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Confocal imaging of inter-species microbial interactions

Interactions between microbial species are often critical to disease development. Research on the molecular mechanisms underlying mixed community biofilm formation by fungus *Candida albicans* and *Streptococcus* bacteria is providing insights into oral and systemic polymicrobial disease. These studies benefit from analysis of the interactions between microorganisms at the single cell level using fluorescence microscopy, but their quantitation remains a challenge. This project aims to address such issues by developing high-content confocal imaging and analysis techniques of inter-species interactions. Improving and accelerating analysis of these interactions will increase our understanding of the molecular processes driving polymicrobial community development and disease.

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