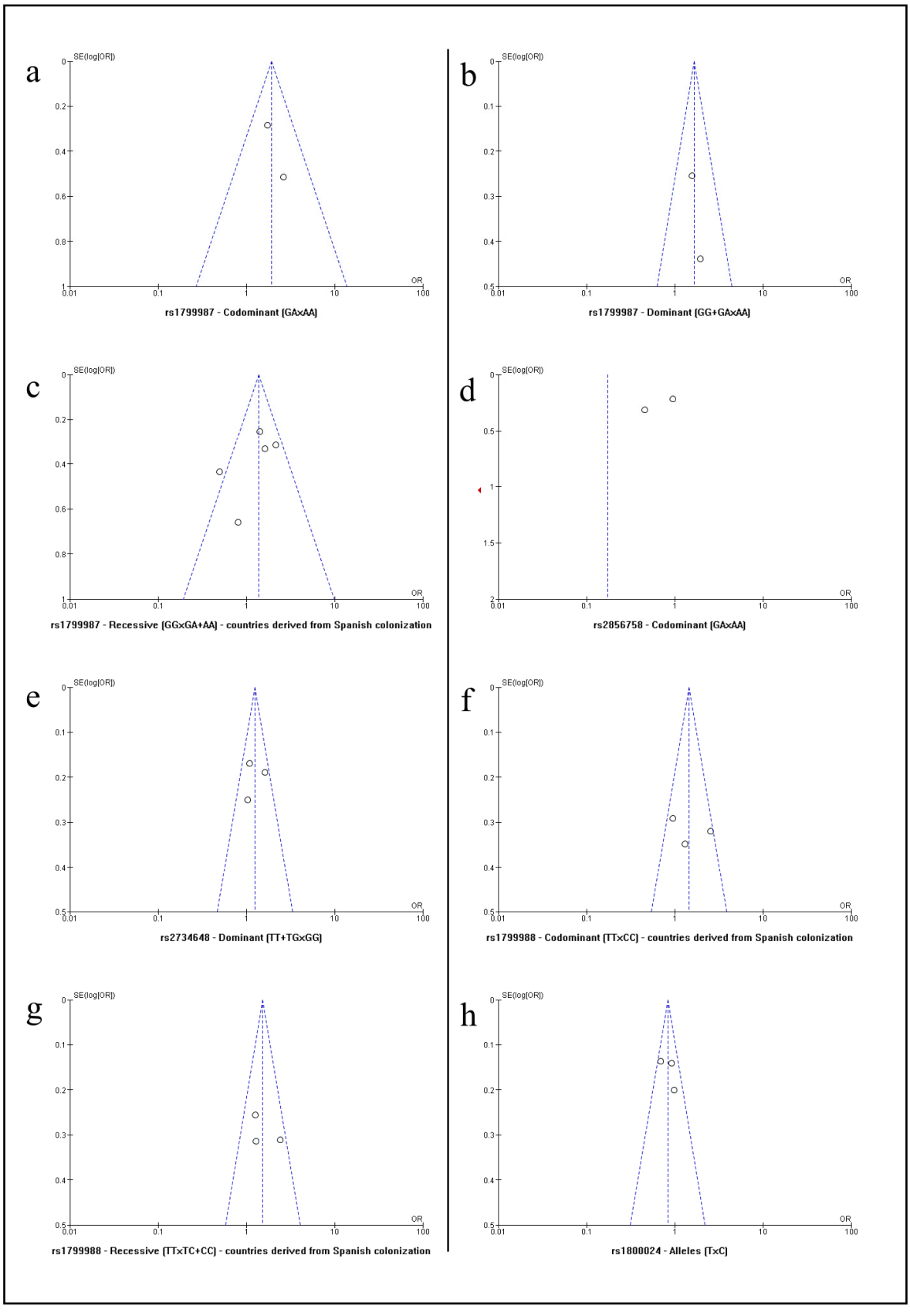
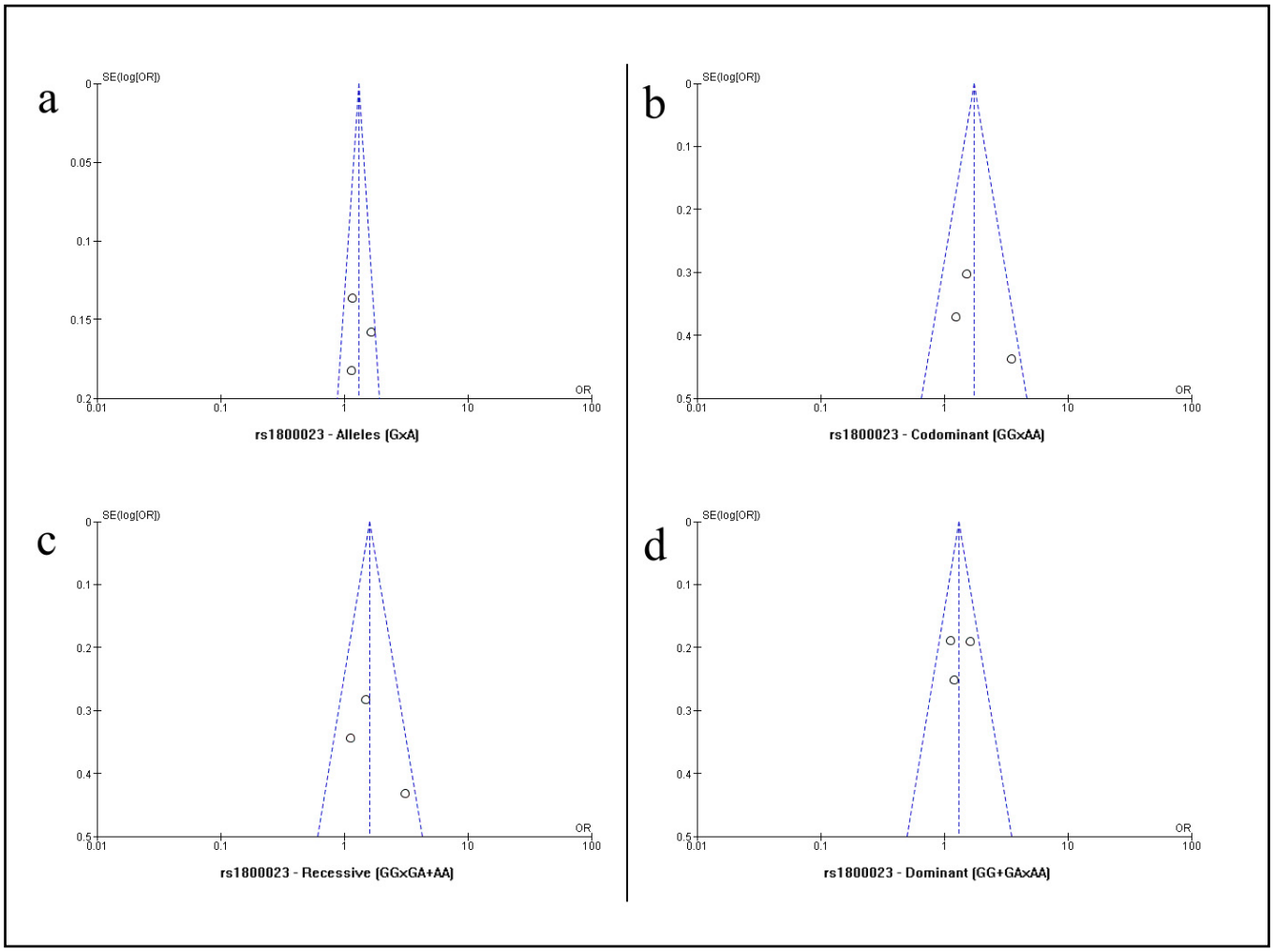
Supplementary Materials

Supplementary Figure S1. Funnel plots obtained from comparisons with significant results ($p \leq 0.05$) of the SNPs rs1799987, rs2856758, rs2734648, rs1799988 and rs1800024.



Source: Author, 2023.

Supplementary Figure S2. Funnel plots obtained from comparisons with significant results ($p \leq 0.05$) of SNP rs1800023.



Source: Author, 2023.

In all groups, the Hardy-Weinberg equilibrium (HWE) was analyzed. The Chi-square test (χ^2) was performed in all comparisons, and results with $p \leq 0.05$ were considered significant.

Supplementary Table S1. Genetic variants, comparisons made between groups and their individual and total frequencies.

Polymorphism	Comparison (group 1 *vs*. group 2), and sample power (SP%)*	Group 1 frequency**	Group 2 frequency**	Total frequency (group 1+ group 2)**
rs2856758	CardCP *vs.* UndCP, SP=100%	AA=0,7599388379 AG=0,1605504587 GG=0,07951070336 A=0,8402140673 G=0,1597859327	AA=0,4076539101 AG=0,2013311148 GG=0,391014975 A=0,5083194676 G=0,4916805324	AA=0,5912350598 AG=0,1800796813 GG=0,228685259 A=0,6812749004 G=0,3187250996
rs2734648	CardCP *vs.* UndCP, SP>99%	TT=0,1348314607 TG=0,4185393258 GG=0,4466292135 T=0,3441011236 G=0,6558988764	TT=0,09921259843 TG=0,3763779528 GG=0,5244094488 T=0,2874015748 G=0,7125984252	TT=0,1180400891 TG=0,3986636971 GG=0,4832962138 T=0,3173719376 G=0,6826280624
rs1799987	nonCp *vs.* CardCP, SP>96%	AA=0,3661417323 AG=0,4212598425 GG=0,2125984252 A=0,5767716535 G=0,4232283465	AA=0,4444444444 AG=0,3137254902 GG=0,2418300654 A=0,6013071895 G=0,3986928105	AA=0,4307856761 AG=0,4783538215 GG=0,2266167825 A=0,6699625869 G=0,4657936932
	CardCP *vs.* UndCP, SP>99%	AA=0,373284538 AG=0,4226898445 GG=0,2040256176 A=0,5846294602 G=0,4153705398	AA=0,4380952381 AG=0,4107142857 GG=0,1511904762 A=0,643452381 G=0,356547619	AA=0,4014485256 AG=0,4174857734 GG=0,181065701 A=0,6101914123 G=0,3898085877
	CardCP *vs.* UndCP, SP>99%**	AA**=0,4106145251 AG**=0,406424581 GG**=0,1829608939 A**=0,6138268156 G**=0,3861731844	AA**=0,4622093023 AG**=0,4098837209 GG**=0,1279069767 A**=0,6671511628 G**=0,3328488372	AA**=0,4358974359 AG**=0,4081196581 GG**=0,155982906 A**=0,639957265 G**=0,360042735

	CardCP *vs.* UndCP, SP>37%***	AA***=0,3023872679	AA***=0,3289473684	AA***=0,3100189036
		AG***=0,4535809019	AG***=0,4144736842	AG***=0,4423440454
		GG***=0,2440318302	GG***=0,2565789474	GG***=0,247637051
		A***=0,5291777188	A***=0,5361842105	A***=0,5311909263
		G***=0,4708222812	G***=0,4638157895	G***=0,4688090737
	CP *vs.* nonCp, SP >37%	AA=0,3717105263	AA=0,3661417323	AA=0,3691756272
		AG=0,3914473684	AG=0,4212598425	AG=0,4050179211
		GG=0,2368421053	GG=0,2125984252	GG=0,2258064516
		A=0,5674342105	A=0,5767716535	A=0,5716845878
		G=0,4325657895	G=0,4232283465	G=0,4283154122
	SympCP *vs.* UndCP, SP=100%	AA=0,3346265761	AA=0,4380952381	AA=0,3810796366
		AG=0,4296799224	AG=0,4107142857	AG=0,4211651523
		GG=0,2356935015	GG=0,1511904762	GG=0,1977552111
		A=0,5494665373	A=0,643452381	A=0,5916622127
		G0,4505334627	G0,356547619	G=0,4083377873
	nonCP *vs.* UndCP, SP>57%	AA=0,3661417323	AA=0,4224137931	AA=0,3837837838
		AG=0,4212598425	AG=0,3534482759	AG=0,4
		GG=0,2125984252	GG=0,224137931	GG=0,2162162162
		A=0,5767716535	A=0,599137931	A=0,5837837838
		G=0,4232283465	G=0,400862069	G=0,4162162162
rs1799988	CardCP *vs.* UndCP, SP>99%	TT=0,1867007673	TT=0,1544827586	TT=0,1712010617
		TC=0,4347826087	TC=0,4303448276	TC=0,4326476443
		CC=0,378516624	CC=0,4151724138	CC=0,396151294
		T=0,4040920716	T=0,3696551724	T=0,3875248839
		C=0,5959079284	C=0,6303448276	C=0,6124751161
	CardCP *vs.* UndCP, SP>99%**	TT**=0,1833060556	TT**=0,1217391304	TT**=0,1534569983
		TC**=0,410801964	TC**=0,4330434783	TC**=0,4215851602
		CC**=0,4058919804	CC**=0,4452173913	CC**=0,4249578415
		T**=0,3887070376	T**=0,3382608696	T**=0,3642495784

		C**=0,6112929624	C**=0,6617391304	C**=0,6357504216
rs41469351	CardCP *vs.* UndCP#	TT=0 TC=0,01966292135 CC=0,9803370787 T=0,009831460674 C=0,9901685393	TT=0 TC=0,01417322835 CC=0,9858267717 T=0,007086614173 C=0,9929133858	TT=0 TC=0,01707498144 CC=0,9829250186 T=0,00853749072 C=0,9914625093
rs1800023	CardCP *vs.* UndCP, SP=100%	AA=0,4504065041 AG=0,4178861789 GG=0,1317073171 A=0,6593495935 G=0,3406504065	AA=0,5357737105 AG=0,3826955075 GG=0,08153078203 A=0,7271214642 G=0,2728785358	AA=0,4925986842 AG=0,4004934211 GG=0,1069078947 A=0,6928453947 G=0,3071546053
rs1800024	CardCP *vs.* UndCP, SP>99%	TT=0,1795231417 TC=0,3267882188 CC=0,4936886396 T=0,3429172511 C=0,6570827489	TT=0,2353870458 TC=0,345971564 CC=0,4186413902 T=0,4083728278 C=0,5916271722	TT=0,205794948 TC=0,3358098068 CC=0,4583952452 T=0,3736998514 C=0,6263001486
rs333[Δ32]	CP *vs.* nonCp#	Del/Del=0 Del/Ins=0,06647398844 Ins/Ins=0,9335260116 Del=0,03323699422 Ins=0,9667630058	Del/Del=0,003861003861 Del/Ins=0,06177606178 Ins/Ins=0,9343629344 Del=0,03474903475 Ins=0,9652509653	Del/Del=0,001051524711 Del/Ins=0,06519453207 Ins/Ins=0,9337539432 Del=0,03364879075 Ins=0,9663512093
	CardCP *vs.* UndCP#	Del/Del=0 Del/Ins=0,07103825137 Ins/Ins=0,9289617486 Del=0,03551912568 Ins0,9644808743	Del/Del=0 Del/Ins=0,06912442396 Ins/Ins=0,930875576 Del=0,03456221198 Ins=0,965437788	Del/Del=0 Del/Ins=0,07032590051 Ins/Ins=0,9296740995 Del=0,03516295026 Ins=0,9648370497
	nonCP *vs.* UndCP#	Del/Del=0,003861003861 Del/Ins=0,06177606178 Ins/Ins=0,9343629344 Del=0,03474903475	Del/Del=0 Del/Ins=0,06912442396 Ins/Ins=0,930875576 Del=0,03456221198	Del/Del=0,002100840336 Del/Ins=0,06512605042 Ins/Ins=0,9327731092 Del=0,03466386555

	Ins=0,9652509653	Ins=0,965437788	Ins=0,9653361345
nonCp *vs.* CardCP[#]	Del/Del=0,003861003861	Del/Del=0	Del/Del=0,0016
	Del/Ins=0,06177606178	Del/Ins=0,07103825137	Del/Ins=0,0672
	Ins/Ins=0,9343629344	Ins/Ins=0,9289617486	Ins/Ins=0,9312
	Del=0,03474903475	Del=0,03551912568	Del=0,0352
	Ins=0,9652509653	Ins=0,9644808743	Ins=0,9648

[*]Sampling power >80 indicates a good representation of the population (effect expressed in the population). Polymorphisms not associated by the meta-analysis (increased or reduced risk) did not have SP calculated; [**] Frequency found using all study participants; [***] Analyses conducted only with samples from countries arising from Spanish Colonization; [****] Analyses conducted with Brazilian samples only, # Analysis unable to be completed due to lack of data.

Source: Author, 2023.