Our (TS)2WM framework aims to develop a comprehensive analytical pipeline to integrate both the superior performance of brain tumor segmentation and the impact of GBM tumors on the WM integrity via tumor segmentation and tract statistics using the diffusion tensor imaging (DTI) technique. The (TS)2WM consists of three components: (i) A dilated densely connected convolutional network (D2C2N) for automatically segment GBM tumors. (ii) A modified structural connectome processing pipeline to characterize the connectivity pattern of WM bundles. (iii) A multivariate analysis to delineate the local and global associations between different DTI-related measurements.