**Legends to supplementary figures**

**Suppl. figure 1** Microsuperfusion technique of spleen slices from arthritic mice. A) Overview of the machine, which consist of a medium supply (1), hydraulic pumps (2, flow rate of 66µl/ml), a 37°C incubator (3), the silicon racks with electrodes and spleen slices (4, see B and C for higher magnification), a controlling computer (5), and a current-controlled voltage-regulated stimulator with oscilloscope (6). B) and C) Higher magnification of the silicon racks. Spleen slices are demonstrated by arrows, and platinum electrodes by arrowheads. D) Standard electrical pulse with a positive (A1) and a negative (A2) part of electrical current. The pulse frequency was 5 Hz, the pulse width 2 ms, and the stimulating positive current 43 mA. E) Determination of effects by adrenergic antagonists or electrical current plus adrenergic antagonists. During the first 2 hours of the superfusion period, all slices were superfused with culture medium without any additional drugs or electrical stimulation. Between 100 and 120 minutes superfusate was collected to determine the released cytokine of interest at baseline (=baseline value for each slice). During the second part of the superfusion period (2nd - 6th hour) neurotransmitter antagonists in the medium, continuous electrical stimulation (see below) or both were applied to modulate cytokine secretion. Finally, between 345 and 360 min, superfusate was collected to determine cytokine concentration in the superfusate a second time. Since cytokine secretion at 2 and 6 hours correlated closely, the cytokine concentration at baseline (=2 hours) was used to standar­dize the cytokine secreting capacity of the different slices [32]. The dimensionless ratio phi = 100 x (cytokine6hr / cytokine2hr) was used to standardize cytokine secretion of each slice at 6 hours (example of cytokine A: phiA = 100 x A6hr/A2hr; and cytokine B: phiB = 100 x B6hr/B2hr). This standardization technique was found to be superior to standardization using the leukocyte count of the slice, wet weight, dry weight, volume of the slice, or protein content (determined in earlier studies). In this example, cytokine A increased and cytokine B remained on the 2 hour level.