



U.S. Pharmacopeia  
The Standard of Quality™

## **Surface Plasmon Resonance**

**Presentation: Quality of Manufactured Medicine - Measurement Science  
Surface Plasmon Resonance  
Wednesday, September 23, 2009; 10.30 a.m. to 12.30 p.m.**

**Author: Ralph Abraham, Ph.D.**

**Affiliations: Bristol-Myers Squibb Co., Biologics Process and Product  
Development  
USP Surface Plasmon Resonance USP Advisory Panel Member**

Surface plasmon resonance (SPR) optical detection was shown to be useful for the label-free study of biomolecular interactions over 20 years ago. Commercially available SPR biosensors have the ability to collect high-quality, information-rich data from binding events. These data can be used across the drug discovery and development spectrum, from basic research to manufacturing and quality control. With SPR it is possible to characterize binding events with samples ranging from proteins, nucleic acids, small molecules to complex mixtures, lipid vesicles, viruses, bacteria and eukaryotic cells.

The presentation will focus on introducing the technology and providing examples of types of assays where SPR is useful, such as the evaluation of binding specificity, concentration analysis, kinetics and affinity analysis and thermodynamics.

### **Headquarters**

12601 Twinbrook Parkway  
Rockville, Maryland 20852  
+1-301-881-0666

### **Europe/Middle East/Africa**

Münchesteinerstrasse 41  
CH-4052 Basel, Switzerland  
+41 (0)61 316 30 10

### **USP-India Private Limited**

ICICI Knowledge Park  
Genome Valley  
Labs 7-10, Phase III  
Turkapally, Shameerpet  
Ranga Reddy District  
Hyderabad 500 078, A.P., India  
+91-40-2348-0088

### **USP-China**

Building 11  
Lane 67 Libing Road  
Zhangjiang Hi-Tech Park  
Shanghai, 201203, China  
+86-21-51370600

### **USP-Brazil**

Avenida Ceci, 1600 - Tamboré  
Barueri/SP, Brazil  
06460-120  
+55-11-3245-6400