Vacuum Processes and Coatings for Health Care Applications

From arterial stents to X-ray phosphors, the health care industry relies on vacuum technology in countless applications. The value of coatings and surface treatments in the health care field is expected to reach $5 billion in 2010 and an increasing number rely on physical and chemical vapor deposition and plasma processes. In addition to improving the quality of life for millions of people, vacuum technology is key to developing revolutionary products such as diagnostic "pills" and MEMS devices that deliver drugs. We will explore the tremendous opportunities and significant challenges in creating new, life-changing materials and devices.

We are soliciting contributed papers in relevant areas including, but not limited to:
- *Surface treatment for enhanced biocompatibility*
- *Surface cleaning with plasmas*
- *Sterilization with plasmas*
- *Hard and protective coatings for medical implants and medical devices*
- *Tribological phenomena in a biological environment*
- *Corrosion resistance and accelerated screening tests*
- *Optical coatings for biomedical devices and instrumentation*
- *New processes for biomedical and pharmaceutical applications*
- *Surface and interface analysis of biomedical products*
- *Systems for drug delivery and sensing*
- *Porous and micro/nanostructured films*
- *Bio-MEMS*
- *Photocatalytic effects in medical devices*
- *Packaging of biomedical and pharmaceutical products*
- *New organic and inorganic thin film materials for biomedical applications*
- *Compatibility with FDA standards*
- *Equipment scale up and process economics*

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