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## **A Medical Micrometer That Could Make a Big Difference?**

| An interview with Professor Ravi Selvaganapathy  
| Microfluidics Researcher, McMaster University

### **What is microfluidics?**

I'm mainly interested in microfluidic devices. So microfluidics is about handling fluids in the microscale: the ability to take them, divide them, and process things with them. And you can do a number of cool things. One of the applications is in lab-on-a-chip devices to do analysis of chemicals and other organisms that might be present.

### **How can microfluidics improve diagnosis?**

Tuberculosis is a major disease. In the world, it kills about a million people annually. Diagnosis of tuberculosis takes about a month or so. What we are doing is developing techniques using microfluidics in order to do this analysis within 2 hours or so. So with that, a doctor using this device is able to diagnose the disease. He is also able to determine which of the drugs that he has in his arsenal is going to work against that particular infection. And what we believe is this is likely to cure a number of diseases similar to tuberculosis which are caused by bacterial infection. So the art of handling fluids in the very small scale, is capable of transforming many of these applications.