

Supplementary Material

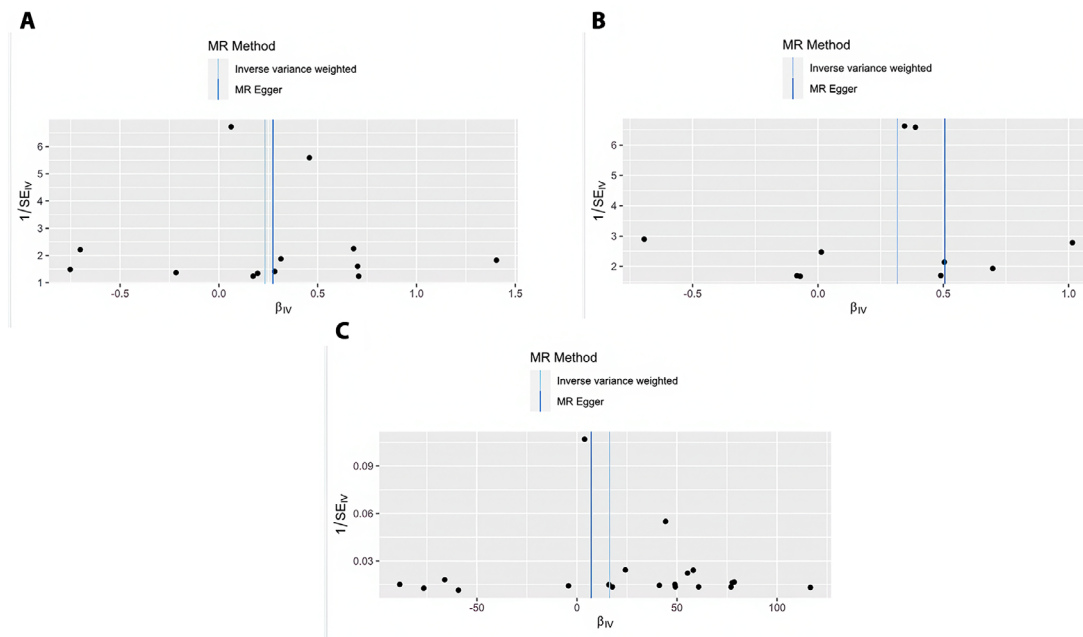


Figure S1. Funnel plot of three psoriasis cohorts and BP in our Mendelian randomization study. (A) ebi-a-GCST90018907, (B) ukb-b-10537, (C) finn-b-L12_PSORI_VULG.

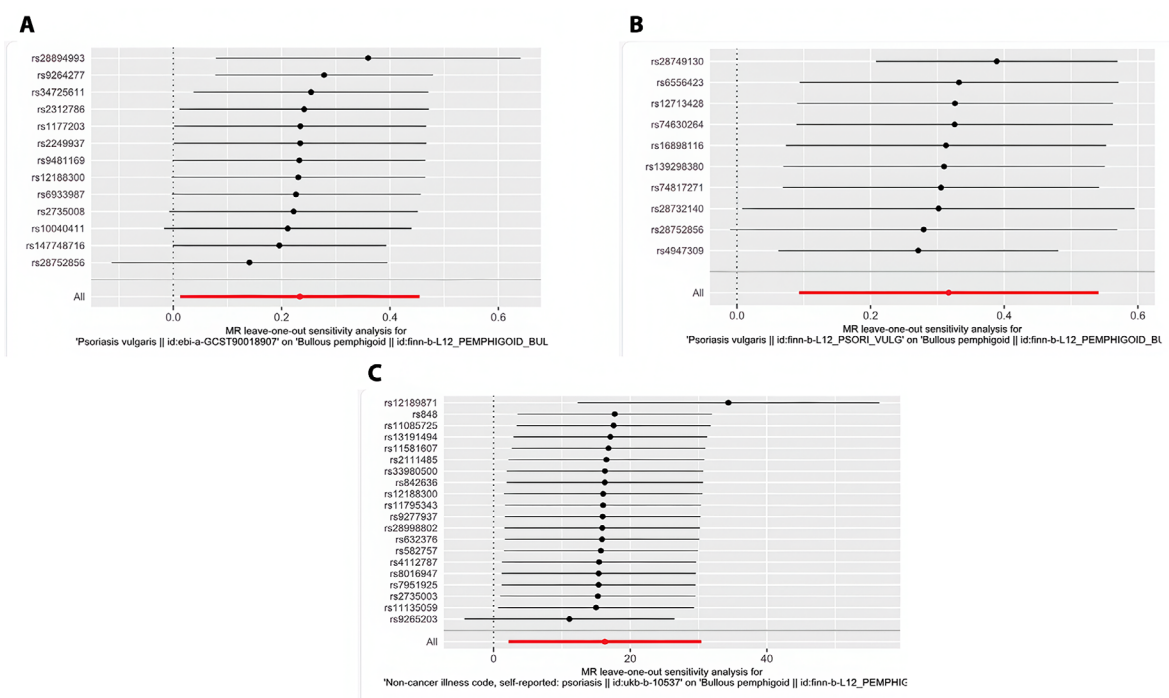


Figure S2. Results of “Leave-one-out” sensitivity analysis of three psoriasis cohorts and BP in our Mendelian randomization study. (A) ebi-a-GCST90018907, (B) ukb-b-10537, (C) finn-b-L12_PSORI_VULG.

Table S1. Information of SNPs Instrumental Variants associated with Bullous Pemphigoid using for reverse MR.

Bullous Pemphigoid	SNP	chr	pos	beta	se	p-value	effect_allele	other_allele	eaf
finn-b-L12_PEMPHIGOID_BULL	rs76965871	1	175729422	3.0219	0.6069	6.37E-07	A	G	0.01108
finn-b-L12_PEMPHIGOID_BULL	rs11205458	1	48695658	0.4553	0.0995	4.71E-06	G	C	0.6242
finn-b-L12_PEMPHIGOID_BULL	rs145834662	2	85296873	4.7943	1.0489	4.86E-06	A	T	0.004581
finn-b-L12_PEMPHIGOID_BULL	rs6550374	3	20196040	-0.4787	0.0967	7.47E-07	C	G	0.5366
finn-b-L12_PEMPHIGOID_BULL	rs144298683	3	88344440	2.7543	0.5178	1.05E-07	T	C	0.01389
finn-b-L12_PEMPHIGOID_BULL	rs35604167	4	169382451	0.7932	0.1627	1.09E-06	T	G	0.1114
finn-b-L12_PEMPHIGOID_BULL	rs79334883	4	86211322	1.2389	0.2667	3.38E-06	G	A	0.04214
finn-b-L12_PEMPHIGOID_BULL	rs9996810	4	62468670	0.5263	0.1148	4.52E-06	C	T	0.2406
finn-b-L12_PEMPHIGOID_BULL	rs200148	6	143345696	-0.479	0.0989	1.27E-06	A	G	0.596
finn-b-L12_PEMPHIGOID_BULL	rs3094169	6	29829986	-0.5736	0.1229	3.04E-06	C	T	0.7194
finn-b-L12_PEMPHIGOID_BULL	rs147633772	6	32613983	1.3754	0.2151	1.60E-10	T	A	0.06917
finn-b-L12_PEMPHIGOID_BULL	rs75308030	10	26019862	4.7413	0.9513	6.23E-07	T	G	0.006277
finn-b-L12_PEMPHIGOID_BULL	rs10483424	14	33591131	3.3364	0.6673	5.73E-07	A	G	0.008853
finn-b-L12_PEMPHIGOID_BULL	rs60559879	17	35192062	0.5073	0.11	3.99E-06	A	G	0.2705

Table S2. Information of SNPs Instrumental Variants associated with Psoriasis.

Psoriasis ID	SNP	chr	pos	beta	se	p-value	effect_allele	other_allele	eaf
ebi-a-GCST90018907	rs6672420	1	25291010	0.1237	0.0201	7.01E-10	T	A	0.520219
ebi-a-GCST90018907	rs1177203	2	61074686	-0.1211	0.0205	3.77E-09	C	G	0.364449
ebi-a-GCST90018907	rs2312786	3	101633360	0.1403	0.0229	9.61E-10	A	G	0.231371
ebi-a-GCST90018907	rs10040411	5	158812417	-0.2372	0.0297	1.45E-15	T	C	0.368331
ebi-a-GCST90018907	rs12188300	5	158829527	0.3952	0.0397	2.57E-23	T	A	0.0849046
ebi-a-GCST90018907	rs9481169	6	111929862	0.256	0.0373	6.58E-12	T	G	0.0776139
ebi-a-GCST90018907	rs28752856	6	31298418	0.8795	0.0512	3.90E-66	G	C	0.1112
ebi-a-GCST90018907	rs2249937	6	159515309	-0.158	0.0233	1.18E-11	G	T	0.768546
ebi-a-GCST90018907	rs2735008	6	29808013	-0.1863	0.0246	3.82E-14	A	G	0.271269
ebi-a-GCST90018907	rs28894993	6	31289714	1.3435	0.0437	1.00E-200	T	G	0.0624337
ebi-a-GCST90018907	rs6933987	6	138239434	0.1258	0.0223	1.78E-08	T	C	0.225466
ebi-a-GCST90018907	rs9264277	6	31224667	0.2385	0.0233	1.34E-24	C	T	0.65855
ebi-a-GCST90018907	rs111818167	6	31289309	0.5467	0.0364	5.49E-51	CTTT	C	0.2329
ebi-a-GCST90018907	rs147748716	6	31321240	0.6407	0.0822	6.56E-15	T	C	0.0177823
ebi-a-GCST90018907	rs34725611	19	10477067	-0.1636	0.0225	3.80E-13	G	A	0.305106
finn-b-L12_PSORI_VULG	rs12713428	2	61118113	0.1867	0.0325	9.15E-09	C	A	0.2485
finn-b-L12_PSORI_VULG	rs74817271	5	150469973	0.3599	0.0547	4.75E-11	A	G	0.07347
finn-b-L12_PSORI_VULG	rs139298380	5	158718460	0.649	0.0915	1.33E-12	A	G	0.02713
finn-b-L12_PSORI_VULG	rs6556423	5	158857189	-0.2482	0.0292	1.81E-17	T	C	0.6437
finn-b-L12_PSORI_VULG	rs28749130	6	29907835	0.2928	0.0298	8.40E-23	A	T	0.3396
finn-b-L12_PSORI_VULG	rs16898116	6	27326792	0.6609	0.1172	1.72E-08	C	T	0.01566
finn-b-L12_PSORI_VULG	rs4947309	6	31302328	-0.3175	0.0333	1.36E-21	G	A	0.3972
finn-b-L12_PSORI_VULG	rs28752856	6	31298418	1.036	0.0501	5.50E-95	G	C	0.1102
finn-b-L12_PSORI_VULG	rs28732140	6	31319606	0.9597	0.0462	1.05E-95	A	G	0.1213
finn-b-L12_PSORI_VULG	rs74630264	16	27316975	0.2904	0.0518	2.04E-08	A	G	0.08167
ukb-b-10537	rs11581607	1	67707690	-0.00258652	0.000442884	5.20E-09	A	G	0.066756
ukb-b-10537	rs4112787	1	152551325	0.00164731	0.000233284	1.60E-12	T	C	0.658527
ukb-b-10537	rs842636	2	61091950	-0.0013276	0.00022268	2.50E-09	A	G	0.435424
ukb-b-10537	rs2111485	2	163110536	0.00138038	0.000226111	1.00E-09	G	A	0.606734

Table S2 continues

Table S2. Information of SNPs Instrumental Variants associated with Psoriasis. (continued)

Psoriasis ID	SNP	chr	pos	beta	se	p-value	effect_allele	other_allele	eaf
ukb-b-10537	rs11135059	5	158771337	-0.00251427	0.000235663	1.40E-26	A	G	0.329065
ukb-b-10537	rs848	5	131996500	0.00179998	0.000285251	2.80E-10	C	A	0.816194
ukb-b-10537	rs12188300	5	158829527	0.00512622	0.000379811	1.60E-41	T	A	0.093472
ukb-b-10537	rs12189871	6	31251924	0.0213637	0.000384355	1.00E-200	T	C	0.090526
ukb-b-10537	rs28367705	6	31284635	0.00701345	0.0004472	2.00E-55	A	G	0.110929
ukb-b-10537	rs9277937	6	33184894	0.00285115	0.000375617	3.20E-14	C	T	0.096319
ukb-b-10537	rs33980500	6	111913262	0.00280706	0.000419981	2.30E-11	T	C	0.074392
ukb-b-10537	rs2735003	6	29808634	-0.00259899	0.000271761	1.10E-21	G	T	0.207994
ukb-b-10537	rs582757	6	138197824	-0.00137827	0.000247418	2.50E-08	T	C	0.726237
ukb-b-10537	rs9265203	6	31289825	0.00622853	0.000252624	3.20E-134	T	G	0.452948
ukb-b-10537	rs13191494	6	32586432	0.00435168	0.000394465	2.70E-28	C	G	0.100222
ukb-b-10537	rs11795343	9	32523737	-0.00144443	0.000226388	1.80E-10	C	T	0.401328
ukb-b-10537	rs7951925	11	128379964	-0.00127836	0.000229137	2.40E-08	G	A	0.368627
ukb-b-10537	rs8016947	14	35832666	0.00161674	0.000222823	4.00E-13	G	T	0.561824
ukb-b-10537	rs28998802	17	26124908	0.00186972	0.000322335	6.60E-09	A	G	0.140482
ukb-b-10537	rs11085725	19	10462513	-0.00166753	0.000243626	7.70E-12	T	C	0.292402
ukb-b-10537	rs632376	20	48520610	-0.00131604	0.00022408	4.30E-09	G	A	0.41992