

Supplementary table S17. The GWAS data about associations of the studied candidate genes polymorphisms with blood pressure/hypertension, some cardiovascular diseases and anthropometric characteristics.

SNP of gene (position (hg38))	Phenotype	Association (significance) (affected allele)	Reference
rs1173771 <i>AC026703.1</i> (5: 32814922)	SBP	$\beta = 0.50$ ( $p = 1.8 \times 10^{-16}$ ) (G)	International Consortium et al., 2011
	DBP	$\beta = 0.26$ ( $p = 9.1 \times 10^{-12}$ ) (G)	
	Hypertension	$\beta = 0.06$ ( $p = 3.2 \times 10^{-10}$ ) (G)	
	MAP	$\beta = 0.28$ ( $p = 3.51 \times 10^{-9}$ ) (G)	Wain L. V., et al., 2011
	PP	$\beta = 0.28$ ( $p = 4.56 \times 10^{-9}$ ) (G)	
	MAP	$\beta = -0.35$ ( $p = 3.19 \times 10^{-8}$ ) (A)	Kato N., et al., 2015
	Hip circumference (sex-combined)	$\beta = 0.03$ ( $p = 6.13 \times 10^{-13}$ ) (A)	Shungin D., et al., 2015
	Hip circumference (men)	$\beta = 0.03$ ( $p = 6.19 \times 10^{-8}$ ) (A)	
	SBP	$\beta = -0.43$ ( $p = 2.0 \times 10^{-28}$ ) (A)	Hoffmann T. J. et al., 2017
	PP	$\beta = -0.25$ ( $p = 1.0 \times 10^{-21}$ ) (A)	
	DBP	$\beta = -0.19$ ( $p = 8.0 \times 10^{-16}$ ) (A)	
	Height	$\beta = 0.04$ ( $p = 9.0 \times 10^{-8}$ ) (A)	Tachmazidou I., et al., 2017
	SBP	$\beta = 0.51$ ( $p = 3.20 \times 10^{-12}$ ) (G)	Wain L. V., et al., 2017
	PP	$\beta = 0.28$ ( $p = 2.36 \times 10^{-9}$ ) (G)	
	SBP (smoking interaction) (European)	$p = 1.74 \times 10^{-38}$	Sung Y. J., et al., 2018
	DBP (smoking interaction) (European)	$p = 3.62 \times 10^{-22}$	
	SBP (smoking interaction) (trans-ethnic data)	$p = 8.25 \times 10^{-44}$	
	DBP (smoking interaction) (trans-ethnic data)	$p = 2.75 \times 10^{-28}$	
	SBP	$\beta = -0.42$ ( $p = 4.19 \times 10^{-8}$ ) (A)	Takeuchi F., et al., 2018
	MAP	$\beta = -0.29$ ( $p = 5.39 \times 10^{-8}$ ) (A)	
rs1799945 <i>HFE</i> (6: 26090951)	DBP	$\beta = 0.46$ ( $p = 1.5 \times 10^{-15}$ ) (G)	International Consortium et al., 2011
	SBP	$\beta = 0.62$ ( $p = 7.7 \times 10^{-12}$ ) (G)	
	Hypertension	$\beta = 0.10$ ( $p = 1.8 \times 10^{-10}$ ) (G)	
	DBP	$\beta = -0.43$ ( $p = 3.1 \times 10^{-16}$ ) (C)	Ehret G. B. et al., 2016
	SBP	$\beta = -0.60$ ( $p = 3.28 \times 10^{-12}$ ) (C)	
	DBP	$\beta = -0.29$ ( $p = 1.0 \times 10^{-18}$ ) (C)	Hoffmann T. J. et al., 2017
	SBP	$\beta = -0.36$ ( $p = 4.0 \times 10^{-11}$ ) (C)	

	DBP	$\beta = 0.52$ ( $p = 9.2 \times 10^{-18}$ ) (G)	Liu C. et al., 2016
	MAP	$\beta = 0.58$ ( $p = 1.0 \times 10^{-17}$ ) (G)	
	SBP	$\beta = 0.70$ ( $p = 6.2 \times 10^{-13}$ ) (G)	
	Hypertension	Z score = 0.039 ( $p = 3.7 \times 10^{-9}$ ) (G)	
	DBP (trans-ethnic data)	$\beta = -0.03$ ( $p = 1.26 \times 10^{-19}$ ) (C)	Surendran P. et al., 2016
	DBP (European)	$\beta = -0.03$ ( $p = 9.82 \times 10^{-10}$ ) (C)	
	DBP	$\beta = 0.47$ ( $p = 8.87 \times 10^{-14}$ ) (G)	Wain L. V. et al., 2017
	SBP	$\beta = 0.63$ ( $p = 7.63 \times 10^{-10}$ ) (G)	
	DBP (smoking interaction) (European)	$p = 1.51 \times 10^{-31}$	Sung Y. J. et al., 2018
	SBP (smoking interaction) (European)	$p = 8.46 \times 10^{-17}$	
	DBP (smoking interaction) (trans-ethnic data)	$p = 3.77 \times 10^{-33}$	
	SBP (smoking interaction) (trans-ethnic data)	$p = 7.43 \times 10^{-19}$	
rs805303 <i>BAG6/</i> <i>BAT2-BAT5</i> (6: 31648589)	SBP	$\beta = 0.37$ ( $p = 1.5 \times 10^{-11}$ ) (G)	International Consortium et al., 2011
	DBP	$\beta = 0.23$ ( $p = 3.0 \times 10^{-11}$ ) (G)	
	Hypertension	$\beta = 0.05$ ( $p = 1.1 \times 10^{-10}$ ) (G)	Surendran P. et al., 2016
	SBP (European)	$\beta = -0.02$ ( $p = 3.02 \times 10^{-6}$ ) (A)	
rs932764 <i>PLCE1</i> (10: 94136183)	SBP	$\beta = 0.48$ ( $p = 7.1 \times 10^{-16}$ ) (G)	International Consortium et al., 2011
	Hypertension	$\beta = 0.06$ ( $p = 9.4 \times 10^{-9}$ ) (G)	
	SBP	$\beta = -0.50$ ( $p = 6.88 \times 10^{-17}$ ) (A)	Ehret G. B., et al., 2016
	DBP	$\beta = -0.22$ ( $p = 6.28 \times 10^{-10}$ ) (A)	
	SBP	$\beta = -0.30$ ( $p = 1.0 \times 10^{-14}$ ) (A)	Hoffmann T. J. et al., 2016
	PP	$\beta = -0.16$ ( $p = 3.0 \times 10^{-10}$ ) (A)	
	PP	$\beta = 0.26$ ( $p = 5.67 \times 10^{-8}$ ) (G)	Wain L. V., et al., 2017
rs4387287 <i>OBFC1</i> (10:103918139)	DBP (European)	$\beta = 0.22$ ( $p = 5.55 \times 10^{-8}$ ) (A)	Surendran P. et al., 2016
	SBP (European)	$\beta = 0.34$ ( $p = 2.21 \times 10^{-7}$ ) (A)	
	DBP (trans-ethnic data)	$\beta = 0.22$ ( $p = 4.21 \times 10^{-10}$ ) (A)	
	SBP (trans-ethnic data)	$\beta = 0.36$ ( $p = 9.12 \times 10^{-10}$ ) (A)	
	Hypertension (trans-ethnic data)	Z score = 5.58 ( $p = 2.37 \times 10^{-8}$ ) (A)	
rs633185 <i>ARHGAP42</i> (11:100722807)	SBP	$\beta = -0.57$ ( $p = 1.2 \times 10^{-17}$ ) (G)	International Consortium et al., 2011
	DBP	$\beta = -0.33$ ( $p = 2.0 \times 10^{-15}$ ) (G)	
	Hypertension	$\beta = -0.07$ ( $p = 6.4 \times 10^{-11}$ ) (G)	

	SBP	$\beta = 0.52$ ( $p = 6.97 \times 10^{-15}$ ) (C)	Ehret G. B., et al., 2016
	DBP	$\beta = 0.29$ ( $p = 2.38 \times 10^{-12}$ ) (C)	
	SBP	$\beta = -0.49$ ( $p = 1.0 \times 10^{-31}$ ) (G)	Hoffmann T. J. et al., 2016
	DBP	$\beta = -0.27$ ( $p = 1.0 \times 10^{-26}$ ) (G)	
	PP	$\beta = -0.22$ ( $p = 1.0 \times 10^{-15}$ ) (G)	
	SBP	$\beta = 0.52$ ( $p = 8.43 \times 10^{-11}$ ) (C)	Wain L. V., et al., 2017
	DBP	$\beta = 0.27$ ( $p = 2.33 \times 10^{-8}$ ) (C)	
	SBP x alcohol consumption interaction	$\beta = 0.54$ ( $p = 2.24 \times 10^{-29}$ ) (C)	Feitosa M. F. et al., 2018
	MAP x alcohol consumption interaction	$\beta = 0.22$ ( $p = 2 \times 10^{-12}$ ) (C)	
	MAP	$\beta = 0.39$ ( $p = 2.56 \times 10^{-13}$ ) (C)	Takeuchi F., et al., 2018
	SBP	$\beta = 0.51$ ( $p = 7.16 \times 10^{-12}$ ) (C)	
	DBP	$\beta = 0.33$ ( $p = 8.93 \times 10^{-12}$ ) (C)	
	Hypertension	$\beta = 0.08$ ( $p = 5.13 \times 10^{-10}$ ) (C)	
	Coronary artery disease	( $p = 8.81 \times 10^{-9}$ ) (C)	Zhou W., et al., 2018
	High blood pressure and chronic obstructive pulmonary disease	( $p = 1.18 \times 10^{-47}$ )	Zhu Z., et al., 2019
	SBP (smoking interaction) (European)	$p = 8.44 \times 10^{-30}$	Sung Y. J., et al., 2018
	DBP (smoking interaction) (European)	$p = 2.68 \times 10^{-30}$	
	SBP (smoking interaction) (trans-ethnic data)	$p = 1.80 \times 10^{-40}$	
	DBP (smoking interaction) (trans-ethnic data)	$p = 1.18 \times 10^{-40}$	
	MAP	$\beta = 0.03$ ( $p = 3.05 \times 10^{-50}$ ) (C)	Sakaue S. et al., 2021
rs7302981 <i>CERS5/AC074032.1</i> (12:50144032)	Hypertension	Z score = 6.23 ( $p = 4.8 \times 10^{-10}$ ) (A)	Liu C. et al., 2016
	SBP	$\beta = 0.37$ ( $p = 9.4 \times 10^{-15}$ ) (A)	
	DBP	$\beta = 0.25$ ( $p = 9.4 \times 10^{-19}$ ) (A)	
	DBP (European)	$\beta = 0.25$ ( $p = 1.38 \times 10^{-17}$ ) (A)	Surendran P. et al., 2016
	SBP (European)	$\beta = 0.34$ ( $p = 6.06 \times 10^{-13}$ ) (A)	
	Hypertension (European)	Z score = 6.07 ( $p = 1.28 \times 10^{-9}$ ) (A)	
	DBP (trans-ethnic data)	$\beta = 0.25$ ( $p = 2.60 \times 10^{-19}$ ) (A)	
	SBP (trans-ethnic data)	$\beta = 0.35$ ( $p = 9.94 \times 10^{-19}$ ) (A)	
	Hypertension (trans-ethnic data)	Z score = 6.17 ( $p = 6.82 \times 10^{-10}$ ) (A)	
rs2681472 <i>ATP2B1</i> (12: 89615182)	DBP	$\beta = 0.50$ ( $p = 1.47 \times 10^{-9}$ ) (A)	Levy D. et al., 2009
	Hypertension	$\beta = 0.15$ ( $p = 1.75 \times 10^{-11}$ ) (A)	
	Coronary artery disease	OR = 1.08 ( $p = 6.17 \times 10^{-11}$ ) (G)	Nikpay M., et al., 2015

	Myocardial infarction	OR = 1.08 ( $p = 6.03 \times 10^{-9}$ ) (G)	Liu C. et al., 2016
	MAP	$\beta = -0.59$ ( $p = 1.1 \times 10^{-21}$ ) (G)	
	SBP	$\beta = -0.85$ ( $p = 1.3 \times 10^{-21}$ ) (G)	
	DBP	$\beta = -0.47$ ( $p = 3.7 \times 10^{-17}$ ) (G)	
	Hypertension	$\beta = -0.033$ ( $p = 3.5 \times 10^{-8}$ ) (G)	
	Coronary artery disease	OR = 1.07 ( $p = 1 \times 10^{-21}$ ) (G)	Nelson C. P., et al., 2017
	SBP	$\beta = 0.72$ ( $p = 1.06 \times 10^{-20}$ ) (A)	Takeuchi F., et al., 2018
	DBP	$\beta = 0.33$ ( $p = 3.77 \times 10^{-11}$ ) (A)	
	MAP	$\beta = 0.46$ ( $p = 5.05 \times 10^{-17}$ ) (A)	
	PP	$\beta = 0.40$ ( $p = 5.49 \times 10^{-14}$ ) (A)	
	Hypertension	$\beta = 0.07$ ( $p = 1.41 \times 10^{-6}$ ) (A)	
	Coronary artery disease (trans-ethnic data)	$\beta = 0.060$ ( $p = 6.8 \times 10^{-25}$ ) (G)	Koyama S., et al., 2020
	Coronary artery disease (Japanese)	$\beta = 0.068$ ( $p = 2.6 \times 10^{-11}$ ) (G)	Hartiala J. A., et al., 2020
	Myocardial infarction	OR = 1.07 ( $p = 1.3 \times 10^{-12}$ ) (G)	
rs8068318 <i>TBX2/</i> <i>TBX2-AS1</i> (17:61406405)	Myocardial infarction	$\beta = 0.071$ ( $p = 1.17 \times 10^{-11}$ ) (G)	Sakaue S. et al., 2021
	MAP	$\beta = -0.28$ ( $p = 2.0 \times 10^{-8}$ ) (C)	Liu C. et al., 2016
	SBP	$\beta = -0.42$ ( $p = 3.9 \times 10^{-17}$ ) (C)	
	Hypertension	Z score = $-6.96$ ( $p = 3.0 \times 10^{-12}$ ) (C)	
	DBP	$\beta = -0.26$ ( $p = 3.0 \times 10^{-18}$ ) (C)	
	SBP (European)	$\beta = 0.42$ ( $p = 1.3 \times 10^{-15}$ ) (T)	Surendran P. et al., 2016
	DBP (European)	$\beta = 0.26$ ( $p = 1.95 \times 10^{-16}$ ) (T)	
	Hypertension (European)	Z score = $6.97$ ( $p = 3.21 \times 10^{-12}$ ) (T)	
	DBP (trans-ethnic data)	$\beta = 0.25$ ( $p = 2.75 \times 10^{-18}$ ) (T)	
	SBP (trans-ethnic data)	$\beta = 0.41$ ( $p = 2.3 \times 10^{-17}$ ) (T)	
	Hypertension (trans-ethnic data)	Z score = $6.96$ ( $p = 3.43 \times 10^{-12}$ ) (T)	
rs167479 <i>RGL3</i> (19:11416089)	SBP	$\beta = 0.41$ ( $p = 1.6 \times 10^{-21}$ ) (G)	Hoffmann T. J. et al., 2017
	DBP	$\beta = 0.25$ ( $p = 4.3 \times 10^{-22}$ ) (G)	
	PP	$\beta = 0.18$ ( $p = 3.2 \times 10^{-8}$ ) (G)	
	MAP	$\beta = -0.30$ ( $p = 7.3 \times 10^{-11}$ ) (T)	
	Hypertension	Z score = $-7.72$ ( $p = 1.2 \times 10^{-14}$ ) (T)	Liu C. et al., 2016
	SBP	$\beta = -0.45$ ( $p = 1.0 \times 10^{-23}$ ) (T)	
	DBP	$\beta = -0.30$ ( $p = 4.2 \times 10^{-28}$ ) (T)	
	DBP (European)	$\beta = -0.33$ ( $p = 1.99 \times 10^{-31}$ ) (T)	
	SBP (European)	$\beta = -0.50$ ( $p = 1.49 \times 10^{-26}$ ) (T)	Surendran P. et al., 2016
	Hypertension (European)	Z score = $-7.86$ ( $p = 4.01 \times 10^{-15}$ ) (T)	

	DBP (trans-ethnic data)	$\beta = -0.31$ ( $p = 2.76 \times 10^{-32}$ ) (T)	
	SBP (trans-ethnic data)	$\beta = -0.47$ ( $p = 8.64 \times 10^{-27}$ ) (T)	
	Hypertension (trans-ethnic data)	Z score = $-7.88$ ( $p = 3.37 \times 10^{-15}$ ) (T)	
	SBP	$\beta = -0.41$ ( $p = 4.32 \times 10^{-36}$ ) (T)	Giri A. et al. 2018
	Hypertension	$\beta = 0.05$ ( $p = 8.0 \times 10^{-16}$ ) (G)	German C. A., 2019
	Hypertension	OR = $0.84 - 0.92$ ( $p = 2.37 \times 10^{-8}$ ) (T)	Jeong H. et al., 2020
	SBP	$\beta = -0.027$ ( $p = 3.24 \times 10^{-46}$ ) (T)	Sakaue S. et al., 2021
	DBP	$\beta = -0.026$ ( $p = 2.24 \times 10^{-48}$ ) (T)	
	PP	$\beta = -0.016$ ( $p = 7.72 \times 10^{-18}$ ) (T)	
	MAP	$\beta = -0.028$ ( $p = 3.64 \times 10^{-48}$ ) (T)	

Notes: SBP - systolic blood pressure; DBP - diastolic blood pressure; MAP - mean arterial pressure; PP - pulse blood pressure; z-score - standard scores,  $\beta$  – effect, OR – odds ratio,  $p$  – significance level.