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Genome-wide association study of peripheral artery disease in the Million Veteran Program

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Supplementary Table 1 - Demographic and clinical characteristics for veterans in the MVP PAD genome-wide association study

	<u>White</u>		<u>Black</u>		<u>Hispanic</u>	
	PAD Cases	PAD Controls	PAD Cases	PAD Controls	PAD Cases	PAD Controls
Veterans, N	24,009	150,983	5,373	42,485	1,925	18,285
Age $\pm$ SD, years	74.4 $\pm$ 9.4	66.9 $\pm$ 13.2	69.6 $\pm$ 9.4	60.4 $\pm$ 11.6	71.6 $\pm$ 9.6	59.0 $\pm$ 14.8
Male, n (%)	23,416 (97.5%)	138,753 (91.9%)	5,166 (96.1%)	36,188 (85.2%)	1,885 (97.9%)	16,400 (89.7%)
Statin Therapy Prescription, n (%)	12,351 (51.4%)	61,575 (40.8%)	3,401 (63.3%)	15,787 (37.2%)	1,340 (69.6%)	7,460 (40.8%)
Diabetes, n (%)	13,314 (55.4%)	45,307 (30.0%)	3,568 (66.4%)	16,242 (38.2%)	1,431 (74.3%)	11,943 (65.3%)
Mean Max LDL-C $\pm$ SD, mg/dL	142.0 $\pm$ 38.9	139.6 $\pm$ 37.8	149.3 $\pm$ 43.7	141.9 $\pm$ 40.0	145.5 $\pm$ 40.4	141.5 $\pm$ 38.1
Former Smoker, n (%)	14,056 (58.5%)	80,809 (53.5%)	2,696 (50.1%)	17,729 (41.7%)	1,144 (59.4%)	8,660 (47.4%)
Current Smoker, n (%)	6,643 (27.7%)	25,040 (16.6%)	1,954 (36.4%)	10,988 (25.8%)	413 (21.4%)	2,788 (15.2%)
Variants Passing Quality Control	20,323,458		32,412,077		31,270,737	

Abbreviations: MVP, Million Veteran Program; PAD, Peripheral Artery Disease; SD, Standard Deviation; LDL-C, Low-Density Lipoprotein Cholesterol; mg/dL, milligrams per deciliter; Max, Maximum

Supplementary Table 3 - Odds ratios and two-sided logistic regression P values for three lead autosomal, genome-wide associated PAD variants previously reported in the literature and the lead variant and logistic regression odds ratios and two-sided P values in MVP (N = 31,307 PAD cases and 211,753 controls).

Published Lead Variant	Chr	Locus	Published OR	Published P Value	MVP Lead Variant*	MVP OR	MVP P Value	Ref
rs9584669	13	<i>IPO5/RAP2A</i>	1.72	6.8×10^{-14}	rs9584742	1.09	0.003	⁴
rs6842241	4	<i>EDNRA</i>	1.18	5.3×10^{-9}	rs6841581	1.07	1.9×10^{-9}	⁴
rs10757269	9	<i>9p21</i>	NA**	2.7×10^{-9}	rs1537372	1.11	2.0×10^{-28}	³

* Defined as the lead variant in MVP within a 500kB window around previously published lead variant

** Previously reported based on a GWAS of ankle-brachial index (ABI) as a continuous trait

Abbreviations: Chr, chromosome; OR, Odds Ratio; Ref, Reference; GWAS, Genome-wide Association Study; MVP, Million Veteran Program; PAD, Peripheral Artery Disease

Supplementary Table 13 - Overlap of CAD and PAD diagnoses in the 174,992 white veterans in the MVP PAD GWAS analysis

	<u>CAD Case</u>	<u>CAD Control</u>	<u>Total</u>
<u>PAD Case</u>	15,342	8,667	24,009
<u>PAD Control</u>	35,073	115,910	150,983
<u>Total</u>	50,415	124,577	174,992

Abbreviations: CAD, Coronary Artery Disease, PAD, Peripheral Artery Disease, GWAS, Genome-wide Association Study; MVP, Million Veteran Program

Supplementary Table 15 - Overlap of LAS and PAD diagnoses in the 174,992 white veterans in the MVP PAD GWAS analysis

	<u>LAS Case</u>	<u>LAS Control</u>	<u>Total</u>
<u>PAD Case</u>	519	23,490	24,009
<u>PAD Control</u>	186	150,797	150,983
<u>Total</u>	705	174,287	174,992

Abbreviations: LAS, Large Artery Stroke, PAD, Peripheral Artery Disease, GWAS, Genome-wide Association Study; MVP, Million Veteran Program

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