

High Content Imaging

Using confocal microscopy to collect 3D and 4D biofilm growth data

Introduction

A *Pseudomonas fluorescens* biofilm was grown in minimal media for 24 hours and stained with BacLight Viability Stain (Invitrogen). The live biofilm was imaged on a Nikon TE2000U inverted scope with Nikon Live-Scan Swept-Field Confocal with a 40X ELWD objective corrected for the 180 μ m thickness of the bottom of the BioFlux Plate. Data were collected using a Photometrics Cascade camera and NIS-Elements software in 1.5 μ m slices over a Z-distance of 70 μ m. This distance covers the complete height of the BioFlux microfluidic channel in the viewing window region of the plate.

Data for this study were acquired at the Nikon Imaging Center at UCSF.

