

Figure S1. H&E-stained section of patients with atypical lymphoid infiltrate filling dermis, that stained positively for CD3, with a CD4 to CD8 ratio of >5 . This patient had clonal rearrangement of the T cell receptor on PCR, and progressive clinical plaques. The findings support a consensus diagnosis of plaque-stage mycosis fungoides. H&E, hematoxylin and eosin, magnification, x100.

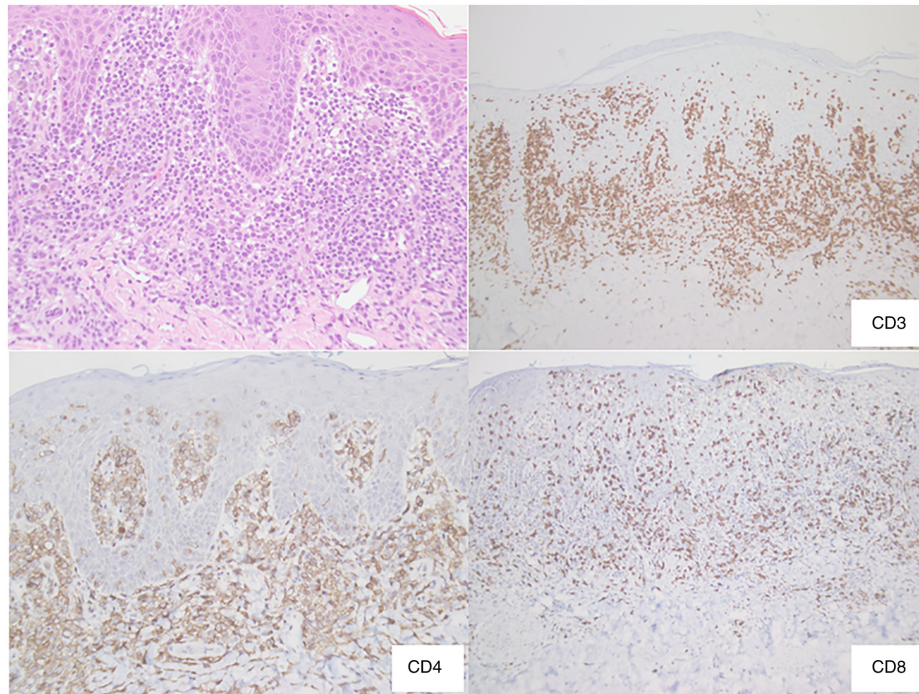








Figure S2. High-throughput sequencing report on a patient with plaque-stage mycosis fungoides, showing two clonal sequences identified, and their frequency in lesional tissue collected over two time periods. The finding of the same clonal sequence in two temporally distinct biopsies is further supportive of a diagnosis of mycosis fungoides.

DIAGNOSTIC SEQUENCE(S)

Seq	Diagnostic sequence
S1	TTGGAGATCCAGCGCACAGAGCAGGGGGACTCGGCCATGTATCTCTGTGCCAGCAGCCGGACAGGGGAGACCCAGTACTTCGGGCCA
S2	TCTGACGATCCAGCGCACAGCAGGAGGACTCGGCCGTGTATCTCTGTGCCAGCAGCTTAGCCGGGATACGCAGTATTTTGCCCA

RESULTS

Bars are log scaled

Collection date	Sample name	Sequence-bearing clone(s) 1 million nucleated cells			
		S1		S2	
10/19/2017	21222-01SB-SP-17-0013198_B1		153,902		76,318
08/17/2017	21222-01SB-SP-17-0010403B1		100,780		42,672
08/17/2017	21222-01SB-SP-17-0010403C1		72,483		30,572

If collection date was not known, an approximation based upon the order was used.

INTERPRETATION

Genomic DNA was extracted from a skin biopsy. The two TCRB sequences identified as dominant in the current sample were the same two sequences previously identified as dominant in two prior skin biopsies 0010403B1 and C1 from 08/17/2017.

The sequences were detected at levels approximately 1.5x higher in the current sample than in the previous biopsies.