

Fig. S1. Automated image analysis result of a slide stained with MPO, a neutrophil marker. The tissue is a “Swiss Roll” preparation of the large intestines, from a mouse after administration of DSS. Areas where staining was detected are outlined in red, areas of tissue without stain in blue, and the proximal colon (not analyzed) in green.

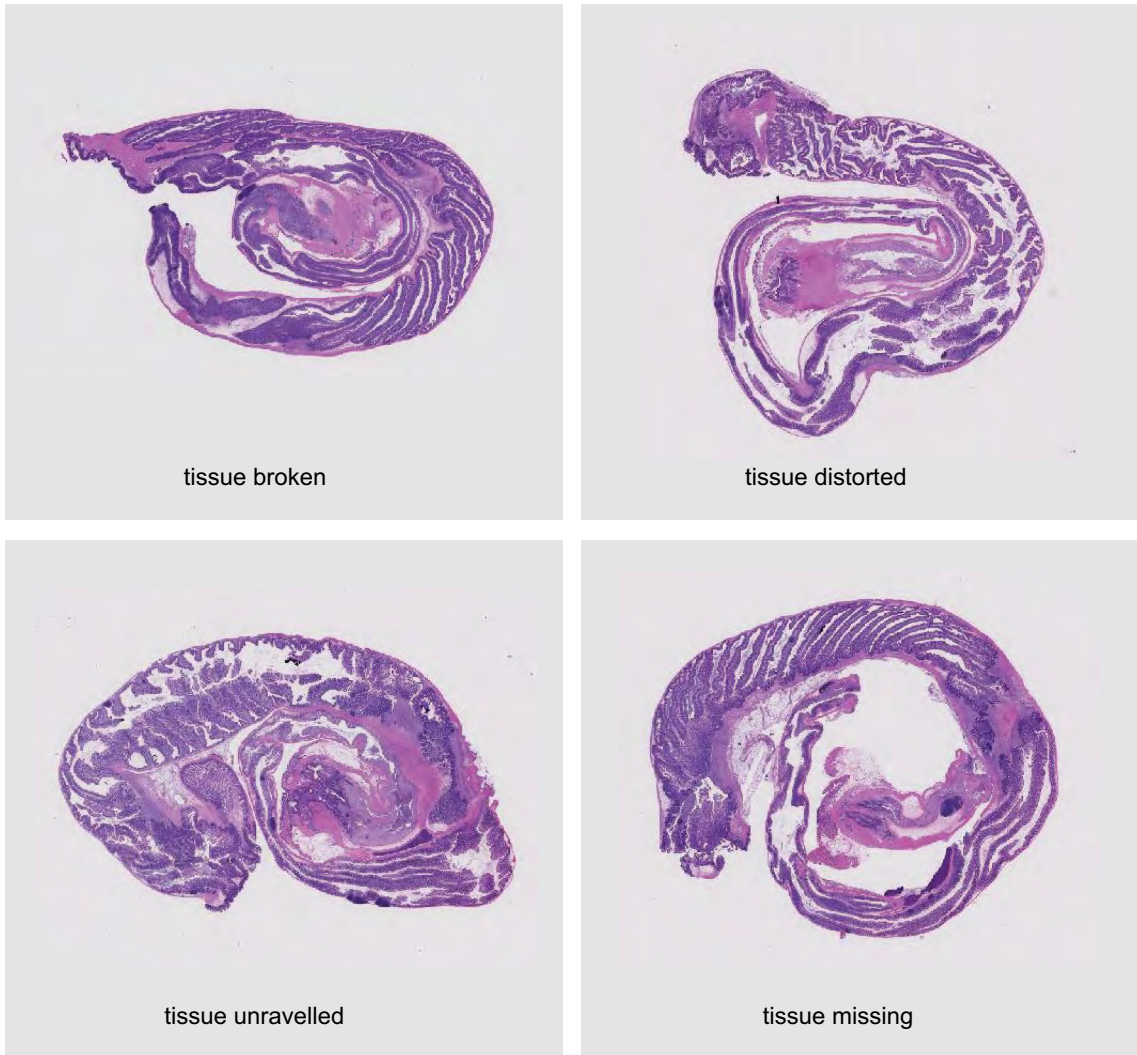


Fig. S2. Examples of poorly prepared colitis slides that may affect automated H&E morphology analysis. Scanned images of slides that had broken, distorted, unraveled, or missing tissue are shown.

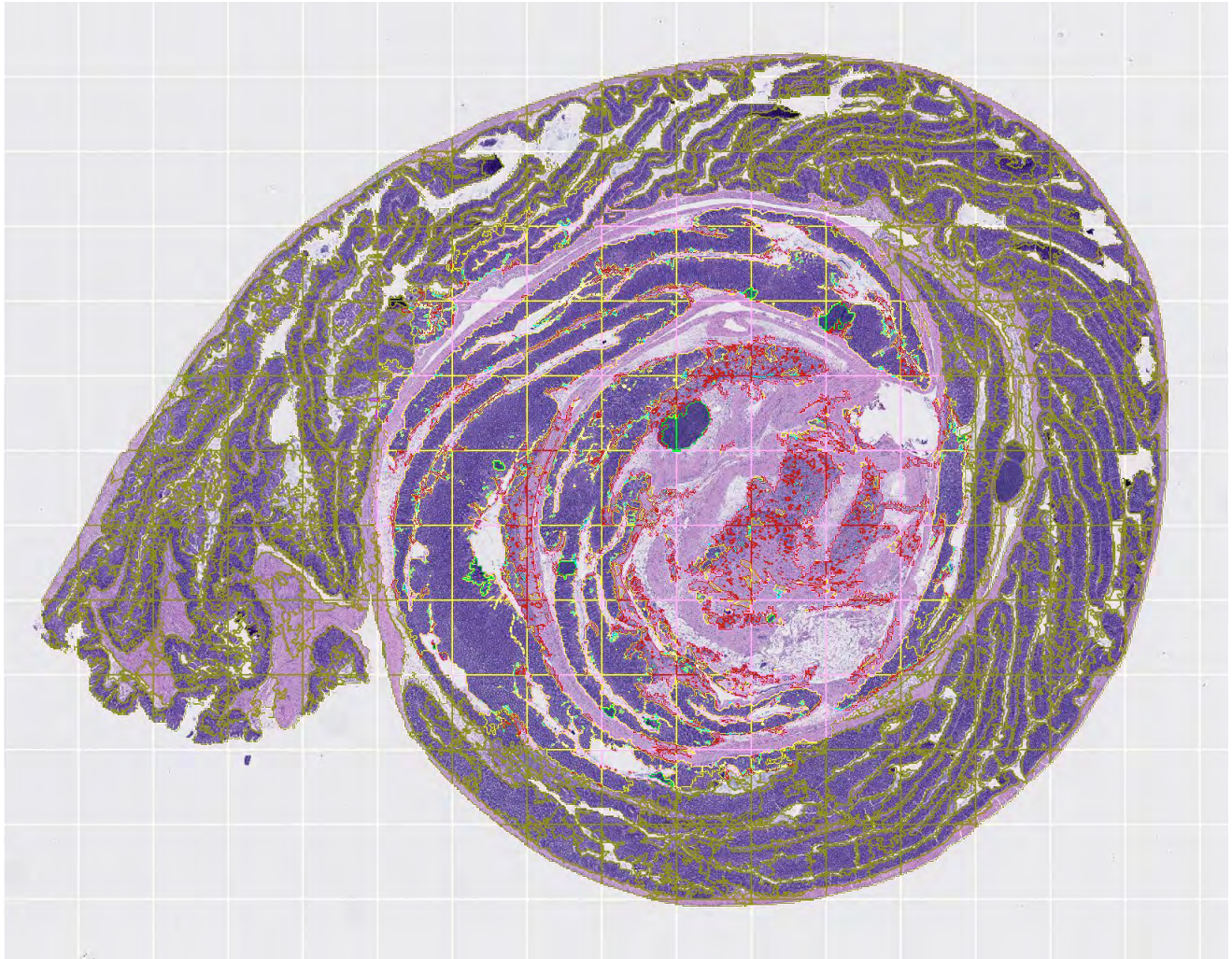


Fig. S3. Automated image analysis result of an H&E slide image of a “Swiss Roll” preparation of mouse intestines, from an animal after administration of DSS. Automatically detected areas of pathology are outlined in red, areas with healthy tissue in yellow, lymph nodes in green, and the proximal colon (not analyzed) in brown.

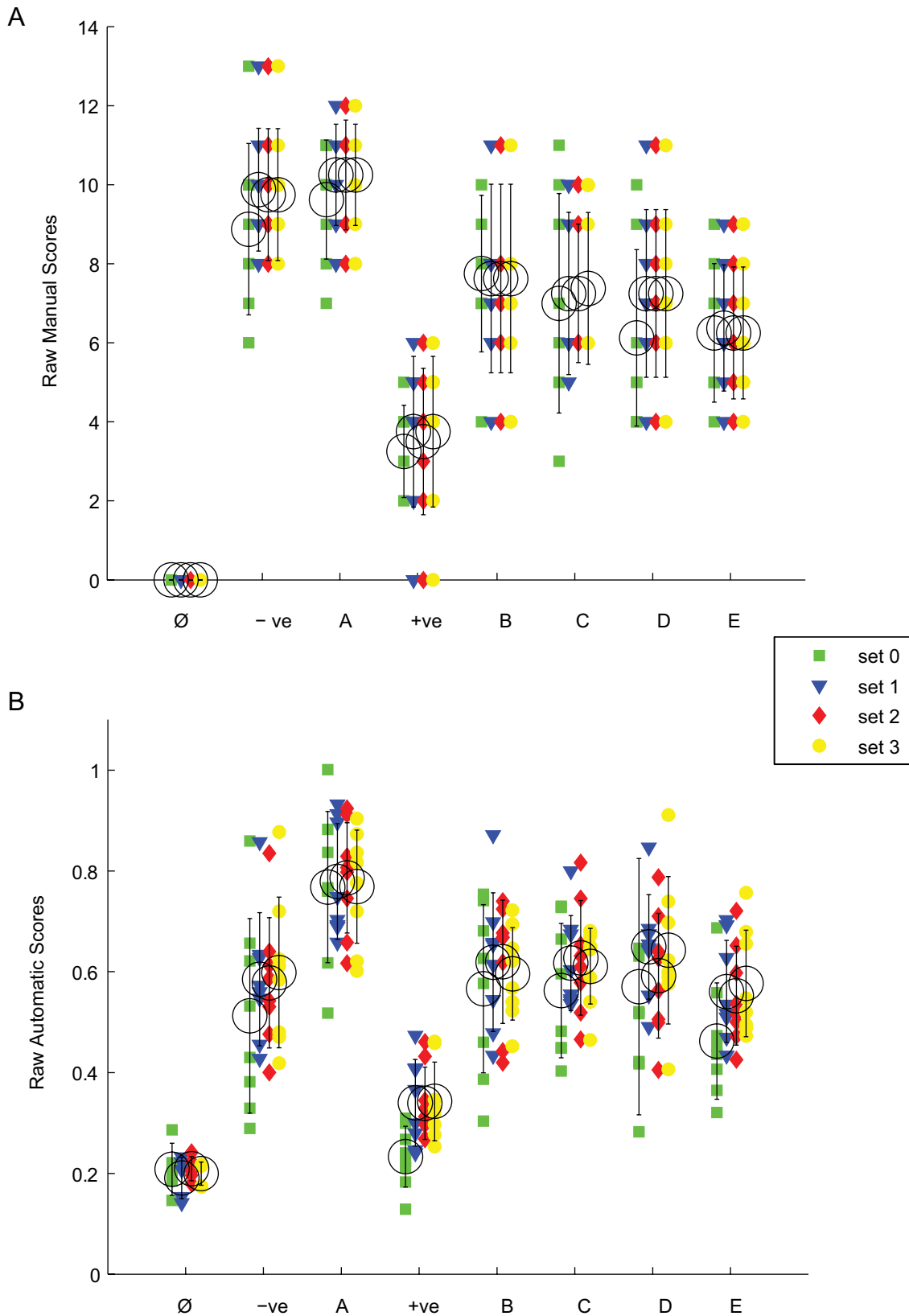


Fig. S4. The scores obtained for manual (A) and automated (B) reads for 4 serial sections of study #1 are plotted. Each marker indicates a single animal, and is color-coded by the serial section set from which it was obtained. The markers are plotted for every animal in each experimental test group, where \emptyset corresponds to the \emptyset control group (no DSS), -ve corresponds to DSS, and +ve corresponds to DSS and IL-22 Fc, and the letters A to E correspond to DSS and various compounds. Means are indicated by small circles, and error bars correspond to 1 s.d.