

**Supplemental Figure S4** Whole-slide image nuclei segmentation and classification by HD-Staining model. **(A)** Original H&E stained image of a lung cancer tumor tissue. **(B)** Cell classification results from Mask R-CNN model. Different colors indicate different types of nuclei or cells. Green: tumor nuclei; yellow: macrophage; blue: lymphocyte nuclei; light blue: karyorrhexis; red: stroma nuclei; pink: red blood cells.

