



**Dr. Davinder Gill**  
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### **Abstract**

#### **Biotherapeutic Drug Discovery: Progress and Challenges in the New Regulatory Environment**

Biotherapeutics are now an essential component of drug discovery and development at most major pharmaceutical companies worldwide. Success in this sector has been fueled by significant advances in our understanding of protein sequence, structure and function coupled with the commercial need for innovative therapies with superior side-effect profiles. The classes of protein drugs now being developed encompass a broad range of molecules consisting of monoclonal antibodies, fusion proteins, secreted factors and novel polypeptide scaffolds. Additionally, the class of drug targets being addressed is expanding into previously untested areas such as bone loss and diseases of the CNS. However, this rapid increase in clinical studies has also raised a number of questions related to safety and tolerability of biotherapeutic drugs. Recent mishaps in early stage clinical trials have raised the safety bar set by regulatory agencies. This talk will review the current state of biotherapeutic drug discovery and address challenges in establishing efficient screening paradigms as they relate to identification of ideal drug candidates.

### **Biography**

Davinder Gill is Assistant Vice President, Biologic Therapeutics at Wyeth Research. His group is responsible for developing protein therapeutics within Wyeth's Discovery pipeline. Since joining in 2003, Davinder's group has advanced 15 proteins into Development, 7 of which are in various stages of human clinical trials. Prior to joining Wyeth, Davinder was Associate Director, Biotherapeutic Discovery at Millennium Pharmaceuticals in Cambridge, Massachusetts. Davinder carried out a postdoctoral fellowship at Harvard Medical School. Davinder is a Chemical Engineer by training. He obtained a PhD from the University of Houston, Texas and a Bachelors degree from the Indian Institute of Technology (IIT).