New treatment for SLE including clinical trial and clinical studies.

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A better understanding of the molecular pathomechanisms of systemic lupus erythematosus (SLE) has led to the development of promising agents targeted towards specific cells, molecules or pathways - including B cells, T cells, complement, cytokines and the innate immune system.

The B-cell targeted therapies have the most robust clinical trial data to date. These agents include rituximab (chimeric anti-CD20), ocrelizumab (humanized anti-CD20), epratuzumab (anti-CD22), belimumab (anti-BLymphocyte stimulator or BLyS), and atacicept (targeting both BLyS and APRIL [a proliferation-inducing ligand]). Tabalumab and blisibimod are other anti-BLyS agents also in drug development.

Although EXPLORER trial on rituximab in non-renal lupus did not meet its primary or secondary outcome measures, the placebo group had more nonresponders than the treatment group among African American and Hispanic patients. Similarly, LUNAR trial among patients with lupus nephritis showed actually more responders in the rituximab than in placebo among African American patients.