



Figure 4. Presence of microbiome in different sections of pancreas with different conditions.

(A) Presence of each genus in four different body sites including fecal, saliva, pancreatic tumor and healthy tissue samples. Circle size corresponds to the total number of subjects available for each comparison (grey, bottom row) or with intra-individually matched ASVs (colored); matched sample types are connected by lines. The first column shows the total number of samples per site in which the genus was detected. (B) Seven selected pancreatic tissue samples (five tumor and two non-tumor) to show bacterial presence/absence with both 16S amplicon and FISH methods. The validation of bacterial presence with both 16S amplicon sequencing and in-situ hybridization is shown with blue color. Samples showing bacterial presence according to 16S but not according to FISH are displayed in green. Bacterial presence validated only by FISH is shown by orange and samples not subjected to FISH validation due to lack of tissue material are shown by purple. (C) Representative microscopy images for Bacteroides (intranuclear, tumor tissue), Bifidobacterium (extranuclear, tumor tissue), Lactobacillus (extranuclear, non-tumor tissue), Streptococcus (extranuclear, non-tumor tissue), Veillonella (extranuclear, tumor tissue). FITC and Cy3 fluorescent dyes were used as indicated and DAPI (blue) was used to label nucleus.

Figure 4