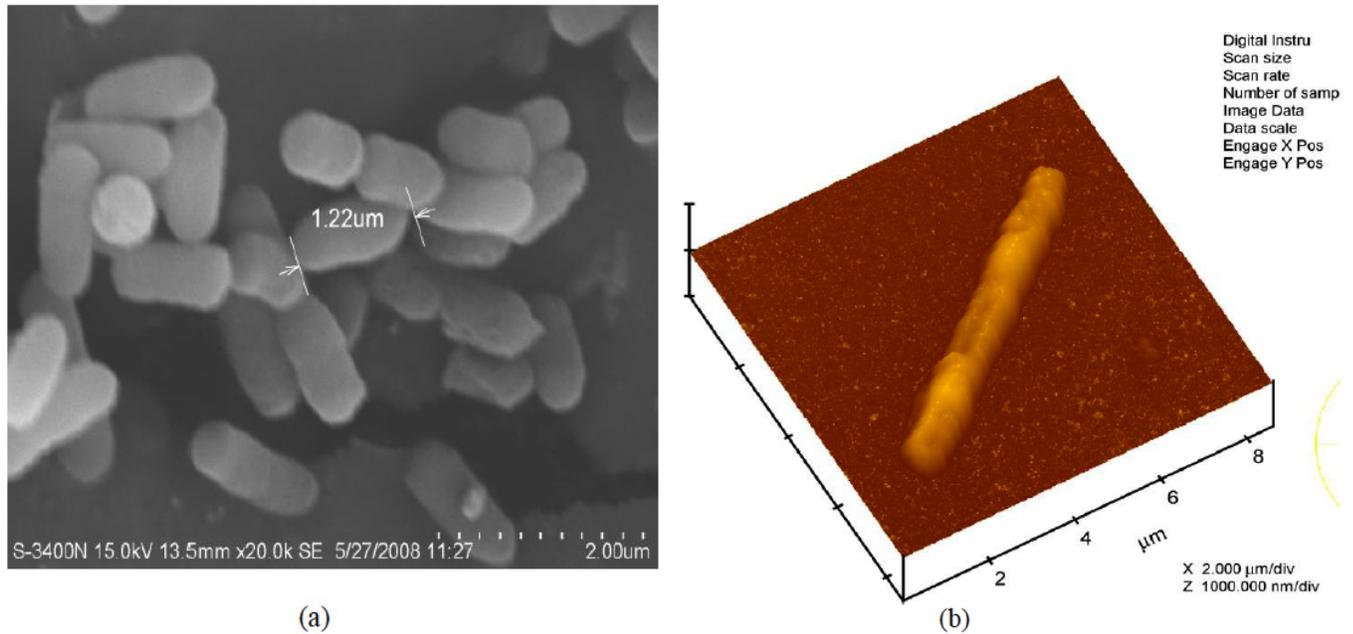


## SUPPLEMENTAL MATERIALS



**Figure S1:** (a) Scanning electron micrographs of cells of *Shigella flexneri* strain G3 grown on Avicel mineral salt medium with 0.15% yeast extract at pH 7.0 and 37 °C for 3 days. The bars represent 2.00 μm. (b) Atomic force microscope of cells of *Clostridium acetobutylicum* X9 grown on Avicel mineral salt medium with 0.15% yeast extract at pH 6.8 and 37 °C for 10 hours (Wang et al., 2008).

**Table S1: Growth Media Composition and Source of Carbon into and Out of Cellulosic-Hydrogen from Co-Culture Process Plus Carbon Contents of Each Source**

Component	In	Out	Carbon contents (% wt/wt)
<b>Basal Salt</b>			
KH <sub>2</sub> PO <sub>4</sub>			-
Na <sub>2</sub> HPO <sub>4</sub> ·12H <sub>2</sub> O			-
NH <sub>4</sub> Cl			-
MgCl <sub>2</sub> ·6H <sub>2</sub> O			-
<b>Nutrients Source</b>			
yeast extract <sup>a</sup>	X		
<b>Carbon Source</b>			
Avicel PH-101	X		25.6
<b>Cell mass<sup>b</sup></b>			
		X	55.2
<b>Soluble protein</b>			
		X	46.3
<b>Fermentative products</b>			
Glucose <sup>c</sup>		X	40.0
Cellobiose <sup>c</sup>		X	43.0
CO <sub>2</sub> <sup>c</sup>		X	27.27
VFA <sup>c</sup>		X	40.0 of acetate, 48.6 of propionate, 54.5 of butyrate, 40.0 of lactate

<sup>a</sup>A nutrient source for a wide variety of industrial and food fermentations and a rich source of amino nitrogen and other biologically active substances. Crude protein =38.0% dry basis, nitrogen=8.7% dry basis. <sup>b</sup>Cell composition C<sub>5</sub>H<sub>7</sub>NO<sub>2</sub>. <sup>c</sup> Carbon content calculated from elemental formulas.