

Supplementary Table 1. FLCN haplotypes were reconstructed using four single nucleotide polymorphisms in 60 Korean individuals (56 normal control individuals and four patients with Birt–Hogg–Dubé syndrome)

Number of haplotypes	Haplotype	Count
H1	ATTT	13
H2	ATCC	12
H3	ACTT	4
H4	ACCC	35
H5	GTTT	16
H6	GTCC	17
H7	GCTT	18
H8	GCCC	5



## Supplementary Table 2. Haplotypes of the FLCN gene reconstructed in patients with the c.1539-2A>G variant

ID		Hanlat mas*			
	rs56926918	6926918 rs56153623 rs20726		rs2075659	- Haplotypes*
1	A/A	C/T	C/T	C/T	H1, H4
3.l.2	A/A	C/T	C/T	C/T	H1, H2

<sup>\*</sup>H1, haplotype 1: ATTT; H2, haplotype 2: ATCC; H4, haplotype 4: ACCC.

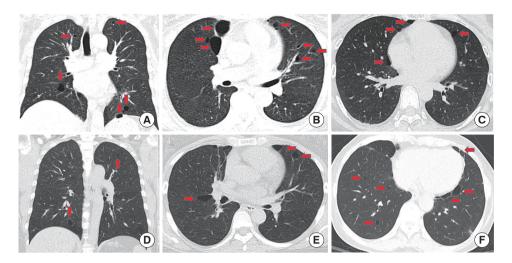


## Supplementary Table 3. Pulmonary function test results from patients with Birt-Hogg-Dubé syndrome

ID	FEV <sub>1</sub> /FVC F	40	FVC (L) FVC (%pred)	FEV <sub>1</sub> (L)	FEV <sub>1</sub> (%pred)	DL <sub>co</sub> adj (mL/mmHg/ min)	DL <sub>co</sub> adj (%pred)	DLco/VA adj (mL/mmHg/ min/L)	DLco/VA adj - (%pred)	Interpretation	
		FVC (L)								Spirometry	Diffusing capacity
1	0.78	3.09	98	2.4	101	18.3	83	4.42	112	Normal ventilatory function	Normal diffusing capacity
2	0.70	2.72	92	1.89	88	12.7	69	3.21	84	Normal ventilatory function	Mildly decreased diffusing capacity
3.l.2	0.80	1.61	67	1.26	76	13.4	75	4.86	126	Mild restrictive pattern	Mildly decreased diffusing capacity
4	0.70	3.15	101	2.21	93	NT	NT	NT	NT	Normal ventilatory function	NT
$Mean \pm SD$	$0.75\pm0.05$	$3 \pm 0.71$	$80\pm15.46$	$2\pm0.50$	$90\pm10.47$	$15 \pm 3.05$	$76\pm7.02$	$4\pm0.85$	$107 \pm 21.39$		
All										1/4 (25%)	2/3 (67%)

Abbreviations: FEV<sub>1</sub>, forced expiratory volume in one second; FVC, forced volume vital capacity; %pred, the percentage of predicted values;  $DL_{\infty}$  adj, diffusing capacity for carbon monoxide, adjusted for hemoglobin concentration;  $DL_{\infty}$ /VA adj, the ratio of diffusing capacity for carbon monoxide to alveolar volume, adjusted for hemoglobin concentration; NT, not tested.





Supplementary Fig. 1. Low-dose chest computed tomography imaging in patients with Birt–Hogg–Dubé syndrome. (A) and (B) Patients with the FLCN c.1539-2A>G variant. Bilateral multiple irregularly shaped cysts (red arrow) are seen in the lower and upper lobes; (C) The first daughter of the proband (A) and (B) with the identical FLCN variant as the proband. Bilateral multiple-round cysts are seen in the upper lobes (D) and (E). Another patient has the FLCN c.1539-2A>G variant. Bilateral multiple irregularly shaped cysts are seen in the lower and upper lobes; (F) A patient with the FLCN c.1215C>G variant. Multiple bilateral cystic lesions are seen in the lower lobes.