Conclusions: To explore the potential of TBK1 inhibitors to downregulate IFN-I activation in SLE and SSC.

Methods: TBK1, IRF3, IRF7 and STAT1 were determined by qPCR in whole blood and PBMCs from SLE and SSC patients. TLR7-stimulated PBMCs from healthy controls (HCs) were cultured with the TBK1 inhibitors BX795 followed by analysis of ISGs.

Results: Increased expression of TBK1, IRF3, IRF7 and STAT1 in whole blood and PBMCs was observed in IFN-I positive (IFNpos) patients. Peripheral blood mononuclear cells (PBMCs) from SLE and SSC patients and TLR7-stimulated PBMCs from healthy controls (HCs) were cultured with the TBK1 inhibitors BX795 followed by analysis of ISGs.

Conclusions: TBK1 inhibition reduced expression of ISGs in PBMCs from IFNpos SLE and SSC patients indicating TBK1 as a potential treatment target.

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