Supplemental Material

S1: MATLAB® R2012a codes for image analysis

(1) Fluorescence intensity

```
im = imread('image name');
im_g = im(:,:,N^ψ);
ans = sum(sum(im_g));
ans/(K*K^δ)
```

(2) Fluorescence coverage

```
im = imread('image name');
im_g = im(:,:,N^ψ);
result = im_g>M^ϰ;
ans = sum(sum(result));
ans/(K*K^δ)
```

Footnotes:

$^{\psi}$N = 1 for red fluorescence (EPS), N = 2 for green fluorescence (bacteria)

$^{\varkappa}$M is the background color intensity, which varies in different experiments. In the present study, M = 30 and 35 for green and red fluorescence, respectively.

$^{\delta}$K is the pixel value in each dimension of an image.

S2: *S. gordonii* gene expression with nicotine using the traditional $2^{-\Delta\Delta Ct}$ method.

Overnight *S. gordonii* cells were treated with 0 and 2 mg/ml nicotine for 8 hours in TSBS, and planktonic cells were harvested for qRT-PCR. $2^{-\Delta\Delta Ct}$ of each sample was calculated. *P<0.05.