00| 3.15E-14| -0.07 | 0.06| .24     |
| Fasting glucose           | rs11603349  | T  | C  | 0.02  | 0.00| 3.12E-25| 0.00  | 0.03| .93     |
| Fasting glucose           | rs11610045  | A  | G  | 0.01  | 0.00| 3.26E-13| 0.08  | 0.02| 1.84E-05|
| Fasting glucose           | rs11619319  | A  | G  | -0.02 | 0.00| 3.41E-20| 0.04  | 0.02| .07     |
| Fasting glucose           | rs11708067  | A  | G  | 0.03  | 0.00| 1.63E-43| -0.02 | 0.02| .39     |
| Fasting glucose           | rs12055786  | T  | C  | 0.01  | 0.00| 1.17E-11| 0.00  | 0.02| .85     |
| Fasting glucose           | rs1260326   | T  | C  | -0.03 | 0.00| 4.48E-65| -0.01 | 0.02| .57     |
| Fasting glucose           | rs12784552  | A  | G  | 0.03  | 0.00| 2.86E-31| -0.01 | 0.03| .71     |
| Fasting glucose           | rs12888855  | A  | C  | -0.01 | 0.00| 6.02E-12| -0.03 | 0.02| .27     |
| Fasting glucose           | rs12898997  | T  | C  | -0.01 | 0.00| 4.64E-09| 0.01  | 0.02| .72     |
| Fasting glucose           | rs13389076  | A  | G  | 0.06  | 0.00| 1.72E-36| -0.03 | 0.04| .45     |
| Fasting glucose           | rs13431652  | T  | C  | 0.07  | 0.00| 1.00E-200| 0.00 | 0.02| .91     |
| Fasting glucose           | rs1371614   | T  | C  | 0.02  | 0.00| 5.85E-16| 0.00  | 0.02| .90     |
| Fasting glucose           | rs138598212 | A  | G  | 0.03  | 0.00| 2.94E-12| 0.02  | 0.05| .64     |
| Fasting glucose           | rs141621067 | A  | G  | 0.07  | 0.01| 8.55E-14| 0.02  | 0.08| .83     |
| Fasting glucose           | rs145391098 | A  | G  | -0.03 | 0.01| 3.44E-09| 0.01  | 0.07| .88     |
| Fasting glucose           | rs147001976 | A  | G  | -0.04 | 0.01| 9.05E-12| 0.06  | 0.07| .44     |
| Fasting glucose           | rs149725176 | A  | G  | -0.02 | 0.00| 1.86E-10| 0.01  | 0.03| .82     |
## Supplementary Table 7. Continued

| Exposure            | SNP       | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|---------------------|-----------|----|----|-------|-----|---------|-------|-----|---------|
| Fasting glucose     | rs157512  | T  | C  | 0.01  | 0.00| 5.43E-10| 0.01  | 0.02| .55     |
| Fasting glucose     | rs1604038 | T  | C  | -0.02 | 0.00| 4.47E-28| 0.01  | 0.02| .47     |
| Fasting glucose     | rs1681630 | T  | C  | 0.01  | 0.00| 9.67E-10| 0.03  | 0.02| .11     |
| Fasting glucose     | rs16823014| A   | G  | 0.03  | 0.00| 1.01E-08| 0.07  | 0.05| .11     |
| Fasting glucose     | rs16851397| A   | G  | 0.03  | 0.00| 1.26E-12| 0.00  | 0.05| .94     |
| Fasting glucose     | rs16913693| T   | G  | 0.04  | 0.00| 2.82E-16| -0.03 | 0.06| .55     |
| Fasting glucose     | rs17168486| T   | C  | 0.03  | 0.00| 4.17E-36| 0.06  | 0.02| 1.64E-02|
| Fasting glucose     | rs17265513| T   | C  | -0.02 | 0.00| 5.10E-14| -0.04 | 0.02| .08     |
| Fasting glucose     | rs17267869| T   | C  | 0.02  | 0.00| 1.74E-10| 0.00  | 0.03| .93     |
| Fasting glucose     | rs17437560| T   | C  | -0.02 | 0.00| 3.33E-08| -0.01 | 0.03| .74     |
| Fasting glucose     | rs174583  | T   | C  | -0.02 | 0.00| 3.37E-22| 0.01  | 0.02| .53     |
| Fasting glucose     | rs1820176 | T   | C  | 0.02  | 0.00| 1.91E-34| -0.01 | 0.02| .70     |
| Fasting glucose     | rs194518  | A   | G  | 0.01  | 0.00| 8.76E-09| -0.01 | 0.02| .69     |
| Fasting glucose     | rs2075423 | T   | G  | -0.02 | 0.00| 3.18E-21| 0.00  | 0.02| .85     |
| Fasting glucose     | rs2108349 | A   | G  | -0.02 | 0.00| 1.25E-15| 0.00  | 0.02| .97     |
| Fasting glucose     | rs2168101 | A   | C  | -0.01 | 0.00| 3.09E-08| 0.01  | 0.02| .49     |
| Fasting glucose     | rs2216502 | A   | G  | -0.02 | 0.00| 2.53E-09| 0.03  | 0.04| .41     |
| Fasting glucose     | rs2268575 | T   | C  | -0.03 | 0.00| 5.05E-55| 0.03  | 0.02| .15     |
| Fasting glucose     | rs2268648 | T   | C  | -0.01 | 0.00| 5.30E-09| -0.01 | 0.02| .59     |
| Fasting glucose     | rs2390732 | A   | G  | 0.01  | 0.00| 2.38E-15| 0.03  | 0.02| .15     |
| Fasting glucose     | rs2657879 | A   | G  | -0.01 | 0.00| 7.33E-09| 0.00  | 0.02| .84     |
| Fasting glucose     | rs2839671 | A   | G  | -0.02 | 0.00| 8.38E-14| 0.02  | 0.02| .41     |
| Fasting glucose     | rs3473087 | A   | G  | -0.01 | 0.00| 1.98E-09| 0.01  | 0.02| .60     |
| Fasting glucose     | rs348330  | A   | G  | -0.01 | 0.00| 3.04E-10| 0.01  | 0.02| .60     |
| Fasting glucose     | rs35510946| A   | G  | 0.01  | 0.00| 5.01E-10| -0.01 | 0.02| .48     |
| Fasting glucose     | rs35762680| T   | C  | 0.05  | 0.01| 6.43E-24| 0.07  | 0.05| .16     |
| Fasting glucose     | rs35889227| T   | G  | -0.01 | 0.00| 3.37E-10| 0.02  | 0.02| .30     |
| Fasting glucose     | rs3778321 | A   | G  | -0.02 | 0.00| 3.16E-17| -0.06 | 0.03| 3.10E-02|
| Fasting glucose     | rs3829109 | A   | G  | -0.02 | 0.00| 1.99E-15| 0.06  | 0.02| 2.01E-02|
| Fasting glucose     | rs3842753 | T   | G  | 0.01  | 0.00| 2.84E-09| 0.00  | 0.02| .94     |
| Fasting glucose     | rs39713   | T   | C  | -0.02 | 0.00| 1.77E-08| -0.01 | 0.04| .71     |
| Fasting glucose     | rs438843  | A   | G  | -0.02 | 0.00| 2.14E-11| -0.01 | 0.03| .74     |
| Fasting glucose     | rs4760278 | A   | C  | -0.01 | 0.00| 3.33E-08| -0.02 | 0.02| .37     |
| Fasting glucose     | rs4862423 | T   | C  | 0.01  | 0.00| 4.45E-10| -0.03 | 0.02| .21     |
| Fasting glucose     | rs507666  | A   | G  | 0.02  | 0.00| 6.99E-17| 0.13  | 0.02| 9.10E-09|
| Fasting glucose     | rs56100844| T   | G  | 0.12  | 0.01| 9.82E-35| -0.07 | 0.08| .40     |
| Fasting glucose     | rs576674  | A   | G  | -0.02 | 0.00| 9.70E-13| 0.01  | 0.03| .58     |
| Fasting glucose     | rs57911164| A   | G  | 0.02  | 0.00| 4.30E-09| 0.01  | 0.03| .75     |
| Exposure                  | SNP     | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|---------------------------|---------|----|----|-------|-----|---------|-------|-----|---------|
| Fasting glucose           | rs58234170 | A  | G  | -0.01 | 0.00 | 3.13E-08 | -0.03 | 0.02 | .21     |
| Fasting glucose           | rs58925536 | T  | C  | 0.03  | 0.01 | 5.82E-09 | 0.03  | 0.05 | .58     |
| Fasting glucose           | rs6113722 | A  | G  | -0.04 | 0.00 | 7.66E-25 | -0.01 | 0.04 | .74     |
| Fasting glucose           | rs6489811 | A  | G  | -0.01 | 0.00 | 3.27E-09 | -0.02 | 0.02 | .33     |
| Fasting glucose           | rs6598541 | A  | G  | 0.01  | 0.00 | 4.12E-12 | -0.01 | 0.02 | .54     |
| Fasting glucose           | rs6662924 | A  | C  | 0.01  | 0.00 | 3.34E-10 | -0.04 | 0.02 | .07     |
| Fasting glucose           | rs6808574 | T  | C  | -0.01 | 0.00 | 7.21E-14 | 0.03  | 0.02 | .21     |
| Fasting glucose           | rs7012637 | A  | G  | -0.02 | 0.00 | 9.75E-25 | 0.04  | 0.02 | .39E-02 |
| Fasting glucose           | rs7095788 | T  | C  | -0.01 | 0.00 | 1.98E-09 | -0.02 | 0.02 | .32     |
| Fasting glucose           | rs7163757 | T  | C  | -0.02 | 0.00 | 2.64E-36 | 0.04  | 0.02 | 2.64E-02|
| Fasting glucose           | rs7178572 | A  | G  | -0.01 | 0.00 | 7.09E-10 | -0.05 | 0.02 | 6.70E-03|
| Fasting glucose           | rs7256920 | A  | G  | -0.01 | 0.00 | 2.75E-09 | -0.05 | 0.02 | 2.24E-02|
| Fasting glucose           | rs7288470 | T  | G  | -0.07 | 0.01 | 1.29E-29 | 0.00  | 0.07 | .95     |
| Fasting glucose           | rs7296652 | T  | C  | 0.03  | 0.00 | 9.10E-11 | 0.07  | 0.05 | .16     |
| Fasting glucose           | rs7301824 | A  | G  | -0.05 | 0.01 | 1.35E-21 | -0.05 | 0.04 | .29     |
| Fasting glucose           | rs737383  | T  | C  | -0.01 | 0.00 | 2.29E-08 | 0.00  | 0.02 | .83     |
| Fasting glucose           | rs7489764 | A  | G  | 0.10  | 0.01 | 2.95E-26 | -0.24 | 0.10 | 1.36E-02|
| Fasting glucose           | rs7603105 | A  | G  | -0.06 | 0.01 | 1.49E-24 | -0.11 | 0.07 | .10     |
| Fasting glucose           | rs7689592 | T  | C  | 0.04  | 0.01 | 1.74E-11 | -0.02 | 0.07 | .79     |
| Fasting glucose           | rs7708285 | A  | G  | -0.01 | 0.00 | 1.25E-09 | 0.00  | 0.02 | .83     |
| Fasting glucose           | rs7729395 | T  | C  | -0.02 | 0.00 | 3.09E-08 | -0.03 | 0.05 | .60     |
| Fasting glucose           | rs7813259 | A  | C  | -0.01 | 0.00 | 2.60E-10 | -0.01 | 0.02 | .80     |
| Fasting glucose           | rs7826553 | A  | G  | 0.06  | 0.01 | 1.45E-19 | -0.04 | 0.08 | .59     |
| Fasting glucose           | rs7903146 | T  | C  | 0.03  | 0.00 | 2.00E-35 | -0.01 | 0.02 | .72     |
| Fasting glucose           | rs7958269 | A  | C  | -0.03 | 0.00 | 6.81E-10 | -0.03 | 0.05 | .59     |
| Fasting glucose           | rs853770  | T  | C  | 0.03  | 0.00 | 6.57E-75 | 0.00  | 0.02 | .88     |
| Fasting glucose           | rs878521  | A  | G  | 0.05  | 0.00 | 2.65E-174| -0.01 | 0.02 | .49     |
| Fasting glucose           | rs896854  | T  | C  | 0.01  | 0.00 | 5.61E-09 | 0.01  | 0.02 | .64     |
| Fasting glucose           | rs9650096 | T  | C  | -0.03 | 0.00 | 8.31E-58 | 0.01  | 0.02 | .59     |
| Fasting glucose           | rs9850375 | T  | C  | 0.01  | 0.00 | 3.92E-09 | -0.01 | 0.02 | .74     |
| Fasting insulin           | rs1005039 | T  | C  | 0.01  | 0.00 | 4.84E-08 | 0.01  | 0.02 | .42     |
| Fasting insulin           | rs1050338 | A  | G  | 0.01  | 0.00 | 8.28E-09 | 0.02  | 0.02 | .42     |
| Fasting insulin           | rs1161418 | T  | G  | 0.04  | 0.01 | 1.42E-11 | 0.02  | 0.05 | .67     |
| Fasting insulin           | rs1170806 | A  | G  | -0.01 | 0.00 | 1.30E-09 | -0.02 | 0.02 | .39     |
| Fasting insulin           | rs1172776 | T  | C  | -0.02 | 0.00 | 2.90E-08 | 0.01  | 0.03 | .86     |
| Fasting insulin           | rs1181644 | T  | C  | -0.03 | 0.01 | 3.86E-10 | -0.04 | 0.07 | .55     |
| Fasting insulin           | rs1206760 | A  | G  | -0.01 | 0.00 | 8.82E-10 | -0.01 | 0.02 | .62     |
| Fasting insulin           | rs1245471 | T  | C  | 0.01  | 0.00 | 1.78E-09 | 0.03  | 0.02 | .09     |
| Fasting insulin           | rs1260326 | T  | C  | -0.02 | 0.00 | 8.42E-38 | -0.01 | 0.02 | .57     |
| Exposure          | SNP        | EA | AA  | Beta  | SE  | P Value | Exposure          | SNP        | EA | AA  | Beta  | SE  | P Value |
|------------------|-----------|----|-----|-------|-----|---------|------------------|-----------|----|-----|-------|-----|---------|
| Fasting insulin  | rs13258890| T  | C   | 0.01  | 0.00| 2.77E-08| 2-h glucose      | rs11670462| T  | C   | 0.05  | 0.01| 1.80E-09|
| Fasting insulin  | rs13389219| T  | C   | -0.02 | 0.00| 5.84E-28| 2-h glucose      | rs11708067| A  | G   | 0.09  | 0.01| 1.98E-22|
| Fasting insulin  | rs1351394 | T  | C   | -0.01 | 0.00| 2.71E-09| 2-h glucose      | rs117643180| A  | C   | 0.23  | 0.03| 7.31E-14|
| Fasting insulin  | rs1474696 | A  | G   | -0.01 | 0.00| 3.02E-16| 2-h glucose      | rs1260326 | T  | C   | 0.05  | 0.01| 5.93E-12|
| Fasting insulin  | rs17331151| T  | C   | -0.02 | 0.00| 1.52E-08| 2-h glucose      | rs12692738| T  | C   | 0.05  | 0.01| 2.72E-08|
| Fasting insulin  | rs2108439 | A  | G   | -0.01 | 0.00| 1.13E-08| 2-h glucose      | rs17271305| A  | G   | -0.06 | 0.01| 2.88E-14|
| Fasting insulin  | rs2845885 | T  | C   | -0.02 | 0.00| 1.18E-08| 2-h glucose      | rs2126259 | T  | C   | -0.07 | 0.01| 2.98E-10|
| Fasting insulin  | rs2943646 | A  | G   | -0.03 | 0.00| 8.47E-39| 2-h glucose      | rs2268575 | T  | C   | -0.06 | 0.01| 4.91E-08|
| Exposure   | SNP     | EA | AA | Beta | SE  | P Value   | Exposure | SNP     | EA | AA | Beta | SE  | P Value   |
|------------|---------|----|----|------|-----|-----------|----------|---------|----|----|------|-----|-----------|
| 2-h glucose | rs2649999 | T  | C  | 0.05 | 0.01 | 2.01E-10  | 0.02     | 0.02    | .30 |
| 2-h glucose | rs550057 | T  | C  | 0.05 | 0.01 | 3.62E-11  | 0.14     | 0.02    | 1.15E-09 |
| 2-h glucose | rs7012637 | A  | G  | 0.05 | 0.01 | 5.40E-10  | 0.04     | 0.02    | 3.92E-02 |
| 2-h glucose | rs7903146 | T  | C  | 0.09 | 0.01 | 2.79E-26  | -0.01    | 0.02    | .72 |
| 2-h glucose | rs878521  | A  | G  | 0.10 | 0.01 | 1.25E-28  | -0.01    | 0.02    | .49 |
| HbA1c      | rs10169706 | T  | C  | 0.03 | 0.00 | 1.48E-08  | 0.05     | 0.04    | .19 |
| HbA1c      | rs10405535 | A  | G  | 0.01 | 0.00 | 6.47E-14  | 0.05     | 0.02    | 4.36E-02 |
| HbA1c      | rs1044277 | T  | C  | -0.01| 0.00 | 1.46E-12  | 0.03     | 0.03    | .19 |
| HbA1c      | rs10762287 | T  | C  | -0.01| 0.00 | 1.91E-18  | 0.00     | 0.02    | .91 |
| HbA1c      | rs10774624 | A  | G  | 0.01 | 0.00 | 4.17E-14  | 0.05     | 0.02    | 2.23E-02 |
| HbA1c      | rs10811661 | T  | C  | 0.01 | 0.00 | 1.74E-14  | -0.02    | 0.02    | .43 |
| HbA1c      | rs10823340 | T  | C  | 0.01 | 0.00 | 1.46E-12  | 0.01     | 0.02    | .79 |
| HbA1c      | rs10998752 | A  | G  | 0.01 | 0.00 | 1.32E-14  | -0.04    | 0.02    | .11 |
| HbA1c      | rs11039154 | T  | C  | -0.01| 0.00 | 3.11E-09  | -0.06    | 0.02    | 3.03E-03 |
| HbA1c      | rs11224302 | T  | C  | -0.02| 0.00 | 4.63E-14  | 0.03     | 0.03    | .24 |
| HbA1c      | rs11248914 | T  | C  | 0.01 | 0.00 | 1.42E-14  | 0.01     | 0.02    | .53 |
| HbA1c      | rs11257655 | T  | C  | 0.01 | 0.00 | 1.91E-13  | -0.06    | 0.02    | 9.84E-03 |
| HbA1c      | rs11558471 | A  | G  | 0.02 | 0.00 | 3.38E-25  | -0.02    | 0.02    | .27 |
| HbA1c      | rs11643024 | A  | G  | 0.01 | 0.00 | 7.98E-10  | 0.06     | 0.02    | 2.05E-03 |
| HbA1c      | rs11650031 | T  | C  | -0.02| 0.00 | 9.90E-14  | -0.05    | 0.03    | .14 |
| HbA1c      | rs11656775 | A  | G  | 0.01 | 0.00 | 2.50E-08  | 0.01     | 0.02    | .65 |
| HbA1c      | rs11719201 | T  | C  | -0.01| 0.00 | 2.43E-18  | 0.01     | 0.02    | .66 |
| HbA1c      | rs11727331 | A  | G  | -0.02| 0.00 | 1.14E-11  | 0.06     | 0.04    | .18 |
| HbA1c      | rs117440287| A  | G  | -0.02| 0.00 | 3.29E-09  | 0.03     | 0.05    | .59 |
| HbA1c      | rs1175549  | A  | C  | 0.01 | 0.00 | 7.13E-13  | 0.02     | 0.02    | .43 |
| HbA1c      | rs117872282| T  | C  | -0.04| 0.01 | 1.53E-12  | 0.08     | 0.07    | .23 |
| HbA1c      | rs12491937 | A  | G  | 0.01 | 0.00 | 1.42E-13  | 0.02     | 0.02    | .40 |
| HbA1c      | rs12612492 | T  | C  | 0.02 | 0.00 | 1.88E-26  | -0.04    | 0.03    | .14 |
| HbA1c      | rs12776509 | A  | G  | 0.02 | 0.00 | 1.01E-09  | 0.00     | 0.04    | .96 |
| HbA1c      | rs1278769  | A  | G  | -0.01| 0.00 | 5.52E-12  | 0.09     | 0.02    | 3.29E-05 |
| HbA1c      | rs13134327 | A  | G  | 0.01 | 0.00 | 2.81E-26  | 0.03     | 0.02    | .15 |
| HbA1c      | rs13234131 | A  | G  | -0.01| 0.00 | 2.06E-09  | 0.04     | 0.03    | .22 |
| HbA1c      | rs13389076 | A  | G  | 0.03 | 0.00 | 3.04E-18  | -0.03    | 0.04    | .45 |
| HbA1c      | rs13419763 | T  | C  | 0.01 | 0.00 | 5.48E-09  | -0.01    | 0.02    | .72 |
| HbA1c      | rs1367173  | T  | C  | -0.02| 0.00 | 1.66E-14  | -0.02    | 0.03    | .57 |
| HbA1c      | rs1535464  | A  | G  | -0.01| 0.00 | 1.11E-08  | -0.03    | 0.02    | .15 |
| HbA1c      | rs16926246 | T  | C  | -0.07| 0.00 | 1.00E-200 | -0.01    | 0.03    | .71 |
| HbA1c      | rs17037289 | A  | G  | -0.01| 0.00 | 2.40E-09  | -0.03    | 0.02    | .20 |
| HbA1c      | rs17256082 | T  | C  | -0.01| 0.00 | 3.19E-08  | 0.00     | 0.02    | .97 |
## Supplementary Table 7. Continued

| Exposure | SNP     | EA | AA | Beta  | SE  | P Value   | Beta  | SE  | P Value   |
|----------|---------|----|----|-------|-----|-----------|-------|-----|-----------|
| HbA1c    | rs174559| A  | G  | -0.01 | 0.00| 3.31E-13  | -0.01 | 0.02| .66       |
| HbA1c    | rs17533945| T | C  | -0.01 | 0.00| 1.62E-23  | 0.00  | 0.02| .99       |
| HbA1c    | rs1800562| A  | G  | -0.04 | 0.00| 2.33E-50  | -0.01 | 0.05| .81       |
| HbA1c    | rs1948759| A  | G  | -0.01 | 0.00| 2.44E-08  | 0.06  | 0.03| 4.95E-02 |
| HbA1c    | rs2073285| T  | C  | -0.02 | 0.00| 1.72E-14  | -0.05 | 0.03| .07       |
| HbA1c    | rs2229498| A  | G  | 0.01  | 0.00| 9.16E-10  | 0.01  | 0.02| .63       |
| HbA1c    | rs2249407| A  | C  | 0.01  | 0.00| 4.40E-10  | 0.00  | 0.02| .87       |
| HbA1c    | rs2273475| A  | G  | -0.01 | 0.00| 1.99E-09  | 0.04  | 0.03| .22       |
| HbA1c    | rs2375278| A  | G  | 0.01  | 0.00| 1.05E-11  | 0.00  | 0.03| .91       |
| HbA1c    | rs2478333| A  | G  | 0.01  | 0.00| 2.85E-08  | 0.02  | 0.03| .46       |
| HbA1c    | rs267738| T  | G  | 0.01  | 0.00| 1.14E-11  | 0.00  | 0.02| .85       |
| HbA1c    | rs2748427| A  | G  | -0.03 | 0.00| 9.82E-11  | -0.02 | 0.03| .55       |
| HbA1c    | rs2908290| A  | G  | 0.02  | 0.00| 6.81E-32  | 0.00  | 0.02| .99       |
| HbA1c    | rs2971670| T  | C  | 0.03  | 0.00| 5.10E-88  | -0.01 | 0.02| .67       |
| HbA1c    | rs3129795| T  | G  | -0.01 | 0.00| 2.66E-10  | -0.01 | 0.02| .71       |
| HbA1c    | rs34664882| A | G  | -0.05 | 0.00| 4.82E-37  | -0.13 | 0.06| .05       |
| HbA1c    | rs3601400| A  | C  | -0.01 | 0.00| 9.62E-13  | 0.03  | 0.02| .14       |
| HbA1c    | rs3778321| A  | G  | -0.01 | 0.00| 4.18E-11  | -0.06 | 0.03| 3.10E-02 |
| HbA1c    | rs3819410| A  | G  | -0.01 | 0.00| 1.49E-11  | -0.01 | 0.02| .57       |
| HbA1c    | rs3829109| A  | G  | -0.01 | 0.00| 2.68E-08  | 0.06  | 0.02| 2.01E-02 |
| HbA1c    | rs3842753| T  | G  | 0.01  | 0.00| 3.93E-08  | 0.00  | 0.02| .94       |
| HbA1c    | rs452306| T  | C  | -0.01 | 0.00| 5.51E-13  | 0.00  | 0.02| .89       |
| HbA1c    | rs4724295| A  | G  | 0.01  | 0.00| 3.11E-09  | -0.02 | 0.02| .48       |
| HbA1c    | rs4727979| A  | C  | 0.01  | 0.00| 4.61E-08  | 0.03  | 0.03| .33       |
| HbA1c    | rs4737009| A  | G  | 0.02  | 0.00| 8.29E-56  | 0.04  | 0.02| .08       |
| HbA1c    | rs4746841| T  | G  | -0.03 | 0.00| 4.46E-43  | -0.01 | 0.04| .73       |
| HbA1c    | rs4760682| A  | C  | 0.02  | 0.00| 3.20E-20  | 0.02  | 0.03| .49       |
| HbA1c    | rs477224| T  | C  | -0.02 | 0.00| 2.64E-34  | 0.00  | 0.02| .82       |
| HbA1c    | rs4980325| T  | G  | 0.01  | 0.00| 4.70E-14  | 0.03  | 0.02| .17       |
| HbA1c    | rs55964643| A | G  | -0.01 | 0.00| 2.60E-08  | 0.03  | 0.02| .13       |
| HbA1c    | rs56071183| A | G  | -0.05 | 0.01| 6.86E-14  | 0.02  | 0.08| .76       |
| HbA1c    | rs563887| T  | C  | -0.03 | 0.00| 5.55E-122 | -0.02 | 0.02| .49       |
| HbA1c    | rs59036878| A | G  | 0.01  | 0.00| 2.48E-09  | 0.06  | 0.04| .19       |
| HbA1c    | rs608793| T  | C  | 0.01  | 0.00| 4.55E-08  | -0.02 | 0.02| .36       |
| HbA1c    | rs61750929| T | C  | -0.03 | 0.00| 9.49E-24  | -0.01 | 0.04| .76       |
| HbA1c    | rs6445541| T  | G  | 0.01  | 0.00| 1.14E-08  | 0.02  | 0.02| .37       |
| HbA1c    | rs651007| T  | C  | 0.01  | 0.00| 3.28E-15  | 0.14  | 0.02| 1.04E-08 |
| HbA1c    | rs6804915| A  | C  | -0.01 | 0.00| 2.76E-16  | 0.01  | 0.02| .51       |
| HbA1c    | rs6877043| T  | C  | 0.01  | 0.00| 1.99E-10  | 0.02  | 0.02| .37       |
### Supplementary Table 7. Continued

| Exposure | SNP      | EA | AA | Beta | SE  | P Value | Exposure | SNP      | EA | AA | Beta | SE  | P Value |
|----------|----------|----|----|------|-----|---------|----------|----------|----|----|------|-----|---------|
| HbA1c    | rs6929796| A  | G  | -0.01| 0.00| 3.26E-08| HbA1c    | rs6931514| A  | G  | -0.01| 0.00| 1.18E-13|
| HbA1c    | rs6980507| A  | G  | 0.01 | 0.00| 8.15E-20| HbA1c    | rs7042939| A  | G  | 0.01 | 0.00| 1.50E-15|
| HbA1c    | rs71351176| T  | C  | -0.03| 0.00| 2.80E-12| HbA1c    | rs7198799| T  | C  | 0.01 | 0.00| 4.76E-09|
| HbA1c    | rs7220522| A  | G  | -0.01| 0.00| 2.45E-09| HbA1c    | rs72812178| T  | G  | 0.02 | 0.00| 8.73E-09|
| HbA1c    | rs72853027| T  | C  | -0.01| 0.00| 1.10E-15| HbA1c    | rs72884870| T  | G  | -0.04| 0.00| 8.89E-16|
| HbA1c    | rs7307092| T  | C  | -0.01| 0.00| 7.57E-09| HbA1c    | rs74002924| T  | C  | 0.01 | 0.00| 2.60E-14|
| HbA1c    | rs7547793| A  | C  | -0.09| 0.02| 4.55E-09| HbA1c    | rs7632959| T  | C  | 0.01 | 0.00| 3.44E-09|
| HbA1c    | rs78574741| A  | G  | 0.02 | 0.00| 1.95E-08| HbA1c    | rs7861647| T  | C  | 0.01 | 0.00| 4.50E-14|
| HbA1c    | rs7903146| T  | C  | 0.01 | 0.00| 1.04E-22| HbA1c    | rs79158370| T  | C  | 0.01 | 0.00| 2.00E-08|
| HbA1c    | rs7916281| T  | C  | -0.03| 0.00| 1.22E-21| HbA1c    | rs79784692| A  | G  | 0.02 | 0.00| 8.16E-15|
| HbA1c    | rs7994900| T  | C  | 0.01 | 0.00| 6.65E-14| HbA1c    | rs8075263| A  | G  | -0.02| 0.00| 4.19E-09|
| HbA1c    | rs8138197| A  | G  | 0.07 | 0.05| 2.27E-08| HbA1c    | rs837763| T  | C  | 0.02 | 0.00| 5.20E-38|
| HbA1c    | rs855791| A  | G  | 0.02 | 0.00| 1.34E-56| HbA1c    | rs857725| T  | G  | -0.02| 0.00| 5.43E-55|
| HbA1c    | rs9348686| A  | G  | 0.01 | 0.00| 8.37E-11| HbA1c    | rs93706490| T  | C  | 0.01 | 0.00| 1.90E-62|
| HbA1c    | rs9550194| A  | G  | 0.01 | 0.00| 2.27E-08| HbA1c    | rs9818758| A  | G  | 0.01 | 0.00| 1.49E-13|
| HbA1c    | rs9909940| T  | C  | 0.03 | 0.00| 1.43E-11| HbA1c    | rs9914988| A  | G  | 0.01 | 0.00| 4.66E-17|
| HbA1c    | rs11558471| A  | G  | -0.02| 0.00| 1.94E-09| HOMA-B    | rs11558471| A  | G  | -0.02| 0.00| 3.92E-10|
| HOMA-B    | rs12373088| A  | G  | -0.02| 0.00| 3.92E-10| HOMA-B    | rs13430620| A  | C  | -0.09| 0.02| 4.55E-09|
| HOMA-B    | rs174556| T  | C  | 0.02 | 0.00| 2.08E-09| HOMA-B    | rs217554| A  | G  | 0.02 | 0.00| 1.39E-09|
| HOMA-B    | rs2943640| A  | C  | -0.02| 0.00| 3.88E-10|
| Exposure                      | SNP    | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|-------------------------------|--------|----|----|------|-----|---------|------|-----|---------|
| HOMA-B                        | rs35747| A  | G  | 0.02 | 0.00| 1.90E-09| 0.00 | 0.02| .89     |
| HOMA-B                        | rs3757840| T  | G  | -0.02 | 0.00| 3.16E-12| -0.01 | 0.02| .72     |
| HOMA-B                        | rs477224| T  | C  | 0.02 | 0.00| 7.31E-13| 0.00 | 0.02| .82     |
| HOMA-B                        | rs557462| T  | C  | -0.04 | 0.00| 2.45E-42| -0.01 | 0.02| .59     |
| HOMA-B                        | rs7903146| T  | C  | -0.02 | 0.00| 4.26E-11| -0.01 | 0.02| .72     |
| HOMA-IR                       | rs12328675| T  | C  | 0.03 | 0.00| 1.87E-11| -0.01 | 0.03| .85     |
| Coronary heart disease        | rs1260326| T  | C  | -0.02 | 0.00| 6.67E-17| -0.01 | 0.02| .57     |
| Coronary heart disease        | rs17036328| T  | C  | 0.03 | 0.00| 1.05E-09| -0.04 | 0.03| .16     |
| Coronary heart disease        | rs2820237| A  | G  | 0.02 | 0.00| 1.94E-08| -0.01 | 0.02| .64     |
| Coronary heart disease        | rs2972144| A  | G  | -0.02 | 0.00| 2.17E-11| -0.03 | 0.03| .31     |
| Coronary heart disease        | rs35755| A  | G  | -0.02 | 0.00| 2.34E-08| 0.03  | 0.02| .24     |
| Coronary heart disease        | rs4240624| A  | G  | -0.03 | 0.00| 3.13E-08| 0.06  | 0.03| .09     |
| Coronary heart disease        | rs4691380| T  | C  | -0.02 | 0.00| 8.31E-09| -0.01 | 0.02| .72     |
| Coronary heart disease        | rs9504350| T  | C  | -0.29 | 0.05| 2.46E-08| -0.10 | 0.07| .16     |
| Coronary heart disease        | rs10840293| A  | G  | 0.05 | 0.01| 1.28E-08| 0.03  | 0.02| .14     |
| Coronary heart disease        | rs11065979| C  | T  | -0.07 | 0.01| 1.93E-10| 0.04  | 0.02| 4.60E-02|
| Coronary heart disease        | rs11191416| T  | G  | 0.08 | 0.01| 4.65E-09| 0.02  | 0.03| .37     |
| Coronary heart disease        | rs11206510| T  | C  | 0.07 | 0.01| 2.34E-08| 0.03  | 0.02| .24     |
| Coronary heart disease        | rs11556924| C  | T  | 0.07 | 0.01| 5.34E-11| 0.04  | 0.02| .06     |
| Coronary heart disease        | rs115654617| C  | A  | -0.14 | 0.02| 3.12E-18| 0.02  | 0.03| .51     |
| Coronary heart disease        | rs11838776| G  | A  | -0.07 | 0.01| 1.83E-10| 0.03  | 0.02| .24     |
| Coronary heart disease        | rs1199338| A  | C  | -0.07 | 0.01| 3.90E-09| 0.05  | 0.02| 4.61E-02|
| Coronary heart disease        | rs12202017| A  | G  | 0.07 | 0.01| 1.98E-11| 0.02  | 0.02| .44     |
| Coronary heart disease        | rs1412444| C  | T  | -0.07 | 0.01| 5.15E-12| 0.01  | 0.02| .72     |
| Coronary heart disease        | rs16986953| G  | A  | -0.09 | 0.02| 1.45E-08| 0.06  | 0.03| .07     |
| Coronary heart disease        | rs17087335| G  | T  | -0.06 | 0.01| 4.59E-08| -0.02 | 0.02| .48     |
| Coronary heart disease        | rs1746050| C  | A  | 0.09 | 0.01| 6.28E-13| -0.01 | 0.02| .74     |
| Coronary heart disease        | rs17678683| T  | G  | -0.10 | 0.02| 3.00E-09| -0.02 | 0.03| .50     |
| Coronary heart disease        | rs186696265| C  | T  | -0.55 | 0.05| 3.35E-30| -0.15 | 0.09| .09     |
| Coronary heart disease        | rs1870634| G  | T  | 0.08 | 0.01| 5.55E-15| -0.02 | 0.02| .24     |
| Coronary heart disease        | rs2107595| G  | A  | -0.07 | 0.01| 8.05E-11| 0.01  | 0.03| .83     |
| Coronary heart disease        | rs2128739| C  | A  | -0.07 | 0.01| 7.05E-11| 0.05  | 0.02| 1.19E-02|
| Coronary heart disease        | rs2487928| G  | A  | -0.06 | 0.01| 4.41E-11| 0.01  | 0.02| .81     |
| Coronary heart disease        | rs2519093| C  | T  | -0.08 | 0.01| 1.19E-11| -0.14 | 0.03| 1.74E-08|
| Coronary heart disease        | rs2681472| A  | G  | -0.07 | 0.01| 6.17E-11| -0.01 | 0.02| .53     |
| Coronary heart disease        | rs28451064| G  | A  | -0.13 | 0.02| 1.33E-15| 0.06  | 0.04| .09     |
| Coronary heart disease        | rs2891168| A  | G  | -0.19 | 0.01| 2.29E-08| 0.00  | 0.02| .89     |
| Coronary heart disease        | rs3731249| C  | T  | -0.17 | 0.03| 1.44E-08| -0.03 | 0.05| .61     |
| Coronary heart disease        | rs3918226| C  | T  | -0.13 | 0.02| 1.69E-09| 0.02  | 0.04| .64     |
### Supplementary Table 7. Continued

| Exposure               | SNP     | EA | AA | Beta  | SE   | P Value    | Beta  | SE   | P Value    |
|------------------------|---------|----|----|-------|------|------------|-------|------|------------|
| Coronary heart disease | rs4420638 | A  | G  | -0.09 | 0.01 | 7.07E-11   | -0.01 | 0.02 | .56        |
| Coronary heart disease | rs4468572 | C  | T  | 0.08  | 0.01 | 4.44E-16   | -0.02 | 0.02 | .31        |
| Coronary heart disease | rs515135  | C  | T  | 0.07  | 0.01 | 3.09E-08   | 0.01  | 0.03 | .59        |
| Coronary heart disease | rs55730499 | C  | T  | -0.32 | 0.02 | 5.39E-39   | 0.05  | 0.04 | .21        |
| Coronary heart disease | rs56062135 | C  | T  | 0.07  | 0.01 | 4.52E-09   | 0.01  | 0.02 | .58        |
| Coronary heart disease | rs56289821 | G  | A  | 0.13  | 0.02 | 4.44E-15   | -0.05 | 0.03 | .08        |
| Coronary heart disease | rs56336142 | T  | C  | 0.07  | 0.01 | 1.85E-08   | 0.03  | 0.03 | .23        |
| Coronary heart disease | rs624249  | C  | A  | 0.06  | 0.01 | 6.82E-09   | 0.03  | 0.02 | .19        |
| Coronary heart disease | rs663129  | G  | A  | -0.06 | 0.01 | 3.20E-08   | -0.03 | 0.02 | .21        |
| Coronary heart disease | rs6689306 | G  | A  | -0.06 | 0.01 | 2.60E-09   | -0.02 | 0.02 | .29        |
| Coronary heart disease | rs67180937 | G  | T  | 0.08  | 0.01 | 1.01E-12   | 0.01  | 0.02 | .74        |
| Coronary heart disease | rs6905073 | G  | T  | 0.06  | 0.01 | 1.91E-09   | -0.02 | 0.02 | .27        |
| Coronary heart disease | rs72689147 | G  | T  | 0.07  | 0.01 | 6.07E-09   | -0.02 | 0.02 | .29        |
| Coronary heart disease | rs7412    | C  | T  | 0.14  | 0.02 | 8.17E-11   | -0.04 | 0.03 | .26        |
| Coronary heart disease | rs7528419 | A  | G  | 0.11  | 0.01 | 1.97E-23   | -0.01 | 0.02 | .68        |
| Coronary heart disease | rs8042271 | A  | G  | -0.10 | 0.02 | 3.68E-08   | 0.07  | 0.04 | .08        |
| Coronary heart disease | rs9349379 | A  | G  | -0.13 | 0.01 | 1.81E-42   | 0.00  | 0.02 | .94        |
| Coronary heart disease | rs9970807 | C  | T  | 0.13  | 0.02 | 5.00E-14   | 0.02  | 0.03 | .43        |
| Serum total cholesterol| rs10449300| G  | A  | -0.06 | 0.01 | 3.03E-08   | 0.02  | 0.02 | .45        |
| Serum total cholesterol| rs111617668| T  | C  | -0.11 | 0.02 | 1.24E-08   | -0.03 | 0.04 | .47        |
| Serum total cholesterol| rs1168041 | C  | T  | 0.06  | 0.01 | 1.84E-08   | -0.02 | 0.02 | .30        |
| Serum total cholesterol| rs11881756| C  | T  | -0.13 | 0.02 | 2.42E-12   | 0.04  | 0.04 | .28        |
| Serum total cholesterol| rs12043403| C  | T  | -0.12 | 0.02 | 6.04E-11   | 0.03  | 0.04 | .52        |
| Serum total cholesterol| rs1260326 | C  | T  | -0.07 | 0.01 | 4.44E-11   | 0.01  | 0.02 | .57        |
| Serum total cholesterol| rs138270540| C  | A  | 0.22  | 0.04 | 1.48E-09   | -0.11 | 0.08 | .17        |
| Serum total cholesterol| rs144064722| G  | A  | 0.26  | 0.03 | 7.23E-14   | 0.04  | 0.06 | .47        |
| Serum total cholesterol| rs144545816| A  | G  | 0.08  | 0.01 | 4.78E-12   | -0.01 | 0.03 | .61        |
| Serum total cholesterol| rs1532085 | G  | A  | -0.08 | 0.01 | 2.69E-14   | 0.02  | 0.02 | .30        |
| Serum total cholesterol| rs17699030| G  | A  | -0.15 | 0.03 | 1.01E-08   | -0.05 | 0.04 | .20        |
| Serum total cholesterol| rs185415345| A  | G  | -0.15 | 0.03 | 2.94E-08   | -0.02 | 0.09 | .84        |
| Serum total cholesterol| rs2207132 | A  | G  | 0.14  | 0.02 | 4.42E-08   | -0.06 | 0.05 | .27        |
| Serum total cholesterol| rs2746683 | C  | A  | 0.11  | 0.02 | 5.55E-10   | 0.03  | 0.03 | .29        |
| Serum total cholesterol| rs2967668 | G  | A  | -0.14 | 0.02 | 3.18E-15   | -0.01 | 0.03 | .83        |
| Serum total cholesterol| rs2980853 | C  | A  | -0.06 | 0.01 | 3.27E-10   | -0.02 | 0.02 | .17        |
| Serum total cholesterol| rs3005923 | A  | G  | -0.31 | 0.04 | 4.02E-17   | -0.02 | 0.08 | .81        |
| Serum total cholesterol| rs3741298 | T  | C  | -0.09 | 0.01 | 1.33E-14   | -0.02 | 0.02 | .33        |
| Serum total cholesterol| rs429358  | C  | T  | 0.18  | 0.01 | 2.88E-40   | -0.01 | 0.03 | .68        |
| Serum total cholesterol| rs4803748 | T  | C  | -0.06 | 0.01 | 1.02E-08   | 0.01  | 0.02 | .60        |
| Serum total cholesterol| rs4927207 | A  | G  | -0.07 | 0.01 | 2.71E-09   | 0.02  | 0.02 | .31        |
| Exposure                        | SNP    | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|--------------------------------|--------|----|----|-------|-----|---------|-------|-----|---------|
| Serum total cholesterol        | rs629301 | T  | G  | 0.10  | 0.01| 3.34E-17| -0.01 | 0.02| .61     |
| Serum total cholesterol        | rs6662286 | C  | T  | 0.15  | 0.02| 4.96E-19| 0.01  | 0.04| .72     |
| Serum total cholesterol        | rs72999033 | T  | C  | -0.13 | 0.02| 2.96E-09| -0.04 | 0.04| .33     |
| Serum total cholesterol        | rs7412 | T  | C  | -0.41 | 0.03| 1.94E-58| 0.04  | 0.03| .26     |
| Serum total cholesterol        | rs74604756 | T  | G  | -0.15 | 0.02| 6.71E-15| 0.04  | 0.06| .51     |
| Serum total cholesterol        | rs7604788 | T  | C  | -0.16 | 0.02| 3.77E-13| -0.09 | 0.06| .15     |
| Serum total cholesterol        | rs79225634 | T  | C  | 0.08  | 0.01| 3.34E-15| -0.03  | 0.02| .15     |
| Serum total cholesterol        | rs952275 | G  | T  | 0.09  | 0.01| 5.29E-19| 0.00  | 0.02| .98     |
| Serum total triglycerides      | rs115849089 | A  | G  | -0.16 | 0.02| 6.90E-22| 0.02  | 0.03| .43     |
| Serum total triglycerides      | rs1168041 | C  | T  | -0.11 | 0.01| 1.00E-24| 0.01  | 0.02| .57     |
| Serum total triglycerides      | rs2980853 | C  | A  | -0.07 | 0.01| 7.07E-14| -0.02 | 0.02| .30     |
| Serum total triglycerides      | rs34346326 | C  | T  | -0.10 | 0.01| 7.08E-14| -0.04 | 0.03| .12     |
| Serum total triglycerides      | rs429358 | C  | T  | 0.12  | 0.01| 5.87E-18| -0.01 | 0.03| .68     |
| Serum total triglycerides      | rs4296389 | T  | C  | -0.09 | 0.01| 9.41E-18| -0.01 | 0.02| .73     |
| Serum total triglycerides      | rs5167 | G  | T  | 0.06  | 0.01| 3.39E-09| 0.00  | 0.02| .96     |
| Serum total triglycerides      | rs62370033 | T  | C  | -0.17 | 0.02| 1.91E-15| -0.04 | 0.04| .88     |
| Serum total triglycerides      | rs7575840 | T  | G  | 0.06  | 0.01| 1.95E-08| 0.01  | 0.02| .55     |
| Serum total triglycerides      | rs9472125 | T  | C  | -0.09 | 0.02| 6.64E-09| -0.01 | 0.04| .88     |
| Total cholesterol in LDL       | rs1005681 | A  | G  | 0.09  | 0.01| 4.74E-17| -0.03 | 0.02| .15     |
| Total cholesterol in LDL       | rs112635299 | T  | G  | 0.23  | 0.04| 8.66E-09| 0.10  | 0.08| .21     |
| Total cholesterol in LDL       | rs11305517 | G  | A  | -0.20 | 0.02| 2.50E-18| 0.00  | 0.08| .97     |
| Total cholesterol in LDL       | rs11587071 | T  | C  | -0.09 | 0.01| 4.02E-11| -0.02 | 0.03| .49     |
| Total cholesterol in LDL       | rs11878174 | C  | T  | 0.08  | 0.01| 2.42E-10| 0.02  | 0.02| .37     |
| Total cholesterol in LDL       | rs11881756 | C  | T  | -0.17 | 0.02| 4.69E-19| 0.04  | 0.04| .28     |
| Total cholesterol in LDL       | rs12043403 | C  | T  | -0.14 | 0.02| 2.37E-14| 0.03  | 0.04| .52     |
| Total cholesterol in LDL       | rs138270540 | C  | A  | 0.22  | 0.04| 1.35E-09| -0.11 | 0.08| .17     |
| Total cholesterol in LDL       | rs142130958 | A  | G  | -0.23 | 0.02| 6.16E-44| 0.05  | 0.03| .11     |
| Total cholesterol in LDL       | rs144064722 | G  | A  | 0.24  | 0.03| 2.82E-12| 0.04  | 0.06| .47     |
| Total cholesterol in LDL       | rs146390218 | G  | A  | -0.28 | 0.05| 3.27E-09| 0.10  | 0.07| .13     |
| Total cholesterol in LDL       | rs185415345 | A  | G  | -0.17 | 0.03| 1.33E-09| -0.02 | 0.09| .84     |
| Total cholesterol in LDL       | rs193084249 | G  | A  | 0.18  | 0.03| 1.42E-08| 0.06  | 0.07| .37     |
| Total cholesterol in LDL       | rs1962352 | G  | A  | 0.07  | 0.01| 8.07E-11| -0.03 | 0.02| .13     |
| Total cholesterol in LDL       | rs207122 | C  | T  | 0.13  | 0.02| 1.79E-12| 0.02  | 0.03| .57     |
| Total cholesterol in LDL       | rs2129944 | G  | T  | -0.06 | 0.01| 4.65E-08| 0.06  | 0.03| 1.01E-02|
| Total cholesterol in LDL       | rs2207132 | A  | G  | 0.14  | 0.02| 2.08E-08| -0.06 | 0.05| .27     |
| Total cholesterol in LDL       | rs2479409 | A  | G  | -0.07 | 0.01| 1.14E-08| -0.01 | 0.02| .63     |
| Total cholesterol in LDL       | rs28399637 | A  | G  | 0.07  | 0.01| 1.05E-08| -0.02 | 0.02| .34     |
| Total cholesterol in LDL       | rs2927436 | G  | A  | -0.09 | 0.01| 1.26E-16| 0.02  | 0.02| .45     |
### Supplementary Table 7. Continued

| Exposure                              | SNP        | EA | AA | Beta  | SE  | P Value  | Beta  | SE  | P Value |
|---------------------------------------|------------|----|----|-------|-----|----------|-------|-----|---------|
| Total cholesterol in LDL              | rs2965149  | C  | T  | -0.07 | 0.01| 1.09E-10 | 0.00  | 0.02| .86     |
| Total cholesterol in LDL              | rs2967668  | G  | A  | -0.18 | 0.02| 4.76E-26 | -0.01 | 0.03| .83     |
| Total cholesterol in LDL              | rs2972558  | T  | C  | 0.09  | 0.01| 3.00E-14 | 0.03  | 0.02| .22     |
| Total cholesterol in LDL              | rs3005923  | A  | G  | -0.33 | 0.04| 3.54E-19 | -0.02 | 0.08| .81     |
| Total cholesterol in LDL              | rs3760647  | G  | A  | 0.07  | 0.01| 5.80E-09 | -0.03 | 0.02| .18     |
| Total cholesterol in LDL              | rs429358   | C  | T  | 0.23  | 0.01| 2.64E-62 | -0.01 | 0.03| .68     |
| Total cholesterol in LDL              | rs4927207  | A  | G  | -0.08 | 0.01| 4.99E-11 | 0.02  | 0.02| .31     |
| Total cholesterol in LDL              | rs614303   | G  | A  | -0.14 | 0.02| 1.22E-14 | -0.01 | 0.04| .72     |
| Total cholesterol in LDL              | rs62119327 | T  | G  | -0.31 | 0.04| 1.29E-12 | 0.10  | 0.07| .15     |
| Total cholesterol in LDL              | rs629301   | T  | G  | 0.13  | 0.01| 6.81E-26 | -0.01 | 0.02| .61     |
| Total cholesterol in LDL              | rs635634   | T  | C  | 0.07  | 0.01| 2.99E-08 | 0.15  | 0.03| 1.02E-08|
| Total cholesterol in LDL              | rs6662286  | C  | T  | 0.15  | 0.02| 1.48E-20 | 0.01  | 0.04| .72     |
| Total cholesterol in LDL              | rs6756629  | A  | G  | -0.14 | 0.02| 1.22E-14 | -0.01 | 0.04| .71     |
| Total cholesterol in LDL              | rs73066442 | G  | A  | 0.07  | 0.01| 9.71E-10 | 0.02  | 0.03| .45     |
| Total cholesterol in LDL              | rs73107473 | A  | G  | 0.08  | 0.01| 1.63E-08 | 0.03  | 0.03| .28     |
| Total cholesterol in LDL              | rs7412     | T  | C  | -0.59 | 0.03| 1.75E-119| 0.04  | 0.03| .26     |
| Total cholesterol in LDL              | rs7604788  | T  | C  | -0.18 | 0.02| 7.22E-16 | -0.09 | 0.06| .15     |
| Total cholesterol in LDL              | rs78098253 | A  | C  | 0.18  | 0.03| 1.83E-08 | 0.04  | 0.07| .55     |
| Total cholesterol in LDL              | rs934197   | A  | G  | 0.12  | 0.02| 5.14E-27 | 0.02  | 0.02| .44     |
| Total cholesterol in HDL              | rs111894427| T  | C  | 0.13  | 0.02| 1.83E-09 | 0.00  | 0.05| .99     |
| Total cholesterol in HDL              | rs117427818| T  | C  | -0.25 | 0.03| 5.06E-14 | -0.06 | 0.05| .20     |
| Total cholesterol in HDL              | rs11865000 | A  | G  | -0.09 | 0.02| 2.41E-08 | 0.00  | 0.03| .96     |
| Total cholesterol in HDL              | rs1461729  | G  | A  | 0.09  | 0.01| 1.32E-10 | 0.04  | 0.03| .20     |
| Total cholesterol in HDL              | rs16940810 | T  | C  | 0.19  | 0.03| 5.67E-10 | -0.05 | 0.05| .34     |
| Total cholesterol in HDL              | rs174594   | A  | C  | 0.07  | 0.01| 3.35E-11 | -0.01 | 0.02| .62     |
| Total cholesterol in HDL              | rs17821298 | T  | C  | -0.16 | 0.03| 4.67E-09 | 0.01  | 0.06| .92     |
| Total cholesterol in HDL              | rs1800961  | T  | C  | -0.08 | 0.01| 1.50E-09 | 0.02  | 0.02| .42     |
| Total cholesterol in HDL              | rs2070895  | A  | G  | 0.13  | 0.01| 7.97E-29 | 0.02  | 0.02| .41     |
| Total cholesterol in HDL              | rs247617   | A  | C  | 0.23  | 0.01| 5.76E-97 | 0.03  | 0.02| .20     |
| Total cholesterol in HDL              | rs261291   | C  | T  | 0.13  | 0.01| 6.80E-36 | -0.02 | 0.02| .21     |
| Total cholesterol in HDL              | rs289743   | A  | G  | -0.09 | 0.01| 9.14E-17 | -0.02 | 0.02| .32     |
| Total cholesterol in HDL              | rs291      | C  | T  | 0.10  | 0.01| 2.90E-16 | 0.02  | 0.02| .35     |
| Total cholesterol in HDL              | rs4149307  | T  | C  | 0.10  | 0.02| 3.08E-08 | -0.02 | 0.03| .53     |
| Total cholesterol in HDL              | rs55995508 | A  | G  | 0.16  | 0.03| 2.61E-10 | 0.14  | 0.06| 3.00E-02|
| Total cholesterol in HDL              | rs6065904  | A  | G  | -0.07 | 0.01| 2.03E-08 | 0.03  | 0.02| .21     |
| Total cholesterol in HDL              | rs6507939  | C  | A  | 0.09  | 0.01| 9.48E-12 | -0.04 | 0.03| .13     |
| Apolipoprotein B                      | rs10056811 | A  | G  | 0.09  | 0.01| 1.35E-15 | -0.03 | 0.02| .15     |
| Apolipoprotein B                      | rs113105517| G  | A  | -0.18 | 0.02| 1.36E-13 | 0.00  | 0.08| .97     |
## Supplementary Table 7. Continued

| Exposure          | SNP          | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|-------------------|--------------|----|----|-------|-----|---------|-------|-----|---------|
| Apolipoprotein B  | rs115849089  | A  | G  | -0.10 | 0.02| 1.04E-08 | 0.02  | 0.03| .43     |
| Apolipoprotein B  | rs1168041    | C  | T  | 0.07  | 0.01| 1.06E-09 | -0.02 | 0.02| .30     |
| Apolipoprotein B  | rs11881756   | C  | T  | -0.13 | 0.02| 4.38E-11 | 0.04  | 0.04| .28     |
| Apolipoprotein B  | rs12043403   | C  | T  | -0.11 | 0.02| 1.10E-09 | 0.03  | 0.04| .52     |
| Apolipoprotein B  | rs1260326    | C  | T  | -0.07 | 0.01| 2.51E-10 | 0.01  | 0.02| .57     |
| Apolipoprotein B  | rs1367117    | A  | G  | 0.11  | 0.01| 9.99E-22 | 0.02  | 0.02| .40     |
| Apolipoprotein B  | rs142130958  | A  | G  | -0.20 | 0.02| 7.78E-32 | 0.05  | 0.03| .11     |
| Apolipoprotein B  | rs144064722  | G  | A  | 0.20  | 0.04| 2.29E-12 | 0.02  | 0.04| .47     |
| Apolipoprotein B  | rs2927436    | G  | A  | -0.08 | 0.01| 2.08E-12 | 0.02  | 0.02| .45     |
| Apolipoprotein B  | rs2967668    | G  | A  | -0.10 | 0.02| 3.73E-09 | -0.01 | 0.03| .83     |
| Apolipoprotein B  | rs2980875    | G  | A  | -0.07 | 0.01| 6.68E-12 | -0.03 | 0.02| .13     |
| Apolipoprotein B  | rs3005923    | A  | G  | -0.28 | 0.04| 4.73E-14 | -0.02 | 0.08| .81     |
| Apolipoprotein B  | rs429358     | C  | T  | 0.19  | 0.01| 2.77E-43 | -0.01 | 0.03| .68     |
| Apolipoprotein B  | rs4803762    | A  | G  | 0.06  | 0.01| 1.02E-08 | 0.00  | 0.02| .95     |
| Apolipoprotein B  | rs4926673    | A  | G  | -0.09 | 0.01| 7.65E-10 | 0.03  | 0.03| .33     |
| Apolipoprotein B  | rs533617     | C  | T  | -0.18 | 0.02| 7.50E-16 | -0.07 | 0.05| .20     |
| Apolipoprotein B  | rs614303     | A  | G  | 0.08  | 0.01| 1.71E-11 | -0.01 | 0.02| .72     |
| Apolipoprotein B  | rs629301     | T  | G  | 0.09  | 0.01| 3.56E-13 | -0.01 | 0.02| .61     |
| Apolipoprotein B  | rs6756629    | A  | G  | -0.11 | 0.02| 1.90E-09 | -0.01 | 0.04| .71     |
| Apolipoprotein B  | rs72999033   | T  | C  | -0.14 | 0.02| 5.68E-10 | -0.04 | 0.04| .33     |
| Apolipoprotein B  | rs7412       | T  | C  | -0.43 | 0.03| 4.39E-59 | 0.04  | 0.03| .26     |
| Diastolic blood pressure | rs1000423   | T  | C  | 0.19  | 0.02| 9.54E-22 | -0.03 | 0.03| .26     |
| Diastolic blood pressure | rs10042590  | A  | G  | -0.23 | 0.03| 6.60E-13 | -0.04 | 0.05| .42     |
| Diastolic blood pressure | rs10048404  | T  | C  | -0.11 | 0.02| 2.01E-09 | 0.00  | 0.04| .99     |
| Diastolic blood pressure | rs10053638  | T  | C  | -0.21 | 0.03| 1.65E-13 | 0.00  | 0.04| .95     |
| Diastolic blood pressure | rs10054208  | T  | C  | 0.12  | 0.02| 1.49E-10 | 0.03  | 0.04| .48     |
| Diastolic blood pressure | rs1006545   | T  | G  | 0.36  | 0.03| 7.96E-40 | -0.05 | 0.06| .39     |
| Diastolic blood pressure | rs10096990  | T  | C  | 0.16  | 0.02| 1.42E-14 | -0.02 | 0.03| .54     |
| Diastolic blood pressure | rs10164193  | T  | G  | -0.22 | 0.03| 1.87E-11 | -0.01 | 0.04| .89     |
| Diastolic blood pressure | rs10170324  | T  | C  | -0.15 | 0.03| 4.05E-08 | 0.04  | 0.04| .36     |
| Diastolic blood pressure | rs10170954  | A  | C  | -0.10 | 0.02| 6.90E-09 | -0.01 | 0.03| .73     |
| Diastolic blood pressure | rs10195252  | T  | C  | 0.13  | 0.02| 3.88E-14 | 0.00  | 0.03| .92     |
| Diastolic blood pressure | rs10213478  | T  | C  | -0.15 | 0.03| 3.81E-08 | 0.01  | 0.04| .80     |
| Diastolic blood pressure | rs10245801  | A  | G  | -0.14 | 0.02| 1.77E-11 | 0.00  | 0.04| .96     |
| Diastolic blood pressure | rs1025655   | A  | G  | -0.11 | 0.02| 1.32E-09 | 0.03  | 0.03| .24     |
| Diastolic blood pressure | rs1035272   | T  | G  | 0.17  | 0.03| 3.03E-09 | 0.01  | 0.04| .85     |
| Diastolic blood pressure | rs1035514   | A  | G  | 0.16  | 0.03| 8.25E-10 | 0.04  | 0.04| .33     |
| Diastolic blood pressure | rs1035673   | T  | C  | 0.16  | 0.02| 3.00E-20 | 0.00  | 0.03| .90     |
| Diastolic blood pressure | rs10401771  | A  | G  | 0.12  | 0.02| 3.50E-11 | -0.03 | 0.03| .20     |
| Exposure                              | SNP       | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|--------------------------------------|-----------|----|----|-------|-----|---------|-------|-----|---------|
| Diastolic blood pressure             | rs10421783| A  | C  | 0.10  | 0.02| 2.37E-08| 0.00  | 0.04| .92     |
| Diastolic blood pressure             | rs10434099| A  | C  | 0.10  | 0.02| 4.42E-09| 0.05  | 0.03| .15     |
| Diastolic blood pressure             | rs1044822 | T  | C  | -0.13 | 0.02| 4.14E-08| 0.05  | 0.04| .14     |
| Diastolic blood pressure             | rs10467770| T  | C  | 0.11  | 0.02| 2.10E-08| 0.01  | 0.03| .72     |
| Diastolic blood pressure             | rs10468291| A  | C  | -0.12 | 0.02| 3.70E-11| 0.02  | 0.03| .50     |
| Diastolic blood pressure             | rs1047981 | A  | C  | -0.14 | 0.02| 8.19E-14| 0.00  | 0.03| .89     |
| Diastolic blood pressure             | rs10489290| A  | C  | 0.14  | 0.02| 4.07E-11| 0.03  | 0.03| .39     |
| Diastolic blood pressure             | rs10490923| A  | G  | 0.15  | 0.03| 5.02E-09| -0.07 | 0.04| .08     |
| Diastolic blood pressure             | rs10493408| A  | C  | 0.16  | 0.03| 5.09E-10| -0.04 | 0.04| .32     |
| Diastolic blood pressure             | rs10497376| T  | C  | -0.11 | 0.02| 1.21E-08| -0.01 | 0.04| .86     |
| Diastolic blood pressure             | rs10495928| A  | G  | 0.12  | 0.02| 7.69E-12| -0.04 | 0.03| .11     |
| Diastolic blood pressure             | rs10509174| A  | C  | 0.19  | 0.03| 3.29E-08| 0.07  | 0.05| .15     |
| Diastolic blood pressure             | rs10740933| T  | C  | 0.12  | 0.02| 1.14E-11| -0.02 | 0.03| .53     |
| Diastolic blood pressure             | rs1076752 | T  | G  | 0.46  | 0.03| 1.25E-43| 0.04  | 0.05| .36     |
| Diastolic blood pressure             | rs10777212| T  | G  | -0.13 | 0.02| 1.15E-11| -0.04 | 0.03| .23     |
| Diastolic blood pressure             | rs1077795 | A  | G  | 0.20  | 0.02| 1.62E-23| 0.01  | 0.03| .71     |
| Diastolic blood pressure             | rs10804330| T  | C  | 0.13  | 0.02| 4.60E-14| 0.01  | 0.03| .72     |
| Diastolic blood pressure             | rs10828542| A  | G  | 0.10  | 0.02| 2.34E-08| -0.03 | 0.03| .28     |
| Diastolic blood pressure             | rs10832013| T  | G  | 0.15  | 0.02| 4.51E-16| 0.00  | 0.03| .93     |
| Diastolic blood pressure             | rs10835161| T  | G  | -0.14 | 0.02| 1.01E-14| 0.00  | 0.03| .90     |
| Diastolic blood pressure             | rs10840378| T  | C  | 0.28  | 0.02| 3.33E-36| 0.03  | 0.03| .27     |
| Diastolic blood pressure             | rs10846495| T  | G  | 0.21  | 0.04| 1.35E-08| 0.04  | 0.07| .62     |
| Diastolic blood pressure             | rs10849908| T  | C  | 0.13  | 0.02| 1.26E-13| -0.04 | 0.03| .14     |
| Diastolic blood pressure             | rs10855026| A  | G  | -0.20 | 0.02| 1.61E-26| 0.01  | 0.04| .83     |
| Diastolic blood pressure             | rs10873612| T  | C  | -0.11 | 0.02| 9.51E-10| -0.02 | 0.03| .59     |
| Diastolic blood pressure             | rs10890224| T  | C  | -0.12 | 0.02| 1.54E-09| -0.03 | 0.03| .34     |
| Diastolic blood pressure             | rs10906391| T  | C  | 0.13  | 0.02| 7.57E-12| -0.02 | 0.03| .52     |
| Diastolic blood pressure             | rs10934116| T  | C  | -0.13 | 0.02| 1.54E-08| -0.04 | 0.03| .25     |
| Diastolic blood pressure             | rs10980408| T  | C  | -0.37 | 0.05| 4.17E-15| 0.05  | 0.06| .42     |
| Diastolic blood pressure             | rs11026586| A  | G  | 0.29  | 0.03| 2.68E-17| 0.06  | 0.05| .22     |
| Diastolic blood pressure             | rs11059094| T  | C  | -0.15 | 0.02| 6.16E-18| 0.01  | 0.03| .76     |
| Diastolic blood pressure             | rs11070245| T  | G  | -0.13 | 0.02| 1.57E-13| 0.03  | 0.03| .26     |
| Diastolic blood pressure             | rs11082420| T  | C  | 0.22  | 0.03| 1.28E-11| 0.00  | 0.06| .99     |
| Diastolic blood pressure             | rs11097755| T  | C  | 0.12  | 0.02| 1.72E-11| -0.04 | 0.03| .15     |
| Diastolic blood pressure             | rs11108209| T  | C  | -0.19 | 0.03| 2.40E-10| -0.03 | 0.05| .48     |
| Diastolic blood pressure             | rs11112529| T  | C  | -0.10 | 0.02| 1.17E-08| -0.02 | 0.03| .44     |
| Exposure                  | SNP       | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|--------------------------|-----------|----|----|------|-----|---------|------|-----|---------|
| Diastolic blood pressure | rs1130567 | T  | C  | 0.11 | 0.02| 5.37E-09| -0.05| 0.04| .13     |
| Diastolic blood pressure | rs11384899| T  | C  | -0.14| 0.02| 4.62E-10| 0.06 | 0.04| .13     |
| Diastolic blood pressure | rs1141731 | T  | C  | -0.13| 0.02| 1.31E-09| 0.04 | 0.03| .21     |
| Diastolic blood pressure | rs114344  | A  | G  | 0.21 | 0.02| 1.83E-33| 0.02 | 0.03| .43     |
| Diastolic blood pressure | rs114347  | A  | G  | -0.18| 0.02| 3.32E-25| -0.01| 0.03| .79     |
| Diastolic blood pressure | rs1145807 | A  | G  | 0.16 | 0.02| 4.10E-17| -0.03| 0.04| .45     |
| Diastolic blood pressure | rs1153730 | T  | C  | 0.16 | 0.02| 2.57E-19| -0.03| 0.03| .20     |
| Diastolic blood pressure | rs1158678 | T  | C  | 0.10 | 0.02| 1.24E-08| -0.06| 0.03| .07     |
| Diastolic blood pressure | rs1167039 | A  | G  | -0.18| 0.03| 3.60E-09| -0.04| 0.06| .52     |
| Diastolic blood pressure | rs1168254 | T  | G  | 0.22 | 0.04| 4.07E-08| 0.17 | 0.07| 1.78E-02|
| Diastolic blood pressure | rs11721984| T  | C  | -0.14| 0.02| 1.89E-15| 0.01 | 0.03| .88     |
| Exposure                          | SNP          | EA | AA | Beta   | SE  | P Value | Beta   | SE  | P Value |
|----------------------------------|--------------|----|----|--------|-----|---------|--------|-----|---------|
| Diastolic blood pressure         | rs117455294  | A  | C  | 0.23   | 0.04| 3.36E-08| 0.10   | 0.07| .11     |
| Diastolic blood pressure         | rs11778153   | T  | C  | 0.12   | 0.02| 5.84E-11| -0.02  | 0.04| .51     |
| Diastolic blood pressure         | rs11781001   | A  | G  | 0.15   | 0.02| 1.11E-10| -0.03  | 0.05| .49     |
| Diastolic blood pressure         | rs11784477   | T  | C  | -0.38  | 0.06| 4.33E-12| -0.01  | 0.09| .89     |
| Diastolic blood pressure         | rs1178979    | T  | C  | 0.15   | 0.02| 9.96E-12| 0.07   | 0.04| .11     |
| Diastolic blood pressure         | rs11832104   | T  | C  | 0.24   | 0.02| 5.84E-25| -0.05  | 0.03| .10     |
| Diastolic blood pressure         | rs11837982   | A  | C  | 0.15   | 0.02| 2.14E-16| 0.01   | 0.04| .81     |
| Diastolic blood pressure         | rs11853359   | A  | G  | -0.17  | 0.02| 1.30E-19| 0.01   | 0.03| .82     |
| Diastolic blood pressure         | rs1189505    | A  | G  | -0.10  | 0.02| 9.76E-09| 0.00   | 0.03| .96     |
| Diastolic blood pressure         | rs11890632   | T  | G  | -0.17  | 0.03| 9.96E-10| -0.05  | 0.05| .34     |
| Diastolic blood pressure         | rs11923343   | A  | G  | -0.11  | 0.02| 3.10E-10| 0.01   | 0.03| .74     |
| Diastolic blood pressure         | rs11945489   | T  | C  | -0.14  | 0.02| 3.99E-13| -0.02  | 0.04| .56     |
| Diastolic blood pressure         | rs11961593   | T  | C  | -0.32  | 0.03| 1.49E-19| -0.01  | 0.06| .80     |
| Diastolic blood pressure         | rs11969966   | T  | C  | 0.25   | 0.02| 3.10E-36| 0.01   | 0.03| .78     |
| Diastolic blood pressure         | rs11974176   | T  | C  | 0.13   | 0.02| 2.94E-12| -0.04  | 0.03| .09     |
| Diastolic blood pressure         | rs12052761   | A  | G  | -0.12  | 0.02| 4.22E-12| 0.01   | 0.03| .73     |
| Diastolic blood pressure         | rs12142296   | T  | G  | -0.16  | 0.03| 8.89E-11| 0.04   | 0.04| .36     |
| Diastolic blood pressure         | rs12143164   | T  | C  | -0.10  | 0.02| 4.62E-08| 0.00   | 0.04| .95     |
| Diastolic blood pressure         | rs12192720   | A  | G  | -0.11  | 0.02| 1.18E-08| -0.01  | 0.03| .67     |
| Diastolic blood pressure         | rs12216886   | T  | G  | 0.13   | 0.02| 4.76E-09| -0.08  | 0.04| 4.66E-02|
**Supplementary Table 7.** Continued

| Exposure                  | SNP      | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|---------------------------|----------|----|----|-------|-----|---------|-------|-----|---------|
| Diastolic blood pressure  | rs12675715 | T  | G  | 0.10  | 0.02| 2.31E-08| 0.02  | 0.03| .33     |
| Diastolic blood pressure  | rs12703989 | A  | G  | 0.10  | 0.02| 4.35E-09| -0.07 | 0.03| 3.25E-02|
| Diastolic blood pressure  | rs12728150 | A  | G  | -0.20 | 0.03| 1.28E-10| -0.05 | 0.05| .33     |
| Diastolic blood pressure  | rs12730750 | A  | G  | 0.11  | 0.02| 1.95E-09| -0.02 | 0.04| .69     |
| Diastolic blood pressure  | rs1275988  | T  | C  | -0.29 | 0.02| 1.92E-62| -0.03 | 0.04| .40     |
| Diastolic blood pressure  | rs12790943 | T  | C  | -0.10 | 0.02| 1.14E-08| 0.01  | 0.03| .66     |
| Diastolic blood pressure  | rs12806952 | T  | C  | -0.11 | 0.02| 1.07E-09| 0.04  | 0.03| .24     |
| Diastolic blood pressure  | rs12866098 | A  | G  | 0.10  | 0.02| 2.73E-08| -0.02 | 0.04| .70     |
| Diastolic blood pressure  | rs12906962 | T  | C  | -0.24 | 0.02| 8.73E-37| 0.02  | 0.03| .62     |
| Diastolic blood pressure  | rs1292550  | A  | G  | -0.20 | 0.03| 4.44E-16| 0.00  | 0.04| .93     |
| Diastolic blood pressure  | rs12950065 | A  | G  | 0.15  | 0.02| 1.15E-08| 0.01  | 0.03| .76     |
| Diastolic blood pressure  | rs12990959 | T  | C  | -0.13 | 0.02| 1.11E-11| -0.02 | 0.03| .44     |
| Diastolic blood pressure  | rs13001283 | A  | G  | 0.15  | 0.02| 1.92E-10| 0.11  | 0.05| 2.11E-02|
| Diastolic blood pressure  | rs13014371 | T  | C  | -0.12 | 0.02| 1.68E-11| 0.00  | 0.03| .89     |
| Diastolic blood pressure  | rs13020482 | T  | C  | -0.26 | 0.04| 1.70E-09| -0.06 | 0.06| .36     |
| Diastolic blood pressure  | rs13026308 | T  | C  | -0.14 | 0.03| 2.67E-08| -0.11 | 0.04| 4.37E-03|
| Diastolic blood pressure  | rs13044147 | T  | G  | -0.23 | 0.04| 5.88E-09| 0.06  | 0.06| .27     |
| Diastolic blood pressure  | rs13094525 | A  | G  | 0.09  | 0.02| 4.93E-08| -0.01 | 0.03| .68     |
| Diastolic blood pressure  | rs13139571 | A  | C  | -0.24 | 0.02| 2.29E-32| 0.00  | 0.03| .91     |
| Diastolic blood pressure  | rs13179413 | T  | C  | 0.13  | 0.02| 3.04E-10| -0.04 | 0.04| .29     |
| Diastolic blood pressure  | rs13195550 | T  | C  | 0.13  | 0.02| 1.69E-12| 0.00  | 0.04| .97     |
| Diastolic blood pressure  | rs13206164 | T  | C  | 0.27  | 0.05| 8.24E-09| -0.02 | 0.08| .76     |
| Diastolic blood pressure  | rs1322639  | A  | G  | -0.16 | 0.02| 3.87E-14| -0.05 | 0.03| .07     |
| Diastolic blood pressure  | rs13240040 | A  | G  | 0.12  | 0.02| 3.98E-10| 0.00  | 0.04| 1.00    |
| Diastolic blood pressure  | rs13240528 | A  | C  | -0.13 | 0.02| 3.27E-14| -0.01 | 0.03| .77     |
| Diastolic blood pressure  | rs13270541 | A  | G  | 0.12  | 0.02| 1.33E-08| -0.04 | 0.03| .13     |
| Diastolic blood pressure  | rs1327235  | A  | G  | -0.30 | 0.02| 4.76E-68| 0.05  | 0.03| 4.89E-02|
| Diastolic blood pressure  | rs134041   | T  | C  | 0.12  | 0.02| 3.05E-12| 0.05  | 0.03| .11     |
| Diastolic blood pressure  | rs137920360| T  | C  | -0.25 | 0.05| 1.93E-08| -0.01 | 0.06| .87     |
| Diastolic blood pressure  | rs141212865| A  | C  | 0.15  | 0.02| 2.53E-11| -0.01 | 0.04| .70     |
| Diastolic blood pressure  | rs1422278  | T  | G  | 0.23  | 0.03| 2.28E-20| -0.01 | 0.04| .84     |
| Diastolic blood pressure  | rs142449193| T  | C  | -0.26 | 0.04| 1.51E-09| 0.00  | 0.06| .96     |
| Diastolic blood pressure  | rs1425152  | A  | G  | 0.11  | 0.02| 2.92E-10| -0.06 | 0.03| .09     |
| Diastolic blood pressure  | rs1425486  | T  | C  | -0.13 | 0.02| 1.11E-12| -0.02 | 0.03| .37     |
| Diastolic blood pressure  | rs1436138  | A  | G  | 0.20  | 0.02| 7.33E-28| 0.04  | 0.03| .25     |
| Diastolic blood pressure  | rs143854972| A  | G  | 0.29  | 0.04| 1.15E-14| 0.10  | 0.06| .11     |
| Exposure                           | SNP       | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|-----------------------------------|-----------|----|----|------|-----|---------|------|-----|---------|
| Diastolic blood pressure rs144282473 | T         | C  |    | 0.38 | 0.05| 1.05E-14| 0.00 | 0.08| 0.99    |
| Diastolic blood pressure rs145422110 | T         | C  |    | 0.54 | 0.07| 6.41E-13| 0.09 | 0.10| 0.37    |
| Diastolic blood pressure rs1465249 | T         | C  |    | 0.10 | 0.02| 3.56E-08| -0.07| 0.03| 0.05    |
| Diastolic blood pressure rs1480380 | T         | C  |    | -0.33| 0.03| 8.88E-29| -0.04| 0.05| 0.38    |
| Diastolic blood pressure rs1494649 | T         | C  |    | 0.13 | 0.02| 4.25E-11| -0.04| 0.04| 0.24    |
| Diastolic blood pressure rs1498768 | A         | G  |    | 0.21 | 0.03| 8.12E-10| -0.02| 0.06| 0.75    |
| Diastolic blood pressure rs1502358 | A         | G  |    | -0.11| 0.02| 1.13E-09| 0.06 | 0.04| 0.09    |
| Diastolic blood pressure rs150816167 | T         | C  |    | -0.29| 0.04| 1.17E-10| -0.11| 0.07| 0.09    |
| Diastolic blood pressure rs151356 | A         | G  |    | -0.19| 0.02| 2.12E-18| -0.04| 0.03| 0.25    |
| Diastolic blood pressure rs151378 | G         | A  |    | 0.00 | 0.03| 8.88E-29| -0.04| 0.05| 0.38    |
| Diastolic blood pressure rs152130 | A         | G  |    | -0.11| 0.02| 2.61E-09| 0.05 | 0.03| 0.16    |
| Diastolic blood pressure rs1527351 | T         | C  |    | 0.17 | 0.02| 2.07E-19| -0.03| 0.03| 0.22    |
| Diastolic blood pressure rs153271 | A         | G  |    | 0.11 | 0.02| 3.49E-13| 0.04 | 0.04| 0.36    |
| Diastolic blood pressure rs1536608 | T         | C  |    | -0.14| 0.02| 7.31E-15| -0.05| 0.04| 0.21    |
| Diastolic blood pressure rs1543310 | A         | G  |    | 0.21 | 0.03| 3.45E-10| 0.13 | 0.05| 8.29E-03|
| Diastolic blood pressure rs1571737 | T         | C  |    | 0.13 | 0.02| 1.45E-08| 0.02 | 0.03| 0.54    |
| Diastolic blood pressure rs1650554 | A         | G  |    | 0.13 | 0.02| 5.13E-13| 0.04 | 0.03| 0.12    |
| Diastolic blood pressure rs16849203 | T         | C  |    | -0.27| 0.05| 2.75E-08| 0.03 | 0.08| 0.71    |
| Diastolic blood pressure rs16852778 | T         | C  |    | 0.16 | 0.02| 4.03E-11| -0.04| 0.04| 0.42    |
| Diastolic blood pressure rs16853084 | T         | C  |    | -0.27| 0.05| 2.57E-08| 0.01 | 0.07| 0.88    |
| Diastolic blood pressure rs1687295 | T         | C  |    | 0.21 | 0.02| 2.99E-26| 0.03 | 0.03| 0.36    |
| Diastolic blood pressure rs16891474 | T         | G  |    | -0.17| 0.02| 7.47E-12| -0.03| 0.03| 0.32    |
| Diastolic blood pressure rs1689468 | A         | G  |    | 0.12 | 0.02| 1.05E-11| 0.01 | 0.03| 0.66    |
| Diastolic blood pressure rs16916914 | T         | C  |    | -0.36| 0.05| 8.04E-15| -0.02| 0.07| 0.76    |
| Diastolic blood pressure rs17137303 | T         | G  |    | -0.23| 0.04| 1.16E-09| 0.02 | 0.05| 0.73    |
| Diastolic blood pressure rs17244049 | T         | C  |    | 0.21 | 0.04| 2.30E-08| 0.02 | 0.09| 0.80    |
| Diastolic blood pressure rs17249006 | T         | C  |    | -0.20| 0.03| 8.62E-12| 0.00 | 0.04| 0.94    |
| Diastolic blood pressure rs1725074 | T         | C  |    | 0.14 | 0.03| 3.88E-08| -0.08| 0.03| 2.81E-02|
| Diastolic blood pressure rs1727311 | T         | G  |    | -0.20| 0.02| 3.96E-20| -0.01| 0.04| 0.76    |
| Diastolic blood pressure rs17321041 | T         | C  |    | 0.23 | 0.04| 1.78E-10| 0.05 | 0.08| 0.51    |
| Diastolic blood pressure rs17353559 | A         | G  |    | 0.11 | 0.02| 7.23E-10| -0.01| 0.04| 0.69    |
| Diastolic blood pressure rs17361679 | T         | C  |    | 0.16 | 0.03| 1.52E-08| -0.03| 0.05| 0.55    |
| Diastolic blood pressure rs17396055 | A         | G  |    | -0.12| 0.02| 4.13E-10| 0.00 | 0.03| 0.89    |
| Diastolic blood pressure rs17422386 | A         | G  |    | 0.26 | 0.04| 3.13E-09| 0.09 | 0.07| 0.18    |
| Diastolic blood pressure rs17473424 | A         | G  |    | 0.27 | 0.03| 1.23E-21| -0.01| 0.04| 0.90    |
| Diastolic blood pressure rs17627481 | A         | G  |    | -0.37| 0.04| 1.67E-19| -0.03| 0.06| 0.63    |
| Diastolic blood pressure rs17669452 | A         | G  |    | 0.14 | 0.02| 3.47E-09| 0.05 | 0.04| 0.15    |
| Diastolic blood pressure rs17735275 | A         | G  |    | 0.30 | 0.05| 2.61E-10| -0.01| 0.08| 0.95    |
| Exposure                     | SNP       | EA | AA | Beta   | SE   | P Value | Beta   | SE   | P Value |
|-----------------------------|-----------|----|----|--------|------|---------|--------|------|---------|
| Diastolic blood pressure    | rs1779246 | A  | G  | -0.15  | 0.02 | 2.67E-12 | -0.01  | 0.04 | .76     |
| Diastolic blood pressure    | rs17861118| A  | G  | 0.20   | 0.03 | 2.77E-09 | -0.06  | 0.06 | .35     |
| Diastolic blood pressure    | rs17875473| T  | C  | 0.25   | 0.03 | 8.64E-15 | -0.12  | 0.08 | .11     |
| Diastolic blood pressure    | rs1800562 | A  | G  | 0.38   | 0.03 | 8.53E-29 | 0.00   | 0.06 | .94     |
| Diastolic blood pressure    | rs1819663 | A  | G  | 0.11   | 0.02 | 4.63E-11 | 0.00   | 0.03 | .98     |
| Diastolic blood pressure    | rs1821295 | T  | C  | -0.14  | 0.02 | 3.13E-13 | -0.03  | 0.04 | .49     |
| Diastolic blood pressure    | rs1842646 | A  | C  | 0.10   | 0.02 | 2.65E-08 | -0.05  | 0.03 | .06     |
| Diastolic blood pressure    | rs1848510 | A  | G  | 0.13   | 0.02 | 4.10E-12 | -0.01  | 0.03 | .62     |
| Diastolic blood pressure    | rs1863798 | A  | G  | -0.10  | 0.02 | 3.26E-08 | -0.11  | 0.03 | 8.19E-04|
| Diastolic blood pressure    | rs1867624 | T  | C  | 0.18   | 0.02 | 6.23E-22 | -0.05  | 0.04 | .18     |
| Diastolic blood pressure    | rs1871190 | T  | G  | 0.11   | 0.02 | 6.63E-09 | 0.00   | 0.04 | .91     |
| Diastolic blood pressure    | rs187490  | A  | G  | 0.14   | 0.02 | 1.16E-12 | 0.04   | 0.04 | .28     |
| Diastolic blood pressure    | rs1879056 | T  | C  | -0.22  | 0.02 | 6.19E-23 | 0.03   | 0.03 | .26     |
| Diastolic blood pressure    | rs1885018 | A  | C  | 0.13   | 0.02 | 1.76E-08 | 0.04   | 0.04 | .37     |
| Diastolic blood pressure    | rs188542  | T  | C  | -0.14  | 0.02 | 2.54E-16 | -0.10  | 0.03 | 3.26E-03|
| Diastolic blood pressure    | rs18956314| T  | C  | -0.27  | 0.05 | 2.92E-08 | 0.05   | 0.07 | .49     |
| Diastolic blood pressure    | rs1906672 | A  | G  | 0.14   | 0.02 | 8.48E-12 | -0.04  | 0.03 | .25     |
| Diastolic blood pressure    | rs1950500 | T  | C  | 0.14   | 0.02 | 2.20E-13 | -0.08  | 0.04 | 1.75E-02|
| Diastolic blood pressure    | rs1980607 | A  | G  | 0.12   | 0.02 | 1.51E-10 | 0.01   | 0.03 | .85     |
| Diastolic blood pressure    | rs1984195 | A  | G  | 0.17   | 0.02 | 1.43E-23 | 0.03   | 0.03 | .31     |
| Diastolic blood pressure    | rs1996992 | T  | G  | -0.30  | 0.04 | 4.71E-14 | 0.05   | 0.06 | .35     |
| Diastolic blood pressure    | rs2060664 | T  | C  | 0.11   | 0.02 | 4.65E-08 | 0.02   | 0.03 | .56     |
| Diastolic blood pressure    | rs2065498 | T  | G  | -0.15  | 0.02 | 4.19E-10 | -0.02  | 0.03 | .47     |
| Diastolic blood pressure    | rs2085600 | A  | G  | -0.13  | 0.02 | 7.00E-09 | 0.05   | 0.03 | .11     |
| Diastolic blood pressure    | rs2118370 | A  | G  | 0.13   | 0.02 | 1.38E-08 | 0.03   | 0.04 | .56     |
| Diastolic blood pressure    | rs2146315 | T  | C  | -0.12  | 0.02 | 5.03E-09 | 0.00   | 0.03 | .98     |
| Diastolic blood pressure    | rs2171690 | T  | C  | 0.12   | 0.02 | 1.19E-11 | 0.01   | 0.03 | .76     |
| Diastolic blood pressure    | rs2173957 | A  | G  | 0.11   | 0.02 | 2.09E-09 | -0.02  | 0.03 | .51     |
| Diastolic blood pressure    | rs2178152 | A  | G  | -0.13  | 0.02 | 1.89E-10 | 0.02   | 0.03 | .60     |
| Diastolic blood pressure    | rs2217171 | T  | C  | -0.18  | 0.02 | 1.35E-23 | 0.00   | 0.03 | .87     |
| Diastolic blood pressure    | rs2239268 | A  | G  | 0.11   | 0.02 | 7.40E-09 | 0.03   | 0.03 | .32     |
| Diastolic blood pressure    | rs2242338 | A  | C  | 0.35   | 0.03 | 1.25E-25 | 0.02   | 0.04 | .70     |
| Diastolic blood pressure    | rs2249954 | A  | G  | -0.20  | 0.02 | 4.10E-26 | 0.01   | 0.03 | .76     |
| Diastolic blood pressure    | rs2252865 | T  | C  | 0.12   | 0.02 | 5.51E-11 | 0.03   | 0.03 | .30     |
| Diastolic blood pressure    | rs2269579 | A  | G  | -0.18  | 0.03 | 1.09E-09 | 0.04   | 0.05 | .35     |
| Diastolic blood pressure    | rs2282823 | T  | C  | 0.14   | 0.02 | 3.03E-08 | 0.03   | 0.04 | .38     |
| Diastolic blood pressure    | rs2288464 | A  | C  | -0.17  | 0.03 | 1.04E-08 | 0.02   | 0.04 | .70     |
| Diastolic blood pressure    | rs2291516 | A  | G  | 0.24   | 0.03 | 9.88E-17 | -0.12  | 0.04 | 3.42E-03|

Supplementary Table 7. Continued
| Exposure                      | SNP         | EA | AA | Beta  | SE  | P Value | Exposure | Outcome | Beta  | SE  | P Value |
|------------------------------|-------------|----|----|-------|-----|---------|----------|---------|-------|-----|---------|
| Diastolic blood pressure     | rs2298807   | T  | C  | 0.12  | 0.02| 4.89E-09|          |         | -0.06 | 0.04| .12     |
| Diastolic blood pressure     | rs2306363   | T  | G  | -0.26 | 0.02| 1.63E-34|          |         | 0.04  | 0.03| .21     |
| Diastolic blood pressure     | rs2328887   | T  | C  | -0.21 | 0.03| 7.55E-13|          |         | -0.04 | 0.07| .56     |
| Diastolic blood pressure     | rs234623    | A  | G  | -0.12 | 0.02| 8.56E-12|          |         | 0.03  | 0.03| .46     |
| Diastolic blood pressure     | rs2348211   | T  | C  | 0.14  | 0.02| 2.74E-14|          |         | 0.01  | 0.04| .78     |
| Diastolic blood pressure     | rs2357786   | T  | C  | 0.11  | 0.02| 3.58E-10|          |         | -0.05 | 0.03| .17     |
| Diastolic blood pressure     | rs2374479   | A  | G  | 0.11  | 0.02| 2.46E-09|          |         | 0.03  | 0.04| .47     |
| Diastolic blood pressure     | rs237485    | A  | G  | 0.11  | 0.02| 3.63E-09|          |         | -0.02 | 0.04| .66     |
| Diastolic blood pressure     | rs2384061   | A  | G  | -0.17 | 0.02| 2.25E-23|          |         | -0.03 | 0.03| .20     |
| Diastolic blood pressure     | rs2384606   | T  | C  | 0.11  | 0.02| 7.35E-10|          |         | 0.02  | 0.03| .63     |
| Diastolic blood pressure     | rs2408046   | T  | C  | -0.28 | 0.02| 6.20E-35|          |         | -0.03 | 0.03| .40     |
| Diastolic blood pressure     | rs2421651   | A  | G  | 0.15  | 0.02| 7.61E-17|          |         | 0.02  | 0.03| .50     |
| Diastolic blood pressure     | rs2427574   | A  | C  | 0.12  | 0.02| 1.27E-10|          |         | -0.03 | 0.04| .44     |
| Diastolic blood pressure     | rs2439371   | A  | C  | 0.13  | 0.02| 1.30E-08|          |         | -0.06 | 0.04| .14     |
| Diastolic blood pressure     | rs2450128   | A  | G  | -0.15 | 0.02| 3.53E-10|          |         | -0.03 | 0.04| .45     |
| Diastolic blood pressure     | rs2469100   | T  | G  | -0.15 | 0.03| 2.15E-08|          |         | 0.07  | 0.05| .14     |
| Diastolic blood pressure     | rs2484294   | A  | G  | 0.32  | 0.02| 1.17E-58|          |         | -0.03 | 0.04| .34     |
| Diastolic blood pressure     | rs2493288   | A  | G  | 0.25  | 0.03| 1.97E-23|          |         | -0.02 | 0.04| .63     |
| Diastolic blood pressure     | rs2546963   | T  | C  | 0.10  | 0.02| 3.66E-08|          |         | -0.06 | 0.03| .08     |
| Diastolic blood pressure     | rs2569882   | T  | C  | 0.12  | 0.02| 4.28E-11|          |         | -0.06 | 0.03| .09     |
| Diastolic blood pressure     | rs2586970   | A  | G  | -0.15 | 0.02| 1.56E-17|          |         | -0.05 | 0.03| .06     |
| Diastolic blood pressure     | rs2615000   | T  | C  | -0.13 | 0.02| 2.94E-08|          |         | -0.01 | 0.04| .76     |
| Diastolic blood pressure     | rs2616551   | A  | G  | 0.13  | 0.02| 3.12E-09|          |         | 0.05  | 0.04| .19     |
| Diastolic blood pressure     | rs2618647   | A  | G  | -0.12 | 0.02| 2.70E-12|          |         | 0.03  | 0.03| .32     |
| Diastolic blood pressure     | rs2627316   | A  | G  | -0.15 | 0.02| 7.37E-19|          |         | 0.03  | 0.03| .25     |
| Diastolic blood pressure     | rs2629665   | A  | C  | -0.12 | 0.02| 1.52E-11|          |         | -0.04 | 0.03| .18     |
| Diastolic blood pressure     | rs2639453   | T  | C  | 0.14  | 0.02| 6.11E-11|          |         | -0.05 | 0.04| .16     |
| Diastolic blood pressure     | rs2643826   | T  | C  | 0.19  | 0.02| 2.83E-26|          |         | -0.01 | 0.03| .71     |
| Diastolic blood pressure     | rs26492     | A  | G  | 0.14  | 0.02| 4.50E-09|          |         | 0.05  | 0.03| .15     |
| Diastolic blood pressure     | rs2680663   | A  | G  | -0.18 | 0.02| 7.33E-22|          |         | 0.02  | 0.04| .53     |
| Diastolic blood pressure     | rs2694975   | A  | G  | 0.13  | 0.02| 9.57E-10|          |         | 0.00  | 0.03| .97     |
| Diastolic blood pressure     | rs2695258   | T  | C  | 0.12  | 0.02| 4.35E-08|          |         | 0.02  | 0.03| .62     |
| Diastolic blood pressure     | rs28362590  | T  | G  | 0.12  | 0.02| 8.70E-10|          |         | -0.01 | 0.03| .86     |
| Diastolic blood pressure     | rs2836489   | T  | C  | 0.10  | 0.02| 2.15E-08|          |         | 0.07  | 0.03| 2.62E-02|
| Diastolic blood pressure     | rs28377357  | A  | G  | -0.12 | 0.02| 6.03E-11|          |         | -0.02 | 0.03| .58     |
| Diastolic blood pressure     | rs2849256   | A  | G  | 0.16  | 0.02| 2.83E-18|          |         | -0.02 | 0.04| .67     |
| Diastolic blood pressure     | rs28444248  | T  | C  | 0.16  | 0.02| 1.02E-10|          |         | 0.09  | 0.05| .07     |
| Diastolic blood pressure     | rs2851336   | T  | C  | -0.12 | 0.02| 1.21E-11|          |         | 0.04  | 0.03| .11     |
| Diastolic blood pressure     | rs28625968  | T  | C  | 0.16  | 0.02| 4.84E-18|          |         | -0.03 | 0.03| .31     |
| Exposure                          | SNP      | EA   | AA   | Beta  | SE     | P Value  | Beta  | SE     | P Value  |
|----------------------------------|----------|------|------|-------|--------|----------|-------|--------|----------|
| Diastolic blood pressure         | rs28661492 | T    | C    | -0.14 | 0.02   | 9.56E-10 | 0.12  | 0.04   | 1.46E-03 |
| Diastolic blood pressure         | rs28675079 | A    | G    | -0.14 | 0.02   | 8.34E-11 | -0.04 | 0.03   | .16      |
| Diastolic blood pressure         | rs2906152 | A    | G    | -0.19 | 0.02   | 5.55E-25 | 0.01  | 0.03   | .74      |
| Diastolic blood pressure         | rs2921604 | T    | C    | -0.10 | 0.02   | 4.46E-08 | -0.03 | 0.03   | .41      |
| Diastolic blood pressure         | rs2925345 | T    | C    | 0.19  | 0.02   | 1.60E-27 | 0.03  | 0.03   | .28      |
| Diastolic blood pressure         | rs2927071 | T    | C    | -0.14 | 0.02   | 6.43E-13 | 0.02  | 0.03   | .51      |
| Diastolic blood pressure         | rs2940928 | A    | G    | -0.13 | 0.02   | 7.56E-09 | 0.01  | 0.04   | .86      |
| Diastolic blood pressure         | rs2957468 | A    | G    | 0.14  | 0.02   | 8.43E-14 | 0.00  | 0.03   | .96      |
| Diastolic blood pressure         | rs2959010 | A    | G    | 0.18  | 0.03   | 8.67E-13 | -0.03 | 0.04   | .52      |
| Diastolic blood pressure         | rs297690  | T    | G    | -0.13 | 0.02   | 5.54E-11 | -0.01 | 0.04   | .75      |
| Diastolic blood pressure         | rs2979470 | T    | C    | 0.10  | 0.02   | 4.61E-09 | 0.01  | 0.03   | .70      |
| Diastolic blood pressure         | rs2994648 | T    | C    | 0.13  | 0.02   | 3.33E-09 | -0.02 | 0.04   | .68      |
| Diastolic blood pressure         | rs303217  | T    | C    | -0.10 | 0.02   | 4.06E-08 | 0.03  | 0.03   | .19      |
| Diastolic blood pressure         | rs3104419 | T    | C    | 0.15  | 0.02   | 3.44E-16 | -0.01 | 0.03   | .76      |
| Diastolic blood pressure         | rs3107147 | A    | G    | 0.11  | 0.02   | 3.26E-09 | 0.04  | 0.03   | .28      |
| Diastolic blood pressure         | rs311564  | A    | G    | -0.13 | 0.02   | 4.23E-13 | 0.04  | 0.03   | .22      |
| Diastolic blood pressure         | rs3118904 | A    | G    | 0.12  | 0.02   | 1.75E-10 | 0.03  | 0.04   | .34      |
| Diastolic blood pressure         | rs314376  | A    | G    | -0.14 | 0.02   | 3.79E-15 | 0.01  | 0.03   | .74      |
| Diastolic blood pressure         | rs3135345 | A    | G    | 0.11  | 0.02   | 1.06E-08 | 0.03  | 0.04   | .36      |
| Diastolic blood pressure         | rs34029821 | A    | G    | -0.17 | 0.02   | 6.97E-18 | 0.03  | 0.04   | .44      |
| Diastolic blood pressure         | rs34163044 | A    | C    | 0.15  | 0.02   | 9.63E-17 | -0.01 | 0.03   | .80      |
| Diastolic blood pressure         | rs34196696 | T    | C    | 0.13  | 0.02   | 1.86E-10 | 0.07  | 0.04   | .05      |
| Diastolic blood pressure         | rs342130  | A    | G    | 0.11  | 0.02   | 6.17E-10 | -0.04 | 0.03   | .24      |
| Diastolic blood pressure         | rs34297584 | A    | G    | 0.49  | 0.06   | 2.78E-14 | -0.06 | 0.11   | .59      |
| Diastolic blood pressure         | rs34517439 | A    | C    | -0.25 | 0.03   | 2.02E-19 | 0.09  | 0.07   | .20      |
| Diastolic blood pressure         | rs34538877 | T    | C    | -0.12 | 0.02   | 2.13E-12 | 0.02  | 0.03   | .49      |
| Diastolic blood pressure         | rs34587285 | T    | C    | 0.10  | 0.02   | 3.28E-08 | 0.03  | 0.03   | .38      |
| Diastolic blood pressure         | rs34605102 | A    | G    | -0.12 | 0.02   | 2.40E-11 | 0.05  | 0.03   | .05      |
| Diastolic blood pressure         | rs34645159 | A    | G    | -0.13 | 0.02   | 2.07E-14 | 0.02  | 0.03   | .50      |
| Diastolic blood pressure         | rs34688434 | A    | C    | -0.24 | 0.03   | 5.08E-13 | -0.01 | 0.07   | .82      |
| Diastolic blood pressure         | rs347585  | T    | C    | 0.15  | 0.02   | 1.57E-15 | 0.00  | 0.03   | .91      |
| Diastolic blood pressure         | rs34846921 | T    | C    | -0.12 | 0.02   | 4.19E-09 | -0.02 | 0.04   | .58      |
| Diastolic blood pressure         | rs351157  | A    | C    | -0.12 | 0.02   | 1.49E-08 | -0.02 | 0.04   | .58      |
| Diastolic blood pressure         | rs35213536 | T    | G    | 0.20  | 0.02   | 2.54E-23 | 0.02  | 0.03   | .55      |
| Diastolic blood pressure         | rs35241484 | T    | G    | 0.13  | 0.02   | 5.07E-10 | 0.01  | 0.04   | .79      |
| Diastolic blood pressure         | rs35261542 | A    | C    | 0.12  | 0.02   | 9.29E-10 | 0.00  | 0.03   | .89      |
| Diastolic blood pressure         | rs35274227 | T    | C    | -0.22 | 0.03   | 3.69E-10 | -0.20 | 0.08   | 7.42E-03 |
| Diastolic blood pressure         | rs35287509 | T    | C    | -0.11 | 0.02   | 4.17E-09 | 0.03  | 0.03   | .32      |
| Exposure                          | SNP             | EA  | AA  | Beta  | SE   | P Value | Beta  | SE   | P Value |
|----------------------------------|-----------------|-----|-----|-------|------|---------|-------|------|---------|
| Diastolic blood pressure         | rs35413927      | A   | G   | -0.13 | 0.02 | 1.77E-11 | 0.03  | 0.04 | .42     |
| Diastolic blood pressure         | rs35497         | A   | G   | -0.16 | 0.03 | 1.08E-09 | 0.02  | 0.04 | .58     |
| Diastolic blood pressure         | rs35552228      | T   | G   | -0.12 | 0.02 | 3.09E-08 | -0.06 | 0.04 | .19     |
| Diastolic blood pressure         | rs35781150      | A   | G   | -0.12 | 0.02 | 4.19E-09 | -0.01 | 0.03 | .79     |
| Diastolic blood pressure         | rs35783704      | A   | G   | -0.21 | 0.03 | 2.28E-13 | -0.08 | 0.07 | .23     |
| Diastolic blood pressure         | rs35927325      | T   | C   | 0.22  | 0.04 | 1.01E-09 | 0.01  | 0.05 | .83     |
| Diastolic blood pressure         | rs35991606      | T   | C   | -0.16 | 0.03 | 1.22E-08 | -0.06 | 0.04 | .18     |
| Diastolic blood pressure         | rs36023738      | T   | C   | -0.18 | 0.02 | 8.60E-16 | -0.05 | 0.05 | .29     |
| Diastolic blood pressure         | rs3735318       | A   | G   | -0.10 | 0.02 | 4.72E-09 | 0.06  | 0.03 | .09     |
| Diastolic blood pressure         | rs3735533       | T   | C   | -0.49 | 0.03 | 6.32E-49 | -0.06 | 0.06 | .38     |
| Diastolic blood pressure         | rs3737136       | A   | G   | -0.27 | 0.02 | 4.06E-36 | 0.03  | 0.03 | .40     |
| Diastolic blood pressure         | rs3744010       | A   | G   | -0.14 | 0.02 | 2.01E-12 | 0.04  | 0.03 | .13     |
| Diastolic blood pressure         | rs3745318       | T   | C   | 0.14  | 0.02 | 1.30E-11 | -0.03 | 0.04 | .51     |
| Diastolic blood pressure         | rs3766694       | T   | C   | 0.11  | 0.02 | 4.07E-10 | 0.02  | 0.03 | .55     |
| Diastolic blood pressure         | rs3774702       | A   | G   | 0.15  | 0.02 | 1.18E-10 | 0.02  | 0.03 | .52     |
| Diastolic blood pressure         | rs3779456       | T   | C   | -0.11 | 0.02 | 2.14E-10 | 0.00  | 0.03 | .95     |
| Diastolic blood pressure         | rs3782480       | T   | G   | 0.15  | 0.03 | 3.35E-08 | 0.06  | 0.05 | .30     |
| Diastolic blood pressure         | rs3783412       | A   | G   | 0.11  | 0.02 | 9.04E-10 | 0.06  | 0.03 | .08     |
| Diastolic blood pressure         | rs378459        | T   | C   | 0.16  | 0.02 | 8.31E-15 | 0.00  | 0.04 | .92     |
| Diastolic blood pressure         | rs3789368       | T   | C   | -0.11 | 0.02 | 1.29E-10 | 0.02  | 0.04 | .65     |
| Diastolic blood pressure         | rs3798293       | A   | G   | -0.13 | 0.02 | 2.70E-10 | -0.01 | 0.03 | .67     |
| Diastolic blood pressure         | rs3802230       | A   | C   | -0.16 | 0.02 | 2.75E-20 | -0.06 | 0.03 | 2.42E-02 |
| Diastolic blood pressure         | rs3807101       | T   | C   | -0.17 | 0.03 | 4.57E-11 | 0.06  | 0.05 | .24     |
| Diastolic blood pressure         | rs3821843       | A   | G   | 0.17  | 0.02 | 5.39E-19 | 0.03  | 0.04 | .40     |
| Diastolic blood pressure         | rs3861113       | A   | C   | 0.21  | 0.03 | 3.95E-11 | 0.04  | 0.05 | .41     |
| Diastolic blood pressure         | rs3898618       | T   | C   | -0.27 | 0.04 | 2.49E-12 | 0.07  | 0.06 | .25     |
| Diastolic blood pressure         | rs3918226       | T   | C   | 0.61  | 0.03 | 5.31E-77 | -0.04 | 0.06 | .49     |
| Diastolic blood pressure         | rs39281         | A   | G   | 0.13  | 0.02 | 3.97E-13 | 0.07  | 0.03 | 3.99E-02 |
| Diastolic blood pressure         | rs3943093       | T   | C   | 0.25  | 0.02 | 3.95E-41 | 0.02  | 0.03 | .42     |
| Diastolic blood pressure         | rs3996330       | A   | C   | -0.13 | 0.02 | 4.00E-13 | -0.04 | 0.03 | .19     |
| Diastolic blood pressure         | rs4074812       | A   | G   | -0.13 | 0.02 | 2.07E-14 | -0.02 | 0.03 | .63     |
| Diastolic blood pressure         | rs4077158       | T   | C   | -0.18 | 0.02 | 3.09E-26 | 0.02  | 0.03 | .41     |
| Diastolic blood pressure         | rs4141663       | T   | C   | -0.15 | 0.02 | 1.41E-17 | -0.05 | 0.03 | .12     |
| Diastolic blood pressure         | rs41475048      | A   | G   | -0.12 | 0.02 | 9.93E-10 | 0.08  | 0.04 | 3.51E-02 |
| Diastolic blood pressure         | rs4243951       | A   | G   | -0.19 | 0.02 | 2.42E-21 | 0.02  | 0.04 | .66     |
| Diastolic blood pressure         | rs4315061       | T   | C   | 0.12  | 0.02 | 2.24E-12 | -0.02 | 0.03 | .63     |
| Diastolic blood pressure         | rs4347951       | T   | C   | 0.11  | 0.02 | 2.80E-08 | -0.01 | 0.04 | .85     |
| Diastolic blood pressure         | rs439303        | A   | G   | 0.16  | 0.02 | 4.57E-14 | 0.00  | 0.03 | .96     |
| Diastolic blood pressure         | rs4420291       | A   | G   | 0.10  | 0.02 | 2.17E-08 | 0.02  | 0.03 | .57     |
| Exposure                  | SNP     | EA | AA | Beta  | SE | P Value | Beta  | SE | P Value |
|---------------------------|---------|----|----|-------|----|---------|-------|----|---------|
| Diastolic blood pressure  | rs441757| A  | G  | 0.10  | 0.02| 1.63E-08| 0.03  | 0.03| .35     |
| Diastolic blood pressure  | rs443198| A  | G  | 0.11  | 0.02| 7.82E-09| 0.06  | 0.03| 2.13E-02|
| Diastolic blood pressure  | rs4451700| T  | C  | 0.15  | 0.02| 7.94E-12| -0.02 | 0.03| .62     |
| Diastolic blood pressure  | rs4489092| T  | G  | -0.10 | 0.02| 1.05E-08| -0.05 | 0.03| .15     |
| Diastolic blood pressure  | rs4507125| A  | C  | -0.12 | 0.02| 3.60E-09| 0.04  | 0.03| .25     |
| Diastolic blood pressure  | rs4547499| T  | C  | 0.36  | 0.04| 8.50E-09| -0.04 | 0.06| .52     |
| Diastolic blood pressure  | rs4615669| A  | G  | -0.11 | 0.02| 6.10E-11| 0.02  | 0.03| .54     |
| Diastolic blood pressure  | rs4630220| A  | G  | -0.13 | 0.02| 2.75E-11| 0.01  | 0.04| .83     |
| Diastolic blood pressure  | rs4634143| T  | C  | 0.12  | 0.02| 7.89E-10| 0.04  | 0.04| .33     |
| Diastolic blood pressure  | rs4651224| T  | C  | 0.11  | 0.02| 3.39E-10| -0.04 | 0.03| .23     |
| Diastolic blood pressure  | rs4704514| T  | C  | 0.11  | 0.02| 1.71E-08| -0.07 | 0.04| .06     |
| Diastolic blood pressure  | rs4712955| A  | G  | -0.17 | 0.02| 1.37E-22| 0.02  | 0.05| .73     |
| Diastolic blood pressure  | rs4713650| T  | C  | -0.12 | 0.02| 2.23E-11| 0.00  | 0.03| .87     |
| Diastolic blood pressure  | rs473021| T  | C  | -0.11 | 0.02| 2.41E-08| 0.05  | 0.04| .12     |
| Diastolic blood pressure  | rs4761524| A  | G  | 0.10  | 0.02| 2.77E-08| 0.04  | 0.03| .24     |
| Diastolic blood pressure  | rs4766994| T  | C  | 0.14  | 0.02| 2.08E-11| 0.00  | 0.03| .88     |
| Diastolic blood pressure  | rs4773140| A  | G  | -0.14 | 0.02| 2.90E-11| 0.05  | 0.04| .22     |
| Diastolic blood pressure  | rs4809361| T  | C  | 0.15  | 0.02| 5.08E-11| -0.01 | 0.04| .78     |
| Diastolic blood pressure  | rs481795 | T  | C  | 0.17  | 0.02| 1.81E-12| 0.04  | 0.04| .34     |
| Diastolic blood pressure  | rs4834735| T  | C  | 0.15  | 0.03| 2.64E-09| -0.02 | 0.05| .75     |
| Diastolic blood pressure  | rs4841637| T  | C  | -0.13 | 0.02| 3.62E-08| -0.02 | 0.05| .66     |
| Diastolic blood pressure  | rs4873492| T  | C  | 0.14  | 0.02| 1.28E-09| -0.05 | 0.04| .21     |
| Diastolic blood pressure  | rs491258 | A  | G  | -0.12 | 0.02| 5.72E-10| 0.00  | 0.03| .90     |
| Diastolic blood pressure  | rs4903064| T  | C  | 0.15  | 0.02| 7.84E-14| 0.00  | 0.03| .99     |
| Diastolic blood pressure  | rs4907238| A  | G  | 0.12  | 0.02| 7.03E-10| -0.03 | 0.03| .33     |
| Diastolic blood pressure  | rs4908678| T  | C  | -0.11 | 0.02| 4.59E-10| 0.01  | 0.03| .75     |
| Diastolic blood pressure  | rs4925470| T  | C  | -0.17 | 0.02| 9.62E-21| -0.06 | 0.04| .08     |
| Diastolic blood pressure  | rs4926923| T  | C  | 0.19  | 0.03| 4.75E-10| 0.02  | 0.05| .60     |
| Diastolic blood pressure  | rs4932373| A  | C  | -0.37 | 0.02| 7.71E-84| 0.06  | 0.04| .14     |
| Diastolic blood pressure  | rs4936099| A  | C  | 0.17  | 0.02| 1.16E-22| 0.04  | 0.04| .21     |
| Diastolic blood pressure  | rs4948843| T  | C  | 0.16  | 0.02| 2.26E-16| -0.05 | 0.04| .19     |
| Diastolic blood pressure  | rs4952660| A  | C  | 0.12  | 0.02| 1.48E-10| 0.03  | 0.04| .42     |
| Diastolic blood pressure  | rs4952668| A  | G  | -0.19 | 0.02| 1.13E-26| -0.05 | 0.04| .16     |
| Diastolic blood pressure  | rs4954192| T  | C  | -0.12 | 0.02| 8.15E-12| 0.08  | 0.04| 2.30E-02|
| Diastolic blood pressure  | rs4974072| A  | G  | 0.10  | 0.02| 1.63E-09| 0.00  | 0.03| .91     |
| Diastolic blood pressure  | rs4984496| T  | G  | 0.18  | 0.02| 4.93E-21| 0.04  | 0.04| .27     |
| Diastolic blood pressure  | rs5021139| T  | C  | 0.11  | 0.02| 2.59E-09| -0.02 | 0.03| .56     |
Supplementary Table 7. Continued

| Exposure                     | SNP    | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|------------------------------|--------|----|----|-------|-----|---------|-------|-----|---------|
| Diastolic blood pressure     | rs504217 | T  | C  | 0.27  | 0.03| 2.51E-16| 0.02  | 0.04| .57     |
| Diastolic blood pressure     | rs504691 | A  | C  | -0.12 | 0.02| 3.14E-11| -0.03 | 0.03| .34     |
| Diastolic blood pressure     | rs509564 | T  | C  | 0.15  | 0.02| 1.40E-12| -0.05 | 0.04| .20     |
| Diastolic blood pressure     | rs55641580 | T | C  | 0.17  | 0.03| 4.79E-11| 0.01  | 0.04| .80     |
| Diastolic blood pressure     | rs55684003 | A  | G  | 0.12  | 0.02| 1.01E-10| 0.00  | 0.04| 1.00    |
| Diastolic blood pressure     | rs55706574 | A  | G  | -0.11 | 0.02| 3.20E-09| 0.01  | 0.03| .78     |
| Diastolic blood pressure     | rs55710016 | A  | G  | 0.12  | 0.02| 2.72E-11| 0.00  | 0.03| .92     |
| Diastolic blood pressure     | rs55747751 | A  | G  | -0.22 | 0.03| 1.39E-11| 0.07  | 0.08| .39     |
| Diastolic blood pressure     | rs55830103 | T  | G  | -0.20 | 0.02| 9.02E-18| 0.05  | 0.05| .35     |
| Diastolic blood pressure     | rs55935819 | A  | G  | 0.13  | 0.02| 1.96E-12| -0.02 | 0.03| .47     |
| Diastolic blood pressure     | rs55944332 | A  | G  | -0.24 | 0.02| 3.27E-31| 0.04  | 0.04| .36     |
| Diastolic blood pressure     | rs55964643 | A  | G  | 0.18  | 0.02| 2.00E-22| 0.04  | 0.03| .28     |
| Diastolic blood pressure     | rs56014530 | A  | G  | 0.22  | 0.02| 1.64E-31| 0.00  | 0.04| .97     |
| Diastolic blood pressure     | rs56233017 | A  | G  | -0.27 | 0.04| 4.37E-10| 0.02  | 0.10| .83     |
| Diastolic blood pressure     | rs56240052 | A  | G  | -0.35 | 0.05| 3.19E-12| 0.12  | 0.09| .16     |
| Diastolic blood pressure     | rs56254331 | A  | C  | -0.14 | 0.02| 3.43E-09| 0.02  | 0.06| .73     |
| Diastolic blood pressure     | rs56256111 | A  | G  | 0.19  | 0.03| 2.60E-13| 0.04  | 0.06| .49     |
| Diastolic blood pressure     | rs56355308 | A  | G  | 0.36  | 0.06| 6.31E-10| 0.09  | 0.09| .29     |
| Diastolic blood pressure     | rs56345595 | A  | G  | 0.13  | 0.02| 5.20E-14| -0.06 | 0.03| .05     |
| Diastolic blood pressure     | rs56370893 | A  | G  | -0.21 | 0.04| 5.25E-09| -0.02 | 0.07| .81     |
| Diastolic blood pressure     | rs56405868 | T  | G  | -0.12 | 0.02| 9.61E-09| 0.01  | 0.03| .66     |
| Diastolic blood pressure     | rs568032  | A  | G  | -0.27 | 0.04| 6.28E-12| 0.01  | 0.06| .87     |
| Diastolic blood pressure     | rs56810307 | T  | C  | -0.16 | 0.03| 1.29E-08| 0.00  | 0.05| .99     |
| Diastolic blood pressure     | rs569550  | T  | G  | -0.27 | 0.02| 1.23E-49| -0.04 | 0.03| .28     |
| Diastolic blood pressure     | rs57091267 | A  | G  | -0.18 | 0.02| 2.72E-16| -0.07 | 0.04| .09     |
| Diastolic blood pressure     | rs57361399 | T  | C  | -0.17 | 0.02| 1.20E-15| 0.00  | 0.03| 1.00    |
| Diastolic blood pressure     | rs57490543 | A  | C  | 0.17  | 0.03| 1.22E-08| -0.09 | 0.05| .05     |
| Diastolic blood pressure     | rs57786342 | A  | G  | 0.14  | 0.02| 4.37E-11| -0.01 | 0.03| .85     |
| Diastolic blood pressure     | rs57885458 | T  | C  | -0.15 | 0.02| 7.48E-14| 0.02  | 0.03| .61     |
| Diastolic blood pressure     | rs58609847 | T  | C  | -0.10 | 0.02| 4.57E-08| 0.04  | 0.04| .22     |
| Diastolic blood pressure     | rs58693652 | A  | G  | 0.11  | 0.02| 3.69E-10| 0.04  | 0.03| .26     |
| Diastolic blood pressure     | rs588273  | A  | G  | -0.11 | 0.02| 7.85E-11| 0.02  | 0.03| .55     |
| Diastolic blood pressure     | rs5992929 | T  | C  | 0.17  | 0.02| 3.07E-18| -0.03 | 0.03| .29     |
| Diastolic blood pressure     | rs6011210 | A  | G  | -0.15 | 0.02| 1.64E-17| -0.02 | 0.03| .59     |
| Diastolic blood pressure     | rs6021247 | A  | G  | 0.13  | 0.02| 8.21E-14| -0.02 | 0.03| .53     |
| Diastolic blood pressure     | rs6031431 | A  | G  | -0.12 | 0.02| 4.94E-11| 0.01  | 0.03| .87     |
| Diastolic blood pressure     | rs603424  | A  | G  | 0.18  | 0.02| 1.24E-14| -0.04 | 0.04| .27     |
| Exposure                      | SNP      | EA  | AA  | Beta | SE   | P Value | Beta | SE   | P Value |
|-------------------------------|----------|-----|-----|------|------|---------|------|------|---------|
| Diastolic blood pressure      | rs6039211| A   | G   | 0.18 | 0.02 | 6.82E-23 | 0.02 | 0.03 | .36     |
| Diastolic blood pressure      | rs6040421| A   | G   | 0.10 | 0.02 | 4.17E-08 | 0.03 | 0.03 | .32     |
| Diastolic blood pressure      | rs6046137| A   | G   | 0.12 | 0.02 | 5.45E-09 | -0.05| 0.04 | .20     |
| Diastolic blood pressure      | rs604723 | T   | C   | -0.38| 0.02 | 2.32E-07 | 0.04 | 0.04 | .24     |
| Diastolic blood pressure      | rs6062295| A   | G   | -0.12| 0.02 | 1.17E-11 | -0.02| 0.03 | .51     |
| Diastolic blood pressure      | rs61278674| A | G  | -0.22| 0.03 | 1.19E-12 | -0.03| 0.06 | .61     |
| Diastolic blood pressure      | rs61310799| T | C  | -0.18| 0.03 | 3.09E-08 | -0.01| 0.05 | .81     |
| Diastolic blood pressure      | rs61408836| T | C  | -0.13| 0.02 | 5.69E-09 | 0.00 | 0.03 | .99     |
| Diastolic blood pressure      | rs61447364| A | G  | -0.14| 0.02 | 1.03E-08 | 0.01 | 0.05 | .81     |
| Diastolic blood pressure      | rs61736014| A | G  | -0.22| 0.04 | 2.27E-08 | -0.01| 0.06 | .90     |
| Diastolic blood pressure      | rs61775292| A | G  | -0.15| 0.03 | 7.42E-09 | 0.01 | 0.04 | .90     |
| Diastolic blood pressure      | rs61776678| A | G  | -0.10| 0.02 | 2.69E-08 | -0.04| 0.04 | .21     |
| Diastolic blood pressure      | rs61789369| A | G  | -0.30| 0.04 | 3.07E-12 | 0.05 | 0.06 | .41     |
| Diastolic blood pressure      | rs61861138| A | G  | -0.12| 0.02 | 1.45E-09 | 0.00 | 0.03 | .97     |
| Diastolic blood pressure      | rs61917655| T | C  | 0.22 | 0.03 | 3.72E-14 | 0.08 | 0.05 | .13     |
| Diastolic blood pressure      | rs61926181| A | G  | -0.48| 0.05 | 2.76E-23 | 0.04 | 0.08 | .61     |
| Diastolic blood pressure      | rs62004794| A | G  | -0.10| 0.02 | 3.38E-08 | 0.05 | 0.03 | .17     |
| Diastolic blood pressure      | rs62046623| A | G  | 0.15 | 0.02 | 1.04E-12 | 0.03 | 0.04 | .41     |
| Diastolic blood pressure      | rs62301873| T | C  | 0.14 | 0.02 | 2.03E-08 | -0.17| 0.05 | 1.01E-03|
| Diastolic blood pressure      | rs62386482| T | C  | 0.29 | 0.03 | 5.37E-18 | 0.25 | 0.08 | 1.31E-03|
| Diastolic blood pressure      | rs62413470| A | G  | -0.17| 0.02 | 9.07E-12 | -0.02| 0.03 | .62     |
| Diastolic blood pressure      | rs62491544| A | G  | -0.12| 0.02 | 4.96E-12 | 0.03 | 0.03 | .32     |
| Diastolic blood pressure      | rs62509037| T | C  | 0.19 | 0.03 | 6.35E-09 | -0.03| 0.06 | .58     |
| Diastolic blood pressure      | rs62607799| T | C  | 0.18 | 0.03 | 3.82E-09 | 0.00 | 0.07 | .98     |
| Diastolic blood pressure      | rs62380354| A | C  | 0.18 | 0.03 | 3.68E-10 | -0.12| 0.07 | .08     |
| Diastolic blood pressure      | rs6442608 | T | C  | 0.29 | 0.03 | 5.17E-18 | 0.25 | 0.08 | 1.31E-03|
| Diastolic blood pressure      | rs6456739 | T | C  | 0.13 | 0.02 | 3.90E-09 | -0.04| 0.03 | .26     |
| Diastolic blood pressure      | rs6458374 | T | C  | 0.15 | 0.02 | 2.33E-12 | 0.02 | 0.04 | .62     |
| Diastolic blood pressure      | rs6464165 | T | C  | 0.22 | 0.02 | 7.34E-29 | -0.05| 0.04 | .20     |
| Diastolic blood pressure      | rs6487076 | A | G  | 0.17 | 0.02 | 8.69E-17 | -0.01| 0.03 | .87     |
| Diastolic blood pressure      | rs6504163 | T | C  | -0.18| 0.02 | 6.30E-24 | 0.00 | 0.03 | .92     |
| Diastolic blood pressure      | rs650724  | A | G  | -0.20| 0.03 | 1.30E-10 | -0.04| 0.05 | .43     |
| Exposure                          | SNP       | EA | AA | Beta  | SE  | P Value | Beta | SE  | P Value |
|----------------------------------|-----------|----|----|-------|-----|---------|------|-----|---------|
| Diastolic blood pressure         | rs6511291| T  | C  | –0.12 | 0.02| 6.89E-11| –0.02| 0.03| .60     |
| Diastolic blood pressure         | rs6537762| A  | C  | –0.15 | 0.02| 8.38E-18| 0.03 | 0.03| .39     |
| Diastolic blood pressure         | rs6547850| T  | G  | –0.11 | 0.02| 2.07E-10| 0.02 | 0.03| .39     |
| Diastolic blood pressure         | rs6555205| T  | C  | –0.10 | 0.02| 3.84E-08| –0.03| 0.03| .21     |
| Diastolic blood pressure         | rs6580970| T  | C  | –0.17 | 0.02| 4.03E-18| –0.05| 0.04| .22     |
| Diastolic blood pressure         | rs6587800| T  | G  | –0.12 | 0.02| 4.73E-10| 0.02 | 0.04| .57     |
| Diastolic blood pressure         | rs6602177| T  | C  | –0.12 | 0.02| 6.52E-09| 0.01 | 0.04| .82     |
| Diastolic blood pressure         | rs66502847| A  | G  | 0.10  | 0.02| 1.77E-08| –0.03| 0.03| .39     |
| Diastolic blood pressure         | rs66533014| A  | G  | –0.14 | 0.03| 1.35E-08| –0.12| 0.05| 1.98E-02|
| Diastolic blood pressure         | rs66743416| T  | C  | 0.16  | 0.02| 2.83E-11| 0.01 | 0.04| .83     |
| Diastolic blood pressure         | rs668459  | T  | C  | –0.11 | 0.02| 1.01E-10| 0.01 | 0.03| .81     |
| Diastolic blood pressure         | rs66887589| T  | C  | –0.16 | 0.02| 1.83E-20| –0.01| 0.03| .65     |
| Diastolic blood pressure         | rs6708660| T  | C  | 0.12  | 0.02| 3.97E-11| 0.09 | 0.03| 9.96E-03|
| Diastolic blood pressure         | rs6710802| T  | C  | –0.13 | 0.02| 1.82E-12| 0.03 | 0.03| .30     |
| Diastolic blood pressure         | rs6713398| A  | G  | –0.11 | 0.02| 4.61E-09| –0.01| 0.04| .86     |
| Diastolic blood pressure         | rs6715901| A  | G  | –0.14 | 0.02| 2.76E-15| 0.01 | 0.03| .86     |
| Diastolic blood pressure         | rs6742    | T  | C  | 0.18  | 0.02| 1.96E-15| –0.04| 0.04| .34     |
| Diastolic blood pressure         | rs67535236| A  | G  | 0.17  | 0.02| 1.39E-13| 0.05 | 0.04| .15     |
| Diastolic blood pressure         | rs6758859| T  | C  | 0.12  | 0.02| 1.45E-11| 0.05 | 0.03| .05     |
| Diastolic blood pressure         | rs68085857| T  | C  | 0.19  | 0.02| 9.83E-21| –0.01| 0.03| .73     |
| Diastolic blood pressure         | rs6813719| A  | G  | 0.12  | 0.02| 1.58E-11| 0.00 | 0.03| .95     |
| Diastolic blood pressure         | rs682681  | T  | C  | –0.15 | 0.02| 4.47E-15| 0.03 | 0.04| .49     |
| Diastolic blood pressure         | rs6838416| A  | G  | –0.12 | 0.02| 8.21E-11| –0.02| 0.03| .53     |
| Diastolic blood pressure         | rs685926  | T  | C  | 0.11  | 0.02| 1.14E-09| –0.13| 0.03| 1.91E-04|
| Diastolic blood pressure         | rs6875967| A  | G  | 0.13  | 0.02| 1.21E-13| –0.01| 0.03| .76     |
| Diastolic blood pressure         | rs6889240| A  | G  | 0.12  | 0.02| 1.05E-09| 0.00 | 0.04| .94     |
| Diastolic blood pressure         | rs6902805| T  | C  | 0.19  | 0.03| 1.10E-12| –0.04| 0.03| .22     |
| Diastolic blood pressure         | rs6905288| A  | G  | 0.18  | 0.02| 7.79E-23| 0.00 | 0.03| 1.00    |
| Diastolic blood pressure         | rs6912283| A  | G  | –0.13 | 0.02| 2.49E-14| 0.01 | 0.03| .60     |
| Diastolic blood pressure         | rs693974  | T  | C  | –0.18 | 0.02| 1.76E-25| –0.01| 0.03| .68     |
| Diastolic blood pressure         | rs699     | A  | G  | –0.24 | 0.02| 1.30E-40| 0.04 | 0.03| .17     |
| Diastolic blood pressure         | rs704067  | A  | G  | –0.10 | 0.02| 3.40E-08| 0.00 | 0.03| 1.00    |
| Diastolic blood pressure         | rs7043204| A  | G  | –0.16 | 0.02| 5.41E-11| 0.03 | 0.04| .45     |
| Diastolic blood pressure         | rs705696  | A  | G  | –0.10 | 0.02| 1.21E-08| –0.04| 0.03| .19     |
| Diastolic blood pressure         | rs7082671| A  | G  | 0.50  | 0.07| 5.49E-13| –0.09| 0.08| .29     |
| Diastolic blood pressure         | rs7087598| T  | C  | –0.12 | 0.02| 2.49E-09| 0.02 | 0.04| .55     |
| Diastolic blood pressure         | rs7090098| A  | G  | 0.10  | 0.02| 4.45E-08| 0.06 | 0.03| .06     |
| Diastolic blood pressure         | rs7090758| T  | C  | –0.15 | 0.02| 6.89E-19| –0.04| 0.03| .16     |
| Diastolic blood pressure         | rs7101163| T  | G  | –0.21 | 0.04| 1.95E-08| –0.06| 0.06| .31     |
| Exposure                                 | SNP       | EA | AA | Beta  | SE   | P Value | Beta  | SE   | P Value |
|-----------------------------------------|-----------|----|----|-------|------|---------|-------|------|---------|
| Diastolic blood pressure                | rs7115331 | T  | G  | -0.13 | 0.02 | 3.92E-11 | 0.07  | 0.04 | .06     |
| Diastolic blood pressure                | rs7116797 | A  | G  | 0.18  | 0.03 | 5.19E-11 | 0.03  | 0.04 | .53     |
| Diastolic blood pressure                | rs7132088 | T  | C  | -0.16 | 0.02 | 1.07E-18 | 0.02  | 0.04 | .52     |
| Diastolic blood pressure                | rs71326977| A  | C  | -0.14 | 0.02 | 2.75E-09 | 0.14  | 0.03 | 3.37E-05|
| Diastolic blood pressure                | rs71331756| T  | C  | 0.21  | 0.04 | 4.06E-08 | 0.08  | 0.07 | .25     |
| Diastolic blood pressure                | rs7134060 | A  | G  | -0.11 | 0.02 | 1.13E-09 | 0.03  | 0.03 | .31     |
| Diastolic blood pressure                | rs7134440 | T  | C  | 0.23  | 0.03 | 4.48E-08 | -0.02 | 0.06 | .72     |
| Diastolic blood pressure                | rs714785  | A  | G  | -0.26 | 0.05 | 1.53E-08 | 0.09  | 0.08 | .28     |
| Diastolic blood pressure                | rs7155504 | T  | C  | 0.23  | 0.03 | 5.16E-13 | 0.05  | 0.06 | .41     |
| Diastolic blood pressure                | rs7161281 | A  | G  | -0.11 | 0.02 | 2.86E-09 | -0.01 | 0.03 | .76     |
| Diastolic blood pressure                | rs7171498 | T  | C  | -0.11 | 0.02 | 6.23E-11 | 0.04  | 0.03 | .10     |
| Diastolic blood pressure                | rs7184016 | T  | G  | 0.11  | 0.02 | 4.43E-08 | 0.00  | 0.03 | .93     |
| Diastolic blood pressure                | rs7207617 | A  | G  | -0.18 | 0.02 | 4.78E-23 | 0.05  | 0.03 | .18     |
| Diastolic blood pressure                | rs7215084 | A  | G  | -0.18 | 0.02 | 3.58E-23 | 0.04  | 0.03 | .29     |
| Diastolic blood pressure                | rs7217916 | A  | G  | 0.11  | 0.02 | 5.63E-10 | -0.01 | 0.03 | .78     |
| Diastolic blood pressure                | rs722783  | A  | G  | -0.21 | 0.02 | 9.03E-24 | 0.04  | 0.03 | .22     |
| Diastolic blood pressure                | rs7257694 | T  | C  | 0.18  | 0.02 | 6.28E-25 | -0.03 | 0.03 | .36     |
| Diastolic blood pressure                | rs72639047| A  | G  | -0.15 | 0.03 | 2.29E-09 | -0.04 | 0.04 | .25     |
| Diastolic blood pressure                | rs72663521| A  | G  | 0.13  | 0.02 | 1.42E-08 | 0.06  | 0.03 | .08     |
| Diastolic blood pressure                | rs7270523 | A  | G  | 0.16  | 0.03 | 6.23E-10 | -0.06 | 0.04 | .09     |
| Diastolic blood pressure                | rs72719149| T  | C  | -0.13 | 0.02 | 6.34E-12 | 0.02  | 0.03 | .52     |
| Diastolic blood pressure                | rs72724166| A  | G  | 0.15  | 0.02 | 8.60E-12 | 0.07  | 0.03 | 4.46E-02|
| Diastolic blood pressure                | rs72759896| A  | G  | 0.16  | 0.03 | 1.06E-08 | 0.04  | 0.06 | .58     |
| Diastolic blood pressure                | rs72762705| T  | C  | -0.17 | 0.02 | 7.44E-15 | -0.03 | 0.04 | .47     |
| Diastolic blood pressure                | rs72786098| A  | G  | -0.33 | 0.05 | 3.05E-11 | 0.07  | 0.08 | .43     |
| Diastolic blood pressure                | rs72796684| A  | G  | 0.13  | 0.02 | 2.25E-10 | -0.07 | 0.04 | .06     |
| Diastolic blood pressure                | rs72827873| T  | C  | 0.18  | 0.03 | 9.05E-10 | 0.01  | 0.04 | .83     |
| Diastolic blood pressure                | rs72831343| T  | G  | 0.49  | 0.02 | 4.77E-88 | 0.05  | 0.04 | .17     |
| Diastolic blood pressure                | rs72833345| A  | G  | 0.33  | 0.06 | 1.81E-08 | 0.00  | 0.09 | .97     |
| Diastolic blood pressure                | rs72835405| T  | C  | -0.15 | 0.02 | 5.70E-12 | -0.02 | 0.03 | .54     |
| Diastolic blood pressure                | rs72842207| T  | C  | -0.21 | 0.02 | 1.10E-23 | -0.01 | 0.03 | .67     |
| Diastolic blood pressure                | rs72930904| T  | C  | -0.14 | 0.02 | 3.24E-09 | 0.01  | 0.04 | .74     |
| Diastolic blood pressure                | rs72936986| A  | C  | 0.11  | 0.02 | 3.33E-09 | -0.04 | 0.03 | .19     |
| Diastolic blood pressure                | rs72976750| T  | C  | -0.17 | 0.03 | 7.37E-12 | 0.00  | 0.05 | .93     |
| Diastolic blood pressure                | rs72999033| T  | C  | 0.28  | 0.04 | 5.95E-15 | -0.07 | 0.06 | .26     |
| Diastolic blood pressure                | rs73007642| T  | C  | 0.23  | 0.04 | 5.65E-09 | 0.03  | 0.07 | .72     |
| Diastolic blood pressure                | rs73033340| A  | G  | 0.53  | 0.05 | 5.06E-24 | 0.00  | 0.08 | .99     |

Supplementary Table 7. Continued
| Exposure                                           | SNP       | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|---------------------------------------------------|-----------|----|----|-------|-----|---------|-------|-----|---------|
| Diastolic blood pressure                          | rs73175562 | A  | G  | 0.21  | 0.03| 3.65E-11| -0.12 | 0.06| 3.70E-02|
| Diastolic blood pressure                          | rs73197961 | A  | G  | 0.23  | 0.04| 2.06E-08| 0.04  | 0.05| .40     |
| Diastolic blood pressure                          | rs73203495 | A  | G  | -0.14 | 0.02| 4.59E-09| 0.05  | 0.03| .13     |
| Diastolic blood pressure                          | rs7321688  | A  | C  | 0.15  | 0.02| 1.99E-13| 0.00  | 0.03| .90     |
| Diastolic blood pressure                          | rs7350752  | A  | G  | -0.15 | 0.03| 1.97E-08| 0.04  | 0.07| .50     |
| Diastolic blood pressure                          | rs736801   | T  | C  | -0.16 | 0.02| 6.97E-18| 0.02  | 0.03| .58     |
| Diastolic blood pressure                          | rs73815678 | T  | C  | -0.21 | 0.04| 4.95E-08| -0.02 | 0.06| .69     |
| Diastolic blood pressure                          | rs738791   | A  | G  | 0.11  | 0.02| 4.73E-09| 0.03  | 0.03| .33     |
| Diastolic blood pressure                          | rs74047618 | T  | C  | -0.39 | 0.07| 9.09E-09| -0.05 | 0.08| .48     |
| Diastolic blood pressure                          | rs74048200 | A  | G  | -0.20 | 0.03| 1.47E-09| 0.03  | 0.06| .67     |
| Diastolic blood pressure                          | rs7406973  | A  | G  | -0.12 | 0.02| 1.16E-09| -0.02 | 0.03| .60     |
| Diastolic blood pressure                          | rs740956   | T  | C  | 0.15  | 0.02| 7.28E-18| -0.03 | 0.03| .32     |
| Diastolic blood pressure                          | rs7418070  | T  | C  | -0.14 | 0.02| 1.30E-13| 0.02  | 0.03| .41     |
| Diastolic blood pressure                          | rs7439044  | T  | C  | -0.35 | 0.03| 1.38E-32| 0.11  | 0.04| 1.08E-02|
| Diastolic blood pressure                          | rs7473425  | T  | C  | 0.40  | 0.04| 3.52E-22| -0.02 | 0.07| .80     |
| Diastolic blood pressure                          | rs7479680  | A  | C  | -0.18 | 0.03| 2.39E-12| 0.04  | 0.05| .39     |
| Diastolic blood pressure                          | rs7492649  | A  | G  | 0.44  | 0.07| 4.01E-10| -0.08 | 0.09| .38     |
| Diastolic blood pressure                          | rs7500448  | A  | G  | -0.13 | 0.02| 1.14E-10| 0.00  | 0.04| .92     |
| Diastolic blood pressure                          | rs7513240  | T  | C  | -0.11 | 0.02| 3.11E-09| 0.05  | 0.04| .20     |
| Diastolic blood pressure                          | rs751984   | T  | C  | 0.39  | 0.03| 1.38E-46| -0.07 | 0.05| .17     |
| Diastolic blood pressure                          | rs7534555  | T  | C  | -0.23 | 0.04| 4.49E-08| -0.09 | 0.08| .28     |
| Diastolic blood pressure                          | rs75397441 | T  | C  | -0.18 | 0.03| 5.47E-09| -0.05 | 0.07| .51     |
| Diastolic blood pressure                          | rs75507123 | T  | G  | -0.14 | 0.03| 3.94E-08| -0.07 | 0.04| .07     |
| Diastolic blood pressure                          | rs75511781 | A  | G  | -0.37 | 0.05| 2.45E-15| -0.05 | 0.08| .57     |
| Diastolic blood pressure                          | rs7560984  | A  | G  | 0.25  | 0.04| 5.41E-09| 0.02  | 0.07| .83     |
| Diastolic blood pressure                          | rs7571877  | T  | C  | 0.23  | 0.04| 1.69E-08| -0.01 | 0.07| .82     |
| Diastolic blood pressure                          | rs7576060  | T  | C  | -0.10 | 0.02| 2.05E-08| -0.01 | 0.03| .81     |
| Diastolic blood pressure                          | rs7602129  | T  | C  | 0.12  | 0.02| 1.80E-08| 0.01  | 0.03| .86     |
| Diastolic blood pressure                          | rs7606205  | A  | C  | -0.13 | 0.02| 2.36E-11| -0.01 | 0.04| .79     |
| Diastolic blood pressure                          | rs7608483  | A  | C  | 0.12  | 0.02| 2.83E-11| -0.01 | 0.03| .71     |
| Diastolic blood pressure                          | rs7611674  | T  | G  | 0.16  | 0.02| 1.67E-12| -0.01 | 0.04| .87     |
| Diastolic blood pressure                          | rs76164690| T  | G  | -0.15 | 0.03| 7.19E-10| -0.01 | 0.04| .71     |
| Diastolic blood pressure                          | rs7623706  | A  | G  | 0.10  | 0.02| 2.84E-08| -0.01 | 0.03| .84     |
| Diastolic blood pressure                          | rs762384   | T  | C  | 0.15  | 0.02| 1.97E-13| -0.01 | 0.04| .81     |
| Diastolic blood pressure                          | rs76326501 | A  | C  | 0.36  | 0.03| 2.17E-32| -0.02 | 0.07| .75     |
| Diastolic blood pressure                          | rs76452347 | T  | C  | -0.22 | 0.02| 9.37E-23| -0.04 | 0.04| .39     |
| Diastolic blood pressure                          | rs7694643  | A  | G  | -0.13 | 0.02| 3.07E-13| -0.01 | 0.03| .82     |
| Diastolic blood pressure                          | rs76954792 | T  | C  | 0.12  | 0.02| 5.06E-09| -0.03 | 0.04| .44     |
| Diastolic blood pressure                          | rs7708525  | T  | C  | -0.14 | 0.02| 4.12E-11| 0.05  | 0.03| .14     |
| Exposure                     | SNP      | EA | AA | Exposure | Outcome |
|-----------------------------|----------|----|----|----------|---------|
| Diastolic blood pressure    | rs77151571 | T  | C  | 0.33     | -0.02   |
| Diastolic blood pressure    | rs77307969 | T  | C  | 0.37     | 0.14    |
| Diastolic blood pressure    | rs7731530 | A  | C  | 0.14     | 0.08    |
| Diastolic blood pressure    | rs77323038 | A  | G  | -0.30    | 0.07    |
| Diastolic blood pressure    | rs77463299 | T  | G  | -0.22    | 0.12    |
| Diastolic blood pressure    | rs7753695 | T  | C  | 0.10     | 0.01    |
| Diastolic blood pressure    | rs7763102 | A  | C  | 0.11     | 0.04    |
| Diastolic blood pressure    | rs77651727 | T  | C  | 0.20     | 0.07    |
| Diastolic blood pressure    | rs7772884 | T  | C  | 0.10     | -0.03   |
| Diastolic blood pressure    | rs77926415 | A  | G  | -0.32    | 0.05    |
| Diastolic blood pressure    | rs78151625 | T  | C  | -0.19    | 0.05    |
| Diastolic blood pressure    | rs78474310 | A  | G  | -0.24    | 0.06    |
| Diastolic blood pressure    | rs78550103 | A  | G  | -0.18    | -0.03   |
| Diastolic blood pressure    | rs78554005 | T  | G  | -0.19    | 0.03    |
| Diastolic blood pressure    | rs78648104 | T  | C  | -0.24    | 0.05    |
| Diastolic blood pressure    | rs786921  | A  | G  | -0.11    | -0.02   |
| Diastolic blood pressure    | rs78809139 | A  | G  | -0.23    | 0.01    |
| Diastolic blood pressure    | rs78909293 | T  | C  | 0.32     | -0.11   |
| Diastolic blood pressure    | rs78977588 | A  | C  | -0.16    | -0.03   |
| Diastolic blood pressure    | rs79013608 | A  | G  | -0.28    | 0.00    |
| Diastolic blood pressure    | rs79043825 | A  | C  | 0.29     | -0.13   |
| Diastolic blood pressure    | rs79094191 | T  | C  | -0.40    | 0.18    |
| Diastolic blood pressure    | rs7917547 | A  | C  | -0.18    | -0.07   |
| Diastolic blood pressure    | rs79198283 | A  | G  | -0.40    | 0.02    |
| Diastolic blood pressure    | rs7923191 | A  | G  | -0.21    | 0.02    |
| Diastolic blood pressure    | rs7926335 | T  | C  | 0.18     | 0.02    |
| Diastolic blood pressure    | rs7927966 | T  | C  | -0.15    | 0.03    |
| Diastolic blood pressure    | rs7933758 | T  | C  | -0.11    | 0.01    |
| Diastolic blood pressure    | rs7951348 | T  | C  | 0.15     | 0.04    |
| Diastolic blood pressure    | rs79588470 | T  | C  | 0.22     | 0.05    |
| Diastolic blood pressure    | rs7959649 | T  | C  | 0.12     | 0.02    |
| Diastolic blood pressure    | rs7965392 | A  | G  | 0.11     | -0.01   |
| Diastolic blood pressure    | rs7969332 | A  | C  | 0.10     | 0.01    |
| Diastolic blood pressure    | rs80095680 | A  | G  | -0.16    | 0.01    |
| Diastolic blood pressure    | rs8014182 | T  | C  | -0.19    | -0.01   |
| Diastolic blood pressure    | rs80190728 | A  | G  | 0.34     | 0.04    |
| Diastolic blood pressure    | rs80262267 | T  | C  | -0.29    | -0.14   |
| Diastolic blood pressure    | rs8046697 | T  | C  | -0.13    | 0.04    |
| Diastolic blood pressure    | rs8067056 | T  | C  | 0.15     | 0.06    |
## Supplementary Table 7

| Exposure | SNP      | EA | AA | Beta   | SE  | P Value  | Beta   | SE  | P Value |
|----------|----------|----|----|--------|-----|----------|--------|-----|---------|
| Diastolic blood pressure | rs8128234 | T  | C  | 0.12   | 0.02| 3.97E-08 | 0.02   | 0.04| .69     |
| Diastolic blood pressure | rs8192564 | A  | G  | 0.21   | 0.04| 8.06E-09 | -0.01  | 0.05| .87     |
| Diastolic blood pressure | rs843078  | A  | G  | -0.11  | 0.02| 1.27E-09 | -0.06  | 0.03| .06     |
| Diastolic blood pressure | rs848309  | T  | C  | -0.14  | 0.02| 2.75E-15 | 0.01   | 0.03| .68     |
| Diastolic blood pressure | rs851966  | A  | G  | -0.10  | 0.02| 1.30E-08 | 0.02   | 0.03| .50     |
| Diastolic blood pressure | rs871677  | T  | C  | -0.12  | 0.02| 2.23E-10 | 0.02   | 0.04| .53     |
| Diastolic blood pressure | rs875106  | A  | G  | -0.13  | 0.02| 1.71E-14 | 0.00   | 0.03| .93     |
| Diastolic blood pressure | rs882624  | T  | C  | -0.16  | 0.02| 2.33E-17 | -0.03  | 0.04| .47     |
| Diastolic blood pressure | rs896312  | T  | C  | 0.15   | 0.02| 5.72E-16 | -0.02  | 0.03| .43     |
| Diastolic blood pressure | rs908951  | T  | C  | -0.20  | 0.02| 7.73E-28 | -0.03  | 0.03| .30     |
| Diastolic blood pressure | rs911547  | A  | G  | -0.20  | 0.02| 9.48E-16 | -0.05  | 0.03| .15     |
| Diastolic blood pressure | rs9275224| T  | C  | -0.22  | 0.02| 1.68E-31 | 0.04   | 0.03| .10     |
| Diastolic blood pressure | rs9276898| T  | C  | 0.11   | 0.02| 6.37E-09 | 0.00   | 0.03| .86     |
| Diastolic blood pressure | rs9321065| A  | G  | 0.11   | 0.02| 5.09E-10 | -0.04  | 0.03| .14     |
| Diastolic blood pressure | rs9336869| T  | C  | 0.11   | 0.02| 3.99E-08 | 0.01   | 0.03| .75     |
| Diastolic blood pressure | rs9356837| A  | G  | -0.13  | 0.02| 3.16E-08 | 0.00   | 0.04| .99     |
| Diastolic blood pressure | rs9386780| A  | G  | 0.10   | 0.02| 1.46E-08 | -0.02  | 0.03| .52     |
| Diastolic blood pressure | rs9399136| T  | C  | 0.12   | 0.02| 3.77E-09 | 0.02   | 0.04| .60     |
| Diastolic blood pressure | rs9399437| A  | G  | 0.13   | 0.02| 2.09E-10 | 0.00   | 0.03| 1.00    |
| Diastolic blood pressure | rs9401090| T  | C  | 0.11   | 0.02| 3.76E-08 | -0.01  | 0.04| .74     |
| Diastolic blood pressure | rs9419374| A  | G  | 0.12   | 0.02| 3.44E-10 | -0.05  | 0.04| .15     |
| Diastolic blood pressure | rs9420636| A  | G  | 0.15   | 0.02| 1.76E-11 | -0.03  | 0.04| .53     |
| Diastolic blood pressure | rs9431431| A  | G  | -0.13  | 0.02| 1.71E-12 | 0.02   | 0.03| .50     |
| Diastolic blood pressure | rs9456648| T  | C  | -0.12  | 0.02| 2.76E-10 | -0.02  | 0.04| .67     |
| Diastolic blood pressure | rs9478282| T  | C  | -0.20  | 0.03| 8.70E-13 | 0.02   | 0.04| .60     |
| Diastolic blood pressure | rs9479509| A  | G  | -0.12  | 0.02| 1.21E-09 | 0.01   | 0.03| .74     |
| Diastolic blood pressure | rs9496614| T  | C  | 0.13   | 0.02| 1.63E-10 | 0.09   | 0.04| 1.90E-02|
| Diastolic blood pressure | rs9508495| T  | C  | -0.19  | 0.02| 1.34E-21 | 0.05   | 0.04| .21     |
| Diastolic blood pressure | rs9526707| A  | G  | -0.12  | 0.02| 6.59E-11 | -0.04  | 0.03| .18     |
| Diastolic blood pressure | rs9532243| A  | C  | 0.13   | 0.02| 1.09E-14 | -0.03  | 0.03| .40     |
| Diastolic blood pressure | rs954767  | A  | C  | -0.15  | 0.02| 4.24E-14 | 0.03   | 0.03| .33     |
| Diastolic blood pressure | rs9563529| T  | G  | 0.12   | 0.02| 1.38E-08 | 0.03   | 0.03| .27     |
| Diastolic blood pressure | rs9609429| T  | C  | 0.12   | 0.02| 6.32E-10 | 0.02   | 0.04| .62     |
| Diastolic blood pressure | rs962369  | T  | C  | 0.17   | 0.02| 6.02E-19 | 0.03   | 0.03| .30     |
| Diastolic blood pressure | rs9638084| A  | G  | 0.12   | 0.02| 8.51E-11 | 0.00   | 0.03| .93     |
| Diastolic blood pressure | rs9683091| A  | C  | 0.12   | 0.02| 1.97E-10 | -0.06  | 0.03| .07     |
| Diastolic blood pressure | rs9716164| T  | C  | 0.10   | 0.02| 7.22E-09 | 0.01   | 0.03| .78     |
| Diastolic blood pressure | rs983353  | A  | G  | -0.11  | 0.02| 8.52E-09 | 0.00   | 0.03| .93     |
| Diastolic blood pressure | rs9878967| T  | C  | -0.11  | 0.02| 1.99E-08 | 0.03   | 0.04| .48     |
| Exposure                      | SNP          | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|-------------------------------|--------------|----|----|-------|-----|---------|-------|-----|---------|
| Diastolic blood pressure      | rs9913079    | T  | C  | -.15  | .02 | 4.17E-13| .04   | .04 | .31     |
| Diastolic blood pressure      | rs9922726    | A  | C  | .10   | .02 | 3.17E-08| -.01  | .04 | .71     |
| Diastolic blood pressure      | rs9932220    | A  | G  | -.16  | .02 | 3.76E-14| .03   | .03 | .38     |
| Diastolic blood pressure      | rs9932866    | A  | G  | .12   | .02 | 2.90E-10| -.02  | .04 | .58     |
| Diastolic blood pressure      | rs9937801    | T  | C  | .16   | .02 | 4.81E-19| .03   | .03 | .19     |
| Diastolic blood pressure      | rs9939182    | T  | C  | .25   | .04 | 1.29E-09| -.06  | .06 | .31     |
| Diastolic blood pressure      | rs994446     | A  | G  | -.22  | .02 | 6.01E-25| -.02  | .03 | .60     |
| Diastolic blood pressure      | rs9967367    | T  | C  | .14   | .02 | 2.04E-13| .02   | .03 | .45     |
| Systolic blood pressure       | rs1000423    | T  | C  | .41   | .03 | 6.50E-33| -.03  | .03 | .26     |
| Systolic blood pressure       | rs10008637   | T  | C  | .22   | .03 | 3.92E-13| .04   | .03 | .18     |
| Systolic blood pressure       | rs101484     | A  | G  | .24   | .04 | 2.91E-13| -.01  | .04 | .81     |
| Systolic blood pressure       | rs10043077   | T  | C  | -.19  | .03 | 2.52E-09| -.03  | .04 | .47     |
| Systolic blood pressure       | rs1006545    | T  | G  | .68   | .05 | 3.50E-46| -.05  | .06 | .39     |
| Systolic blood pressure       | rs1009244    | T  | C  | .31   | .04 | 4.47E-17| -.02  | .03 | .54     |
| Systolic blood pressure       | rs10189186   | A  | G  | .19   | .03 | 3.91E-10| -.01  | .03 | .77     |
| Systolic blood pressure       | rs1019264    | A  | G  | -.19  | .03 | 2.03E-09| -.04  | .03 | .14     |
| Systolic blood pressure       | rs10195252   | T  | C  | .23   | .03 | 4.21E-14| .00   | .03 | .92     |
| Systolic blood pressure       | rs10206384   | T  | C  | .19   | .03 | 2.92E-10| -.02  | .03 | .55     |
| Systolic blood pressure       | rs10207726   | T  | C  | -.21  | .03 | 8.06E-11| -.02  | .03 | .41     |
| Systolic blood pressure       | rs10214535   | A  | G  | .18   | .03 | 3.35E-08| .01   | .04 | .73     |
| Systolic blood pressure       | rs10224210   | T  | C  | -.38  | .03 | 1.60E-29| -.02  | .03 | .47     |
| Systolic blood pressure       | rs10254757   | A  | C  | .18   | .03 | 4.31E-09| -.02  | .03 | .45     |
| Systolic blood pressure       | rs10282122   | T  | C  | -.30  | .03 | 2.46E-20| .03   | .04 | .39     |
| Systolic blood pressure       | rs10421783   | A  | C  | .19   | .03 | 1.43E-09| .00   | .04 | .92     |
| Systolic blood pressure       | rs10425      | A  | G  | -.18  | .03 | 9.99E-09| .04   | .03 | .12     |
| Systolic blood pressure       | rs1043069    | T  | G  | .23   | .03 | 5.26E-14| .00   | .04 | .96     |
| Systolic blood pressure       | rs1044822    | T  | C  | -.25  | .04 | 5.16E-09| .05   | .04 | .14     |
| Systolic blood pressure       | rs10460108   | A  | G  | .21   | .03 | 1.12E-12| -.05  | .03 | .10     |
| Systolic blood pressure       | rs10468291   | A  | C  | -.19  | .03 | 9.38E-10| .02   | .03 | .50     |
| Systolic blood pressure       | rs1047891    | A  | C  | -.25  | .03 | 1.37E-14| .00   | .03 | .89     |
| Systolic blood pressure       | rs10493891   | T  | C  | -.28  | .03 | 1.28E-16| -.02  | .04 | .53     |
| Systolic blood pressure       | rs10501410   | A  | G  | .41   | .06 | 1.10E-11| .02   | .05 | .60     |
| Systolic blood pressure       | rs1057902    | T  | C  | .20   | .03 | 4.18E-11| .00   | .03 | .91     |
| Systolic blood pressure       | rs10743348   | T  | C  | .29   | .03 | 1.06E-17| .05   | .04 | .18     |
| Systolic blood pressure       | rs10754698   | A  | G  | -.22  | .04 | 2.05E-08| -.01  | .03 | .83     |
| Systolic blood pressure       | rs10761530   | T  | C  | .20   | .03 | 2.54E-11| -.02  | .03 | .53     |
| Exposure                      | SNP     | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|-------------------------------|---------|----|----|-------|-----|---------|-------|-----|---------|
| Systolic blood pressure       | rs1076485 | T  | C  | 0.34  | 0.05 | 1.19E-13 | 0.04  | 0.04 | .40     |
| Systolic blood pressure       | rs10776752 | T  | G  | 0.82  | 0.06 | 4.61E-46 | 0.04  | 0.05 | .36     |
| Systolic blood pressure       | rs10782230 | A  | G  | 0.21  | 0.03 | 2.91E-12 | -0.04 | 0.03 | .09     |
| Systolic blood pressure       | rs10817917 | T  | C  | 0.32  | 0.06 | 3.52E-08 | -0.11 | 0.05 | 2.62E-02|
| Systolic blood pressure       | rs10820855 | T  | C  | -0.19 | 0.03 | 1.05E-08 | -0.04 | 0.03 | .29     |
| Systolic blood pressure       | rs10832013 | T  | G  | 0.19  | 0.03 | 5.88E-09 | 0.00  | 0.03 | .93     |
| Systolic blood pressure       | rs10841520 | T  | C  | -0.25 | 0.04 | 4.97E-11 | 0.02  | 0.04 | .72     |
| Systolic blood pressure       | rs1085469 | T  | C  | -0.20 | 0.03 | 1.04E-08 | -0.01 | 0.04 | .78     |
| Systolic blood pressure       | rs10895022 | T  | C  | -0.26 | 0.04 | 1.23E-13 | -0.03 | 0.03 | .34     |
| Systolic blood pressure       | rs10923038 | A  | C  | 0.32  | 0.06 | 3.52E-08 | -0.11 | 0.05 | 2.62E-02|
| Systolic blood pressure       | rs10975469 | T  | C  | -0.20 | 0.03 | 1.36E-10 | -0.01 | 0.04 | .30     |
| Systolic blood pressure       | rs11000852 | T  | C  | 0.22  | 0.03 | 1.53E-12 | 0.03  | 0.03 | .30     |
| Systolic blood pressure       | rs1104793 | T  | C  | 0.20  | 0.03 | 6.77E-31 | -0.01 | 0.05 | .89     |
| Systolic blood pressure       | rs11074093 | T  | C  | -0.19 | 0.03 | 4.58E-10 | -0.08 | 0.03 | 2.42E-02|
| Systolic blood pressure       | rs11105429 | T  | C  | -0.39 | 0.03 | 6.77E-31 | -0.01 | 0.04 | .71     |
| Systolic blood pressure       | rs111346133 | T  | G  | -0.20 | 0.03 | 6.85E-10 | 0.01  | 0.03 | .78     |
| Systolic blood pressure       | rs11145807 | A  | G  | 0.21  | 0.03 | 3.54E-11 | -0.03 | 0.04 | .45     |
| Systolic blood pressure       | rs11159091 | A  | G  | 0.20  | 0.03 | 6.79E-11 | -0.02 | 0.03 | .48     |
| Systolic blood pressure       | rs11168254 | T  | G  | 0.42  | 0.07 | 1.53E-09 | 0.17  | 0.07 | 1.78E-02|
| Systolic blood pressure       | rs11178008 | T  | C  | 0.23  | 0.04 | 1.82E-10 | 0.01  | 0.03 | .69     |
| Systolic blood pressure       | rs11187142 | T  | C  | 0.33  | 0.05 | 2.53E-11 | 0.00  | 0.04 | .98     |
| Systolic blood pressure       | rs11191384 | A  | G  | -0.21 | 0.04 | 6.16E-09 | 0.03  | 0.03 | .39     |
| Systolic blood pressure       | rs11191580 | T  | C  | 1.10  | 0.06 | 7.74E-89 | 0.06  | 0.04 | .20     |
| Systolic blood pressure       | rs11196549 | A  | G  | 0.69  | 0.08 | 1.58E-18 | 0.05  | 0.06 | .44     |
| Systolic blood pressure       | rs11199840 | A  | G  | 0.19  | 0.03 | 1.66E-10 | 0.01  | 0.03 | .81     |
| Systolic blood pressure       | rs1122249 | A  | G  | -0.35 | 0.03 | 1.54E-27 | -0.06 | 0.03 | .10     |
| Systolic blood pressure       | rs11260610 | T  | C  | 0.26  | 0.04 | 2.69E-09 | 0.02  | 0.04 | .58     |
| Systolic blood pressure       | rs11252324 | T  | G  | -0.42 | 0.06 | 3.61E-13 | 0.08  | 0.05 | .07     |
| Systolic blood pressure       | rs112729575 | A  | G  | 0.38  | 0.07 | 4.73E-08 | 0.16  | 0.09 | .08     |
| Systolic blood pressure       | rs1133400 | A  | G  | -0.30 | 0.04 | 2.53E-15 | 0.01  | 0.03 | .66     |
| Systolic blood pressure       | rs113656763 | A  | G  | -0.55 | 0.09 | 9.50E-10 | 0.05  | 0.08 | .51     |
| Systolic blood pressure       | rs114472600 | T  | C  | -0.46 | 0.08 | 1.30E-09 | -0.08 | 0.07 | .29     |
| Systolic blood pressure       | rs114718455 | A  | G  | -0.51 | 0.09 | 1.72E-08 | -0.01 | 0.08 | .53     |
| Systolic blood pressure       | rs11549015 | T  | C  | 0.22  | 0.04 | 4.94E-08 | 0.08  | 0.04 | 2.36E-02|
| Systolic blood pressure       | rs115521166 | A  | G  | 0.71  | 0.09 | 1.54E-15 | -0.09 | 0.09 | .30     |
| Systolic blood pressure       | rs11563976 | T  | C  | 0.26  | 0.04 | 3.25E-12 | 0.01  | 0.04 | .76     |
| Systolic blood pressure       | rs11579440 | T  | C  | 0.27  | 0.04 | 3.24E-10 | -0.10 | 0.04 | 2.95E-02|
| Exposure                  | SNP      | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|--------------------------|----------|----|----|------|-----|---------|------|-----|---------|
| Systolic blood pressure  | rs11592107 | A  | G  | 0.30 | 0.03 | 1.55E-20 | -0.01 | 0.03 | .82     |
| Systolic blood pressure  | rs11593126 | A  | G  | -0.44 | 0.06 | 7.35E-14 | -0.06 | 0.08 | .48     |
| Systolic blood pressure  | rs11596720 | A  | C  | -0.30 | 0.05 | 2.55E-09 | 0.01  | 0.06 | .88     |
| Systolic blood pressure  | rs11604310 | T  | C  | -0.28 | 0.04 | 1.46E-11 | 0.02  | 0.04 | .70     |
| Systolic blood pressure  | rs11609503 | A  | G  | 0.35  | 0.05 | 4.99E-15 | 0.04  | 0.04 | .35     |
| Systolic blood pressure  | rs11623535 | A  | G  | 0.21  | 0.03 | 2.02E-09 | 0.02  | 0.03 | .51     |
| Systolic blood pressure  | rs11629850 | A  | G  | 0.23  | 0.03 | 2.26E-14 | -0.03 | 0.03 | .21     |
| Systolic blood pressure  | rs11639652 | T  | C  | 0.53  | 0.03 | 4.22E-09 | 0.00  | 0.03 | .91     |
| Systolic blood pressure  | rs11676702 | T  | C  | -0.33 | 0.06 | 1.16E-08 | -0.02 | 0.05 | .72     |
| Systolic blood pressure  | rs11685352 | A  | G  | -0.23 | 0.04 | 6.14E-09 | -0.07 | 0.04 | .09     |
| Systolic blood pressure  | rs1169667  | T  | C  | 0.20  | 0.03 | 6.6E-11  | -0.01 | 0.03 | .80     |
| Systolic blood pressure  | rs11697543 | A  | C  | -0.63 | 0.09 | 1.79E-13 | -0.06 | 0.07 | .43     |
| Systolic blood pressure  | rs1169219  | T  | C  | -0.21 | 0.03 | 1.26E-10 | -0.02 | 0.04 | .53     |
| Systolic blood pressure  | rs11694601 | A  | G  | -0.19 | 0.03 | 6.41E-10 | 0.07  | 0.03 | 4.62E-02|
| Systolic blood pressure  | rs11706050 | A  | G  | 0.49  | 0.08 | 9.76E-10 | 0.07  | 0.09 | .45     |
| Systolic blood pressure  | rs11732143 | A  | G  | 0.25  | 0.03 | 2.90E-13 | 0.03  | 0.04 | .48     |
| Systolic blood pressure  | rs11771693 | A  | G  | 0.18  | 0.03 | 1.90E-08 | -0.05 | 0.03 | .07     |
| Systolic blood pressure  | rs1177701  | A  | G  | 0.17  | 0.03 | 1.54E-08 | 0.01  | 0.03 | .81     |
| Systolic blood pressure  | rs11862847 | A  | G  | -0.17 | 0.03 | 2.29E-08 | -0.04 | 0.03 | .12     |
| Systolic blood pressure  | rs11868035 | A  | G  | 0.19  | 0.03 | 1.76E-08 | 0.05  | 0.03 | .06     |
| Systolic blood pressure  | rs11872627 | T  | C  | -0.30 | 0.04 | 1.34E-11 | 0.04  | 0.05 | .45     |
| Systolic blood pressure  | rs11874246 | T  | C  | 0.29  | 0.03 | 3.23E-18 | 0.02  | 0.03 | .43     |
| Systolic blood pressure  | rs11876341 | A  | G  | -0.21 | 0.03 | 1.82E-10 | 0.00  | 0.04 | .90     |
| Systolic blood pressure  | rs11983200 | A  | G  | -0.30 | 0.05 | 7.20E-09 | 0.10  | 0.04 | 1.72E-02|
| Systolic blood pressure  | rs11983783 | T  | C  | 0.18  | 0.03 | 9.48E-09 | -0.02 | 0.03 | .43     |
| Systolic blood pressure  | rs12042924 | T  | C  | -0.18 | 0.03 | 2.62E-09 | 0.03  | 0.03 | .41     |
| Systolic blood pressure  | rs12050196 | T  | C  | 0.21  | 0.03 | 6.31E-12 | -0.01 | 0.03 | .68     |
| Systolic blood pressure  | rs12050260 | T  | C  | 0.23  | 0.03 | 1.75E-12 | -0.06 | 0.03 | .11     |
| Systolic blood pressure  | rs12136922 | A  | G  | 0.20  | 0.03 | 2.69E-11 | 0.01  | 0.03 | .58     |
| Systolic blood pressure  | rs12143164 | T  | C  | -0.18 | 0.03 | 2.73E-08 | 0.00  | 0.04 | .95     |
| Systolic blood pressure  | rs12147633 | T  | C  | -0.54 | 0.09 | 2.60E-09 | -0.11 | 0.10 | .27     |
| Systolic blood pressure  | rs12149704 | A  | G  | 0.59  | 0.07 | 8.57E-18 | -0.06 | 0.10 | .56     |
| Systolic blood pressure  | rs12153395 | A  | G  | -0.33 | 0.05 | 1.07E-11 | 0.02  | 0.07 | .77     |
| Systolic blood pressure  | rs12221125 | T  | C  | -0.21 | 0.04 | 1.95E-08 | 0.10  | 0.05 | 2.78E-02|
| Systolic blood pressure  | rs12368199 | A  | G  | -0.23 | 0.04 | 3.18E-08 | -0.10 | 0.05 | 4.36E-02|
| Systolic blood pressure  | rs12411044 | A  | G  | -0.42 | 0.04 | 6.39E-30 | 0.00  | 0.04 | .99     |
| Systolic blood pressure  | rs12446456 | T  | C  | -0.30 | 0.03 | 2.97E-23 | 0.04  | 0.03 | .15     |
| Systolic blood pressure  | rs12460791 | A  | G  | 0.23  | 0.04 | 1.11E-09 | -0.03 | 0.04 | .41     |
| Systolic blood pressure  | rs1248820  | T  | C  | -0.18 | 0.03 | 2.28E-08 | 0.01  | 0.03 | .58     |
| Exposure                  | SNP       | EA | AA | Beta  | SE  | P Value   | Beta  | SE  | P Value   |
|--------------------------|-----------|----|----|-------|-----|-----------|-------|-----|-----------|
| Systolic blood pressure  | rs12508469| A  | C  | 0.33  | 0.06| 4.11E-08  | 0.02  | 0.07| .78       |
| Systolic blood pressure  | rs12509595| T  | C  | −0.84 | 0.03| 2.55E-138 | −0.01 | 0.03| .78       |
| Systolic blood pressure  | rs12540271| A  | G  | 0.23  | 0.03| 3.82E-13  | 0.01  | 0.03| .76       |
| Systolic blood pressure  | rs12549801| A  | G  | −0.24 | 0.04| 3.95E-11  | 0.01  | 0.04| .72       |
| Systolic blood pressure  | rs12570050| T  | G  | −0.21 | 0.03| 7.11E-10  | 0.02  | 0.04| .50       |
| Systolic blood pressure  | rs12596945| A  | C  | 0.19  | 0.03| 5.03E-09  | −0.01 | 0.03| .70       |
| Systolic blood pressure  | rs12599865| A  | G  | −0.34 | 0.06| 2.13E-09  | 0.01  | 0.06| .82       |
| Systolic blood pressure  | rs12630450| A  | G  | 0.29  | 0.03| 7.74E-17  | 0.00  | 0.03| .98       |
| Systolic blood pressure  | rs12637573| A  | G  | −0.17 | 0.03| 9.95E-09  | −0.01 | 0.03| .65       |
| Systolic blood pressure  | rs12643599| A  | G  | 0.31  | 0.03| 1.23E-23  | 0.00  | 0.03| .93       |
| Systolic blood pressure  | rs1265102 | A  | G  | −0.28 | 0.04| 1.04E-13  | −0.02 | 0.04| .55       |
| Systolic blood pressure  | rs12661604| A  | G  | 0.18  | 0.03| 9.87E-09  | −0.02 | 0.03| .50       |
| Systolic blood pressure  | rs12664016| A  | G  | −0.32 | 0.06| 2.83E-08  | 0.06  | 0.04| .13       |
| Systolic blood pressure  | rs12668436| T  | C  | −0.22 | 0.04| 7.88E-10  | 0.04  | 0.04| .28       |
| Systolic blood pressure  | rs12693982| T  | C  | −0.53 | 0.09| 5.13E-09  | −0.11 | 0.09| .24       |
| Systolic blood pressure  | rs12731646| T  | C  | −0.19 | 0.03| 7.21E-10  | 0.02  | 0.03| .53       |
| Systolic blood pressure  | rs12752457| A  | G  | 0.18  | 0.03| 1.19E-08  | −0.06 | 0.03| 3.14E-02 |
| Systolic blood pressure  | rs12758643| T  | C  | −0.28 | 0.03| 1.13E-16  | −0.01 | 0.03| .65       |
| Systolic blood pressure  | rs1275988 | T  | C  | −0.54 | 0.03| 4.42E-69  | −0.03 | 0.04| .40       |
| Systolic blood pressure  | rs12901664| T  | C  | 0.18  | 0.03| 9.60E-09  | 0.04  | 0.03| .14       |
| Systolic blood pressure  | rs1290933 | A  | C  | −0.28 | 0.03| 3.17E-18  | 0.05  | 0.03| .10       |
| Systolic blood pressure  | rs13016772| T  | C  | 0.25  | 0.04| 1.23E-12  | 0.02  | 0.03| .45       |
| Systolic blood pressure  | rs13050104| A  | G  | 0.19  | 0.03| 1.88E-08  | 0.03  | 0.03| .30       |
| Systolic blood pressure  | rs13107261| A  | G  | −0.18 | 0.03| 1.57E-08  | 0.02  | 0.03| .48       |
| Systolic blood pressure  | rs13143677| A  | G  | 0.22  | 0.03| 8.28E-11  | 0.06  | 0.04| .10       |
| Systolic blood pressure  | rs13149209| T  | C  | 0.28  | 0.04| 1.97E-14  | −0.06 | 0.03| 4.55E-02 |
| Systolic blood pressure  | rs13165038| T  | C  | −0.19 | 0.03| 3.32E-09  | 0.06  | 0.04| .10       |
| Systolic blood pressure  | rs13179413| T  | C  | 0.22  | 0.03| 1.08E-10  | −0.04 | 0.04| .29       |
| Systolic blood pressure  | rs13203975| A  | G  | 0.28  | 0.05| 4.46E-09  | 0.02  | 0.04| .53       |
| Systolic blood pressure  | rs13207962| A  | G  | −0.25 | 0.04| 1.78E-12  | 0.01  | 0.03| .77       |
| Systolic blood pressure  | rs13227860| A  | G  | 0.22  | 0.03| 1.44E-10  | −0.01 | 0.03| .78       |
| Systolic blood pressure  | rs13253358| T  | C  | 0.21  | 0.03| 1.13E-10  | 0.06  | 0.04| .10       |
| Systolic blood pressure  | rs13290326| T  | C  | −0.21 | 0.03| 1.52E-12  | 0.00  | 0.03| .96       |
| Systolic blood pressure  | rs1331012 | T  | G  | 0.20  | 0.03| 1.49E-09  | −0.03 | 0.04| .40       |
| Systolic blood pressure  | rs13322269| A  | G  | −0.23 | 0.03| 7.21E-13  | −0.01 | 0.04| .74       |
| Systolic blood pressure  | rs1332813 | T  | C  | 0.22  | 0.03| 2.32E-12  | −0.02 | 0.03| .47       |
| Systolic blood pressure  | rs13412750| A  | G  | −0.29 | 0.03| 2.33E-17  | 0.04  | 0.03| .15       |
### Supplementary Table 7. Continued

| Exposure                  | SNP       | EA | AA   | Beta | SE  | P Value | Beta | SE  | P Value |
|---------------------------|-----------|----|------|------|-----|---------|------|-----|---------|
| Systolic blood pressure   | rs1347345 | A  | G    | -0.18| 0.03| 6.92E-09| 0.03 | 0.03| .26     |
| Systolic blood pressure   | rs1368298 | A  | G    | 0.31 | 0.03| 4.76E-24| 0.02 | 0.03| .46     |
| Systolic blood pressure   | rs1375564 | T  | C    | 0.26 | 0.03| 2.84E-16| -0.02| 0.03| .58     |
| Systolic blood pressure   | rs1408945 | T  | G    | -0.32| 0.03| 8.33E-26| 0.01 | 0.03| .61     |
| Systolic blood pressure   | rs141212865 | A  | C   | 0.30 | 0.04| 7.68E-15| -0.01| 0.04| .70     |
| Systolic blood pressure   | rs141947880 | T  | C   | 0.45 | 0.07| 4.08E-11| 0.09 | 0.06| .11     |
| Systolic blood pressure   | rs1421203 | T  | C    | -0.35| 0.04| 7.86E-19| 0.06 | 0.03| .07     |
| Systolic blood pressure   | rs142378207 | A  | G   | 0.34 | 0.04| 1.50E-14| 0.04 | 0.04| .38     |
| Systolic blood pressure   | rs142449193 | T  | C   | -0.45| 0.07| 7.86E-10| 0.00 | 0.06| .96     |
| Systolic blood pressure   | rs143026724 | A  | G   | -0.27| 0.04| 2.44E-13| 0.05 | 0.03| .11     |
| Systolic blood pressure   | rs143167197 | A  | G   | -0.43| 0.06| 2.31E-12| 0.06 | 0.05| .26     |
| Systolic blood pressure   | rs1432564  | T  | C    | -0.18| 0.03| 7.52E-09| -0.01| 0.03| .61     |
| Systolic blood pressure   | rs145211473 | A  | G   | 0.75 | 0.11| 1.86E-11| 0.00 | 0.10| .97     |
| Systolic blood pressure   | rs145422110 | T  | C   | 0.85 | 0.13| 6.13E-11| 0.09 | 0.10| .37     |
| Systolic blood pressure   | rs1465091  | A  | C   | -0.36| 0.04| 1.75E-20| 0.01 | 0.03| .66     |
| Systolic blood pressure   | rs146816907 | A  | G   | 0.49 | 0.08| 6.80E-10| 0.00 | 0.08| .96     |
| Systolic blood pressure   | rs146856510 | T  | C   | 0.63 | 0.08| 4.97E-15| -0.02| 0.06| .81     |
| Systolic blood pressure   | rs148140538 | T  | C   | -0.33| 0.06| 7.39E-09| 0.02 | 0.05| .62     |
| Systolic blood pressure   | rs1486236  | A  | C   | -0.23| 0.03| 2.96E-13| -0.02| 0.03| .61     |
| Systolic blood pressure   | rs1494649  | T  | C    | -0.85| 0.12| 8.07E-13| 0.06 | 0.12| .61     |
| Systolic blood pressure   | rs1502360  | T  | G    | -0.18| 0.03| 1.36E-08| 0.05 | 0.04| .14     |
| Systolic blood pressure   | rs151117229 | T  | C   | 0.61 | 0.08| 3.14E-14| 0.11 | 0.07| .11     |
| Systolic blood pressure   | rs1527351  | T  | C    | 0.21 | 0.03| 1.00E-10| -0.03| 0.03| .22     |
| Systolic blood pressure   | rs1535271  | A  | G   | -0.26| 0.04| 6.78E-12| 0.04 | 0.04| .36     |
| Systolic blood pressure   | rs1551355  | T  | C    | 0.21 | 0.04| 3.89E-09| -0.03| 0.03| .39     |
| Systolic blood pressure   | rs1569951  | T  | C    | 0.19 | 0.03| 2.40E-09| -0.02| 0.03| .53     |
| Systolic blood pressure   | rs1575290  | T  | C    | 0.20 | 0.03| 5.99E-11| 0.02 | 0.03| .53     |
| Systolic blood pressure   | rs1624064  | T  | C    | -0.20| 0.03| 1.21E-10| -0.03| 0.03| .38     |
| Systolic blood pressure   | rs1624823  | A  | G   | 0.34 | 0.03| 4.26E-27| 0.03 | 0.03| .36     |
| Systolic blood pressure   | rs1628869  | A  | G   | 0.17 | 0.03| 2.02E-08| 0.02 | 0.03| .43     |
| Systolic blood pressure   | rs1630736  | T  | C    | -0.17| 0.03| 3.52E-08| 0.03 | 0.03| .35     |
| Systolic blood pressure   | rs1657880  | T  | C    | -0.29| 0.05| 7.44E-09| -0.01| 0.06| .92     |
| Systolic blood pressure   | rs1684174  | A  | G   | -0.19| 0.03| 4.46E-10| 0.01 | 0.03| .64     |
| Systolic blood pressure   | rs16891474 | T  | G   | -0.24| 0.04| 3.36E-08| -0.03| 0.03| .32     |
| Systolic blood pressure   | rs16939357 | T  | C   | 0.31 | 0.04| 1.37E-13| -0.01| 0.03| .75     |
| Systolic blood pressure   | rs17035181 | T  | G   | 0.31 | 0.04| 7.61E-13| 0.03 | 0.04| .35     |
### Supplementary Table 7. Continued

| Exposure                     | SNP     | EA | AA | Beta   | SE   | P Value | Exposure | Outcome | Beta   | SE   | P Value |
|------------------------------|---------|----|----|--------|------|---------|----------|---------|--------|------|---------|
| Systolic blood pressure      | rs17115145 | T  | C  | 0.18   | 0.03 | 7.39E-09|          |         | -0.04  | 0.03 | .24     |
| Systolic blood pressure      | rs17137303 | T  | G  | -0.36  | 0.06 | 2.55E-08|          |         | 0.02   | 0.05 | .73     |
| Systolic blood pressure      | rs17171710 | T  | C  | -0.41  | 0.05 | 1.13E-16|          |         | -0.05  | 0.04 | .23     |
| Systolic blood pressure      | rs17173834 | T  | G  | -0.34  | 0.05 | 7.60E-11|          |         | -0.01  | 0.04 | .90     |
| Systolic blood pressure      | rs17208811 | A  | G  | -0.38  | 0.06 | 5.30E-09|          |         | 0.03   | 0.05 | .60     |
| Systolic blood pressure      | rs17245822 | A  | C  | -0.19  | 0.03 | 1.15E-09|          |         | -0.01  | 0.03 | .73     |
| Systolic blood pressure      | rs17249754 | A  | G  | -0.84  | 0.04 | 1.25E-07|          |         | -0.04  | 0.03 | .24     |
| Systolic blood pressure      | rs17257081 | A  | G  | 0.23   | 0.04 | 6.35E-09|          |         | -0.04  | 0.03 | .16     |
| Systolic blood pressure      | rs17470652 | A  | G  | 0.55   | 0.07 | 7.18E-15|          |         | -0.03  | 0.06 | .63     |
| Systolic blood pressure      | rs17712705 | A  | G  | 0.25   | 0.03 | 5.72E-15|          |         | -0.05  | 0.03 | .09     |
| Systolic blood pressure      | rs17760259 | T  | C  | -0.27  | 0.03 | 2.25E-18|          |         | 0.02   | 0.03 | .57     |
| Systolic blood pressure      | rs17812022 | T  | C  | -0.36  | 0.05 | 5.65E-12|          |         | 0.03   | 0.05 | .46     |
| Systolic blood pressure      | rs17875473 | T  | C  | 0.33   | 0.06 | 2.66E-09|          |         | -0.12  | 0.08 | .11     |
| Systolic blood pressure      | rs1790998  | A  | C  | -0.21  | 0.03 | 9.10E-12|          |         | 0.01   | 0.03 | .73     |
| Systolic blood pressure      | rs1799712  | A  | C  | 0.17   | 0.03 | 3.79E-08|          |         | -0.03  | 0.03 | .39     |
| Systolic blood pressure      | rs179972   | T  | C  | 0.18   | 0.03 | 5.46E-09|          |         | 0.06   | 0.04 | .11     |
| Systolic blood pressure      | rs1808192  | A  | G  | -0.18  | 0.03 | 1.38E-08|          |         | -0.09  | 0.03 | 9.02E-03|
| Systolic blood pressure      | rs1815614  | A  | G  | 0.23   | 0.03 | 3.73E-14|          |         | -0.02  | 0.03 | .54     |
| Systolic blood pressure      | rs1848510  | A  | G  | 0.18   | 0.03 | 5.72E-09|          |         | -0.01  | 0.03 | .62     |
| Systolic blood pressure      | rs1848994  | A  | G  | 0.20   | 0.03 | 1.79E-09|          |         | -0.05  | 0.03 | .11     |
| Systolic blood pressure      | rs1863798  | A  | G  | -0.21  | 0.03 | 1.20E-11|          |         | -0.11  | 0.03 | 8.19E-04|
| Systolic blood pressure      | rs1871190  | T  | G  | 0.20   | 0.03 | 1.66E-09|          |         | 0.00   | 0.04 | .91     |
| Systolic blood pressure      | rs1879057  | T  | C  | -0.33  | 0.04 | 1.67E-17|          |         | 0.03   | 0.03 | .25     |
| Systolic blood pressure      | rs1886693  | A  | G  | 0.39   | 0.03 | 4.69E-34|          |         | 0.02   | 0.03 | .42     |
| Systolic blood pressure      | rs1891392  | T  | C  | 0.23   | 0.03 | 9.02E-12|          |         | -0.01  | 0.03 | .68     |
| Systolic blood pressure      | rs1891730  | T  | C  | -0.18  | 0.03 | 7.74E-09|          |         | -0.05  | 0.03 | .14     |
| Systolic blood pressure      | rs1906672  | A  | G  | 0.30   | 0.04 | 1.20E-16|          |         | -0.04  | 0.03 | .25     |
| Systolic blood pressure      | rs1921151  | A  | G  | 0.30   | 0.04 | 1.27E-15|          |         | 0.03   | 0.03 | .38     |
| Systolic blood pressure      | rs1957563  | T  | C  | 0.36   | 0.03 | 2.32E-26|          |         | 0.01   | 0.03 | .71     |
| Systolic blood pressure      | rs1984195  | A  | G  | 0.24   | 0.03 | 1.77E-15|          |         | 0.03   | 0.03 | .31     |
| Systolic blood pressure      | rs1986971  | A  | G  | 0.26   | 0.03 | 1.61E-14|          |         | 0.08   | 0.04 | 2.48E-02|
| Systolic blood pressure      | rs1998107  | A  | G  | -0.19  | 0.03 | 2.23E-10|          |         | 0.04   | 0.03 | .13     |
| Systolic blood pressure      | rs2009598  | A  | G  | 0.22   | 0.03 | 4.61E-13|          |         | -0.05  | 0.04 | .12     |
| Systolic blood pressure      | rs2014408  | T  | C  | 0.52   | 0.04 | 1.26E-43|          |         | 0.05   | 0.04 | .25     |
| Systolic blood pressure      | rs2029969  | A  | G  | -0.17  | 0.03 | 4.51E-08|          |         | -0.01  | 0.03 | .79     |
| Systolic blood pressure      | rs2032451  | T  | G  | 0.54   | 0.04 | 1.56E-37|          |         | 0.03   | 0.05 | .48     |
| Exposure                     | SNP         | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|------------------------------|-------------|----|----|------|-----|---------|------|-----|---------|
| Systolic blood pressure      | rs2055120   | A  | G  | -0.87| 0.11| 3.75E-16| -0.02| 0.11| .86     |
| Systolic blood pressure      | rs2060664   | T  | C  | 0.22 | 0.03| 4.06E-10| 0.02 | 0.03| .56     |
| Systolic blood pressure      | rs2065498   | T  | G  | -0.29| 0.04| 3.36E-13| -0.02| 0.03| .47     |
| Systolic blood pressure      | rs2107595   | A  | G  | 0.42 | 0.04| 7.37E-24| 0.00 | 0.04| 1.00    |
| Systolic blood pressure      | rs2118370   | A  | G  | 0.23 | 0.04| 2.99E-09| 0.03 | 0.04| .56     |
| Systolic blood pressure      | rs2126474   | T  | G  | -0.26| 0.03| 1.87E-17| -0.03| 0.03| .30     |
| Systolic blood pressure      | rs2156805   | A  | G  | 0.18 | 0.03| 4.64E-09| 0.04 | 0.03| .28     |
| Systolic blood pressure      | rs2161967   | T  | G  | 0.28 | 0.03| 2.87E-20| -0.02| 0.03| .54     |
| Systolic blood pressure      | rs2165846   | A  | G  | 0.18 | 0.03| 1.03E-08| -0.02| 0.03| .60     |
| Systolic blood pressure      | rs2177843   | T  | C  | 0.44 | 0.04| 2.80E-24| 0.05 | 0.04| .22     |
| Systolic blood pressure      | rs2206815   | A  | C  | 0.26 | 0.03| 1.45E-14| 0.02 | 0.03| .57     |
| Systolic blood pressure      | rs2238787   | A  | G  | 0.26 | 0.03| 5.22E-27| -0.06| 0.03| .05     |
| Systolic blood pressure      | rs2249105   | A  | G  | 0.29 | 0.03| 7.63E-11| -0.05| 0.03| .06     |
| Systolic blood pressure      | rs2273171   | T  | C  | -0.17| 0.03| 2.64E-08| 0.00 | 0.04| .93     |
| Systolic blood pressure      | rs2285426   | T  | C  | -0.27| 0.05| 1.36E-09| 0.03 | 0.05| .56     |
| Systolic blood pressure      | rs2287019   | T  | C  | 0.22 | 0.04| 3.68E-08| -0.03| 0.04| .44     |
| Systolic blood pressure      | rs2289124   | A  | G  | -0.31| 0.04| 1.14E-13| 0.06 | 0.04| .16     |
| Systolic blood pressure      | rs2290263   | A  | G  | 0.27 | 0.04| 3.11E-14| -0.01| 0.03| .62     |
| Systolic blood pressure      | rs2290755   | A  | C  | -0.23| 0.04| 4.69E-10| -0.07| 0.05| .15     |
| Systolic blood pressure      | rs2291434   | T  | G  | -0.26| 0.03| 5.10E-18| -0.04| 0.03| .15     |
| Systolic blood pressure      | rs2291516   | A  | G  | 0.37 | 0.05| 2.17E-13| -0.12| 0.04| 3.42E-03|
| Systolic blood pressure      | rs2300481   | T  | C  | 0.20 | 0.03| 1.56E-10| -0.02| 0.03| .65     |
| Systolic blood pressure      | rs2306363   | T  | C  | -0.44| 0.04| 5.24E-31| 0.04 | 0.03| .21     |
| Systolic blood pressure      | rs2354862   | A  | C  | 0.25 | 0.03| 2.42E-15| -0.02| 0.04| .64     |
| Systolic blood pressure      | rs2384063   | T  | C  | 0.33 | 0.04| 6.33E-20| -0.01| 0.03| .70     |
| Systolic blood pressure      | rs2395622   | T  | C  | -0.23| 0.04| 7.17E-09| -0.03| 0.03| .33     |
| Systolic blood pressure      | rs2417189   | T  | G  | 0.24 | 0.03| 1.03E-14| 0.00 | 0.03| .96     |
| Systolic blood pressure      | rs2417849   | T  | C  | 0.27 | 0.03| 1.82E-18| 0.02 | 0.03| .48     |
| Systolic blood pressure      | rs2419077   | T  | G  | 0.20 | 0.03| 1.07E-08| -0.03| 0.03| .29     |
| Systolic blood pressure      | rs2421651   | A  | G  | 0.18 | 0.03| 2.68E-09| 0.02 | 0.03| .50     |
| Systolic blood pressure      | rs2427574   | A  | C  | 0.24 | 0.03| 4.20E-14| -0.03| 0.04| .44     |
| Systolic blood pressure      | rs246973    | T  | C  | 0.25 | 0.03| 1.45E-13| 0.09 | 0.04| 2.44E-02|
| Systolic blood pressure      | rs2470004   | T  | C  | -0.35| 0.04| 1.28E-18| -0.03| 0.03| .40     |
| Systolic blood pressure      | rs2480171   | T  | C  | 0.29 | 0.05| 4.69E-10| -0.07| 0.05| .17     |
| Systolic blood pressure      | rs2493291   | T  | C  | 0.42 | 0.04| 1.85E-21| -0.01| 0.04| .76     |
| Systolic blood pressure      | rs2498323   | A  | G  | 0.32 | 0.05| 8.52E-10| -0.07| 0.04| .10     |
### Supplementary Table 7. Continued

| Exposure                      | SNP      | EA | AA | Beta  | SE   | P Value | Beta  | SE   | P Value |
|-------------------------------|----------|----|----|-------|------|---------|-------|------|---------|
| Systolic blood pressure       | rs2549732 | A  | G  | -0.45 | 0.06 | 1.27E-14 | 0.03  | 0.05 | .50     |
| Systolic blood pressure       | rs256741  | A  | G  | 0.17  | 0.03 | 4.50E-08 | 0.02  | 0.03 | .35     |
| Systolic blood pressure       | rs2610990 | A  | G  | -0.29 | 0.03 | 2.86E-17 | 0.02  | 0.03 | .59     |
| Systolic blood pressure       | rs2611774 | A  | G  | 0.22  | 0.03 | 6.85E-12 | -0.05 | 0.03 | .08     |
| Systolic blood pressure       | rs2613765 | A  | G  | -0.24 | 0.03 | 5.32E-15 | -0.04 | 0.03 | .17     |
| Systolic blood pressure       | rs2615000 | T  | C  | -0.35 | 0.04 | 6.49E-17 | -0.01 | 0.04 | .76     |
| Systolic blood pressure       | rs2627316 | A  | G  | -0.33 | 0.03 | 2.79E-28 | 0.03  | 0.03 | .25     |
| Systolic blood pressure       | rs2643826 | T  | C  | 0.17  | 0.03 | 1.74E-11 | 0.02  | 0.04 | .56     |
| Systolic blood pressure       | rs2681489 | A  | C  | 0.23  | 0.04 | 5.14E-09 | 0.04  | 0.05 | .41     |
| Systolic blood pressure       | rs2740441 | A  | G  | 0.22  | 0.03 | 7.70E-11 | 0.02  | 0.04 | .59     |
| Systolic blood pressure       | rs2753960 | T  | G  | 0.45  | 0.03 | 2.66E-47 | 0.01  | 0.03 | .72     |
| Systolic blood pressure       | rs2815063 | A  | C  | 0.28  | 0.05 | 1.76E-09 | -0.03 | 0.05 | .57     |
| Systolic blood pressure       | rs2833834 | A  | C  | 0.22  | 0.03 | 1.22E-10 | 0.07  | 0.04 | 4.39E-02|
| Systolic blood pressure       | rs2838351 | A  | G  | -0.23 | 0.03 | 7.41E-14 | -0.05 | 0.03 | .16     |
| Systolic blood pressure       | rs2851336 | T  | C  | -0.17 | 0.03 | 2.11E-08 | 0.04  | 0.03 | .11     |
| Systolic blood pressure       | rs2855849 | T  | C  | -0.21 | 0.03 | 7.54E-10 | -0.04 | 0.04 | .29     |
| Systolic blood pressure       | rs2857235 | A  | C  | -0.27 | 0.03 | 6.34E-19 | 0.00  | 0.03 | .92     |
| Systolic blood pressure       | rs2861435 | T  | C  | 0.21  | 0.03 | 2.53E-10 | 0.05  | 0.03 | .07     |
| Systolic blood pressure       | rs2866611 | T  | G  | 0.21  | 0.03 | 6.54E-09 | 0.03  | 0.05 | .62     |
| Systolic blood pressure       | rs2907546 | A  | G  | -0.30 | 0.05 | 6.47E-10 | 0.00  | 0.05 | .95     |
| Systolic blood pressure       | rs2943648 | A  | G  | -0.26 | 0.03 | 2.61E-16 | 0.00  | 0.03 | .86     |
| Systolic blood pressure       | rs2957492 | A  | G  | 0.25  | 0.03 | 1.59E-14 | 0.00  | 0.03 | .99     |
| Systolic blood pressure       | rs3058639 | T  | C  | -0.19 | 0.03 | 2.08E-08 | -0.05 | 0.04 | .20     |
| Systolic blood pressure       | rs3128334 | A  | G  | -0.21 | 0.03 | 1.41E-10 | 0.02  | 0.03 | .54     |
| Systolic blood pressure       | rs3134950 | A  | G  | 0.37  | 0.03 | 7.67E-30 | 0.00  | 0.04 | .09     |
| Systolic blood pressure       | rs3147779 | T  | G  | -0.21 | 0.03 | 1.79E-10 | -0.02 | 0.04 | .55     |
| Systolic blood pressure       | rs3402593 | A  | G  | 0.22  | 0.03 | 4.71E-13 | -0.04 | 0.03 | .27     |
| Systolic blood pressure       | rs3407272 | A  | G  | -0.24 | 0.03 | 1.37E-15 | 0.00  | 0.03 | .90     |
| Systolic blood pressure       | rs342130  | A  | G  | 0.19  | 0.03 | 1.34E-09 | -0.04 | 0.03 | .24     |
| Systolic blood pressure       | rs3429758 | A  | G  | 0.79  | 0.11 | 2.13E-12 | -0.06 | 0.11 | .59     |
| Exposure                      | SNP             | EA | AA  | Beta  | SE  | P Value | Beta  | SE  | P Value |
|------------------------------|-----------------|----|-----|-------|-----|---------|-------|-----|---------|
| Systolic blood pressure      | rs34670304      | A  | G   | 0.20  | 0.03| 2.06E-10| 0.05  | 0.04| .16     |
| Systolic blood pressure      | rs34688434      | A  | C   | -0.49 | 0.06| 7.90E-17| -0.01 | 0.07| .82     |
| Systolic blood pressure      | rs34703964      | A  | G   | -0.22 | 0.03| 8.46E-12| -0.01 | 0.04| .77     |
| Systolic blood pressure      | rs34727247      | T  | C   | -0.24 | 0.03| 4.02E-13| 0.01  | 0.03| .76     |
| Systolic blood pressure      | rs34815435      | T  | C   | -0.23 | 0.04| 7.30E-09| -0.02 | 0.03| .59     |
| Systolic blood pressure      | rs34869093      | A  | G   | -0.22 | 0.03| 1.84E-12| 0.05  | 0.04| .16     |
| Systolic blood pressure      | rs34905952      | A  | G   | 0.29  | 0.04| 3.00E-12| -0.04 | 0.04| .30     |
| Systolic blood pressure      | rs34941092      | A  | G   | -0.32 | 0.04| 3.23E-14| 0.03  | 0.04| .41     |
| Systolic blood pressure      | rs35213536      | T  | G   | 0.29  | 0.04| 1.94E-16| 0.02  | 0.03| .55     |
| Systolic blood pressure      | rs35413927      | A  | G   | -0.30 | 0.03| 5.25E-20| 0.03  | 0.04| .42     |
| Systolic blood pressure      | rs35444         | A  | G   | 0.44  | 0.03| 3.47E-45| 0.05  | 0.03| .08     |
| Systolic blood pressure      | rs35519679      | A  | G   | 0.25  | 0.04| 1.15E-12| -0.01 | 0.04| .84     |
| Systolic blood pressure      | rs35590893      | A  | G   | -0.24 | 0.03| 1.66E-12| -0.04 | 0.03| .18     |
| Systolic blood pressure      | rs35627427      | T  | C   | 0.27  | 0.03| 3.76E-18| 0.03  | 0.03| .37     |
| Systolic blood pressure      | rs35680304      | T  | C   | 0.24  | 0.03| 1.66E-12| -0.04 | 0.03| .18     |
| Systolic blood pressure      | rs35754956      | A  | G   | 0.44  | 0.03| 3.47E-45| 0.05  | 0.03| .08     |
| Systolic blood pressure      | rs35783704      | A  | G   | -0.46 | 0.05| 8.81E-20| -0.08 | 0.07| .23     |
| Systolic blood pressure      | rs365990        | A  | G   | 0.23  | 0.03| 5.95E-13| -0.06 | 0.03| 3.03E-02|
| Systolic blood pressure      | rs3729931       | A  | G   | -0.18 | 0.03| 6.29E-09| -0.02 | 0.03| .54     |
| Systolic blood pressure      | rs3735533       | T  | C   | -0.91 | 0.06| 5.29E-56| -0.06 | 0.06| .38     |
| Systolic blood pressure      | rs3737136       | A  | G   | -0.38 | 0.04| 4.59E-24| 0.03  | 0.03| .40     |
| Systolic blood pressure      | rs3741210       | A  | G   | -0.20 | 0.04| 9.26E-09| 0.01  | 0.03| .66     |
| Systolic blood pressure      | rs3749444       | A  | C   | 0.18  | 0.03| 9.30E-09| 0.08  | 0.03| 1.83E-02|
| Systolic blood pressure      | rs3757387       | T  | C   | 0.19  | 0.03| 4.01E-10| 0.00  | 0.03| .85     |
| Systolic blood pressure      | rs3762946       | A  | G   | 0.23  | 0.04| 6.84E-09| 0.04  | 0.05| .36     |
| Systolic blood pressure      | rs3763917       | A  | C   | 0.21  | 0.04| 1.82E-08| 0.01  | 0.03| .63     |
| Systolic blood pressure      | rs377470        | T  | G   | -0.22 | 0.04| 2.01E-09| 0.08  | 0.03| 1.21E-02|
| Systolic blood pressure      | rs3783412       | A  | G   | 0.20  | 0.03| 1.85E-11| 0.06  | 0.03| .08     |
| Systolic blood pressure      | rs3814700       | T  | C   | 0.39  | 0.06| 1.18E-11| -0.09 | 0.06| .14     |
| Systolic blood pressure      | rs3821843       | A  | G   | 0.34  | 0.03| 6.56E-24| 0.03  | 0.04| .40     |
| Systolic blood pressure      | rs3827676       | T  | C   | 0.17  | 0.03| 1.17E-08| 0.01  | 0.03| .85     |
| Systolic blood pressure      | rs3843712       | T  | C   | -0.34 | 0.05| 1.91E-11| -0.02 | 0.04| .52     |
| Systolic blood pressure      | rs3847320       | A  | G   | -0.19 | 0.03| 2.82E-08| -0.09 | 0.04| 2.19E-02|
| Systolic blood pressure      | rs3860770       | A  | G   | -0.27 | 0.03| 1.20E-15| -0.01 | 0.03| .73     |
| Systolic blood pressure      | rs3915499       | A  | G   | -0.21 | 0.03| 1.36E-10| -0.03 | 0.04| .34     |
| Systolic blood pressure      | rs3918226       | T  | C   | 0.66  | 0.06| 8.46E-31| -0.04 | 0.06| .49     |
| Systolic blood pressure      | rs3923060       | T  | C   | 0.19  | 0.03| 3.64E-08| 0.03  | 0.04| .44     |
| Systolic blood pressure      | rs3980668       | T  | G   | -0.50 | 0.05| 1.03E-24| 0.03  | 0.04| .36     |
| Systolic blood pressure      | rs4129585       | A  | C   | 0.19  | 0.03| 1.03E-09| 0.03  | 0.03| .34     |
| Systolic blood pressure      | rs4143175       | T  | C   | 0.22  | 0.04| 5.10E-10| 0.00  | 0.04| .98     |
**Supplementary Table 7.** Continued

| Exposure                               | SNP      | EA | AA | Beta  | SE    | P Value | Exposure Outcome | Beta  | SE    | P Value |
|----------------------------------------|----------|----|----|-------|-------|---------|------------------|-------|-------|---------|
| Systolic blood pressure                | rs4233922| A  | G  | -0.19 | 0.03  | 1.90E-08|                  | 0.03  | 0.04 | .41     |
| Systolic blood pressure                | rs42377  | A  | G  | -0.32 | 0.03  | 1.69E-21|                  | 0.02  | 0.03 | .37     |
| Systolic blood pressure                | rs4245930| A  | G  | -0.20 | 0.03  | 1.04E-10|                  | -0.01 | 0.03 | .63     |
| Systolic blood pressure                | rs4286632| A  | G  | 0.21  | 0.03  | 7.64E-10|                  | 0.03  | 0.04 | .45     |
| Systolic blood pressure                | rs4319878| T  | C  | 0.17  | 0.03  | 3.77E-08|                  | 0.01  | 0.03 | .67     |
| Systolic blood pressure                | rs4440615| A  | G  | -0.22 | 0.03  | 1.87E-12|                  | -0.01 | 0.03 | .86     |
| Systolic blood pressure                | rs4456714| T  | C  | -0.19 | 0.03  | 3.24E-08|                  | 0.01  | 0.04 | .81     |
| Systolic blood pressure                | rs4480845| T  | C  | 0.32  | 0.03  | 1.85E-23|                  | 0.05  | 0.03 | .18     |
| Systolic blood pressure                | rs4496141| T  | G  | 0.18  | 0.03  | 2.28E-09|                  | 0.03  | 0.03 | .27     |
| Systolic blood pressure                | rs4535000| T  | C  | -0.20 | 0.03  | 1.09E-11|                  | -0.01 | 0.03 | .58     |
| Systolic blood pressure                | rs4573493| T  | C  | 0.17  | 0.03  | 3.86E-08|                  | -0.04 | 0.03 | .32     |
| Systolic blood pressure                | rs4582532| A  | G  | -0.20 | 0.03  | 3.64E-11|                  | -0.02 | 0.03 | .35     |
| Systolic blood pressure                | rs464605 | T  | C  | 0.21  | 0.03  | 2.08E-09|                  | 0.01  | 0.03 | .72     |
| Systolic blood pressure                | rs4651224| T  | C  | 0.20  | 0.03  | 9.00E-11|                  | -0.04 | 0.03 | .23     |
| Systolic blood pressure                | rs4665624| A  | C  | 0.18  | 0.03  | 1.35E-08|                  | 0.01  | 0.03 | .73     |
| Systolic blood pressure                | rs4704514| T  | C  | 0.27  | 0.03  | 3.92E-16|                  | -0.07 | 0.04 | .06     |
| Systolic blood pressure                | rs4712955| A  | G  | -0.19 | 0.03  | 7.42E-16|                  | 0.02  | 0.04 | .58     |
| Systolic blood pressure                | rs4725376| A  | G  | -0.17 | 0.03  | 1.41E-08|                  | 0.02  | 0.03 | .47     |
| Systolic blood pressure                | rs4725995| T  | C  | 0.21  | 0.03  | 2.66E-10|                  | -0.07 | 0.04 | .06     |
| Systolic blood pressure                | rs4738141| A  | G  | -0.19 | 0.03  | 3.12E-08|                  | -0.01 | 0.04 | .70     |
| Systolic blood pressure                | rs4754196| A  | G  | -0.35 | 0.03  | 1.46E-30|                  | -0.04 | 0.03 | .10     |
| Systolic blood pressure                | rs4760701| A  | G  | -0.29 | 0.04  | 1.95E-15|                  | 0.06  | 0.03 | .06     |
| Systolic blood pressure                | rs4793146| A  | C  | -0.42 | 0.05  | 1.34E-15|                  | 0.07  | 0.05 | .11     |
| Systolic blood pressure                | rs4812536| A  | G  | 0.27  | 0.03  | 4.09E-17|                  | -0.01 | 0.03 | .70     |
| Systolic blood pressure                | rs4842266| A  | G  | -0.23 | 0.03  | 7.92E-13|                  | 0.05  | 0.04 | .19     |
| Systolic blood pressure                | rs4873492| T  | C  | 0.34  | 0.04  | 1.61E-17|                  | -0.05 | 0.04 | .21     |
| Systolic blood pressure                | rs4888408| A  | G  | 0.37  | 0.03  | 1.42E-32|                  | -0.07 | 0.03 | 5.75E-03|
| Systolic blood pressure                | rs4894188| T  | C  | 0.18  | 0.03  | 6.82E-09|                  | -0.06 | 0.03 | .07     |
| Systolic blood pressure                | rs4908348| T  | G  | 0.24  | 0.03  | 8.07E-13|                  | 0.01  | 0.03 | .62     |
| Systolic blood pressure                | rs491205 | A  | G  | 0.33  | 0.03  | 2.58E-27|                  | 0.01  | 0.03 | .73     |
| Systolic blood pressure                | rs4924570| T  | C  | -0.21 | 0.03  | 1.80E-11|                  | -0.06 | 0.04 | .08     |
| Systolic blood pressure                | rs4925159| A  | G  | 0.22  | 0.03  | 9.66E-13|                  | 0.02  | 0.03 | .44     |
| Systolic blood pressure                | rs4926923| T  | C  | 0.32  | 0.05  | 2.56E-09|                  | 0.02  | 0.05 | .60     |
| Systolic blood pressure                | rs4932373| A  | C  | -0.64 | 0.03  | 2.49E-83|                  | 0.06  | 0.04 | .14     |
| Systolic blood pressure                | rs4948281| A  | G  | 0.27  | 0.04  | 6.84E-11|                  | 0.01  | 0.04 | .80     |
| Systolic blood pressure                | rs4948643| T  | C  | 0.23  | 0.03  | 2.40E-11|                  | -0.05 | 0.04 | .19     |
| Systolic blood pressure                | rs4952668| A  | G  | -0.25 | 0.03  | 2.60E-15|                  | -0.05 | 0.04 | .16     |
| Systolic blood pressure                | rs4952948| A  | G  | -0.24 | 0.03  | 6.51E-15|                  | 0.04  | 0.03 | .21     |
| Systolic blood pressure                | rs4957026| A  | G  | 0.20  | 0.03  | 8.12E-10|                  | 0.02  | 0.03 | .48     |
| Exposure                              | SNP       | EA | AA | Beta  | SE   | P Value  | Beta  | SE   | P Value  |
|--------------------------------------|-----------|----|----|-------|------|----------|-------|------|----------|
| Systolic blood pressure              | rs4961293 | T  | C  | 0.23  | 0.03 | 7.35E-14 | 0.01  | 0.03 | .72      |
| Systolic blood pressure              | rs4980515 | T  | C  | 0.23  | 0.03 | 9.73E-14 | 0.02  | 0.03 | .49      |
| Systolic blood pressure              | rs525271  | T  | C  | 0.23  | 0.03 | 1.67E-12 | ~0.02 | 0.03 | .44      |
| Systolic blood pressure              | rs555015  | A  | G  | 0.20  | 0.03 | 1.00E-10 | ~0.04 | 0.03 | .20      |
| Systolic blood pressure              | rs555625  | T  | C  | 0.43  | 0.06 | 7.61E-13 | 0.02  | 0.05 | .67      |
| Systolic blood pressure              | rs55678414| T  | G  | ~0.69 | 0.06 | 1.56E-27 | 0.03  | 0.04 | .49      |
| Systolic blood pressure              | rs55732192| T  | G  | ~0.34 | 0.05 | 1.15E-10 | ~0.03 | 0.04 | .45      |
| Systolic blood pressure              | rs557526  | A  | G  | ~0.21 | 0.04 | 6.53E-09 | ~0.03 | 0.04 | .46      |
| Systolic blood pressure              | rs55830103| T  | G  | ~0.28 | 0.04 | 2.62E-11 | 0.05  | 0.05 | .35      |
| Systolic blood pressure              | rs55924432| T  | C  | 0.27  | 0.03 | 5.70E-17 | 0.02  | 0.03 | .51      |
| Systolic blood pressure              | rs55944332| A  | G  | ~0.26 | 0.04 | 1.79E-13 | 0.04  | 0.04 | .36      |
| Systolic blood pressure              | rs55978930| A  | G  | ~0.20 | 0.03 | 9.98E-10 | 0.04  | 0.04 | .33      |
| Systolic blood pressure              | rs56014530| A  | G  | 0.43  | 0.03 | 3.81E-38 | 0.00  | 0.04 | .97      |
| Systolic blood pressure              | rs56085433| A  | G  | ~0.25 | 0.04 | 8.21E-09 | 0.04  | 0.03 | .24      |
| Systolic blood pressure              | rs56179563| A  | G  | ~0.22 | 0.03 | 2.07E-11 | ~0.02 | 0.04 | .65      |
| Systolic blood pressure              | rs56287274| A  | G  | ~0.22 | 0.03 | 2.01E-12 | 0.07  | 0.03 | 9.15E-03 |
| Systolic blood pressure              | rs56334134| A  | G  | 0.17  | 0.03 | 3.69E-08 | ~0.01 | 0.03 | .80      |
| Systolic blood pressure              | rs56407827| T  | C  | 0.36  | 0.03 | 2.78E-26 | 0.05  | 0.04 | .25      |
| Systolic blood pressure              | rs56718366| T  | C  | 0.33  | 0.05 | 1.04E-10 | 0.05  | 0.05 | .28      |
| Systolic blood pressure              | rs56719405| A  | G  | 0.36  | 0.07 | 3.88E-08 | 0.12  | 0.06 | 4.32E-02 |
| Systolic blood pressure              | rs569550  | T  | G  | ~0.58 | 0.03 | 1.33E-73 | ~0.04 | 0.03 | .28      |
| Systolic blood pressure              | rs571689  | T  | C  | 0.23  | 0.03 | 6.77E-14 | ~0.07 | 0.03 | 1.03E-02 |
| Systolic blood pressure              | rs5742643 | T  | C  | ~0.22 | 0.03 | 1.53E-10 | 0.01  | 0.03 | .78      |
| Systolic blood pressure              | rs57946343| T  | C  | 0.72  | 0.04 | 2.10E-63 | 0.03  | 0.04 | .38      |
| Systolic blood pressure              | rs59400568| A  | G  | 0.22  | 0.04 | 2.88E-09 | 0.08  | 0.03 | 1.72E-02 |
| Systolic blood pressure              | rs598702  | T  | C  | 0.56  | 0.10 | 1.77E-08 | 0.01  | 0.08 | .88      |
| Systolic blood pressure              | rs59980837| T  | G  | 1.10  | 0.12 | 3.32E-21 | ~0.17 | 0.10 | .08      |
| Systolic blood pressure              | rs60191654| A  | G  | ~0.24 | 0.04 | 5.88E-10 | ~0.05 | 0.03 | .12      |
| Systolic blood pressure              | rs6021247 | A  | G  | 0.23  | 0.03 | 9.80E-15 | ~0.02 | 0.03 | .53      |
| Systolic blood pressure              | rs6031431 | A  | G  | ~0.26 | 0.03 | 7.05E-18 | 0.01  | 0.03 | .87      |
| Systolic blood pressure              | rs603424  | A  | G  | 0.23  | 0.04 | 6.67E-09 | ~0.04 | 0.04 | .27      |
| Systolic blood pressure              | rs6039211 | A  | G  | 0.28  | 0.03 | 1.94E-19 | 0.02  | 0.03 | .36      |
| Systolic blood pressure              | rs6040316 | T  | C  | ~0.99 | 0.15 | 1.85E-11 | ~0.03 | 0.09 | .76      |
| Systolic blood pressure              | rs604723  | T  | C  | ~0.66 | 0.03 | 2.55E-83 | 0.04  | 0.04 | .24      |
| Systolic blood pressure              | rs60576102| T  | C  | 0.18  | 0.03 | 1.33E-08 | 0.00  | 0.04 | .98      |
| Systolic blood pressure              | rs6058088 | T  | G  | 0.28  | 0.04 | 1.14E-11 | ~0.01 | 0.04 | .77      |
| Systolic blood pressure              | rs6062324 | A  | G  | ~0.33 | 0.04 | 1.18E-19 | 0.01  | 0.03 | .64      |
| Systolic blood pressure              | rs60672471| T  | C  | 0.28  | 0.05 | 1.49E-08 | 0.07  | 0.04 | .11      |
| Systolic blood pressure              | rs606950  | A  | G  | 0.27  | 0.03 | 3.23E-18 | ~0.02 | 0.04 | .50      |
| Exposure                     | SNP      | EA | AA | Beta | SE  | P     | | | | Outcome                  | Beta | SE  | P     |
|-----------------------------|----------|----|----|------|-----|-------| | | | Exposition                |       |     |       |
| Systolic blood pressure     | rs6078093| A  | G  | -0.18| 0.03| 1.20E-09| | | |                          | -0.06| 0.03| .09  |
| Systolic blood pressure     | rs6090907| A  | G  | -0.39| 0.04| 1.29E-19| | | |                          | -0.01| 0.04| .86  |
| Systolic blood pressure     | rs60991988| T  | G  | 0.38 | 0.05| 2.82E-14| | | |                          | 0.05 | 0.04| .20  |
| Systolic blood pressure     | rs6108787| T  | G  | -0.43| 0.03| 5.38E-46| | | |                          | 0.05 | 0.03| 4.35E-02|
| Systolic blood pressure     | rs61148001| T  | C  | -0.26| 0.04| 2.10E-12| | | |                          | -0.04| 0.04| .32  |
| Systolic blood pressure     | rs613872 | T  | G  | -0.22| 0.04| 1.67E-08| | | |                          | 0.00 | 0.04| .93  |
| Systolic blood pressure     | rs6141766| A  | G  | -0.31| 0.04| 9.94E-14| | | |                          | -0.04| 0.03| .22  |
| Systolic blood pressure     | rs6157247| A  | G  | 0.27 | 0.04| 2.86E-14| | | |                          | -0.01| 0.04| .80  |
| Systolic blood pressure     | rs61772592| A  | G  | -0.32| 0.05| 2.66E-12| | | |                          | 0.01 | 0.04| .90  |
| Systolic blood pressure     | rs61861138| A  | G  | -0.24| 0.03| 7.18E-12| | | |                          | 0.00 | 0.03| .97  |
| Systolic blood pressure     | rs61917655| T  | C  | 0.34 | 0.05| 2.68E-11| | | |                          | 0.08 | 0.05| .13  |
| Systolic blood pressure     | rs61926302| T  | C  | 0.61 | 0.08| 1.97E-15| | | |                          | -0.07| 0.08| .36  |
| Systolic blood pressure     | rs62039771| T  | G  | -0.19| 0.05| 6.62E-11| | | |                          | -0.05| 0.07| .50  |
| Systolic blood pressure     | rs62055084| T  | C  | 0.30 | 0.04| 5.94E-16| | | |                          | -0.07| 0.04| .07  |
| Systolic blood pressure     | rs62059712| T  | C  | 0.49 | 0.06| 9.88E-18| | | |                          | -0.19| 0.07| 8.74E-03|
| Systolic blood pressure     | rs62076103| A  | G  | -0.58| 0.06| 7.91E-22| | | |                          | -0.06| 0.06| .31  |
| Systolic blood pressure     | rs62248289| T  | C  | 0.28 | 0.04| 1.39E-10| | | |                          | 0.09 | 0.05| .06  |
| Systolic blood pressure     | rs62250937| T  | C  | 0.32 | 0.06| 7.28E-09| | | |                          | -0.03| 0.06| .58  |
| Systolic blood pressure     | rs62309773| T  | G  | -0.30| 0.05| 1.60E-09| | | |                          | -0.01| 0.04| .75  |
| Systolic blood pressure     | rs62309747| A  | G  | -0.22| 0.03| 1.59E-13| | | |                          | 0.00 | 0.03| .91  |
| Systolic blood pressure     | rs62385094| T  | C  | 0.44 | 0.06| 1.47E-13| | | |                          | 0.19 | 0.08| 2.30E-02|
| Systolic blood pressure     | rs62386748| T  | C  | -0.56| 0.09| 2.08E-10| | | |                          | 0.00 | 0.08| .99  |
| Systolic blood pressure     | rs62421489| A  | G  | 0.40 | 0.06| 8.34E-13| | | |                          | -0.01| 0.04| .75  |
| Systolic blood pressure     | rs62523863| A  | G  | 0.27 | 0.04| 2.87E-13| | | |                          | 0.01 | 0.04| .80  |
| Systolic blood pressure     | rs6438857 | T  | C  | 0.27 | 0.03| 3.13E-19| | | |                          | 0.01 | 0.03| .57  |
| Systolic blood pressure     | rs6452769 | A  | G  | -0.31| 0.04| 7.82E-17| | | |                          | 0.06 | 0.04| .13  |
| Systolic blood pressure     | rs6457622 | A  | C  | -0.32| 0.03| 1.54E-21| | | |                          | 0.08 | 0.03| 2.09E-03|
| Systolic blood pressure     | rs6466878 | T  | C  | 0.20 | 0.03| 1.54E-09| | | |                          | -0.08| 0.04| 3.23E-02|
| Systolic blood pressure     | rs6485809 | T  | C  | 0.38 | 0.04| 3.89E-25| | | |                          | -0.04| 0.03| .25  |
| Systolic blood pressure     | rs6490019 | A  | G  | -0.29| 0.03| 6.61E-21| | | |                          | -0.02| 0.03| .35  |
| Systolic blood pressure     | rs6497759 | A  | G  | -0.33| 0.04| 8.79E-18| | | |                          | -0.03| 0.03| .40  |
| Systolic blood pressure     | rs6534834 | A  | G  | 0.38 | 0.05| 8.00E-15| | | |                          | 0.00 | 0.04| .93  |
| Systolic blood pressure     | rs6540125 | T  | G  | 0.20 | 0.03| 1.21E-10| | | |                          | 0.03 | 0.04| .42  |
| Systolic blood pressure     | rs6567160 | T  | C  | 0.22 | 0.04| 3.33E-10| | | |                          | -0.05| 0.03| .08  |
| Systolic blood pressure     | rs6570530 | T  | C  | 0.22 | 0.03| 6.04E-13| | | |                          | 0.00 | 0.03| .91  |
| Systolic blood pressure     | rs658780  | T  | G  | -0.20| 0.03| 5.29E-09| | | |                          | 0.02 | 0.04| .57  |
| Systolic blood pressure     | rs6699416 | A  | G  | 0.24 | 0.04| 3.03E-09| | | |                          | 0.04 | 0.03| .20  |
### Supplementary Table 7. Continued

| Exposure                           | SNP      | EA | AA | Beta  | SE   | P Value  | Beta  | SE   | P Value |
|-----------------------------------|----------|----|----|-------|------|----------|-------|------|---------|
| Systolic blood pressure           | rs6723509| T  | C  | 0.25  | 0.04 | 7.61E-09 | 0.07  | 0.04 | 0.07    |
| Systolic blood pressure           | rs6734118| A  | C  | 0.32  | 0.04 | 1.42E-18 | 0.02  | 0.03 | 0.55    |
| Systolic blood pressure           | rs6742   | T  | C  | 0.27  | 0.04 | 3.48E-12 | 0.04  | 0.04 | 0.34    |
| Systolic blood pressure           | rs674249 | T  | G  | 0.19  | 0.03 | 2.71E-08 | 0.00  | 0.04 | 0.94    |
| Systolic blood pressure           | rs6771917| T  | C  | 0.38  | 0.04 | 1.39E-26 | 0.06  | 0.04 | 0.15    |
| Systolic blood pressure           | rs67720684| A  | C  | 0.07  | 0.04 | 3.85E-08 | 0.00  | 0.03 | 0.99    |
| Systolic blood pressure           | rs6785824| A  | C  | 0.30  | 0.04 | 3.81E-08 | 0.01  | 0.03 | 0.99    |
| Systolic blood pressure           | rs67885470| T  | C  | 0.19  | 0.03 | 2.71E-08 | 0.00  | 0.04 | 0.94    |
| Systolic blood pressure           | rs6806529| A  | C  | 0.18  | 0.03 | 3.00E-10 | 0.01  | 0.03 | 0.87    |
| Systolic blood pressure           | rs68085857| T  | C  | 0.27  | 0.04 | 1.68E-14 | 0.01  | 0.03 | 0.88    |
| Systolic blood pressure           | rs6817306| T  | C  | 0.24  | 0.04 | 1.39E-26 | 0.01  | 0.03 | 0.15    |
| Systolic blood pressure           | rs6823767| T  | C  | 0.21  | 0.04 | 7.34E-10 | 0.02  | 0.03 | 0.82    |
| Systolic blood pressure           | rs6870654| T  | C  | 0.21  | 0.04 | 3.76E-08 | 0.03  | 0.05 | 0.53    |
| Systolic blood pressure           | rs6884092| T  | C  | 0.28  | 0.05 | 3.76E-08 | 0.03  | 0.05 | 0.53    |
| Systolic blood pressure           | rs6895454| T  | C  | 0.33  | 0.06 | 9.94E-09 | 0.03  | 0.04 | 0.39    |
| Systolic blood pressure           | rs6905288| A  | G  | 0.19  | 0.03 | 1.09E-09 | 0.00  | 0.03 | 1.00    |
| Systolic blood pressure           | rs6921921| T  | C  | 0.36  | 0.04 | 1.58E-20 | 0.01  | 0.03 | 0.80    |
| Systolic blood pressure           | rs6959688| A  | G  | 0.17  | 0.03 | 2.15E-09 | 0.05  | 0.03 | 0.15    |
| Systolic blood pressure           | rs6995104| A  | G  | 0.37  | 0.03 | 5.59E-34 | 0.04  | 0.03 | 0.17    |
| Systolic blood pressure           | rs7002937| T  | G  | 0.23  | 0.04 | 2.97E-10 | 0.00  | 0.04 | 0.39    |
| Systolic blood pressure           | rs7023828| T  | C  | 0.26  | 0.03 | 2.17E-17 | 0.04  | 0.03 | 0.13    |
| Systolic blood pressure           | rs702395 | T  | C  | 0.23  | 0.03 | 3.24E-14 | 0.02  | 0.03 | 0.56    |
| Systolic blood pressure           | rs704    | A  | G  | 0.17  | 0.03 | 1.94E-08 | 0.04  | 0.03 | 0.15    |
| Systolic blood pressure           | rs708117 | A  | G  | 0.29  | 0.03 | 1.59E-21 | 0.08  | 0.03 | 1.15E-03|
| Systolic blood pressure           | rs7081435| T  | C  | 0.22  | 0.04 | 1.49E-09 | 0.03  | 0.03 | 0.39    |
| Systolic blood pressure           | rs7082671| A  | G  | 0.76  | 0.12 | 2.50E-10 | 0.09  | 0.08 | 0.29    |
| Systolic blood pressure           | rs7083475| A  | G  | 0.22  | 0.04 | 1.49E-08 | 0.00  | 0.04 | 0.96    |
| Systolic blood pressure           | rs709668 | A  | G  | 0.19  | 0.03 | 5.96E-15 | 0.01  | 0.04 | 0.71    |
| Systolic blood pressure           | rs7107356| A  | G  | 0.46  | 0.03 | 1.63E-52 | 0.01  | 0.03 | 0.80    |
| Systolic blood pressure           | rs7125196| T  | C  | 0.44  | 0.05 | 7.31E-21 | 0.10  | 0.05 | 4.42E-02|
| Systolic blood pressure           | rs7132088| T  | C  | 0.20  | 0.03 | 2.59E-10 | 0.02  | 0.04 | 0.52    |
| Systolic blood pressure           | rs7134677| T  | C  | 0.39  | 0.03 | 4.46E-31 | 0.05  | 0.04 | 0.18    |
| Systolic blood pressure           | rs7154723| A  | G  | 0.25  | 0.03 | 2.72E-16 | 0.02  | 0.03 | 0.35    |
| Systolic blood pressure           | rs7156903| T  | G  | 0.19  | 0.03 | 5.36E-10 | 0.04  | 0.03 | 0.18    |
| Systolic blood pressure           | rs7161281| A  | G  | 0.28  | 0.03 | 2.34E-17 | 0.01  | 0.03 | 0.76    |
| Systolic blood pressure           | rs71648448| A  | G  | 0.29  | 0.05 | 8.53E-10 | 0.09  | 0.04 | 3.71E-02|

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| Exposure                      | SNP   | EA   | AA   | Exposure | Beta  | SE    | P Value | Outcome | Beta  | SE    | P Value |
|------------------------------|-------|------|------|----------|-------|-------|---------|---------|-------|-------|---------|
| Systolic blood pressure      | rs7165200 | A    | G    | 0.20    | 0.03  | 2.87E-11 | -0.04 | 0.03  | .16   |
| Systolic blood pressure      | rs718448 | T    | C    | 0.21    | 0.03  | 2.43E-09 | -0.08 | 0.04  | 3.78E-02 |
| Systolic blood pressure      | rs7186298 | T    | C    | -0.23   | 0.03  | 1.88E-14 | -0.04 | 0.03  | .16   |
| Systolic blood pressure      | rs7187540 | A    | C    | -0.20   | 0.03  | 1.02E-08 | 0.03  | 0.04  | .42   |
| Systolic blood pressure      | rs7213273 | A    | G    | -0.40   | 0.03  | 6.24E-37 | 0.04  | 0.03  | .29   |
| Systolic blood pressure      | rs7218351 | A    | G    | 0.22    | 0.03  | 1.34E-11 | 0.03  | 0.04  | .43   |
| Systolic blood pressure      | rs7246865 | A    | G    | 0.28    | 0.03  | 1.05E-15 | -0.02 | 0.04  | .67   |
| Systolic blood pressure      | rs7250497 | A    | G    | 0.20    | 0.03  | 1.16E-10 | -0.03 | 0.03  | .31   |
| Systolic blood pressure      | rs7255933 | A    | G    | 0.23    | 0.03  | 2.44E-11 | -0.01 | 0.03  | .80   |
| Systolic blood pressure      | rs72632819 | T    | G    | 0.19    | 0.03  | 2.40E-08 | -0.04 | 0.03  | .19   |
| Systolic blood pressure      | rs72688070 | T    | C    | -0.27   | 0.04  | 2.82E-11 | -0.03 | 0.03  | .31   |
| Systolic blood pressure      | rs7270523 | T    | C    | 0.34    | 0.05  | 2.65E-13 | -0.06 | 0.04  | .09   |
| Systolic blood pressure      | rs72741390 | T    | C    | -0.21   | 0.03  | 1.87E-09 | -0.02 | 0.04  | .62   |
| Systolic blood pressure      | rs72786098 | A    | G    | -0.50   | 0.09  | 1.18E-08 | 0.07  | 0.08  | .43   |
| Systolic blood pressure      | rs72827805 | T    | C    | 0.44    | 0.05  | 9.68E-19 | 0.01  | 0.04  | .79   |
| Systolic blood pressure      | rs72834453 | T    | G    | -0.32   | 0.05  | 2.95E-12 | 0.02  | 0.05  | .67   |
| Systolic blood pressure      | rs72842207 | T    | C    | -0.20   | 0.04  | 3.14E-08 | -0.01 | 0.03  | .67   |
| Systolic blood pressure      | rs72847885 | A    | G    | 0.24    | 0.03  | 3.08E-14 | -0.03 | 0.03  | .21   |
| Systolic blood pressure      | rs72915331 | T    | G    | -0.25   | 0.05  | 3.93E-08 | 0.11  | 0.04  | 8.92E-03 |
| Systolic blood pressure      | rs72923992 | A    | G    | 0.41    | 0.07  | 1.61E-08 | -0.01 | 0.07  | .89   |
| Systolic blood pressure      | rs72931748 | A    | G    | 0.40    | 0.05  | 6.40E-14 | -0.01 | 0.06  | .92   |
| Systolic blood pressure      | rs73005719 | T    | C    | -0.42   | 0.07  | 3.62E-09 | -0.04 | 0.07  | .54   |
| Systolic blood pressure      | rs73049928 | A    | G    | -0.24   | 0.04  | 1.20E-09 | 0.04  | 0.05  | .43   |
| Systolic blood pressure      | rs7306710 | T    | C    | -0.24   | 0.03  | 1.03E-15 | 0.05  | 0.03  | .10   |
| Systolic blood pressure      | rs73075659 | A    | G    | 0.40    | 0.03  | 5.52E-35 | -0.04 | 0.04  | .30   |
| Systolic blood pressure      | rs73088122 | T    | C    | -0.26   | 0.04  | 4.83E-09 | -0.03 | 0.04  | .46   |
| Systolic blood pressure      | rs73119684 | A    | C    | -0.21   | 0.04  | 2.58E-08 | -0.02 | 0.04  | .68   |
| Systolic blood pressure      | rs73164066 | T    | C    | -0.22   | 0.03  | 3.18E-11 | -0.02 | 0.04  | .61   |
| Systolic blood pressure      | rs73171158 | T    | C    | -0.18   | 0.03  | 3.51E-08 | -0.05 | 0.04  | .18   |
| Systolic blood pressure      | rs73187288 | A    | C    | -0.28   | 0.05  | 1.04E-08 | -0.08 | 0.04  | .06   |
| Systolic blood pressure      | rs73201163 | T    | C    | -0.27   | 0.05  | 3.44E-09 | -0.01 | 0.05  | .82   |
| Systolic blood pressure      | rs7331680 | T    | G    | 0.41    | 0.04  | 3.35E-22 | -0.02 | 0.03  | .62   |
| Systolic blood pressure      | rs733329 | T    | C    | 0.30    | 0.05  | 3.09E-11 | -0.01 | 0.05  | .79   |
| Systolic blood pressure      | rs7340705 | T    | C    | -0.24   | 0.03  | 4.87E-14 | 0.01  | 0.03  | .73   |
| Systolic blood pressure      | rs73683180 | A    | G    | -0.35   | 0.05  | 2.02E-11 | 0.00  | 0.05  | .94   |
| Systolic blood pressure      | rs7377083 | A    | C    | -0.19   | 0.03  | 7.67E-10 | 0.03  | 0.03  | .41   |
| Systolic blood pressure      | rs73815678 | T    | C    | -0.47   | 0.07  | 8.42E-12 | -0.02 | 0.06  | .69   |
| Systolic blood pressure      | rs7386288 | T    | C    | -0.29   | 0.04  | 3.56E-16 | 0.03  | 0.04  | .35   |
| Systolic blood pressure      | rs7394746 | T    | C    | 0.23    | 0.03  | 9.08E-14 | -0.02 | 0.03  | .45   |
### Supplementary Table 7. Continued

| Exposure                  | SNP          | EA  | AA  | Beta  | SE   | P Value   | Beta  | SE   | P Value   |
|---------------------------|--------------|-----|-----|-------|------|-----------|-------|------|-----------|
| Systolic blood pressure   | rs74026308   | T   | G   | 0.24  | 0.04 | 3.28E-09  | -0.03 | 0.03 | .35       |
| Systolic blood pressure   | rs74048200   | A   | G   | -0.42 | 0.06 | 1.90E-13  | 0.03  | 0.06 | .67       |
| Systolic blood pressure   | rs7406973    | A   | G   | -0.20 | 0.03 | 4.14E-09  | -0.02 | 0.03 | .60       |
| Systolic blood pressure   | rs741066     | T   | C   | 0.22  | 0.03 | 2.29E-11  | -0.02 | 0.04 | .64       |
| Systolic blood pressure   | rs7412       | T   | C   | -0.43 | 0.06 | 4.04E-14  | 0.02  | 0.05 | .69       |
| Systolic blood pressure   | rs74179970   | A   | G   | 0.41  | 0.06 | 6.83E-13  | -0.01 | 0.05 | .88       |
| Systolic blood pressure   | rs743241     | A   | G   | 0.20  | 0.03 | 1.74E-11  | 0.01  | 0.03 | .84       |
| Systolic blood pressure   | rs74439044   | T   | C   | -0.42 | 0.06 | 1.90E-13  | 0.05  | 0.03 | .16       |
| Systolic blood pressure   | rs74501188   | A   | G   | 0.20  | 0.04 | 3.00E-09  | 0.05  | 0.03 | .67       |
| Systolic blood pressure   | rs7460241    | A   | G   | -0.43 | 0.07 | 1.34E-08  | 0.01  | 0.05 | .83       |
| Systolic blood pressure   | rs7492209    | T   | C   | -0.17 | 0.03 | 3.38E-08  | 0.05  | 0.03 | .13       |
| Systolic blood pressure   | rs74923473   | T   | C   | 0.27  | 0.05 | 6.78E-09  | 0.00  | 0.04 | .97       |
| Systolic blood pressure   | rs7492649    | A   | G   | 0.78  | 0.12 | 1.64E-10  | -0.08 | 0.09 | .38       |
| Systolic blood pressure   | rs7500448    | A   | G   | 0.22  | 0.04 | 1.98E-10  | 0.00  | 0.04 | .92       |
| Systolic blood pressure   | rs7514579    | A   | C   | 0.22  | 0.04 | 5.45E-10  | 0.02  | 0.04 | .58       |
| Systolic blood pressure   | rs7532754    | T   | C   | 0.19  | 0.03 | 1.12E-09  | -0.01 | 0.03 | .69       |
| Systolic blood pressure   | rs75345455   | T   | C   | -0.49 | 0.07 | 3.26E-11  | -0.09 | 0.08 | .28       |
| Systolic blood pressure   | rs75497489   | T   | C   | 0.24  | 0.04 | 1.00E-09  | 0.06  | 0.04 | .09       |
| Systolic blood pressure   | rs75511781   | A   | G   | -0.59 | 0.08 | 7.13E-13  | -0.05 | 0.08 | .57       |
| Systolic blood pressure   | rs75559245   | A   | G   | 0.31  | 0.05 | 3.69E-09  | 0.02  | 0.05 | .63       |
| Systolic blood pressure   | rs7562       | T   | C   | 0.23  | 0.03 | 3.26E-14  | -0.02 | 0.03 | .58       |
| Systolic blood pressure   | rs7578940    | T   | G   | 0.18  | 0.03 | 1.10E-09  | -0.04 | 0.03 | .11       |
| Systolic blood pressure   | rs75906312   | A   | G   | -0.29 | 0.05 | 4.66E-08  | -0.10 | 0.07 | .17       |
| Systolic blood pressure   | rs75961402   | A   | G   | 0.27  | 0.04 | 1.95E-10  | 0.02  | 0.04 | .52       |
| Systolic blood pressure   | rs7600439    | A   | G   | -0.18 | 0.03 | 1.19E-09  | -0.04 | 0.03 | .19       |
| Systolic blood pressure   | rs7606205    | A   | C   | -0.18 | 0.03 | 3.06E-08  | -0.01 | 0.04 | .79       |
| Systolic blood pressure   | rs7615099    | A   | G   | 0.19  | 0.03 | 3.90E-09  | -0.06 | 0.04 | .10       |
| Systolic blood pressure   | rs7630377    | T   | C   | 0.17  | 0.03 | 7.30E-09  | -0.02 | 0.03 | .42       |
| Systolic blood pressure   | rs76452347   | T   | C   | -0.30 | 0.04 | 7.13E-14  | -0.04 | 0.04 | .39       |
| Systolic blood pressure   | rs7665985    | T   | C   | 0.18  | 0.03 | 1.35E-08  | -0.01 | 0.03 | .79       |
| Systolic blood pressure   | rs76719272   | T   | C   | -0.27 | 0.05 | 2.97E-09  | 0.11  | 0.06 | .07       |
| Systolic blood pressure   | rs767717     | T   | C   | 0.22  | 0.03 | 1.92E-12  | -0.02 | 0.03 | .47       |
| Systolic blood pressure   | rs7683728    | T   | C   | -0.37 | 0.03 | 2.43E-33  | 0.04  | 0.03 | .23       |
| Systolic blood pressure   | rs77151571   | T   | C   | 0.57  | 0.09 | 1.24E-10  | -0.02 | 0.08 | .85       |
| Systolic blood pressure   | rs7725413    | T   | C   | -0.20 | 0.04 | 3.07E-08  | -0.02 | 0.04 | .59       |
| Systolic blood pressure   | rs77307969   | T   | C   | 0.58  | 0.10 | 2.28E-09  | 0.14  | 0.09 | .10       |
| Systolic blood pressure   | rs77402945   | T   | C   | -0.24 | 0.04 | 2.25E-08  | -0.05 | 0.04 | .15       |
| Exposure                | SNP     | EA | AA | Beta  | SE   | P Value | Beta  | SE   | P Value |
|------------------------|---------|----|----|-------|------|---------|-------|------|---------|
| Systolic blood pressure| rs7751856| A  | C  | 0.20  | 0.03 | 1.68E-09| -0.05 | 0.03 | 4.14E-02|
| Systolic blood pressure| rs77594100| A  | C  | -0.51 | 0.09 | 1.47E-08| -0.04 | 0.08 | .62     |
| Systolic blood pressure| rs7765526| A  | G  | 0.20  | 0.03 | 5.88E-11| 0.03  | 0.03 | .36     |
| Systolic blood pressure| rs7772884| T  | C  | 0.17  | 0.03 | 2.24E-08| -0.03 | 0.03 | .19     |
| Systolic blood pressure| rs778124 | A  | G  | 0.30  | 0.03 | 1.45E-21| 0.02  | 0.03 | .36     |
| Systolic blood pressure| rs77924615| A  | G  | -0.41 | 0.04 | 1.12E-25| -0.03 | 0.04 | .45     |
| Systolic blood pressure| rs78109339| T  | C  | 0.51  | 0.09 | 2.84E-08| -0.10 | 0.07 | .19     |
| Systolic blood pressure| rs78426429| A  | G  | 0.27  | 0.05 | 1.15E-08| 0.00  | 0.06 | .97     |
| Systolic blood pressure| rs78474310| A  | G  | -0.47 | 0.07 | 1.51E-10| 0.06  | 0.07 | .44     |
| Systolic blood pressure| rs78550103| A  | G  | -0.28 | 0.04 | 4.45E-11| -0.03 | 0.04 | .35     |
| Systolic blood pressure| rs78638044| T  | C  | 0.51  | 0.09 | 2.83E-23| -0.03 | 0.03 | .35     |
| Systolic blood pressure| rs7866923 | T  | C  | -0.31 | 0.03 | 4.25E-08| 0.06  | 0.03 | .06     |
| Systolic blood pressure| rs78648104| T  | C  | -0.43 | 0.05 | 2.37E-15| 0.05  | 0.06 | .43     |
| Systolic blood pressure| rs79033729| T  | C  | 0.58  | 0.08 | 3.14E-12| -0.14 | 0.08 | .08     |
| Systolic blood pressure| rs79092282| T  | C  | -0.26 | 0.05 | 4.02E-09| -0.06 | 0.04 | .12     |
| Systolic blood pressure| rs79119657| A  | G  | -0.23 | 0.04 | 2.29E-09| -0.06 | 0.04 | .15     |
| Systolic blood pressure| rs79149713| A  | C  | -0.20 | 0.04 | 2.54E-08| 0.01  | 0.05 | .82     |
| Systolic blood pressure| rs79177297| T  | G  | 0.34  | 0.06 | 9.61E-09| -0.01 | 0.05 | .91     |
| Systolic blood pressure| rs79208229| T  | G  | 0.38  | 0.06 | 1.99E-11| 0.02  | 0.07 | .75     |
| Systolic blood pressure| rs7923191| A  | G  | -0.37 | 0.04 | 1.10E-22| 0.02  | 0.04 | .65     |
| Systolic blood pressure| rs7925678 | A  | G  | -0.19 | 0.03 | 2.74E-08| 0.01  | 0.03 | .61     |
| Systolic blood pressure| rs7926335 | T  | C  | 0.31  | 0.03 | 2.52E-20| 0.02  | 0.03 | .50     |
| Systolic blood pressure| rs7927515 | A  | C  | 0.23  | 0.03 | 1.05E-12| -0.05 | 0.03 | .17     |
| Systolic blood pressure| rs79682447| A  | G  | 0.50  | 0.08 | 6.02E-10| -0.08 | 0.06 | .20     |
| Systolic blood pressure| rs7976167 | T  | C  | 0.18  | 0.03 | 3.81E-08| 0.09  | 0.03 | 1.00E-02|
| Systolic blood pressure| rs79932633| A  | C  | -0.27 | 0.05 | 3.10E-08| -0.03 | 0.06 | .65     |
| Systolic blood pressure| rs8003103 | A  | G  | -0.18 | 0.03 | 3.60E-08| -0.02 | 0.03 | .46     |
| Systolic blood pressure| rs80045342| A  | G  | -0.33 | 0.06 | 2.12E-08| 0.06  | 0.06 | .30     |
| Systolic blood pressure| rs8014182 | T  | C  | -0.33 | 0.04 | 5.23E-14| -0.01 | 0.04 | .83     |
| Systolic blood pressure| rs8065350 | A  | G  | 0.22  | 0.04 | 2.89E-09| 0.03  | 0.04 | .44     |
| Systolic blood pressure| rs8077276 | A  | G  | -0.29 | 0.03 | 5.15E-21| 0.03  | 0.03 | .32     |
| Systolic blood pressure| rs8142376 | T  | C  | 0.17  | 0.03 | 2.20E-08| -0.01 | 0.03 | .67     |
| Systolic blood pressure| rs848309  | T  | C  | -0.25 | 0.03 | 5.98E-16| 0.01  | 0.03 | .68     |
| Systolic blood pressure| rs848445  | T  | C  | -0.20 | 0.03 | 2.28E-09| -0.01 | 0.03 | .76     |
| Systolic blood pressure| rs849138  | A  | G  | -0.19 | 0.03 | 3.99E-10| -0.02 | 0.03 | .52     |
| Systolic blood pressure| rs851966  | A  | G  | -0.18 | 0.03 | 7.02E-09| 0.02  | 0.03 | .50     |
| Systolic blood pressure| rs863930  | T  | G  | -0.19 | 0.03 | 3.98E-10| -0.03 | 0.03 | .31     |
| Exposure                      | SNP     | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|-------------------------------|---------|----|----|-------|-----|---------|-------|-----|---------|
| Systolic blood pressure       | rs869396| A  | C  | -0.21 | 0.03| 4.12E-12| -0.03 | 0.03| .33     |
| Systolic blood pressure       | rs871004| A  | G  | 0.23  | 0.03| 1.65E-13| -0.01 | 0.03| .83     |
| Systolic blood pressure       | rs879619| A  | G  | -0.30 | 0.04| 1.82E-11| -0.03 | 0.04| .51     |
| Systolic blood pressure       | rs908951| T  | C  | -0.23 | 0.03| 7.14E-13| -0.03 | 0.03| .30     |
| Systolic blood pressure       | rs911547| A  | G  | -0.31 | 0.04| 7.76E-13| -0.05 | 0.03| .15     |
| Systolic blood pressure       | rs9257594| T  | C  | 0.22  | 0.04| 1.93E-08| 0.05  | 0.03| .07     |
| Systolic blood pressure       | rs9294987| T  | C  | -0.19 | 0.03| 6.25E-10| 0.05  | 0.03| .10     |
| Systolic blood pressure       | rs9298280| T  | G  | -0.22 | 0.03| 4.51E-11| -0.02 | 0.04| .67     |
| Systolic blood pressure       | rs9311344| A  | G  | 0.23  | 0.04| 7.52E-09| 0.04  | 0.03| .25     |
| Systolic blood pressure       | rs9349379| A  | G  | 0.30  | 0.04| 1.82E-11| 0.02  | 0.03| .40     |
| Systolic blood pressure       | rs9394578| A  | G  | -0.23 | 0.04| 7.14E-13| 0.02  | 0.03| .51     |
| Systolic blood pressure       | rs9401913| A  | G  | 0.23  | 0.04| 1.65E-11| 0.04  | 0.03| .25     |
| Systolic blood pressure       | rs9508495| T  | C  | 0.30  | 0.04| 1.82E-11| 0.03  | 0.03| .40     |
| Systolic blood pressure       | rs952160| T  | C  | -0.18 | 0.03| 9.49E-09| -0.01 | 0.03| .75     |
| Systolic blood pressure       | rs9526707| A  | C  | -0.20 | 0.03| 2.77E-10| -0.04 | 0.03| .18     |
| Systolic blood pressure       | rs9532243| A  | C  | 0.22  | 0.03| 8.17E-14| -0.03 | 0.03| .40     |
| C-reactive protein            | rs10027182| G  | A  | 0.01  | 0.00| 2.20E-08| 0.02  | 0.04| .63     |
| C-reactive protein            | rs10083137| A  | G  | 0.05  | 0.01| 5.20E-20| -0.02 | 0.06| .79     |
| C-reactive protein            | rs10095930| C  | T  | -0.03 | 0.00| 1.90E-38| -0.03 | 0.04| .47     |
| C-reactive protein            | rs10106298| G  | A  | -0.01 | 0.00| 7.20E-12| -0.02 | 0.03| .49     |
| C-reactive protein            | rs1045075| G  | A  | -0.01 | 0.00| 1.30E-08| -0.01 | 0.03| .76     |
### Supplementary Table 7. Continued

| Exposure                  | SNP         | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|---------------------------|-------------|----|----|------|-----|---------|------|-----|---------|
| C-reactive protein        | rs10453441  | A  | G  | -0.01| 0.00| 4.10E-08| -0.05| 0.03| .12     |
| C-reactive protein        | rs10485179  | C  | T  | 0.02 | 0.00| 5.90E-13| 0.02 | 0.03| .52     |
| C-reactive protein        | rs1052067   | G  | A  | 0.02 | 0.00| 1.50E-11| 0.04 | 0.03| .22     |
| C-reactive protein        | rs1053005   | T  | C  | 0.02 | 0.00| 1.10E-09| 0.04 | 0.04| .32     |
| C-reactive protein        | rs10750766  | C  | A  | -0.01| 0.00| 6.00E-10| 0.02 | 0.03| .57     |
| C-reactive protein        | rs10752652  | T  | C  | -0.02| 0.00| 1.70E-18| -0.06| 0.03| 4.82E-02|
| C-reactive protein        | rs10760691  | A  | G  | -0.02| 0.00| 4.10E-14| 0.00 | 0.03| .99     |
| C-reactive protein        | rs10802505  | A  | G  | -0.02| 0.00| 1.10E-19| -0.01| 0.04| .76     |
| C-reactive protein        | rs10806385  | A  | G  | 0.01 | 0.00| 4.70E-09| -0.02| 0.03| .54     |
| C-reactive protein        | rs10864086  | C  | A  | 0.02 | 0.00| 4.90E-13| -0.03| 0.04| .40     |
| C-reactive protein        | rs10880872  | T  | C  | -0.01| 0.00| 1.50E-08| -0.01| 0.03| .72     |
| C-reactive protein        | rs10908428  | C  | T  | 0.01 | 0.00| 5.80E-09| 0.00 | 0.03| .90     |
| C-reactive protein        | rs10924372  | C  | T  | 0.01 | 0.00| 6.00E-12| -0.04| 0.03| .21     |
| C-reactive protein        | rs10932420  | C  | T  | -0.02| 0.00| 1.70E-09| 0.00 | 0.03| .89     |
| C-reactive protein        | rs10957159  | G  | A  | 0.02 | 0.00| 2.50E-08| 0.05 | 0.04| .23     |
| C-reactive protein        | rs10990760  | G  | A  | -0.01| 0.00| 5.20E-13| 0.05 | 0.03| 4.27E-02|
| C-reactive protein        | rs11012732  | A  | G  | -0.01| 0.00| 1.20E-09| -0.03| 0.03| .28     |
| C-reactive protein        | rs11047139  | C  | T  | -0.01| 0.00| 1.40E-10| 0.02 | 0.03| .46     |
| C-reactive protein        | rs11065026  | C  | T  | 0.04 | 0.00| 4.90E-25| 0.00 | 0.07| .98     |
| C-reactive protein        | rs11065390  | G  | A  | -0.06| 0.01| 8.00E-17| 0.03 | 0.07| .71     |
| C-reactive protein        | rs11065422  | G  | A  | 0.04 | 0.00| 5.10E-65| -0.06| 0.04| .08     |
| C-reactive protein        | rs11078597  | T  | C  | 0.02 | 0.00| 4.20E-13| 0.06 | 0.03| .06     |
| C-reactive protein        | rs11124710  | C  | T  | -0.06| 0.01| 1.90E-27| 0.04 | 0.08| .63     |
| C-reactive protein        | rs111313184 | A  | G  | -0.03| 0.00| 2.30E-29| 0.03 | 0.05| .47     |
| C-reactive protein        | rs111363146 | T  | C  | -0.02| 0.00| 9.70E-09| -0.06| 0.04| .13     |
| C-reactive protein        | rs11158975  | C  | A  | -0.01| 0.00| 2.20E-10| 0.03 | 0.04| .45     |
| C-reactive protein        | rs112001928 | A  | G  | -0.04| 0.01| 7.20E-10| -0.01| 0.08| .86     |
| C-reactive protein        | rs11203006  | A  | G  | -0.02| 0.00| 1.50E-08| 0.00 | 0.04| .97     |
| C-reactive protein        | rs11210869  | A  | G  | 0.01 | 0.00| 1.10E-12| 0.07 | 0.03| 1.08E-02|
| C-reactive protein        | rs11222703  | C  | T  | -0.01| 0.00| 3.50E-08| -0.04| 0.03| .21     |
| C-reactive protein        | rs11231161  | A  | G  | 0.01 | 0.00| 3.60E-09| -0.06| 0.03| 3.91E-02|
| C-reactive protein        | rs112585178 | G  | T  | 0.06 | 0.01| 1.70E-29| -0.03| 0.10| .74     |
| C-reactive protein        | rs112695172 | G  | A  | -0.07| 0.01| 1.70E-22| 0.01 | 0.09| .89     |
| C-reactive protein        | rs112750178 | T  | C  | -0.01| 0.00| 2.20E-09| 0.03 | 0.04| .47     |
| C-reactive protein        | rs112819557 | T  | C  | 0.07 | 0.01| 7.20E-30| -0.02| 0.07| .79     |
| C-reactive protein        | rs112843476 | G  | A  | 0.03 | 0.00| 4.40E-10| 0.06 | 0.06| .32     |
| C-reactive protein        | rs112873424 | T  | C  | 0.05 | 0.01| 9.80E-15| 0.00 | 0.08| .99     |
| C-reactive protein        | rs113004644 | C  | T  | -0.02| 0.00| 7.40E-09| 0.08 | 0.05| .13     |
### Supplementary Table 7. Continued

| Exposure          | SNP       | EA | AA | Exposure Beta | SE  | P Value | Outcome Beta | SE  | P Value |
|-------------------|-----------|----|----|---------------|-----|---------|--------------|-----|---------|
| C-reactive protein | rs113638533 | C  | T  | -0.03         | 0.00| 1.10E-11| 0.04          | 0.06| .46     |
| C-reactive protein | rs113720253 | A  | G  | -0.03         | 0.00| 3.10E-41| -0.04         | 0.03| .19     |
| C-reactive protein | rs114294368 | C  | T  | -0.04         | 0.01| 1.20E-10| -0.01         | 0.08| .95     |
| C-reactive protein | rs114943742 | T  | C  | 0.06          | 0.01| 3.20E-18| 0.06          | 0.09| .55     |
| C-reactive protein | rs114947103 | T  | C  | -0.02         | 0.00| 6.00E-09| -0.04         | 0.03| .27     |
| C-reactive protein | rs115023714 | G  | A  | 0.03          | 0.01| 4.50E-08| 0.09          | 0.08| .27     |
| C-reactive protein | rs115106760 | G  | A  | 0.05          | 0.01| 1.60E-13| 0.10          | 0.10| .32     |
| C-reactive protein | rs11568828  | T  | C  | -0.02         | 0.00| 5.90E-09| -0.05         | 0.06| .38     |
| C-reactive protein | rs11577023  | T  | C  | 0.02          | 0.00| 2.30E-13| -0.03         | 0.04| .35     |
| C-reactive protein | rs11582273  | C  | T  | -0.02         | 0.00| 3.70E-13| -0.07         | 0.04| .08     |
| C-reactive protein | rs116059394 | A  | G  | -0.05         | 0.00| 3.60E-27| -0.05         | 0.09| .54     |
| C-reactive protein | rs11611673  | A  | G  | 0.09          | 0.01| 8.50E-43| 0.03          | 0.08| .66     |
| C-reactive protein | rs116141616 | G  | A  | -0.03         | 0.01| 1.30E-08| -0.01         | 0.08| .89     |
| C-reactive protein | rs116248193 | A  | G  | -0.05         | 0.01| 1.60E-16| 0.07          | 0.07| .30     |
| C-reactive protein | rs11648261  | A  | G  | -0.01         | 0.00| 6.10E-09| -0.01         | 0.03| .75     |
| C-reactive protein | rs116493147 | C  | A  | -0.05         | 0.01| 1.70E-14| -0.06         | 0.07| .41     |
| C-reactive protein | rs11667640  | C  | T  | -0.05         | 0.00| 5.70E-28| 0.02          | 0.05| .71     |
| C-reactive protein | rs116702045 | G  | A  | 0.13          | 0.01| 6.90E-134| -0.11         | 0.10| .29     |
| C-reactive protein | rs11672020  | A  | G  | 0.02          | 0.00| 2.30E-13| -0.01         | 0.03| .84     |
| C-reactive protein | rs11682186  | C  | T  | -0.01         | 0.00| 8.20E-09| 0.03          | 0.03| .38     |
| C-reactive protein | rs11693537  | G  | A  | -0.01         | 0.00| 3.00E-12| 0.04          | 0.03| .12     |
| C-reactive protein | rs11693697  | T  | C  | 0.02          | 0.00| 1.80E-08| -0.02         | 0.05| .64     |
| C-reactive protein | rs116971887 | G  | T  | 0.12          | 0.00| 1.70E-121| -0.03         | 0.08| .66     |
| C-reactive protein | rs11708067  | A  | G  | -0.01         | 0.00| 1.80E-09| 0.02          | 0.03| .55     |
| C-reactive protein | rs11777625  | T  | C  | -0.02         | 0.00| 5.80E-24| 0.00          | 0.03| .99     |
| C-reactive protein | rs117803005 | A  | G  | 0.05          | 0.01| 4.10E-10| -0.03         | 0.08| .69     |
| C-reactive protein | rs117976328 | G  | A  | 0.07          | 0.01| 5.60E-33| -0.08         | 0.08| .26     |
| C-reactive protein | rs11813176  | A  | G  | -0.02         | 0.00| 6.90E-09| -0.05         | 0.03| .14     |
| C-reactive protein | rs1186055   | C  | A  | 0.01          | 0.00| 1.80E-10| 0.03          | 0.04| .50     |
| C-reactive protein | rs11881756  | T  | C  | -0.03         | 0.00| 3.50E-28| 0.02          | 0.06| .73     |
| C-reactive protein | rs12054057  | G  | A  | -0.02         | 0.00| 4.80E-08| -0.01         | 0.04| .87     |
| C-reactive protein | rs12059682  | T  | C  | -0.05         | 0.00| 4.50E-75| -0.02         | 0.03| .48     |
| C-reactive protein | rs12083537  | A  | G  | 0.06          | 0.00| 2.00E-147| 0.02         | 0.03| .60     |
| C-reactive protein | rs12114452  | T  | C  | -0.02         | 0.00| 1.60E-08| -0.03         | 0.05| .61     |
| C-reactive protein | rs12138486  | C  | T  | -0.02         | 0.00| 2.60E-12| 0.02          | 0.04| .69     |
| C-reactive protein | rs12140107  | A  | G  | 0.04          | 0.00| 4.20E-42| 0.02          | 0.05| .77     |
| C-reactive protein | rs12141189  | T  | C  | 0.02          | 0.00| 5.50E-21| -0.06         | 0.03| .06     |
| C-reactive protein | rs1222925   | C  | T  | -0.01         | 0.00| 3.40E-09| -0.05         | 0.04| .21     |
| C-reactive protein | rs12406117  | G  | A  | -0.01         | 0.00| 8.10E-09| 0.00          | 0.03| .91     |
| Exposure                      | SNP           | EA  | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|-------------------------------|---------------|-----|----|-------|-----|---------|-------|-----|---------|
| C-reactive protein            | rs12443906    | C   | T  | 0.01  | 0.00| 3.10E-09| 0.04  | 0.04| .27     |
| C-reactive protein            | rs12448756    | A   | G  | 0.02  | 0.00| 1.90E-20| 0.01  | 0.04| .67     |
| C-reactive protein            | rs12516176    | T   | C  | -0.02 | 0.00| 3.00E-11| 0.01  | 0.04| .80     |
| C-reactive protein            | rs12605081    | A   | G  | -0.01 | 0.00| 6.40E-09| -0.01 | 0.03| .83     |
| C-reactive protein            | rs1264368     | G   | A  | -0.02 | 0.00| 3.50E-13| -0.01 | 0.03| .82     |
| C-reactive protein            | rs12726645    | G   | A  | -0.02 | 0.00| 9.00E-11| -0.02 | 0.03| .49     |
| C-reactive protein            | rs1290898     | G   | A  | -0.02 | 0.00| 2.40E-08| 0.06  | 0.07| .37     |
| C-reactive protein            | rs1292067     | G   | T  | 0.02  | 0.00| 1.00E-24| 0.03  | 0.03| .45     |
| C-reactive protein            | rs12966114    | T   | G  | 0.01  | 0.00| 2.10E-09| 0.02  | 0.04| .50     |
| C-reactive protein            | rs12993460    | A   | C  | -0.01 | 0.00| 2.40E-11| 0.04  | 0.03| .20     |
| C-reactive protein            | rs13058527    | G   | A  | 0.01  | 0.00| 6.30E-11| 0.04  | 0.04| .27     |
| C-reactive protein            | rs13062093    | T   | G  | -0.01 | 0.00| 1.40E-08| -0.03 | 0.03| .20     |
| C-reactive protein            | rs13066686    | C   | A  | 0.01  | 0.00| 1.60E-11| -0.01 | 0.03| .84     |
| C-reactive protein            | rs13081778    | A   | G  | -0.01 | 0.00| 1.90E-12| 0.04  | 0.04| .30     |
| C-reactive protein            | rs13106834    | A   | G  | 0.01  | 0.00| 1.20E-10| -0.01 | 0.03| .69     |
| C-reactive protein            | rs13279694    | A   | G  | 0.03  | 0.00| 3.70E-09| -0.02 | 0.08| .96     |
| C-reactive protein            | rs13336129    | T   | C  | 0.03  | 0.00| 2.20E-11| 0.00  | 0.08| .94     |
| C-reactive protein            | rs1351787     | G   | A  | 0.02  | 0.00| 3.60E-09| -0.02 | 0.04| .50     |
| C-reactive protein            | rs1362489     | T   | C  | 0.01  | 0.00| 1.70E-09| 0.00  | 0.03| .94     |
| C-reactive protein            | rs1371614     | C   | T  | 0.03  | 0.00| 2.60E-29| 0.01  | 0.03| .74     |
| C-reactive protein            | rs138692741   | C   | T  | 0.04  | 0.01| 7.20E-13| 0.01  | 0.09| .93     |
| C-reactive protein            | rs1391789     | G   | A  | -0.02 | 0.00| 3.80E-15| 0.03  | 0.03| .37     |
| C-reactive protein            | rs140502640   | C   | T  | -0.03 | 0.00| 2.30E-08| 0.01  | 0.07| .91     |
| C-reactive protein            | rs141106010   | C   | T  | -0.07 | 0.01| 7.50E-40| 0.07  | 0.09| .43     |
| C-reactive protein            | rs1412444     | C   | T  | -0.03 | 0.00| 1.10E-35| 0.00  | 0.03| .99     |
| C-reactive protein            | rs143786651   | C   | T  | 0.04  | 0.00| 1.30E-20| -0.01 | 0.07| .93     |
| C-reactive protein            | rs1441043     | A   | G  | -0.01 | 0.00| 6.00E-10| 0.05  | 0.04| .18     |
| C-reactive protein            | rs145280738   | C   | T  | -0.07 | 0.00| 7.70E-53| 0.12  | 0.09| .17     |
| C-reactive protein            | rs146470402   | C   | T  | 0.04  | 0.00| 9.00E-19| 0.02  | 0.10| .84     |
| C-reactive protein            | rs1465338     | C   | T  | 0.04  | 0.00| 2.10E-79| 0.02  | 0.03| .55     |
| C-reactive protein            | rs147830103   | G   | A  | -0.04 | 0.01| 5.60E-10| 0.02  | 0.09| .87     |
| C-reactive protein            | rs148023052   | G   | A  | -0.03 | 0.00| 2.20E-19| -0.04 | 0.05| .43     |
| C-reactive protein            | rs148692790   | C   | T  | -0.11 | 0.01| 5.00E-63| 0.03  | 0.11| .80     |
| C-reactive protein            | rs1492914     | T   | C  | -0.01 | 0.00| 3.50E-10| -0.04 | 0.04| .37     |
| C-reactive protein            | rs1495017     | A   | C  | 0.01  | 0.00| 6.70E-09| 0.03  | 0.04| .45     |
| C-reactive protein            | rs1495745     | T   | G  | 0.01  | 0.00| 9.00E-12| -0.04 | 0.03| .14     |
| C-reactive protein            | rs149667424   | C   | T  | -0.03 | 0.00| 1.30E-09| 0.03  | 0.06| .62     |
| C-reactive protein            | rs150194856   | C   | T  | -0.04 | 0.01| 1.30E-14| -0.07 | 0.07| .33     |
| C-reactive protein            | rs150832462   | C   | T  | 0.03  | 0.00| 3.00E-08| -0.09 | 0.06| .13     |
**Supplementary Table 7.** Continued

| Exposure          | SNP          | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|-------------------|--------------|----|----|------|-----|---------|------|-----|---------|
| C-reactive protein | rs1546721    | T  | C  | 0.01 | 0.00 | 3.40E-08 | 0.00 | 0.03 | .94     |
| C-reactive protein | rs1562302    | G  | A  | -0.03 | 0.00 | 4.50E-26 | -0.02 | 0.04 | .63     |
| C-reactive protein | rs157512     | T  | C  | -0.01 | 0.00 | 1.10E-08 | 0.01 | 0.03 | .68     |
| C-reactive protein | rs157580     | G  | A  | 0.08  | 0.00 | 1.00E-200 | 0.01 | 0.03 | .60     |
| C-reactive protein | rs1635852    | T  | C  | 0.01  | 0.00 | 1.00E-11 | -0.01 | 0.03 | .57     |
| C-reactive protein | rs1647254    | A  | G  | 0.02  | 0.00 | 1.20E-12 | 0.06 | 0.04 | .17     |
| C-reactive protein | rs1688031    | T  | C  | 0.02  | 0.00 | 1.00E-12 | -0.01 | 0.04 | .90     |
| C-reactive protein | rs17040284   | G  | A  | -0.01 | 0.00 | 2.30E-08 | 0.03 | 0.04 | .51     |
| C-reactive protein | rs17138478   | C  | A  | -0.03 | 0.00 | 2.90E-28 | -0.09 | 0.06 | .12     |
| C-reactive protein | rs17366139   | C  | A  | -0.02 | 0.00 | 1.30E-09 | 0.00 | 0.06 | .00     |
| C-reactive protein | rs174373     | T  | C  | 0.02  | 0.00 | 1.20E-09 | -0.03 | 0.04 | .41     |
| C-reactive protein | rs17539995   | G  | A  | 0.02  | 0.00 | 7.00E-10 | 0.02 | 0.06 | .81     |
| C-reactive protein | rs17661793   | G  | A  | -0.03 | 0.00 | 1.00E-12 | -0.03 | 0.05 | .58     |
| C-reactive protein | rs17717355   | G  | T  | -0.03 | 0.00 | 1.00E-16 | 0.02 | 0.06 | .76     |
| C-reactive protein | rs1800693    | T  | C  | 0.02  | 0.00 | 4.50E-23 | -0.02 | 0.03 | .44     |
| C-reactive protein | rs1800919    | A  | C  | 0.02  | 0.00 | 4.20E-18 | -0.01 | 0.04 | .83     |
| C-reactive protein | rs1800961    | C  | T  | 0.11  | 0.01 | 8.20E-75 | -0.05 | 0.08 | .55     |
| C-reactive protein | rs1845854    | T  | C  | -0.04 | 0.01 | 3.70E-13 | -0.02 | 0.07 | .81     |
| C-reactive protein | rs1878658    | A  | G  | 0.02  | 0.00 | 1.40E-08 | -0.04 | 0.03 | .28     |
| C-reactive protein | rs1880241    | A  | G  | 0.02  | 0.00 | 1.60E-31 | -0.06 | 0.03 | .05     |
| C-reactive protein | rs1886008    | T  | C  | 0.02  | 0.00 | 3.60E-09 | -0.02 | 0.05 | .71     |
| C-reactive protein | rs1933736    | T  | C  | -0.02 | 0.00 | 1.90E-21 | 0.03 | 0.03 | .32     |
| C-reactive protein | rs1985157    | T  | C  | -0.02 | 0.00 | 1.10E-15 | -0.04 | 0.04 | .29     |
| C-reactive protein | rs19954423   | A  | G  | 0.04  | 0.00 | 3.00E-17 | -0.07 | 0.07 | .26     |
| C-reactive protein | rs2011689    | A  | G  | 0.01  | 0.00 | 5.10E-09 | 0.02 | 0.03 | .48     |
| C-reactive protein | rs204907     | A  | G  | -0.05 | 0.00 | 1.80E-30 | -0.02 | 0.05 | .73     |
| C-reactive protein | rs2066715    | C  | T  | 0.02  | 0.00 | 2.00E-08 | 0.00 | 0.07 | .98     |
| C-reactive protein | rs2066992    | G  | T  | 0.05  | 0.00 | 1.50E-27 | 0.02 | 0.05 | .73     |
| C-reactive protein | rs2068888    | G  | A  | 0.02  | 0.00 | 5.20E-17 | 0.04 | 0.03 | .08     |
| C-reactive protein | rs2075803    | A  | G  | 0.01  | 0.00 | 4.60E-10 | 0.01 | 0.03 | .69     |
| C-reactive protein | rs2110944    | T  | C  | -0.02 | 0.00 | 1.60E-14 | -0.04 | 0.03 | .23     |
| C-reactive protein | rs2131925    | G  | T  | -0.01 | 0.00 | 1.70E-12 | -0.01 | 0.03 | .76     |
| C-reactive protein | rs2161037    | G  | A  | -0.02 | 0.00 | 8.80E-28 | 0.03 | 0.03 | .35     |
| C-reactive protein | rs2161374    | C  | T  | 0.02  | 0.00 | 7.30E-17 | 0.04 | 0.03 | .21     |
| C-reactive protein | rs2207132    | G  | A  | -0.05 | 0.01 | 4.40E-17 | 0.00 | 0.07 | 1.00    |
| C-reactive protein | rs2239222    | A  | G  | -0.03 | 0.00 | 3.40E-57 | -0.01 | 0.03 | .74     |
### Supplementary Table 7. Continued

| Exposure            | SNP     | EA | AA | Beta | SE   | P Value | Beta | SE   | P Value |
|---------------------|---------|----|----|------|------|---------|------|------|---------|
| C-reactive protein  | rs2250010 | C  | T  | -0.02 | 0.00 | 1.50E-16 | -0.05 | 0.03 | .09     |
| C-reactive protein  | rs2265189 | A  | G  | 0.01  | 0.00 | 4.20E-12 | -0.02 | 0.04 | .66     |
| C-reactive protein  | rs2269434 | T  | C  | 0.02  | 0.00 | 1.80E-29 | 0.03  | 0.03 | .31     |
| C-reactive protein  | rs2311597 | A  | G  | 0.01  | 0.00 | 9.70E-09 | 0.04  | 0.03 | .27     |
| C-reactive protein  | rs2409750 | A  | C  | 0.02  | 0.00 | 4.60E-08 | 0.01  | 0.04 | .83     |
| C-reactive protein  | rs2432195 | C  | T  | -0.02 | 0.00 | 4.90E-08 | -0.06 | 0.03 | .07     |
| C-reactive protein  | rs2442749 | T  | C  | 0.02  | 0.00 | 8.30E-08 | -0.01 | 0.03 | .78     |
| C-reactive protein  | rs2472682 | A  | C  | 0.01  | 0.00 | 2.10E-08 | -0.02 | 0.03 | .35     |
| C-reactive protein  | rs2542170 | T  | C  | -0.02 | 0.00 | 1.00E-09 | -0.02 | 0.04 | .70     |
| C-reactive protein  | rs2570231 | A  | G  | 0.01  | 0.00 | 5.00E-09 | 0.02  | 0.04 | .49     |
| C-reactive protein  | rs2606227 | T  | C  | 0.02  | 0.00 | 3.60E-09 | -0.04 | 0.06 | .12     |
| C-reactive protein  | rs2647971 | T  | C  | -0.02 | 0.00 | 1.50E-09 | 0.04  | 0.03 | .22     |
| C-reactive protein  | rs2681780 | C  | T  | -0.02 | 0.00 | 1.10E-09 | -0.06 | 0.03 | .21     |
| C-reactive protein  | rs2700938 | T  | G  | 0.03  | 0.00 | 5.30E-09 | -0.02 | 0.04 | .63     |
| C-reactive protein  | rs2767486 | A  | G  | -0.02 | 0.00 | 2.30E-09 | -0.02 | 0.04 | .70     |
| C-reactive protein  | rs2808474 | C  | T  | -0.01 | 0.00 | 3.10E-09 | 0.03  | 0.04 | .37     |
| C-reactive protein  | rs2836875 | G  | A  | 0.02  | 0.00 | 2.80E-11 | -0.01 | 0.04 | .69     |
| C-reactive protein  | rs2836882 | G  | A  | 0.03  | 0.00 | 5.60E-05 | 0.04  | 0.03 | .88     |
| C-reactive protein  | rs28399607| T  | C  | 0.05  | 0.00 | 1.80E-25 | -0.03 | 0.04 | .81     |
| C-reactive protein  | rs2871961 | T  | G  | 0.03  | 0.00 | 5.30E-33 | -0.02 | 0.04 | .63     |
| C-reactive protein  | rs2957664 | G  | A  | -0.01 | 0.00 | 6.00E-06 | 0.03  | 0.04 | .65     |
| C-reactive protein  | rs2965162 | G  | A  | 0.06  | 0.00 | 1.20E-09 | 0.01  | 0.04 | .69     |
| C-reactive protein  | rs2965169 | C  | T  | -0.02 | 0.00 | 6.00E-10 | -0.02 | 0.04 | .64     |
| C-reactive protein  | rs2965170 | C  | T  | -0.03 | 0.00 | 1.10E-25 | 0.01  | 0.05 | .75     |
| C-reactive protein  | rs2970901 | G  | T  | -0.01 | 0.00 | 1.80E-10 | 0.03  | 0.04 | .46     |
| C-reactive protein  | rs3014201 | T  | C  | 0.01  | 0.00 | 2.40E-10 | -0.01 | 0.04 | .84     |
| C-reactive protein  | rs3094512 | G  | A  | -0.01 | 0.00 | 3.40E-08 | -0.02 | 0.04 | .61     |
| C-reactive protein  | rs3095122 | A  | G  | 0.01  | 0.00 | 1.30E-08 | -0.03 | 0.03 | .30     |
| C-reactive protein  | rs3099478 | C  | T  | 0.02  | 0.00 | 1.60E-16 | -0.01 | 0.04 | .72     |
| C-reactive protein  | rs310630  | A  | G  | -0.01 | 0.00 | 9.70E-09 | -0.06 | 0.04 | .08     |
| C-reactive protein  | rs311654  | A  | G  | 0.09  | 0.00 | 1.00E-02 | -0.02 | 0.04 | .55     |
| C-reactive protein  | rs3125326 | A  | C  | -0.01 | 0.00 | 2.30E-09 | 0.01  | 0.03 | .73     |
| C-reactive protein  | rs3134133 | G  | A  | 0.01  | 0.00 | 3.10E-09 | -0.02 | 0.03 | .49     |
| C-reactive protein  | rs33951980| C  | T  | 0.03  | 0.00 | 2.00E-25 | 0.15  | 0.06 | 9.26E-03|
## Supplementary Table 7. Continued

| Exposure                  | SNP     | EA | AA | Beta | SE  | P Value     | Beta | SE  | P Value     |
|---------------------------|---------|----|----|------|-----|-------------|------|-----|-------------|
| C-reactive protein        | rs340005| G  | A  | -0.03| 0.00| 7.20E-51    | 0.04 | 0.03| .15         |
| C-reactive protein        | rs34234296| G  | A  | 0.01 | 0.00| 1.10E-09    | 0.02 | 0.03| .53         |
| C-reactive protein        | rs34298354| C  | T  | 0.03 | 0.00| 3.90E-16    | -0.03| 0.04| .42         |
| C-reactive protein        | rs34419562| G  | A  | -0.04| 0.00| 1.20E-27    | 0.01 | 0.06| .90         |
| C-reactive protein        | rs34761529| C  | T  | 0.02 | 0.00| 4.40E-09    | 0.02 | 0.03| .53         |
| C-reactive protein        | rs34874378| G  | A  | 0.05 | 0.00| 2.30E-22    | 0.18 | 0.06| 4.77E-03    |
| C-reactive protein        | rs35057129| G  | A  | -0.01| 0.00| 6.80E-10    | 0.06 | 0.04| .10         |
| C-reactive protein        | rs35582280| T  | C  | -0.01| 0.00| 9.10E-09    | -0.01| 0.03| .79         |
| C-reactive protein        | rs35609764| C  | T  | 0.01 | 0.00| 4.60E-08    | -0.05| 0.04| .18         |
| C-reactive protein        | rs35881303| A  | G  | 0.01 | 0.00| 3.70E-11    | -0.03| 0.03| .32         |
| C-reactive protein        | rs3733892| A  | C  | 0.02 | 0.00| 7.90E-16    | 0.01 | 0.04| .76         |
| C-reactive protein        | rs3738028| C  | A  | -0.01| 0.00| 1.70E-09    | -0.03| 0.04| .46         |
| C-reactive protein        | rs3746778| G  | A  | 0.01 | 0.00| 7.10E-10    | 0.05 | 0.04| .16         |
| C-reactive protein        | rs3768321| G  | T  | -0.03| 0.00| 5.30E-37    | -0.06| 0.03| .08         |
| C-reactive protein        | rs3774063| C  | T  | -0.02| 0.00| 1.30E-11    | 0.02 | 0.05| .68         |
| C-reactive protein        | rs3789988| G  | A  | 0.04 | 0.01| 3.30E-11    | 0.07 | 0.07| .29         |
| C-reactive protein        | rs3808348| C  | T  | 0.02 | 0.00| 5.90E-18    | 0.01 | 0.03| .70         |
| C-reactive protein        | rs3826559| G  | A  | -0.01| 0.00| 6.80E-11    | 0.01 | 0.03| .60         |
| C-reactive protein        | rs3865444| C  | A  | 0.02 | 0.00| 4.00E-18    | 0.03 | 0.03| .27         |
| C-reactive protein        | rs4084164| A  | G  | 0.01 | 0.00| 5.00E-10    | 0.00 | 0.03| .97         |
| C-reactive protein        | rs4128829| C  | T  | -0.05| 0.01| 3.30E-13    | 0.13 | 0.09| .13         |
| C-reactive protein        | rs4133213| C  | A  | 0.08 | 0.00| 1.00E-200   | -0.01| 0.03| .68         |
| C-reactive protein        | rs4141160| A  | G  | 0.01 | 0.00| 5.20E-11    | 0.00 | 0.03| .91         |
| C-reactive protein        | rs4141168| A  | G  | -0.02| 0.00| 5.60E-13    | 0.07 | 0.04| .08         |
| C-reactive protein        | rs4148155| A  | G  | 0.02 | 0.00| 8.90E-12    | -0.08| 0.04| .07         |
| C-reactive protein        | rs420957 | G  | T  | -0.02| 0.00| 1.10E-11    | 0.02 | 0.04| .52         |
| C-reactive protein        | rs4239504| C  | T  | 0.02 | 0.00| 9.40E-13    | 0.03 | 0.04| .48         |
| C-reactive protein        | rs4252041| C  | T  | -0.03| 0.00| 1.00E-09    | -0.15| 0.06| 1.64E-02    |
| C-reactive protein        | rs4431051| C  | T  | 0.01 | 0.00| 1.30E-10    | 0.01 | 0.03| .64         |
| C-reactive protein        | rs4506495| T  | C  | -0.02| 0.00| 5.20E-09    | -0.02| 0.04| .65         |
| C-reactive protein        | rs4516268| C  | A  | 0.01 | 0.00| 1.50E-08    | 0.06 | 0.03| .07         |
| C-reactive protein        | rs4558633| C  | T  | 0.02 | 0.00| 4.60E-08    | 0.06 | 0.09| .51         |
| C-reactive protein        | rs4656241| T  | C  | -0.09| 0.00| 1.00E-200   | -0.05| 0.04| .18         |
| C-reactive protein        | rs4658403| C  | T  | 0.02 | 0.00| 1.20E-09    | 0.01 | 0.03| .84         |
| C-reactive protein        | rs4665972| T  | C  | 0.07 | 0.00| 1.00E-200   | 0.01 | 0.03| .75         |
| C-reactive protein        | rs4704780| A  | C  | -0.02| 0.00| 6.90E-11    | 0.07 | 0.05| .18         |
| C-reactive protein        | rs4711325| A  | G  | 0.01 | 0.00| 1.80E-08    | 0.00 | 0.03| 1.00        |
| C-reactive protein        | rs4714508| A  | G  | -0.02| 0.00| 1.60E-15    | -0.02| 0.03| .56         |
### Supplementary Table 7. Continued

| Exposure                | SNP          | EA | AA | Exposure Beta | SE  | P Value | Outcome Beta | SE  | P Value |
|-------------------------|--------------|----|----|---------------|-----|---------|--------------|-----|---------|
| C-reactive protein      | rs4755720    | C  | T  | 0.02          | 0.00| 1.00E-14| 0.03          | 0.03| .32     |
| C-reactive protein      | rs4764939    | C  | T  | 0.02          | 0.00| 6.40E-17| 0.00          | 0.03| .89     |
| C-reactive protein      | rs4788867    | T  | C  | -0.01         | 0.00| 4.70E-11| 0.01          | 0.03| .84     |
| C-reactive protein      | rs479084     | T  | C  | 0.01          | 0.00| 2.30E-08| 0.01          | 0.03| .70     |
| C-reactive protein      | rs480958     | G  | A  | 0.01          | 0.00| 9.30E-09| 0.02          | 0.03| .54     |
| C-reactive protein      | rs4865540    | C  | A  | -0.02         | 0.00| 1.40E-10| 0.04          | 0.04| .37     |
| C-reactive protein      | rs4871827    | G  | A  | -0.01         | 0.00| 7.00E-11| 0.01          | 0.03| .66     |
| C-reactive protein      | rs4915287    | A  | G  | -0.02         | 0.00| 1.30E-10| -0.04         | 0.04| .27     |
| C-reactive protein      | rs541619     | A  | G  | 0.08          | 0.00| 1.00E-200| -0.04         | 0.03| .19     |
| C-reactive protein      | rs543874     | A  | G  | -0.02         | 0.00| 6.20E-10| -0.03         | 0.03| .44     |
| C-reactive protein      | rs55642653   | G  | A  | -0.02         | 0.00| 3.40E-09| 0.01          | 0.04| .82     |
| C-reactive protein      | rs55665939   | A  | G  | -0.02         | 0.00| 1.40E-12| -0.09         | 0.03| 2.14E-03|
| C-reactive protein      | rs55945634   | C  | T  | -0.01         | 0.00| 3.40E-08| -0.02         | 0.04| .64     |
| C-reactive protein      | rs5585238    | T  | C  | -0.02         | 0.00| 7.40E-31| -0.05         | 0.04| .20     |
| C-reactive protein      | rs56192838   | T  | C  | 0.02          | 0.00| 4.20E-11| -0.01         | 0.06| .92     |
| C-reactive protein      | rs5621258    | C  | T  | 0.04          | 0.00| 9.80E-41| 0.06          | 0.06| .34     |
| C-reactive protein      | rs56821385   | T  | C  | -0.03         | 0.01| 4.00E-08| -0.09         | 0.08| .28     |
| C-reactive protein      | rs57167043   | G  | A  | 0.02          | 0.00| 8.40E-09| 0.03          | 0.04| .43     |
| C-reactive protein      | rs57550938   | G  | A  | -0.02         | 0.00| 2.50E-08| 0.03          | 0.04| .48     |
| C-reactive protein      | rs58287327   | G  | A  | -0.02         | 0.00| 1.50E-10| 0.01          | 0.04| .77     |
| C-reactive protein      | rs5842926    | C  | T  | -0.04         | 0.00| 1.40E-25| 0.03          | 0.05| .53     |
| C-reactive protein      | rs58581511   | T  | G  | 0.01          | 0.00| 2.50E-08| -0.01         | 0.04| .82     |
| C-reactive protein      | rs58770366   | A  | G  | -0.01         | 0.00| 1.50E-08| 0.02          | 0.03| .50     |
| C-reactive protein      | rs58846684   | G  | A  | 0.09          | 0.01| 1.50E-35| -0.02         | 0.09| .85     |
| C-reactive protein      | rs59316512   | A  | G  | 0.04          | 0.01| 1.00E-08| -0.02         | 0.08| .77     |
| C-reactive protein      | rs59737437   | C  | T  | 0.01          | 0.00| 1.00E-08| 0.00          | 0.04| .99     |
| C-reactive protein      | rs601338     | G  | A  | -0.02         | 0.00| 2.60E-27| 0.07          | 0.03| 5.59E-03|
| C-reactive protein      | rs6017342    | A  | C  | -0.01         | 0.00| 4.60E-09| -0.02         | 0.03| .54     |
| C-reactive protein      | rs6020459    | T  | C  | -0.02         | 0.00| 4.20E-15| 0.02          | 0.04| .67     |
| C-reactive protein      | rs60239918   | C  | T  | 0.03          | 0.01| 1.30E-08| -0.04         | 0.07| .58     |
| C-reactive protein      | rs6073958    | T  | C  | 0.03          | 0.00| 2.40E-30| -0.03         | 0.03| .29     |
| C-reactive protein      | rs6138537    | A  | G  | -0.02         | 0.00| 5.00E-13| 0.01          | 0.03| .58     |
| C-reactive protein      | rs613872     | G  | T  | -0.02         | 0.00| 8.70E-09| 0.00          | 0.04| .93     |
| C-reactive protein      | rs61542988   | C  | T  | 0.03          | 0.00| 4.20E-30| 0.01          | 0.04| .75     |
| C-reactive protein      | rs61742729   | C  | T  | -0.04         | 0.01| 1.10E-09| -0.01         | 0.10| .92     |
| C-reactive protein      | rs61753391   | G  | A  | -0.04         | 0.01| 1.90E-10| 0.01          | 0.08| .92     |
| C-reactive protein      | rs61806853   | T  | C  | 0.04          | 0.00| 2.00E-19| -0.03         | 0.06| .66     |
### Supplementary Table 7. Continued

| Exposure                  | SNP          | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|---------------------------|--------------|----|----|-------|-----|---------|-------|-----|---------|
| C-reactive protein        | rs61945773   | T  | C  | 0.01  | 0.00| 7.00E-09| 0.02  | 0.03| .58     |
| C-reactive protein        | rs61980636   | C  | T  | 0.02  | 0.00| 1.10E-10| 0.08  | 0.04| .07     |
| C-reactive protein        | rs62011286   | G  | A  | 0.01  | 0.00| 7.60E-12| 0.03  | 0.04| .46     |
| C-reactive protein        | rs62020680   | G  | A  | -0.02 | 0.00| 7.00E-11| 0.00  | 0.05| .96     |
| C-reactive protein        | rs62039690   | G  | A  | 0.02  | 0.00| 7.10E-09| 0.01  | 0.06| .91     |
| C-reactive protein        | rs62039703   | C  | T  | -0.01 | 0.00| 1.70E-09| 0.00  | 0.04| .95     |
| C-reactive protein        | rs62092069   | G  | A  | 0.01  | 0.00| 3.50E-08| 0.01  | 0.03| .71     |
| C-reactive protein        | rs62106258   | T  | C  | 0.03  | 0.00| 4.50E-11| -0.06 | 0.06| .32     |
| C-reactive protein        | rs62118504   | A  | G  | -0.03 | 0.00| 6.10E-36| -0.05 | 0.03| .17     |
| C-reactive protein        | rs62121122   | G  | A  | -0.02 | 0.00| 9.00E-10| -0.09 | 0.05| .07     |
| C-reactive protein        | rs62158591   | C  | A  | -0.02 | 0.00| 4.30E-08| 0.08  | 0.05| .12     |
| C-reactive protein        | rs62171038   | C  | T  | 0.02  | 0.00| 4.70E-10| 0.11  | 0.05| 1.57E-02|
| C-reactive protein        | rs62217799   | G  | T  | -0.02 | 0.00| 1.70E-24| -0.03 | 0.04| .38     |
| C-reactive protein        | rs62244890   | T  | C  | 0.01  | 0.00| 4.30E-08| -0.06 | 0.04| .09     |
| C-reactive protein        | rs62282070   | T  | C  | 0.02  | 0.00| 7.70E-11| -0.07 | 0.04| .09     |
| C-reactive protein        | rs623011     | A  | G  | 0.02  | 0.00| 7.80E-14| -0.05 | 0.03| .06     |
| C-reactive protein        | rs62389532   | A  | G  | 0.03  | 0.00| 5.70E-13| -0.03 | 0.05| .60     |
| C-reactive protein        | rs62451586   | G  | A  | 0.02  | 0.00| 1.60E-08| -0.06 | 0.05| .20     |
| C-reactive protein        | rs62490334   | C  | T  | -0.02 | 0.00| 8.50E-09| -0.03 | 0.04| .46     |
| C-reactive protein        | rs62491814   | G  | A  | 0.02  | 0.00| 1.70E-14| 0.00  | 0.03| .99     |
| C-reactive protein        | rs62513191   | T  | C  | -0.03 | 0.00| 5.20E-11| 0.04  | 0.08| .62     |
| C-reactive protein        | rs6256      | C  | T  | 0.02  | 0.00| 7.50E-19| 0.04  | 0.03| .19     |
| C-reactive protein        | rs6433429    | A  | C  | 0.01  | 0.00| 2.10E-08| -0.06 | 0.04| .08     |
| C-reactive protein        | rs6486122    | C  | T  | -0.03 | 0.00| 2.60E-39| -0.03 | 0.03| .27     |
| C-reactive protein        | rs6519133    | T  | C  | 0.03  | 0.00| 2.30E-53| 0.01  | 0.03| .69     |
| C-reactive protein        | rs653170     | C  | T  | -0.01 | 0.00| 2.40E-09| -0.02 | 0.03| .49     |
| C-reactive protein        | rs6601299    | T  | C  | -0.07 | 0.00| 7.70E-101| -0.08 | 0.04| .06    |
| C-reactive protein        | rs663015     | T  | C  | -0.02 | 0.00| 1.40E-18| -0.03 | 0.03| .21     |
| C-reactive protein        | rs66744209   | A  | G  | -0.02 | 0.00| 2.30E-22| -0.04 | 0.04| .40     |
| C-reactive protein        | rs6682100    | T  | C  | 0.04  | 0.01| 6.20E-12| -0.02 | 0.07| .75     |
| C-reactive protein        | rs668799     | C  | T  | -0.02 | 0.00| 5.30E-15| 0.00  | 0.03| .90     |
| C-reactive protein        | rs67156297   | G  | A  | -0.03 | 0.00| 6.60E-50| 0.01  | 0.04| .85     |
| C-reactive protein        | rs674833     | G  | A  | 0.01  | 0.00| 5.40E-10| 0.01  | 0.04| .70     |
| C-reactive protein        | rs67514550   | C  | T  | -0.02 | 0.00| 1.40E-08| -0.07 | 0.07| .28     |
| C-reactive protein        | rs67516067   | G  | A  | -0.02 | 0.00| 1.40E-09| 0.09  | 0.05| .05     |
| C-reactive protein        | rs6792725    | A  | G  | 0.02  | 0.00| 1.30E-13| 0.02  | 0.04| .59     |
| C-reactive protein        | rs68085814   | G  | A  | 0.01  | 0.00| 4.10E-09| 0.00  | 0.03| .88     |
| C-reactive protein        | rs684016     | C  | A  | -0.01 | 0.00| 2.00E-10| -0.01 | 0.03| .70     |
| C-reactive protein        | rs6840517    | A  | G  | -0.01 | 0.00| 8.20E-10| 0.01  | 0.03| .80     |
### Supplementary Table 7. Continued

| Exposure                  | SNP       | EA | AA   | **Exposure** | **Outcome** |
|---------------------------|-----------|----|------|--------------|-------------|
| C-reactive protein        | rs6845703 | G  | A    | -0.02        | -0.03       |
| C-reactive protein        | rs687339  | C  | T    | 0.03         | 0.02        |
| C-reactive protein        | rs6920220 | G  | A    | -0.02        | 0.00        |
| C-reactive protein        | rs6961634 | G  | A    | 0.03         | -0.05       |
| C-reactive protein        | rs6962836 | A  | G    | -0.02        | 0.03        |
| C-reactive protein        | rs704017  | A  | G    | 0.02         | -0.02       |
| C-reactive protein        | rs7084062 | A  | G    | -0.02        | 0.05        |
| C-reactive protein        | rs7102088 | C  | T    | 0.01         | 0.03        |
| C-reactive protein        | rs71322200 | C | A    | -0.02        | -0.04       |
| C-reactive protein        | rs71353230 | G | A    | -0.02        | 0.02        |
| C-reactive protein        | rs7150135 | C  | T    | 0.01         | 0.00        |
| C-reactive protein        | rs7171864 | G  | A    | -0.01        | -0.01       |
| C-reactive protein        | rs7189954 | C  | T    | -0.02        | -0.03       |
| C-reactive protein        | rs7196852 | G  | A    | 0.02         | -0.03       |
| C-reactive protein        | rs7208791 | G  | A    | -0.02        | 0.03        |
| C-reactive protein        | rs7248421 | C  | T    | 0.04         | 0.02        |
| C-reactive protein        | rs72634814 | G | A    | 0.01         | -0.02       |
| C-reactive protein        | rs7263644 | G  | A    | -0.02        | -0.06       |
| C-reactive protein        | rs72660319 | G | A    | -0.02        | 0.02        |
| C-reactive protein        | rs72694393 | G | T    | 0.02         | 0.02        |
| C-reactive protein        | rs72771996 | G | A    | -0.03        | 0.04        |
| C-reactive protein        | rs72795810 | G | T    | 0.03         | 0.00        |
| C-reactive protein        | rs7280982 | G  | A    | -0.02        | 0.00        |
| C-reactive protein        | rs7292074 | C  | A    | 0.02         | 0.01        |
| C-reactive protein        | rs72959041 | G | A    | 0.05         | 0.05        |
| C-reactive protein        | rs7303035 | T  | C    | 0.02         | 0.02        |
| C-reactive protein        | rs73137144 | A | G    | 0.02         | -0.04       |
| C-reactive protein        | rs73188545 | A | G    | -0.01        | 0.05        |
| C-reactive protein        | rs7319102 | G  | A    | 0.02         | 0.03        |
| C-reactive protein        | rs7341051 | A  | G    | 0.02         | -0.08       |
| C-reactive protein        | rs73455693 | G | A    | 0.03         | -0.08       |
| C-reactive protein        | rs73577882 | T | C    | -0.05        | -0.03       |
| C-reactive protein        | rs7412    | C  | T    | -0.10        | -0.02       |
| C-reactive protein        | rs7430935 | T  | C    | 0.01         | -0.01       |
| C-reactive protein        | rs74580701 | A | G    | 0.03         | 0.03        |
| C-reactive protein        | rs74607435 | T | C    | -0.04        | -0.07       |
| C-reactive protein        | rs74733149 | A | G    | -0.12        | -0.05       |
| C-reactive protein        | rs74873433 | T | C    | -0.04        | -0.08       |
| C-reactive protein        | rs7488791 | G  | A    | 0.01         | -0.01       |
## Supplementary Table 7. Continued

| Exposure               | SNP       | EA | AA | Beta  | SE  | P Value | Beta  | SE  | P Value |
|------------------------|-----------|----|----|-------|-----|---------|-------|-----|---------|
| C-reactive protein     | rs7564168 | G  | A  | -0.02 | 0.00 | 8.00E-09 | -0.01 | 0.07 | .92     |
| C-reactive protein     | rs7528419 | A  | G  | -0.02 | 0.00 | 2.50E-12 | -0.01 | 0.03 | .78     |
| C-reactive protein     | rs7529640 | G  | A  | 0.01  | 0.00 | 2.10E-11 | 0.04  | 0.03 | .22     |
| C-reactive protein     | rs7537072 | T  | C  | 0.01  | 0.00 | 1.60E-10 | 0.02  | 0.03 | .36     |
| C-reactive protein     | rs7538820 | G  | A  | -0.03 | 0.00 | 3.70E-13 | 0.02  | 0.06 | .78     |
| C-reactive protein     | rs7550711 | C  | T  | -0.04 | 0.01 | 4.40E-08 | -0.15 | 0.09 | .08     |
| C-reactive protein     | rs7573338 | G  | A  | -0.01 | 0.00 | 2.50E-08 | -0.03 | 0.03 | .35     |
| C-reactive protein     | rs7628592 | C  | T  | 0.05  | 0.01 | 5.70E-20 | -0.02 | 0.09 | .81     |
| C-reactive protein     | rs769662  | G  | A  | 0.01  | 0.00 | 1.10E-08 | 0.03  | 0.03 | .24     |
| C-reactive protein     | rs77013776| A  | C  | 0.24  | 0.01 | 1.00E-200| 0.26  | 0.11 | 1.45E-02|
| C-reactive protein     | rs7718911 | T  | C  | 0.03  | 0.00 | 6.40E-10 | -0.13 | 0.06 | 4.78E-02|
| C-reactive protein     | rs7725447 | C  | T  | 0.11  | 0.01 | 6.90E-36 | 0.02  | 0.12 | .89     |
| C-reactive protein     | rs7750928 | G  | T  | -0.07 | 0.01 | 9.50E-16 | 0.04  | 0.09 | .69     |
| C-reactive protein     | rs7770370 | A  | G  | 0.02  | 0.00 | 8.90E-14 | -0.10 | 0.03 | 2.94E-03|
| C-reactive protein     | rs7770479 | T  | C  | 0.05  | 0.00 | 1.00E-21 | 0.01  | 0.07 | .90     |
| C-reactive protein     | rs7794623 | C  | T  | -0.05 | 0.00 | 2.20E-65 | 0.00  | 0.03 | .93     |
| C-reactive protein     | rs7806334 | C  | A  | -0.02 | 0.00 | 6.90E-12 | -0.02 | 0.04 | .57     |
| C-reactive protein     | rs7812878 | T  | C  | -0.02 | 0.00 | 1.10E-08 | 0.07  | 0.05 | .21     |
| C-reactive protein     | rs7820010 | C  | T  | -0.03 | 0.01 | 2.40E-09 | 0.10  | 0.09 | .27     |
| C-reactive protein     | rs7834393 | G  | A  | -0.02 | 0.00 | 9.20E-10 | 0.03  | 0.04 | .42     |
| C-reactive protein     | rs787488  | A  | G  | 0.01  | 0.00 | 7.60E-11 | -0.02 | 0.04 | .52     |
| C-reactive protein     | rs7891208 | A  | G  | -0.03 | 0.00 | 6.70E-15 | 0.00  | 0.10 | 1.00    |
| C-reactive protein     | rs7910100 | C  | A  | 0.03  | 0.00 | 2.10E-17 | 0.03  | 0.07 | .64     |
| C-reactive protein     | rs7911922 | T  | G  | 0.03  | 0.00 | 4.70E-12 | -0.03 | 0.08 | .75     |
| C-reactive protein     | rs7921901 | G  | T  | 0.08  | 0.01 | 1.50E-38 | 0.02  | 0.09 | .82     |
| C-reactive protein     | rs7955115 | G  | A  | -0.20 | 0.00 | 1.00E-200| 0.02  | 0.05 | .64     |
| C-reactive protein     | rs7956514 | T  | G  | -0.02 | 0.00 | 1.10E-12 | -0.03 | 0.03 | .37     |
| C-reactive protein     | rs7975307 | G  | A  | 0.05  | 0.01 | 2.10E-13 | 0.16  | 0.13 | .22     |
| C-reactive protein     | rs7989670 | T  | G  | -0.02 | 0.00 | 3.30E-08 | -0.01 | 0.06 | .84     |
| C-reactive protein     | rs7993752 | C  | A  | 0.01  | 0.00 | 1.30E-10 | -0.06 | 0.03 | .06     |
| C-reactive protein     | rs8025788 | G  | A  | 0.04  | 0.01 | 6.10E-16 | 0.02  | 0.08 | .85     |
| C-reactive protein     | rs8034216 | C  | T  | -0.01 | 0.00 | 1.50E-10 | 0.02  | 0.03 | .51     |
| C-reactive protein     | rs8040040 | C  | T  | 0.02  | 0.00 | 3.20E-19 | 0.01  | 0.03 | .84     |
| C-reactive protein     | rs8059619 | C  | T  | -0.01 | 0.00 | 6.20E-12 | -0.02 | 0.03 | .49     |
| C-reactive protein     | rs8126001 | C  | T  | 0.01  | 0.00 | 5.70E-13 | -0.03 | 0.03 | .44     |
| C-reactive protein     | rs8178824 | C  | T  | -0.06 | 0.01 | 6.20E-24 | 0.17  | 0.09 | .05     |
| C-reactive protein     | rs855679  | T  | C  | -0.02 | 0.00 | 2.70E-08 | -0.02 | 0.05 | .76     |
| C-reactive protein     | rs885949  | T  | C  | -0.02 | 0.00 | 2.90E-09 | -0.05 | 0.03 | .12     |
| C-reactive protein     | rs895251  | T  | C  | 0.02  | 0.00 | 1.90E-15 | -0.03 | 0.03 | .28     |
| Exposure          | SNP     | EA | AA | Beta | SE  | P Value | Beta | SE  | P Value |
|-------------------|---------|----|----|------|-----|---------|------|-----|---------|
| C-reactive protein| rs8978  | C  | T  | -0.01| 0.00| 8.10E-11| -0.02| 0.03| .47     |
| C-reactive protein| rs9263760| G  | A  | -0.02| 0.00| 3.50E-10| 0.10 | 0.04| 1.08E-02|
| C-reactive protein| rs9263869| T  | C  | -0.01| 0.00| 8.80E-09| -0.02| 0.04| .51     |
| C-reactive protein| rs9388766| T  | C  | -0.02| 0.00| 1.70E-27| -0.01| 0.03| .64     |
| C-reactive protein| rs9427431| T  | C  | -0.01| 0.00| 1.10E-08| 0.00 | 0.03| .89     |
| C-reactive protein| rs9604045| G  | T  | 0.02 | 0.00| 1.00E-19| 0.00 | 0.04| .93     |
| C-reactive protein| rs9632944| A  | G  | 0.02 | 0.00| 7.70E-10| 0.05 | 0.04| .21     |
| C-reactive protein| rs966038 | G  | A  | -0.01| 0.00| 2.00E-08| 0.03 | 0.04| .40     |
| C-reactive protein| rs9738365| C  | A  | -0.02| 0.00| 3.20E-16| 0.05 | 0.03| .99     |
| C-reactive protein| rs9788721| C  | T  | 0.01 | 0.00| 3.10E-08| -0.02| 0.03| .44     |
| C-reactive protein| rs9929143| C  | A  | 0.02 | 0.00| 4.00E-08| -0.03| 0.05| .44     |
| C-reactive protein| rs9939450| T  | C  | 0.01 | 0.00| 1.40E-09| -0.01| 0.03| .71     |
| C-reactive protein| rs9947450| C  | T  | 0.03 | 0.01| 3.60E-09| 0.09 | 0.06| .14     |
| C-reactive protein| rs9951447| T  | C  | 0.01 | 0.00| 1.50E-08| -0.01| 0.03| .75     |
| C-reactive protein| rs9964712| C  | T  | 0.03 | 0.00| 3.10E-09| -0.02| 0.06| .81     |

AA, alternative allele; EA, effect allele; COVID-19, coronavirus disease 2019; HbA1c, hemoglobin A1c; HDL, high-density lipoprotein; HOMA-B, homeostatic model assessment for beta cell function; HOMA-IR, homeostatic model assessment for insulin resistance; IV, instrumental variable; LDL, low-density lipoprotein; NAFLD, nonalcoholic fatty liver disease; NAS, NAFLD Activity Score; SNP, single nucleotide polymorphism.
| Exposure                                                                 | n   | Sample size | $I^2$ | $R^2$ | $F$ Statistic | MR Power |
|-------------------------------------------------------------------------|-----|-------------|-------|-------|---------------|----------|
| NAFLD                                                                   | 5   | 429,963     | 0.96  | 0.16  | 16572.45      | 0.15     |
| Serum alanine aminotransferase level                                    | 40  | 164,197     | 0.99  | 0.03  | 111.16        | 0.07     |
| NAS (IVs provided by Namjou B et al)                                   | 2   | 235         | 0.00  | 0.72  | 300.46        | 0.35     |
| NAS (IVs with $P<1e-5$ provided by Namjou B et al)                     | 16  | 235         | 0.95  | 0.31  | 6.12          | 0.08     |
| Fibrosis stage (IVs provided by Namjou B et al)                        | 3   | 235         | 0.89  | 0.55  | 95.15         | 0.11     |
| Fibrosis stage (IVs with $P<1e-5$ provided by Namjou B et al)          | 52  | 235         | 0.91  | 0.93  | 45.92         | 0.15     |
| Grade of steatosis (IVs provided by Anstee QM et al)                   | 2   | 1,483       | 0.98  | 0.02  | 14.26         | 0.08     |
| NAS (IVs provided by Anstee QM et al)                                  | 1   | 1,483       | NA    | 0.05  | 80.02         | 0.06     |
| Fibrosis stage (IVs provided by Anstee QM et al)                       | 1   | 1,483       | NA    | 0.04  | 60.30         | 0.05     |
| Body mass index                                                         | 81  | 322,154     | 0.98  | 0.07  | 293.47        | 1.00     |
| Waist circumference                                                     | 44  | 232,101     | 0.98  | 0.05  | 272.25        | 1.00     |
| Hip circumference                                                       | 54  | 213,038     | 0.98  | 0.06  | 261.41        | 1.00     |
| Waist-to-hip ratio                                                      | 34  | 212,248     | 0.92  | 0.04  | 280.79        | 0.41     |
| Type 2 diabetes                                                         | 29  | 111,309     | 0.98  | 0.01  | 53.27         | 0.05     |
| Fasting glucose                                                         | 98  | 200,622     | 0.99  | 0.22  | 567.73        | 0.14     |
| Fasting insulin                                                         | 40  | 151,013     | 0.98  | 0.12  | 498.61        | 0.97     |
| 2-h glucose                                                             | 13  | 63,396      | 0.97  | 0.02  | 111.56        | 0.55     |
| HbA1c                                                                  | 106 | 146,806     | 0.99  | 0.45  | 1133.27       | 1.00     |
| HOMA-B                                                                 | 11  | 36,466      | 0.98  | 0.10  | 361.30        | 0.90     |
| HOMA-IR                                                                | 9   | 37,037      | 0.98  | 0.01  | 31.61         | 0.43     |
| Coronary heart disease                                                 | 43  | 184,305     | 0.98  | 0.02  | 82.09         | 0.06     |
| Serum total cholesterol                                                | 29  | 21,491      | 0.98  | 0.09  | 73.99         | 0.29     |
| Serum total triglycerides                                              | 11  | 21,545      | 0.98  | 0.04  | 86.02         | 0.07     |
| Total cholesterol in LDL                                               | 39  | 21,559      | 0.99  | 0.12  | 73.13         | 0.25     |
| Total cholesterol in HDL                                               | 18  | 21,555      | 0.98  | 0.06  | 75.06         | 0.15     |
| Apolipoprotein B                                                        | 23  | 20,690      | 0.99  | 0.08  | 72.96         | 0.43     |
| Diastolic blood pressure                                               | 689 | 757,601     | 0.98  | 0.04  | 48.16         | 0.05     |
| Systolic blood pressure                                                | 650 | 757,601     | 0.98  | 0.02  | 28.26         | 0.05     |
| C-reactive protein                                                      | 410 | 418,642     | 0.99  | 0.36  | 580.61        | 1.00     |

CI, confidence interval; COVID-19, coronavirus disease 2019; HbA1c, hemoglobin A1c; HDL, high-density lipoprotein; HOMA-B, homeostatic model assessment for beta cell function; HOMA-IR, homeostatic model assessment for insulin resistance; IV, instrumental variable; LDL, low-density lipoprotein; MR, Mendelian randomization; NA, not available; NAFLD, nonalcoholic fatty liver disease; OR, odds ratio; TSMR, 2-sample Mendelian randomization.
## Supplementary Table 9. The Causal Effect of the Risk Factors on Severe COVID-19

| Exposure                                      | Method          | n   | Beta  | SE   | p    | Het-P | Ple-P | OR (95% CI) |
|-----------------------------------------------|-----------------|-----|-------|------|------|-------|-------|-------------|
| Nonalcoholic fatty liver diseases             | IVW             | 5   | -0.03 | 0.05 | .61  | .55   | .50   | 0.97 (0.89–1.08) |
| Nonalcoholic fatty liver diseases             | MR-Egger        | 5   | -0.11 | 0.12 | .43  | .48   | .50   | 0.90 (0.70–1.14) |
| Nonalcoholic fatty liver diseases             | Weighted median | 5   | -0.05 | 0.06 | .45  | NA    | .50   | 0.95 (0.85–1.08) |
| Nonalcoholic fatty liver diseases             | MR-PRESSO       | 5   | -0.03 | 0.05 | .59  | NA    | NA    | 0.97 (0.88–1.07) |
| Serum alanine aminotransferase level          | IVW             | 40  | 0.03  | .05  | .47  | .59   | .46   | 1.03 (0.95–1.13) |
| Serum alanine aminotransferase level          | MR-Egger        | 40  | -0.03 | 0.09 | .78  | .57   | .46   | 0.98 (0.82–1.17) |
| Serum alanine aminotransferase level          | Weighted median | 40  | 0.05  | 0.07 | .53  | NA    | .46   | 1.05 (0.91–1.21) |
| Serum alanine aminotransferase level          | MR-PRESSO       | 40  | 0.03  | 0.04 | .46  | NA    | NA    | 1.03 (0.95–1.11) |
| NAS (IVs provided by Namjou B et al)          | IVW             | 2   | 0.02  | 0.02 | .39  | .39   | NA    | 1.02 (0.98–1.05) |
| NAS (IVs with P < 1e-5 provided by Namjou B et al) | IVW            | 16  | -0.01 | 0.01 | .23  | .61   | .90   | 0.99 (0.98–1.01) |
| NAS (IVs with P < 1e-5 provided by Namjou B et al) | MR-Egger       | 16  | -0.01 | 0.03 | .69  | .53   | .90   | 0.99 (0.94–1.05) |
| NAS (IVs with P < 1e-5 provided by Namjou B et al) | Weighted median | 16  | -0.01 | 0.01 | .33  | NA    | .90   | 0.99 (0.97–1.01) |
| NAS (IVs with P < 1e-5 provided by Namjou B et al) | MR-PRESSO      | 16  | -0.01 | 0.01 | .22  | NA    | NA    | 0.99 (0.97–1.01) |
| Fibrosis stage (IVs provided by Namjou B et al) | IVW             | 3   | 0.01  | 0.03 | .87  | .03   | .29   | 1.01 (0.94–1.08) |
| Fibrosis stage (IVs provided by Namjou B et al) | MR-Egger        | 3   | -0.09 | 0.05 | .32  | .26   | .29   | 0.91 (0.83–1.01) |
| Fibrosis stage (IVs provided by Namjou B et al) | MR-Egger SIMEX | 3   | -0.09 | 0.03 | .12  | NA    | NA    | 0.91 (0.86–0.97) |
| Fibrosis stage (IVs provided by Namjou B et al) | Weighted median | 3   | 0.00  | 0.03 | .89  | NA    | .29   | 1.00 (0.95–1.05) |
| Fibrosis stage (IVs with P < 1e-5 provided by Namjou B et al) | IVW             | 52  | 0.01  | 0.01 | .21  | .63   | .01   | 1.01 (1.00–1.02) |
| Fibrosis stage (IVs with P < 1e-5 provided by Namjou B et al) | MR-Egger        | 52  | -0.02 | 0.01 | .10  | .83   | .01   | 0.98 (0.96–1.00) |
| Fibrosis stage (IVs with P < 1e-5 provided by Namjou B et al) | Weighted median | 52  | 0.00  | 0.01 | .96  | NA    | .01   | 1.00 (0.98–1.02) |
| Fibrosis stage (IVs with P < 1e-5 provided by Namjou B et al) | MR-PRESSO       | 52  | 0.01  | 0.01 | .19  | NA    | NA    | 1.01 (0.99–1.03) |
| Grade of steatosis (IVs provided by Anstee QM et al) | IVW             | 2   | 0.07  | 0.09 | .41  | .34   | NA    | 1.08 (0.90–1.29) |
| NAS (IVs provided by Anstee QM et al)          | Wald ratio      | 1   | -0.01 | 0.07 | .91  | NA    | NA    | 0.99 (0.87–1.13) |
| Fibrosis stage (IVs provided by Anstee QM et al) | Wald ratio      | 1   | -0.01 | 0.07 | .91  | NA    | NA    | 0.99 (0.86–1.15) |
| Body mass index                                | IVW             | 81  | 0.55  | 0.1  | 7.65E-09 | .19  | .22   | 1.73 (1.44–2.08) |
| Body mass index                                | MR-Egger        | 81  | 0.22  | 0.28 | .42  | .21   | .22   | 1.25 (0.73–2.15) |
| Body mass index                                | Weighted median | 81  | 0.51  | 0.14 | 1.79E-04 | NA    | .22   | 1.67 (1.28–2.19) |
### Supplementary Table 9. Continued

| Exposure                   | Method            | n   | Beta   | SE    | $P$     | Het-$P$ | Ple-$P$ | OR (95% CI)       |
|----------------------------|-------------------|-----|--------|-------|---------|---------|---------|------------------|
| Body mass index            | MR-PRESSO         | 81  | 0.55   | 0.09  | 1.41E-07| NA      | NA      | 1.73 (1.45–2.07) |
| Waist circumference        | IVW               | 44  | 0.57   | 0.13  | 2.58E-05| .07     | .66     | 1.76 (1.35–2.29) |
| Waist circumference        | MR-Egger          | 44  | 0.77   | 0.47  | .11     | .06     | .66     | 2.16 (0.85–5.43) |
| Waist circumference        | Weighted median   | 44  | 0.56   | 0.17  | 8.71E-04| NA      | .66     | 1.75 (1.26–2.43) |
| Waist circumference        | MR-PRESSO         | 44  | 0.56   | 0.13  | 1.29E-04| NA      | NA      | 1.75 (1.36–2.26) |
| Hip circumference          | IVW               | 54  | 0.29   | 0.11  | 7.26E-03| .08     | .79     | 1.33 (1.08–1.65) |
| Hip circumference          | MR-Egger          | 54  | 0.37   | 0.33  | .26     | .07     | .79     | 1.45 (0.76–2.74) |
| Hip circumference          | Weighted median   | 54  | 0.35   | 0.15  | 9.66E-03| NA      | .79     | 1.42 (1.07–1.89) |
| Waist-to-hip ratio         | IVW               | 34  | 0.09   | 0.17  | .61     | .03     | .37     | 1.09 (0.78–1.53) |
| Waist-to-hip ratio         | MR-Egger          | 34  | 0.51   | 0.68  | .46     | .03     | .37     | 0.60 (0.16–2.28) |
| Waist-to-hip ratio         | Weighted median   | 34  | 0.09   | 0.17  | .62     | NA      | NA      | 1.09 (0.78–1.53) |
| Type 2 diabetes            | IVW               | 29  | 0.01   | 0.03  | .88     | .68     | .12     | 1.00 (0.94–1.06) |
| Type 2 diabetes            | MR-Egger          | 29  | 0.1  | 0.07  | .14     | .76     | .12     | 0.90 (0.79–1.03) |
| Type 2 diabetes            | Weighted median   | 29  | 0.02  | 0.05  | .67     | NA      | .12     | 0.98 (0.89–1.08) |
| Type 2 diabetes            | MR-PRESSO         | 29  | 0.00  | 0.03  | .87     | NA      | NA      | 1.00 (0.94–1.06) |
| Fasting glucose            | IVW               | 98  | 0.02  | 0.14  | .90     | .00     | .12     | 1.02 (0.78–1.33) |
| Fasting glucose            | MR-Egger          | 98  | 0.31  | 0.25  | .21     | .00     | .12     | 0.73 (0.45–1.19) |
| Fasting glucose            | Weighted median   | 98  | 0.09  | 0.17  | .59     | NA      | .12     | 0.91 (0.65–1.28) |
| Fasting glucose            | MR-PRESSO Outlier-corrected | 98 | -0.07 | 0.12 | .55     | NA      | NA      | 0.93 (0.74–1.18) |
| Fasting insulin            | IVW               | 40  | 0.11  | 0.22  | .60     | .45     | .38     | 1.12 (0.74–1.71) |
| Fasting insulin            | MR-Egger          | 40  | -0.44 | 0.66  | .51     | .44     | .38     | 0.64 (0.18–2.36) |
| Fasting insulin            | Weighted median   | 40  | 0.37  | 0.33  | .25     | NA      | .38     | 1.45 (0.77–2.74) |
| Fasting insulin            | MR-PRESSO         | 40  | 0.11  | 0.21  | .60     | NA      | NA      | 1.12 (0.74–1.68) |
| 2-h glucose                | IVW               | 13  | 0.14  | 0.18  | .44     | .00     | .09     | 1.15 (0.81–1.63) |
| 2-h glucose                | MR-Egger          | 13  | -0.68 | 0.47  | .18     | .00     | .09     | 0.51 (0.20–1.27) |
| 2-h glucose                | Weighted median   | 13  | -0.11 | 0.13  | .38     | NA      | .09     | 0.90 (0.70–1.15) |
| 2-h glucose                | MR-PRESSO Outlier-corrected | 13 | 0.02 | 0.09 | .85     | NA      | NA      | 1.02 (0.86–1.22) |
| HbA1c                      | IVW               | 106 | 0.25  | 0.2   | .22     | .00     | .69     | 1.28 (0.86–1.89) |
| HbA1c                      | MR-Egger          | 106 | 0.12  | 0.39  | .77     | .00     | .69     | 1.12 (0.53–2.39) |
| HbA1c                      | Weighted median   | 106 | 0.22  | 0.27  | .42     | NA      | .69     | 1.24 (0.74–2.09) |
| HbA1c                      | MR-PRESSO Outlier-corrected | 106 | 0.23 | 0.17 | .19     | NA      | NA      | 1.26 (0.9–1.76)  |
| HOMA-B                     | IVW               | 11  | -0.12 | 0.28  | .67     | .84     | .52     | 0.89 (0.51–1.55) |
| HOMA-B                     | MR-Egger          | 11  | -0.53 | 0.67  | .45     | .81     | .52     | 0.59 (0.16–2.20) |
| HOMA-B                     | Weighted median   | 11  | 0.20  | 0.38  | .60     | NA      | .52     | 1.22 (0.58–2.56) |
| HOMA-B                     | MR-PRESSO         | 11  | -0.12 | 0.21  | .59     | NA      | NA      | 0.89 (0.59–1.34) |
| HOMA-IR                    | IVW               | 9   | 0.20  | 0.21  | .34     | .47     | .38     | 1.22 (0.81–1.84) |
| HOMA-IR                    | MR-Egger          | 9   | 0.37  | 0.28  | .22     | .45     | .38     | 1.45 (0.84–2.51) |
| HOMA-IR                    | Weighted median   | 9   | 0.36  | 0.25  | .16     | NA      | .38     | 1.43 (0.87–2.35) |
| Exposure                                    | Method                     | n  | Beta  | SE  | P   | Het-P | Ple-P | OR (95% CI)       |
|--------------------------------------------|----------------------------|----|-------|-----|-----|-------|-------|-------------------|
| HOMA-IR                                    | MR-PRESSO                  | 9  | 0.20  | 0.20 | .35 | NA    | NA    | 1.22 (0.83–1.81)  |
| Coronary heart disease                     | IVW                        | 43 | −0.02 | 0.06 | .75 | .00   | .60   | 0.98 (0.88–1.09)  |
| Coronary heart disease                     | MR-Egger                   | 43 | −0.08 | 0.13 | .54 | .00   | .60   | 0.93 (0.73–1.18)  |
| Coronary heart disease                     | Weighted median            | 43 | −0.04 | 0.06 | .53 | NA    | 60    | 0.96 (0.85–1.09)  |
| Coronary heart disease                     | MR-PRESSO Outlier-corrected| 43 | −0.04 | 0.04 | .34 | NA    | NA    | 0.96 (0.89–1.04)  |
| Serum total cholesterol                    | IVW                        | 29 | −0.05 | 0.04 | .28 | .77   | .73   | 0.95 (0.88–1.04)  |
| Serum total cholesterol                    | MR-Egger                   | 29 | −0.02 | 0.09 | .79 | .73   | .73   | 0.98 (0.83–1.15)  |
| Serum total cholesterol                    | Weighted median            | 29 | −0.08 | 0.07 | .21 | NA    | 73    | 0.92 (0.81–1.05)  |
| Serum total cholesterol                    | MR-PRESSO                  | 29 | −0.05 | 0.04 | .23 | NA    | NA    | 0.95 (0.88–1.03)  |
| Serum total triglycerides                  | IVW                        | 11 | 0.02  | 0.07 | .78 | .64   | .40   | 1.02 (0.89–1.17)  |
| Serum total triglycerides                  | MR-Egger                   | 11 | −0.19 | 0.25 | .46 | .62   | .40   | 0.83 (0.51–1.34)  |
| Serum total triglycerides                  | Weighted median            | 11 | −0.10 | 0.09 | .30 | NA    | 40    | 0.91 (0.76–1.09)  |
| Serum total triglycerides                  | MR-PRESSO                  | 11 | 0.02  | 0.06 | .76 | NA    | NA    | 1.02 (0.91–1.15)  |
| Total cholesterol in LDL                   | IVW                        | 39 | −0.04 | 0.05 | .33 | .00   | .50   | 0.96 (0.88–1.05)  |
| Total cholesterol in LDL                   | MR-Egger                   | 39 | −0.09 | 0.08 | .27 | .00   | .50   | 0.92 (0.79–1.07)  |
| Total cholesterol in LDL                   | Weighted median            | 39 | −0.06 | 0.05 | .23 | NA    | 50    | 0.94 (0.85–1.04)  |
| Total cholesterol in LDL                   | MR-PRESSO                  | 39 | −0.06 | 0.03 | .07 | NA    | NA    | 0.94 (0.89–1.00)  |
| Total cholesterol in HDL                   | IVW                        | 18 | 0.04  | 0.05 | .43 | .31   | .15   | 1.04 (0.94–1.16)  |
| Total cholesterol in HDL                   | MR-Egger                   | 18 | 0.22  | 0.13 | .10 | .39   | .15   | 1.24 (0.97–1.59)  |
| Total cholesterol in HDL                   | Weighted median            | 18 | 0.09  | 0.07 | .20 | NA    | 15    | 1.10 (0.95–1.27)  |
| Total cholesterol in HDL                   | MR-PRESSO                  | 18 | 0.04  | 0.05 | .44 | NA    | NA    | 1.04 (0.94–1.15)  |
| Apolipoprotein B                           | IVW                        | 23 | −0.07 | 0.04 | .13 | .83   | .99   | 0.93 (0.86–1.02)  |
| Apolipoprotein B                           | MR-Egger                   | 23 | −0.07 | 0.08 | .43 | .79   | .99   | 0.94 (0.79–1.10)  |
| Apolipoprotein B                           | Weighted median            | 23 | −0.09 | 0.07 | .18 | NA    | 99    | 0.92 (0.80–1.04)  |
| Apolipoprotein B                           | MR-PRESSO                  | 23 | −0.07 | 0.04 | .08 | NA    | NA    | 0.93 (0.86–1.01)  |
| Diastolic blood pressure                   | IVW                        | 689| −0.01 | 0.01 | .27 | .00   | .63   | 0.99 (0.97–1.01)  |
| Diastolic blood pressure                   | MR-Egger                   | 689| 0.00  | 0.03 | .96 | .00   | .63   | 1.00 (0.95–1.05)  |
| Diastolic blood pressure                   | Weighted median            | 689| −0.01 | 0.01 | .46 | NA    | 63    | 0.99 (0.97–1.02)  |
| Diastolic blood pressure                   | MR-PRESSO Outlier-corrected| 689| −0.01 | 0.01 | .36 | NA    | NA    | 0.99 (0.97–1.01)  |
| Systolic blood pressure                    | IVW                        | 650| 0.00  | 0.01 | .70 | .00   | .62   | 1.00 (0.99–1.01)  |
| Systolic blood pressure                    | MR-Egger                   | 650| 0.01  | 0.01 | .75 | .00   | .62   | 1.01 (0.98–1.03)  |
| Systolic blood pressure                    | Weighted median            | 650| 0.01  | 0.01 | .24 | NA    | 62    | 1.01 (0.99–1.03)  |
| C-reactive protein                         | IVW                        | 410| 0.12  | 0.07 | .10 | .57   | .44   | 1.12 (0.98–1.29)  |
| C-reactive protein                         | MR-Egger                   | 410| 0.04  | 0.12 | .71 | .56   | .44   | 1.05 (0.83–1.31)  |
| C-reactive protein                         | Weighted median            | 410| 0.10  | 0.12 | .41 | NA    | 44    | 1.11 (0.87–1.40)  |
| C-reactive protein                         | MR-PRESSO                  | 410| 0.12  | 0.07 | .10 | NA    | NA    | 1.13 (0.98–1.29)  |

For a binary exposure (i.e., nonalcoholic fatty liver disease, type 2 diabetes, coronary heart disease), the effect of the exposure on severe COVID-19 is expressed as the change in severe COVID-19 for each 2.72-fold increase in the exposure.

CI, confidence interval; COVID-19, coronavirus disease 2019; HbA1c, hemoglobin A1c; HDL, high-density lipoprotein; HOMA-B, homeostatic model assessment for beta cell function; HOMA-IR, homeostatic model assessment for insulin resistance; IV, instrumental variable; IVW, inverse variance weighted; LDL, low-density lipoprotein; NA, not available; OR, odds ratio.