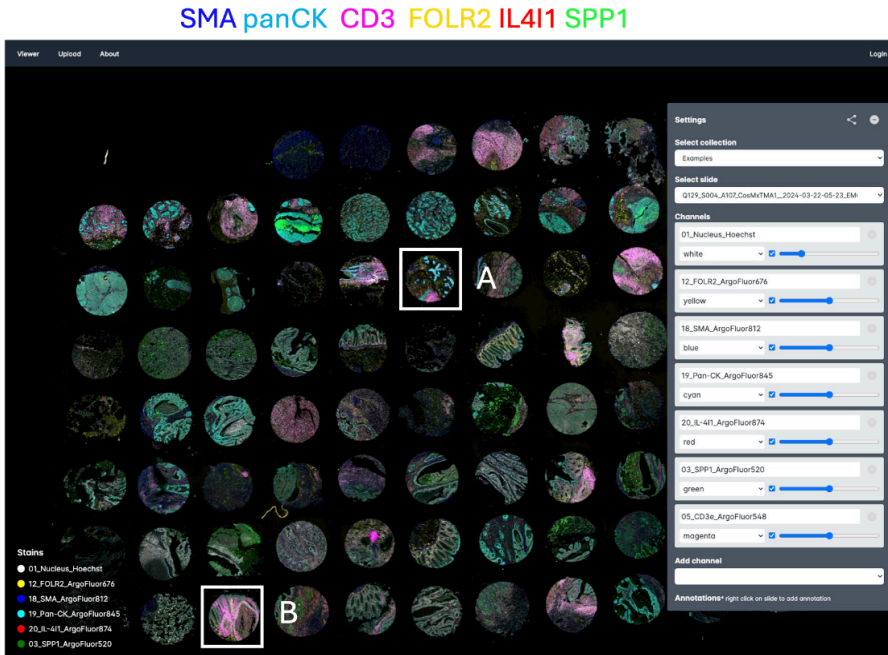
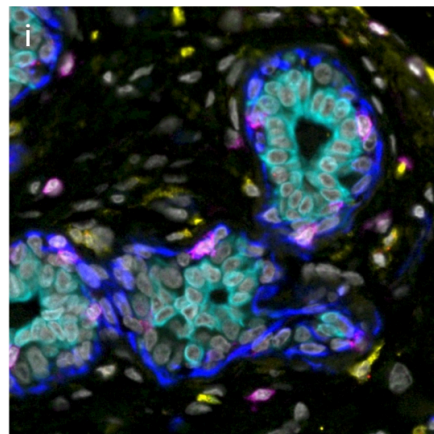
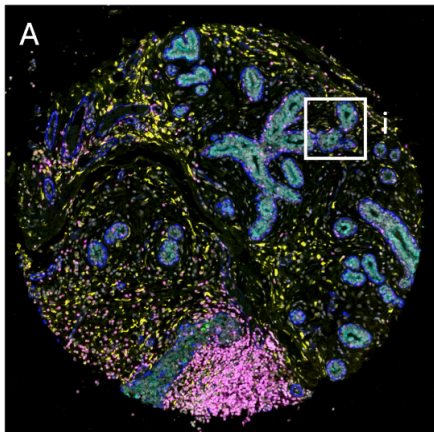


Fig1. TissueMap viewer allows for instant and intuitive browsing of spatial multiplex immunostaining. (A) Schematic overview of TissueMap, built as a client-server application. **(B)** *Top: The schematic* illustrates a comparison of two existing methods of sharing and viewing online multiplex imaging data with TissueMap. Direct raw file sharing offers significant flexibility in selecting markers and adjusting staining intensity, yet is slower due to high data transfer requirements. Pyramid Deep Zoom Image tiling is faster and requires less data being received by the user; however, it restricts channel numbers and requires channel preselection at the source. TissueMap constitutes a hybrid of the two approaches: channel-specific Deep Zoom Image tiling. In this method, each channel is tiled into Deep Zoom Images separately. A lightweight server function next merges the channels, requiring minimal local resources. This approach combines the speed and low data usage of single Deep Zoom Images. To benchmark the performance of TissueMap, we compared *bottom left*: the data used to load a field of view (FOV) and *bottom right*: the time required to load the application and display the first FOV.



Normal Breast Duct



Normal Colon Mucosa

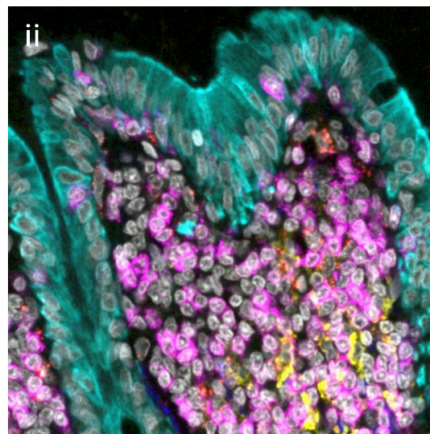
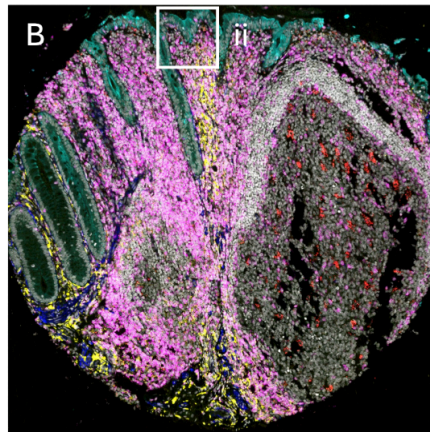


Fig2. TissueMap allows for instant high-resolution zoom. *Top:* Full tissue microarray view and TissueMap interface, *Bottom:* Zoomed-in regions correspond to boxed regions on the top.