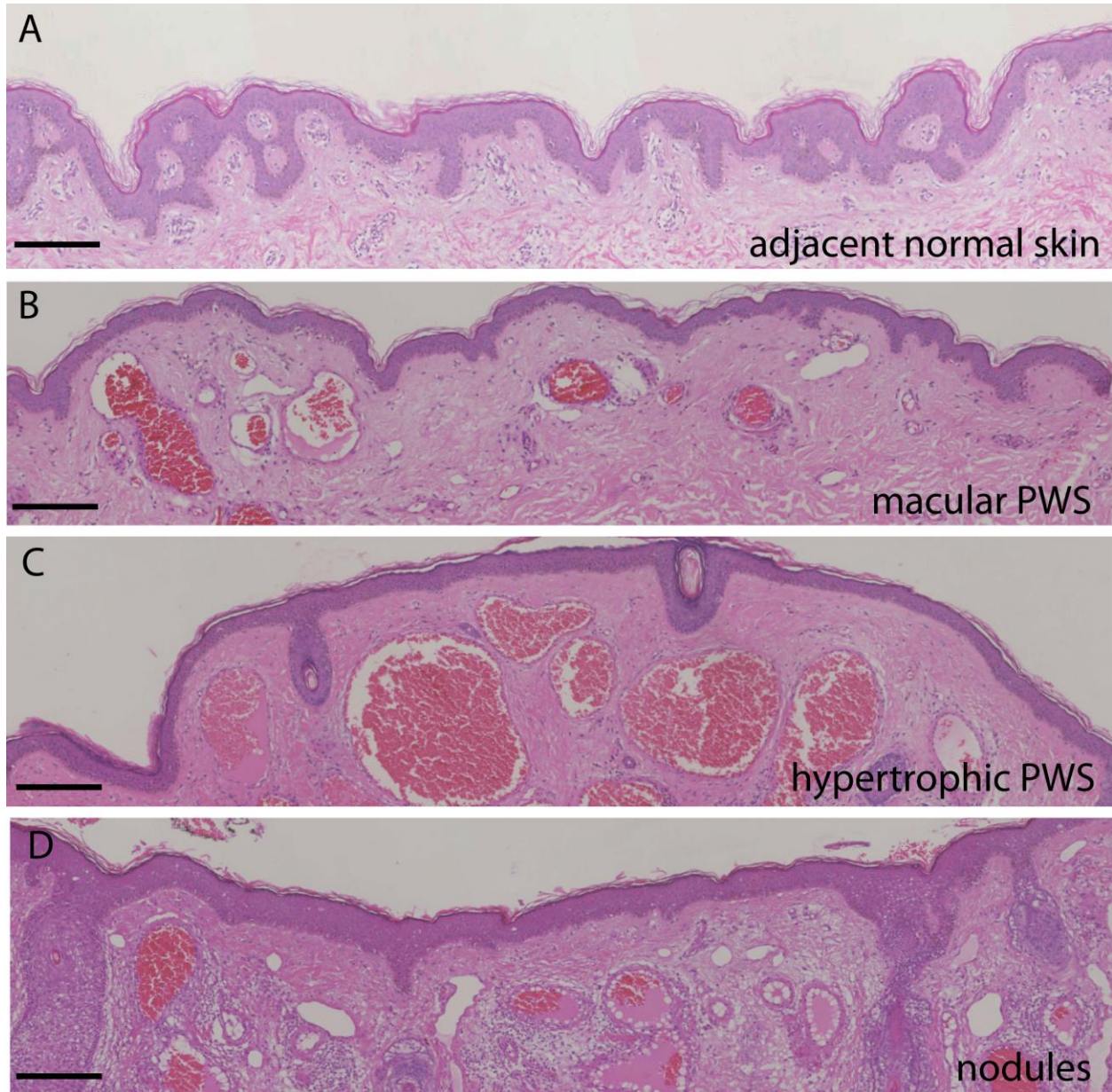


## Supplementary Materials

**Supplementary Table 1.** Clinical description of PWS subjects

Patient No.	Sex	Age (yr)	Diagnosis	Treatment history
1	F	0	PWS arm	none
2	F	0	PWS chest	none
3	M	1	PWS face	PDL
4	M	1	PWS face	none
5	M	2	PWS back	none
6	M	2	PWS back	none
7	M	2	PWS face & back	none
8	M	3	PWS face	none
9	F	3	PWS face & back	none
10	M	3	PWS face	none
11	M	3	PWS face	none
12	F	3	PWS face	none
13	F	4	PWS face	none
14	F	5	PWS face	none
15	M	6	PWS arm	none
16	F	16	PWS face	PDL
17	F	13	PWS face	none
18	M	27	PWS face	none
19	M	38	PWS face	PDL
20	M	38	PWS arm	PDL
21	M	41	PWS face	PDL
22	M	51	PWS face	none
23	M	55	PWS face	none
24	F	56	PWS face	PDL
25	F	40	PWS face	none
26	M	55	PWS face	PDL
27	M	36	PWS face	PDL

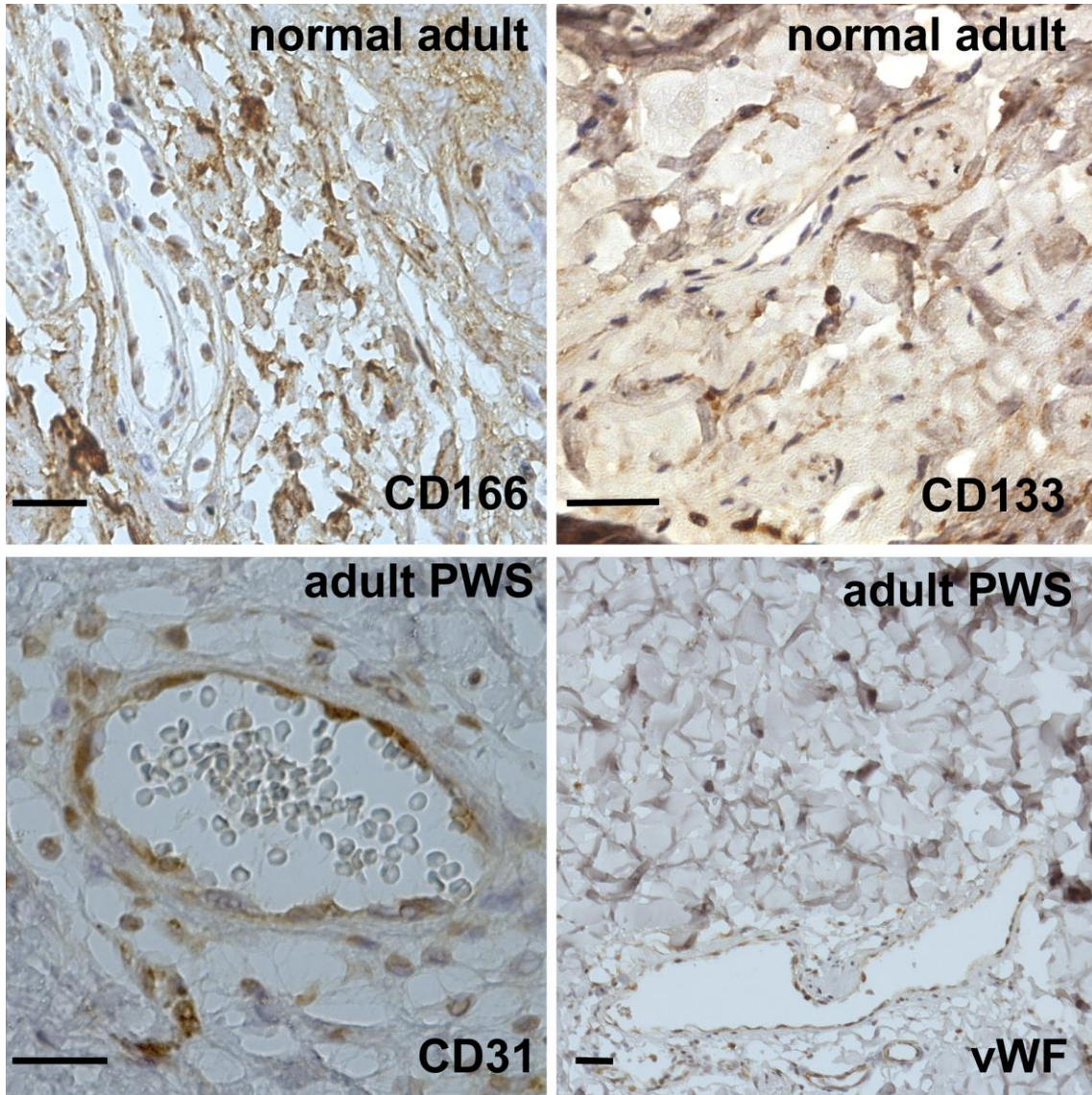


**Supplementary Figure 1. Reduction of capillary loops and rete ridges in adult hypertrophic and nodular PWS.** A normal capillary loops in dermal papillae and epidermal rete ridges in adjacent normal skin from a nodular PWS subject. **B-D** reduction of capillary loops and rete ridges in PWS flat reddish macular, protuberant hypertrophic areas and nodules from the same subject. Scale bar: 100  $\mu$ m.

**Supplementary Table 2.** Immunoreactive scores of each surface marker in abnormal blood vessels from PWS subjects

Patient No.	Age/Sample		CD133	CD166	EphB1	EfnB2
1	Infant	S#	2	3	0	2
2	Infant	T#	6	6	6	2
3	Infant	Ex#	4	6	6	4
4	Infant	S	3	6	4	4
5	Pediatr	T	4	6	1	3
6	Pediatr	T	6	6	1	4
7	Pediatr	T	4	6	1	4
8	Pediatr	F#	4	4	2	2
9	Pediatr	T	4	6	3	2
10	Pediatr	F	4	6	4	3
11	Pediatr	F	6	6	1	3
12	Pediatr	F	3	4	0	1
13	Pediatr	F	4	6	6	4
14	Pediatr	F	4	4	1	2
15	Pediatr	Ex	2	4	4	1
16	Teen.	F	2	4	4	4
		E#	2	3	4	4
17	Teen.	F	6	3	3	2
		E	3	2	2	6
18	Adult	F	2	2	4	2
		E	0	0	4	1
19	Adult	Ex	2	2	4	3
20	Adult	S	6	6	0	3
21	Adult	S	0	1	6	0
22	Adult	F	6	6	4	6
		N#	6	6	1	4
23	Adult	F	3	3	4	4
		E	2	2	4	4
24	Adult	F	2	2	4	4
		E	0	0	4	0
		D-1#	0	0	0	2
		D-2	0	0	4	2
25	Adult	F	2	1	6	1
26	Adult	F	2	0	6	1
27	Adult	F	3	1	4	1
		D	1	0	1	0

S#:scalp; T#: trunk; Ex#:extremity; F#: facial; N#: the adjacent normal skin (0.5 to 1cm away from PWS lesion sites); N#: Neck; E#: Edge of PWS lesion sites; D#: nodular PWS



**Supplementary Figure 2.** Expression of CD31, vWF, CD133 and CD166 in dermal blood vessels in adult normal and PWS skin. Scale bar: 50  $\mu$ m.