Low-Cost Test Strips for Microbe Detection

Bacterial contamination of drinking water is an important issue both domestically and in developing nations. CHM researchers have developed a test-strip based sensor platform capable of detecting bacteria. This strategy uses nanoparticle-enzyme complexes to generate colorimetric responses that provide visual quantification of bacteria levels. Pilot studies using microspotting have demonstrated excellent sensitivity. Porting of this methodology to inkjet processing has been promising, providing a potential pathway to manufacturing low-cost answers to the world-wide issue of bacterial contamination.

Professor Vincent Rotello
University of Massachusetts