

SUPPLEMENTARY TABLES

| Table S1 List of the 19 IFN response genes measured | |
|--|--|
| Gene Symbol | Gene Name |
| EPSTI1 | epithelial stromal interaction 1 |
| HERC5 | HECT and RLD domain containing E3 ubiquitin protein ligase 5 |
| IFI35 | interferon-induced protein 35 |
| IFI44 | interferon-induced protein 44 |
| IFI44L | interferon-induced protein 44-like |
| IFI6 | interferon, alpha-inducible protein 6 |
| IFIT1 | interferon-induced protein with tetratricopeptide repeats 1 |
| IFITM1 | interferon induced transmembrane protein 1 |
| IL1RN | interleukin 1 receptor antagonist |
| ISG15 | ISG15 ubiquitin-like modifier |
| LGALS3BP | lectin, galactoside-binding, soluble, 3 binding protein |
| LY6E | lymphocyte antigen 6 complex, locus E |
| MX1 | MX dynamin-like GTPase 1 |
| MX2 | MX dynamin-like GTPase 2 |
| OAS1 | 2'-5'-oligoadenylate synthetase 1, 40/46kDa |
| OAS2 | 2'-5'-oligoadenylate synthetase 2, 69/71kDa |
| RSAD2 | radical S-adenosyl methionine domain containing 2 |
| SAMD9L | sterile alpha motif domain containing 9-like |
| SERPING1 | serpin peptidase inhibitor, clade G (C1 inhibitor), member 1 |

Table S2 Analysis results of associations between IFN score and clinical parameters after 1000 times of random sampling using only patients that were not treated with prednisone, HCQ or SSZ.

| | Complete group (n=95) | Cross-validation | | | | |
|--|--------------------------|---------------------------------|--------------|------------|-----------------|-------|
| | | Significant results (p<0.05) | | | Median p values | |
| | | P value | Both sets | One set | Neither set | Set 1 |
| Disease parameters | | | | | | |
| Disease duration | 0.63 | 2 | 13 | 985 | 0.61 | 0.59 |
| DAS28 | 0.30 | 0 | 122 | 878 | 0.42 | 0.46 |
| TJC28 | 0.099 | 0 | 256 | 744 | 0.23 | 0.27 |
| SJC28 | 0.98 | 12 | 15 | 973 | 0.62 | 0.61 |
| VAS | 0.61 | 4 | 27 | 969 | 0.57 | 0.55 |
| Erosions | 0.26 | 0 | 107 | 893 | 0.43 | 0.40 |
| Nodules | 0.23 | 1 | 129 | 870 | 0.40 | 0.39 |
| Laboratory parameters | | | | | | |
| ESR | 0.79 | 4 | 19 | 977 | 0.59 | 0.58 |
| ESR dichotomous (>20) | 0.69 | 2 | 14 | 984 | 0.60 | 0.59 |
| CRP | 0.59 | 0 | 41 | 959 | 0.56 | 0.55 |
| CRP dichotomous (>10) | 0.77 | 2 | 8 | 990 | 0.60 | 0.59 |
| RF titer | 0.56 | 2 | 49 | 949 | 0.54 | 0.55 |
| RF positivity | 0.65 | 1 | 30 | 969 | 0.59 | 0.59 |
| ACPA titer | 0.63 | 2 | 27 | 971 | 0.59 | 0.59 |
| ACPA positivity | 0.74 | 0 | 12 | 988 | 0.62 | 0.62 |
| ACPA high positivity ($\geq 3x$ cutoff) | 0.19 | 0 | 126 | 874 | 0.33 | 0.39 |
| RF and ACPA positive vs. rest | 0.86 | 3 | 18 | 979 | 0.63 | 0.64 |
| RF and ACPA negative vs. rest | 0.33 | 0 | 53 | 947 | 0.47 | 0.48 |
| Medication parameters | | | | | | |
| MTX use | 0.94 | 1 | 4 | 995 | 0.66 | 0.65 |
| MTX dosage | 0.63 | 1 | 20 | 979 | 0.60 | 0.60 |