Table S1. Demographic and survival data of patients, whose sera were analyzed by LC-ESI-MS/MS.

	Gender ratio[1]	**Mean age (± SD)**	**follow-up[2]**	**alive (%)**	**in remission (%)**
LyP (n=14)	1:4	54.9 (±15,6)	102	100	50
MF (n= 26)	2.7:1	70.5 (±12,1)	89	88	4

[1]male:female ratio, [2]Mean follow-up time in months

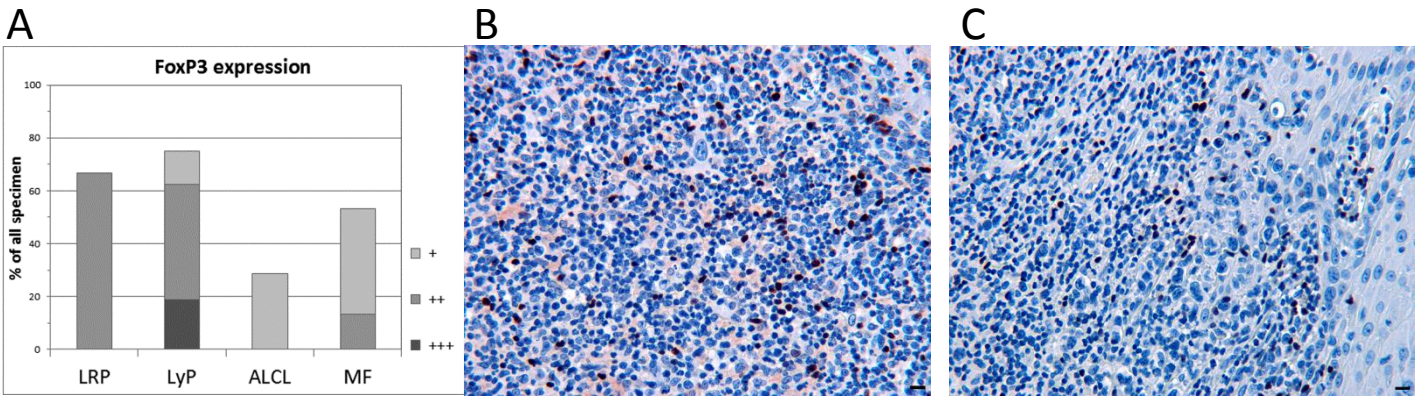


Figure S1. The expression of FoxP3+ regulatory T cells in studied CTCL specimens. A) The expression pattern among entities. B) FoxP3 expression in LyP, and C) in MF, respectively (20x magnification).

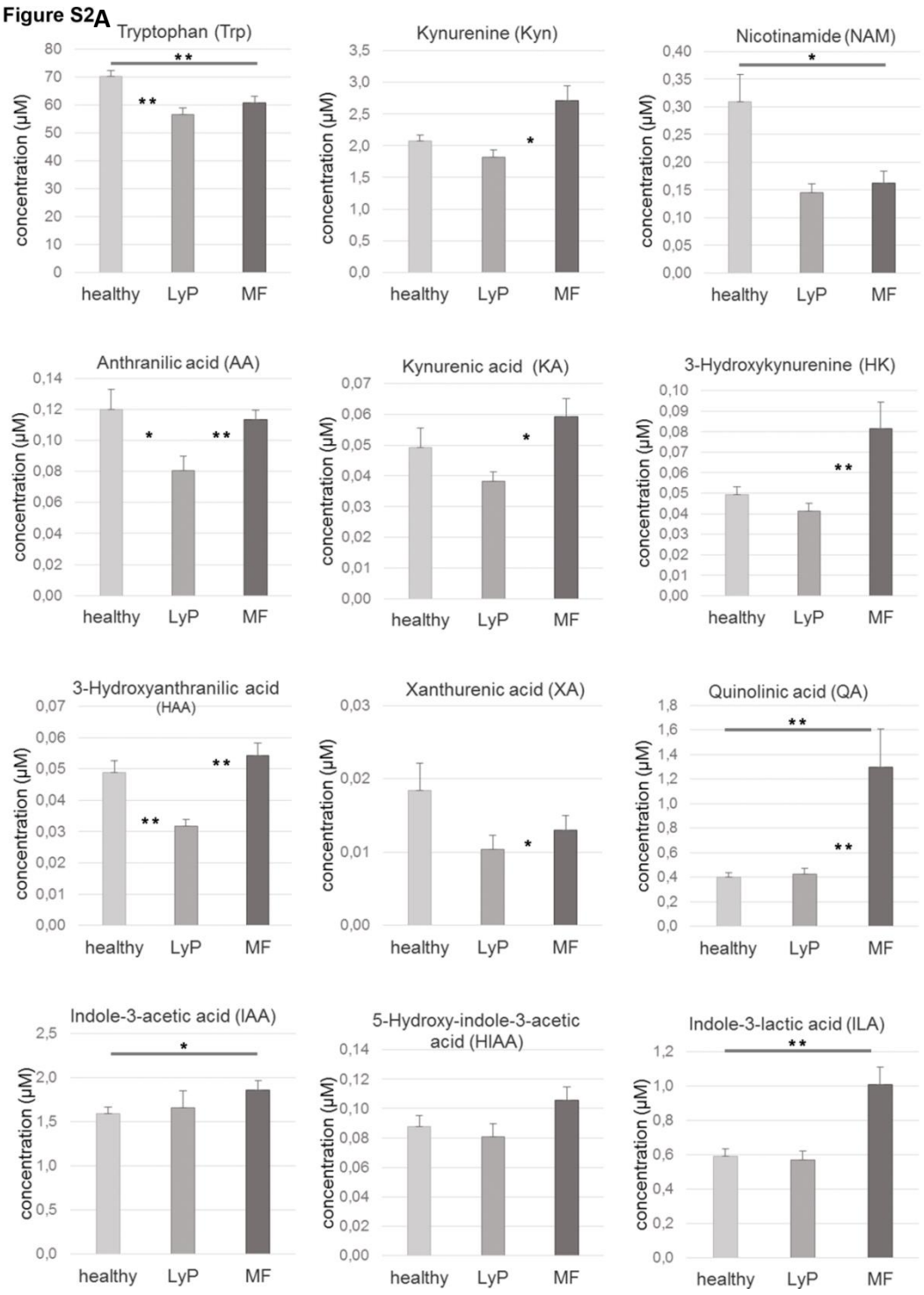


Figure S2. The activity of KYN pathway metabolites in CTCL. A) The concentrations of KYN pathway metabolites in LyP and MF patient sera. B) LyP compared to healthy, and C) Lyp compared to MF. Tryptophan (Trp), Kynurenine (KYN), nicotinamide (NAM), anthranilic acid (AA), Kynurenic acid (KA), 3-hydroxykynurenine (HK), 3-hydroxyanthranilic acid (HAA), xanthurenic acid (XA), quinolinic acid (QA), indole-3-acetic acid (IAA), 5-hydroxy-indole-3-acetic acid (HIAA), and indole-3-lactic acid (ILA). Concentrations (µM) are presented as mean +/- SE. **p<0.01, *p<0.05 (Kruskal-Wallis-test).

Figure S2B

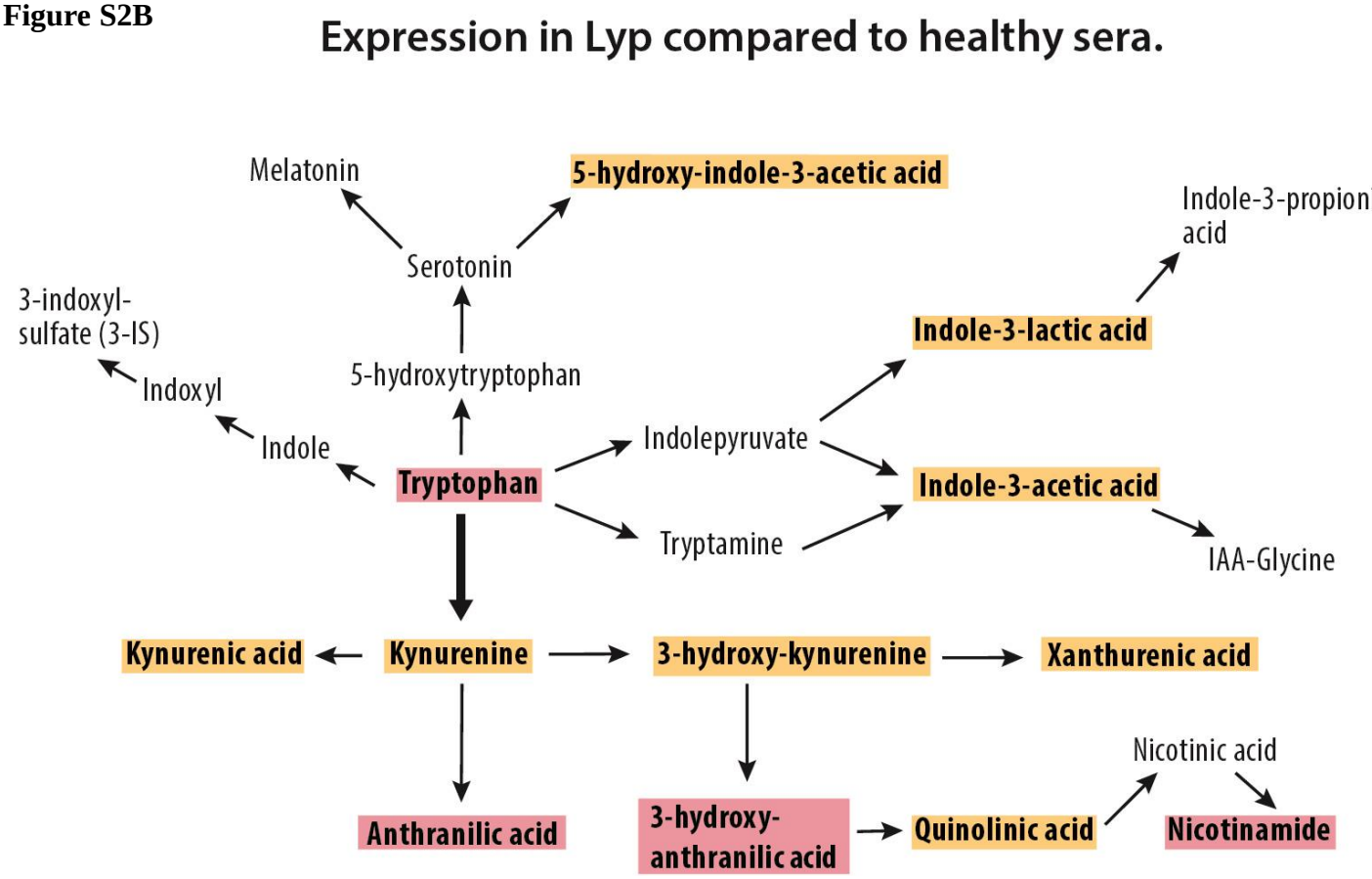
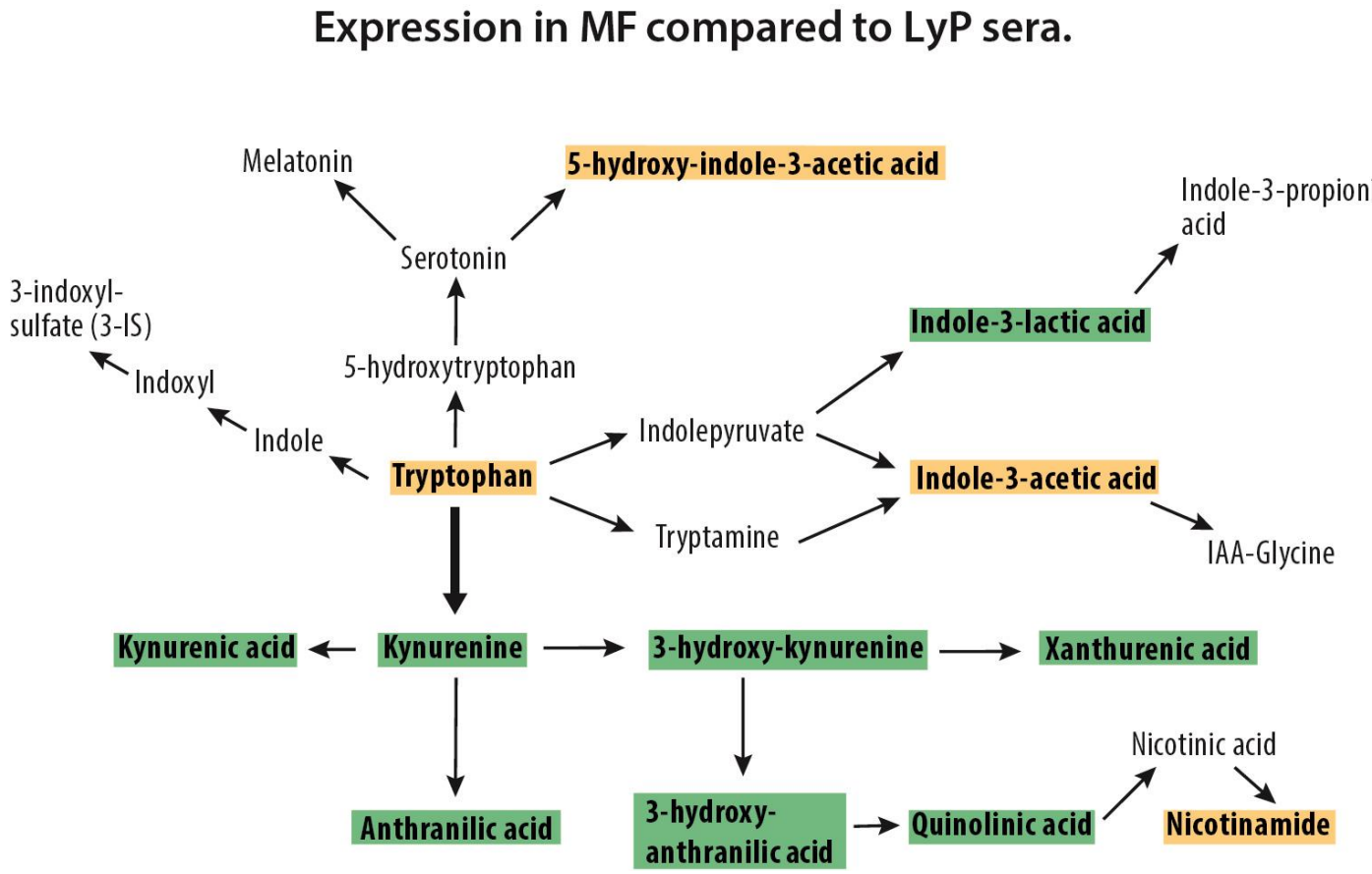
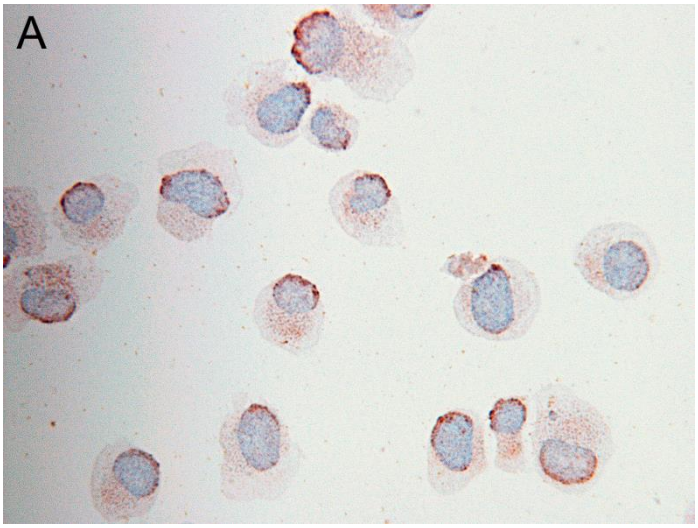
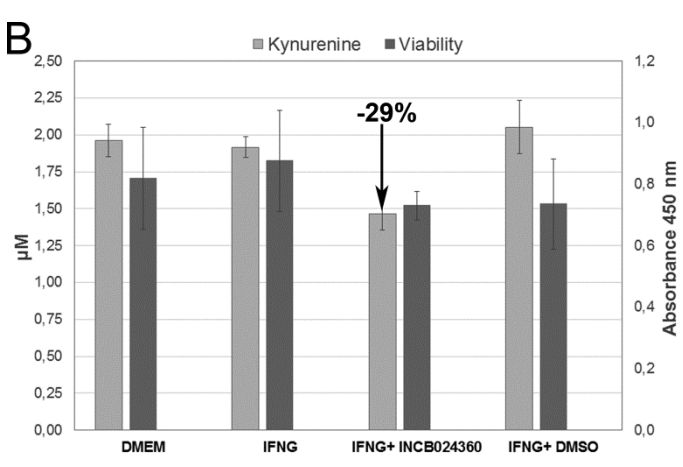


Figure S2C







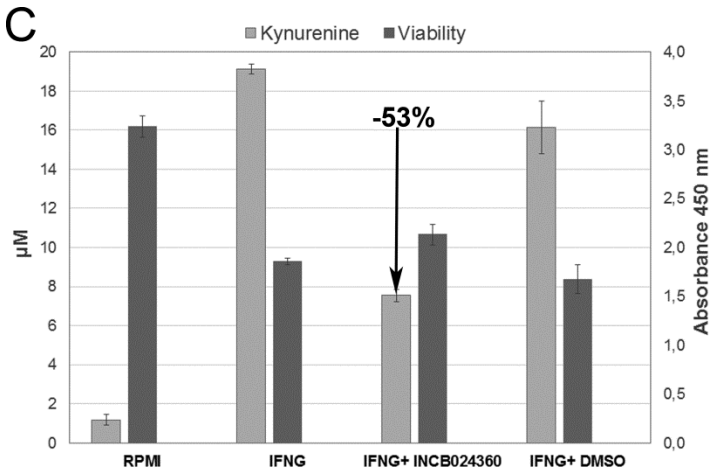


Figure S3. IDO expression and inhibition by INCB024360 in MF-derived cell line. A) IDO expression (red) in MyLa2000 cells. The IDO1 inhibitor INCB024360 reduced IDO enzymatic activity in B) the MyLa2000 cell line by 29%, and in C) the HeLa cell line by 53% based on KYN content after 48 hours of incubation compared to cells incubated with DMSO only. Values are presented as mean ± SD. MyLa2000 and HeLa cells were cultured as described in section "*Cell lines*" and plated on a 96-well plate at a density of 5000 cells per 100 µL DMEM (Gibco) or RPMI (Gibco), respectively, containing 50 ng/ml IFNG (rh IFN-gamma, ImmunoTools, Friesoythe, Germany). After overnight stimulation with IFNG (+37C, 8% CO2), IDO inhibitor INCB0243460 (S7587 in sterile DMSO, Selleck Chemicals, Munich, Germany) was added at a final concentration of 5 µM. As a negative control, 0.1 % DMSO (D2650, sterile filtered HYBRI-MAX, Sigma-Aldrich) was used. Supernatants were collected after 48 hours and stored at -20°C before analysis. Cell viability was measured using the Dojindo Cell Counting Kit-8 (Dojindo Laboratories, Kumamoto,