

Table S1. Clinical information of PAH subjects and controls in the study

Patient	Gender	Age, y	Condition	Right Heart Catheterization (mmHg)					PVR	SVR	
							mPA				
				CVP	RAP	RVP	P	mPAWP			
1	Male	77	Control	7	7	8	17	21	13	3.1	
2	Female	70	Control	9	9	10	13	22	8	2.91	
3	Male	60	PAH	27	27	27	37	42	32	2.07	
4	Female	78	Control	7	7	8	14	19	9	2.9	
5	Male	68	Control	5	5	5	13	16	11	3.12	
6	Male	79	PAH	9	9	10	20	25	15	3.1	
7	Female	45	PAH	22	22	23	47	54	19	3.61	
8	Male	59	Control	17	17	15	31	40	29	3.34	
9	Male	76	PAH	10	10	8	14	21	14	2.72	
10	Female	69	Control	7	7	6	12	19	7	2.97	
11	Male	49	PAH	12	12	15	21	21	15	NA	
12	Male	82	Control	5	5	5	12	16	12	3.38	
13	Male	67	Control	1	1	1	5	9	4	3.05	
14	Male	57	Control	5	5	4	14	16	14	4.17	
15	Male	75	PAH	9	9	8	21	26	14	3.12	
16	Female	61	Control	2	2	2	NA	18	8	4.24	
17	Male	57	PAH	9	9	11	17	22	15	3.13	
18	Female	57	Control	6	6	7	13	16	9	2	
19	Male	34	PAH	14	14	11	26	33	19	3.16	
20	Female	53	PAH	6	6	8	20	28	9	3.14	
21	Female	60	PAH	5	5	5	18	27	12	3.31	
22	Female	38	Control	7	7	8	13	16	12	2.9	
23	Female	53	PAH	4	4	NA	NA	36	NA	NA	
24	Female	66	PAH	5	5	NA	NA	60	12	2.01	
25	Female	59	Control	10	10	NA	8	18	14	2.8	
26	Male	56	PAH	7	7	4	18	26	9	4.01	
27	Female	74	Control	6	6	NA	NA	18	12	3.24	
28	Male	81	Control	10	10	NA	21	21	12	3.44	
29	Male	64	Control	3	3	NA	NA	15	11	5.04	
30	Male	58	PAH	8	8	10	NA	28	NA	NA	

Abbreviations: CVP, central venous pressure; RAP, right atrial pressure; RVP, right ventricular pressure; mPAP; mean pulmonary artery pressure; mPAWP, mean pulmonary capillary wedge pressure; PVR, pulmonary vascular resistance; SVR, systemic vascular resistance.

Table S2: Gene set enrichment analysis details

Gene symbol	Rank in gene list	Rank metric score	Running ES	Core enrichment
<i>MMP1</i>	162	0.303	0.0481	Yes
<i>AIM2</i>	238	0.272	0.0955	Yes
<i>CHMP4C</i>	266	0.266	0.1445	Yes
<i>CASP8</i>	275	0.264	0.1943	Yes
<i>NLRC4</i>	281	0.262	0.244	Yes
<i>CHMP2B</i>	709	0.193	0.2554	Yes
<i>NLRP3</i>	844	0.18	0.2817	Yes
<i>GBP3</i>	922	0.172	0.31	Yes
<i>HMGB1</i>	945	0.171	0.3412	Yes
<i>GBP5</i>	950	0.171	0.3735	Yes
<i>GBP2</i>	1281	0.148	0.382	Yes
<i>TLR5</i>	1347	0.144	0.4057	Yes
<i>GBP1</i>	1475	0.137	0.4243	Yes
<i>IL1A</i>	1611	0.13	0.4411	Yes
<i>MEFV</i>	1722	0.125	0.4583	Yes
<i>BTK</i>	1760	0.123	0.4796	Yes
<i>GBP4</i>	1800	0.121	0.5004	Yes
<i>CARD18</i>	1939	0.116	0.5142	Yes
<i>IL1B</i>	2021	0.112	0.5307	Yes
<i>VSIG4</i>	2228	0.104	0.5382	Yes
<i>PYDC1</i>	2858	0.086	0.5171	Yes
<i>TLR8</i>	3040	0.082	0.5219	Yes
<i>TLR1</i>	3093	0.081	0.5342	Yes
<i>CASP4</i>	3621	0.069	0.5159	Yes
<i>CASP3</i>	3814	0.065	0.5169	Yes
<i>MMP9</i>	3855	0.064	0.5268	Yes
<i>CHMP3</i>	4129	0.059	0.5219	Yes
<i>TLR2</i>	4209	0.058	0.5282	Yes
<i>IL18</i>	4285	0.056	0.5345	Yes
<i>DDX3X</i>	4438	0.054	0.5358	Yes
<i>NLRP2</i>	4568	0.052	0.538	Yes
<i>TLR4</i>	4792	0.048	0.5339	Yes
<i>TREM2</i>	4846	0.048	0.5398	Yes
<i>DHX9</i>	4902	0.047	0.5455	Yes
<i>TLR6</i>	4953	0.046	0.5513	Yes
<i>IRF2</i>	5138	0.043	0.5486	No
<i>GSDMC</i>	5295	0.041	0.547	No

<i>CASP1</i>	5420	0.039	0.5471	No
<i>TLR3</i>	5576	0.037	0.5449	No
<i>CHMP2A</i>	5897	0.033	0.5321	No
<i>TXNIP</i>	6642	0.023	0.4921	No
<i>CHMP7</i>	6645	0.022	0.4963	No
<i>BAK1</i>	6940	0.019	0.4824	No
<i>TLR9</i>	7098	0.017	0.4763	No
<i>CTSG</i>	7164	0.016	0.4756	No
<i>CHMP6</i>	7878	0.008	0.4346	No
<i>CFLAR</i>	8087	0.005	0.4233	No
<i>PYCARD</i>	8097	0.005	0.4237	No
<i>CASP6</i>	8099	0.005	0.4246	No
<i>CASP5</i>	8100	0.005	0.4256	No
<i>TNFRSF21</i>	8264	0.003	0.4165	No
<i>CHMP4A</i>	8553	0	0.3994	No
<i>ZBP1</i>	8581	0	0.3978	No
<i>CYCS</i>	8676	-0.001	0.3925	No
<i>GSDMD</i>	9188	-0.007	0.3634	No
<i>IRF1</i>	9936	-0.015	0.3219	No
<i>NLRP12</i>	10121	-0.017	0.3143	No
<i>CARD8</i>	10207	-0.018	0.3127	No
<i>BAX</i>	10343	-0.02	0.3085	No
<i>CHMP4B</i>	10388	-0.021	0.3098	No
<i>APIP</i>	10591	-0.023	0.3021	No
<i>NAIP</i>	10904	-0.027	0.2886	No
<i>SERPINB1</i>	11432	-0.033	0.2635	No
<i>CARD16</i>	12140	-0.042	0.2295	No
<i>GSDMA</i>	14586	-0.09	0.101	No
<i>GSDMB</i>	14620	-0.091	0.1163	No
<i>NLRP7</i>	14643	-0.091	0.1324	No
