Supplementary Table 1. Multiphase development of SLE classification criteria

Phase 1b	Phase 1c	Phase 1d	Phase 2b	Phase 3a Criteria	Final criteria
Delphi Exercise	Early cohort study	Patient survey	Consensus meeting	refining	
		(all with a	using nominal group		
		prevalence of >50%)	technique (recommended		
		>30%)	definition)		
ANIA on HEn2 calls with a	ANA	ANIA (050/)	/	ANA > 1.00 (HE=2	ANIA > 1.00 HE=2
ANA on HEp2 cells with a	ANA	ANA (95%)	ANA≥1:80 (HEp2 IF)	ANA≥1:80 (HEp2	ANA≥1:80 HEp2 IF or an equivalent
pattern compatible with SLE, titer ≥1:160				IF)	positive test
ANA positive $\geq 1.160$					positive test
(any pattern) $\leq 1.100$					
ANA positive by HEp 2 IF					
ANA positive by HEp 2 II	fever***	fever (54%)	fever (to be defined)	fever >38.3°C	fever >38.3°C
	fatigue (neg)	fatigue (89%)	iever (to be defined)	16V61 >30.3 C	16 v cl > 30.3 C
	weight loss	Taligue (89%)			
Raynaud's phenomenon	Raynaud's	Raynaud's			
Raynaud's phenomenon	phenomenon	phenomenon			
	(neg)***	(52%)			
	dry eyes (neg)***	(3270)			
	dry mouth (neg)***				
	dysphagia (neg)				
lymphopenia (<1500/mm <sup>3</sup>	dyspiiagia (neg)				
on 2 or more occasions)					
lymphopenia (<1000/mm <sup>3</sup>					
on 2 or more occasions)					
leukopenia (<4000/mm <sup>3</sup>	leukopenia		leukopenia(<4000/mm <sup>3</sup>	leukopenia (to be	leukopenia
on 2 or more occasions)	- Tomopoma		on 2 or more occasions)	tested)	(<4000/mm <sup>3</sup> once)
thrombocytopenia			thrombocytopenia	thrombocytopenia	thrombocytopenia
thrombocytopenia (severe)			(<100,000twice)	(<100,000 once)	(<100,000 once
autoimmune hemolytic	Coombs test		autoimmune hemolytic	autoimmune	autoimmune
anemia			anemia	hemolytic anemia	hemolytic anemia

Phase 1b Delphi Exercise	Phase 1c Early cohort study	Phase 1d Patient survey (all with a prevalence of >50%)	Phase 2b Consensus meeting using nominal group technique (provisional definition)	Phase 3a Criteria refining	Final criteria
CNS dysfunction (seizures, psychosis, chorea or acute confusional state)	neurological involvement (ACR)  CNS at least one		CNS manifestations (seizures, psychosis, chorea, myelitis, optic neuritis, stroke or acute confusional state)	delirium psychosis seizure mononeuropathy cranial neuropathy	delirium psychosis seizure
alopecia with associated scalp inflammation oral mucosal lesions on the hard palate	alopecia***  oral ulcer***	alopecia (51%)	alopecia with associated scalp inflammation oral mucosal lesions on the hard palate	non-scarring alopecia oral ulcers	non-scarring alopecia oral ulcers
photosensitivity photosensitive rash acute, subacute, or chronic lupus rash	photosensitivity***	photosensitivity (79%) skin rash (71%)			
lupus profundus discoid rash			included in chronic cutaneous lupus chronic cutaneous lupus	SCLE or	SCLE or
malar rash	malar rash***		included in ACLE acute cutaneous lupus	malar rash or generalized maculopapular rash	discoid lupus malar rash or generalized maculopapular rash
rash with dermoepidermal interface changes and Ig and/or complement deposition on IF			rash with dermo- epidermal interface changes and/or Ig and/or complement deposition on IF	included into ACLE, SCLE, discoid lupus	included into ACLE, SCLE, discoid lupus

Phase 1b Delphi Exercise	Phase 1c Early cohort study	Phase 1d Patient survey	Phase 2b Consensus meeting	Phase 3a Criteria refining	Final criteria
Beigin Exercise	Early conort study	(all with a prevalence of	using nominal group technique (provisional definition)	remmig	
serositis (clinical signs, or pleural or pericardial effusion by imaging) pleural effusion pleuritis pericardial effusion	serositis***  pericarditis***	>50%)	serositis (pleural, pericardial effusion, pleurisy, pericarditis, peritonitis)	pleural or pericardial effusion acute pericarditis	pleural or pericardial effusion acute pericarditis
		myalgia (76%)			
arthritis	inflammatory arthritis***	joint pain (87%)	arthritis (to be defined)	arthritis (to be tested)	joint involvement
	arthralgia (negative)				
	kidney involvement***				
	hypertension				
persistent proteinuria (>0.5g/day)			persistent proteinuria (≥0.5g/day)	proteinuria >0.5 g/24h	proteinuria >0.5 g/24h
	peripheral edema				
urine cellular casts					
urinary RBC casts (≥ 1 cast/hpf)					
dysmorphic urinary RBC or urinary RBC casts					
active urine sediment (without UTI)			active urine sediment (without UTI)		
lupus nephritis by renal biopsy with immune deposits			lupus nephritis by renal biopsy with immune deposits	lupus nephritis by ISN/RPS	ISN/RPS class III or IV nephritis ISN/RPS class II or V nephritis

Phase 1b Delphi Exercise	Phase 1c Early cohort study	Phase 1d Patient survey (all with a prevalence of >50%)	Phase 2b Consensus meeting using nominal group technique (recommended definition)	Phase 3a Criteria refining	Final criteria
APS (clinical signs/history + antibodies) antiphospholipid antibodies (lupus anticoagulant, anticoardiolipin, anti-beta2GP1, or prolonged RVVT) positive lupus anticoagulant panel	anti-Cardiolipin IgM*** anti-beta2GP1		anti-phospholipid antibodies (lupus anti- coagulant, anti- cardiolipin, anti- beta2GP1, or prolonged RVVT)	anti-cardiolipin IgG (>40 IgG phospholipid units) or anti-beta2GP1 IgG (>40 units) or lupus anticoagulant positive	Anti-Cardiolipin antibodies (IgA, IgG, or IgM) at medium or high titer or positive anti-beta2GP1 antibodies (IgA, IgG, or IgM) or positive lupus anticoagulant.
low C3 low C3 and C4	hypocomplementemi a***		low C3 and/or C4	low C3 OR low C4 low C3 AND C4	low C3 OR low C4 low C3 AND C4
anti-dsDNA antibody anti-Sm antibody	anti-dsDNA*** anti-Sm***	anti-dsDNA (78%)	anti-dsDNA antibody anti-Sm antibody	anti-dsDNA antibodies anti-Sm antibodies	anti-dsDNA antibodies anti-Sm antibodies
presence of multiple autoantibodies	anti-RNP***		presence of multiple autoantibodies (to be defined)		

\*\*\* significant in univariate analysis

ACLE acute cutaneous lupus erythematosus ACR American College of Rheumatology ANA Antinuclear antibodies anti-beta2GP1 anti-beta 2 glycoprotein 1 antibody anti-dsDNA anti-double stranded DNA antibody APS antiphospholipid antibody syndrome

CNS Central nervous system

HEp-2 IF Indirect immunofluorescence on human epithelial cells, hpf high power field

Ig immunoglobulin ISN/RPS International Society of Nephrology/Renal Pathology Society

(neg) denotes negative association, e.g. presence of fatigue is more common in control than SLE subjects

**RVVT** Russel viper venom time

SCLE subacute cutaneous lupus erythematosus

UTI urinary tract infection