ACS Chemistry for Life®

ACS INDUSTRY SYMPOSIUM

GLOBAL CHALLENGES AND RECENT ADVANCES IN BIOLOGICS AND BIOSIMILARS

MUMBAI, INDIA | 14–15 DEC 2017

INVITED SPEAKER PROGRAMMING:

The 2nd Annual ACS Industry Symposium offers two days of presentations and panel discussions on healthcare-related challenges, new developments in biologics and aspects of biopharmaceutical development of particular interest to the developing world. Sessions will focus on connecting top researchers and industry experts in pharma on topics such as immunotherapy, protein design, protein chemistry, and biopharmaceutical development, among others.

REGISTER NOW

Delegates who register by 10 October receive special Early Bird concession rates.

FEATURED PRESENTATIONS INCLUDE:

Ranjan Chakrabarti, Ph.D., *Biology Laboratory and Standards, United States Pharmacopeial Convention, India*

Analytical Procedures for Recombinant Therapeutic Monoclonal Antibodies

United States Pharmacopeia (USP) is developing Quality Standards for the Therapeutic mABs. Analytical Procedures for Recombinant Therapeutic Monoclonal Antibodies have been developed for monoclonal antibodies that define and recommend accepted methods for quality control of antibodies. This discussion will focus on IgG monoclonals and provide analytical procedures for murine, chimeric, and humanized IgG isotype monoclonal antibodies and subtypes (e.g., IgG1 and IgG2) along with the IgG system suitability RS. <212> on Oligosaccharide analysis is another important chapter for glycan analysis for Monoclonal antibody characterization.

Donald Hilvert, Ph.D., *Laboratory of Organic Chemistry, ETH Zürich, Switzerland*

Design and Evolution of Artificial Enzymes

Enzyme design represents a formidable challenge. Extensive mechanistic and structural studies have provided a solid qualitative understanding of enzyme action. Nevertheless, our knowledge of structure-function relationships in these macromolecules remains incomplete and a quantitative accounting of the incredible efficiency achieved by enzymes still eludes us. Recent progress on the computational design and evolutionary optimization of artificial enzymes will be surveyed in this lecture, highlighting both the opportunities and challenges facing this emerging field.

Sunit Maity, Ph.D., *Product Development, Zumutor Biologics Pvt. Ltd., India*

Transitioning from Biosimilar to Novel Biologics: different strategies for optimized Antibody Production

Zumutor has developed two technology platforms that are used to identify new targets and develop innovative biological entities for the treatment of cancer and other serious diseases. We have successfully developed immuno-onco checkpoint modulators and those molecules are currently undergoing efficacy characterization with relevant mouse model. Exciting data obtained with those mAb molecules will be presented.

Ming-Wei Wang, Ph.D., *Shanghai Institute of Materia Medica, Chinese Academy of Sciences, China*

Innovative Biopharmaceutical R&D in China—Status and Challenges

Innovation is the new national strategy for China's next phase of economic growth and for implementation of the "Long-term Science and Technology Development Plan" of the country. This talk will give a comprehensive overview on China's biopharmaceuticals infrastructure, platforms and innovation environment by highlighting the R&D status, its challenges and future trends.

Peter Seeberger, Ph.D., *Max Planck Institute of Colloids and Interfaces, Germany*

Glycocconjugate Vaccines against Bacterial Infections Based on Synthetic Glycans

Most pathogens, including bacteria, fungi, viruses and protozoa, carry unique sugars on their surface. Currently, several glycoconjugate vaccines against bacteria are successfully marketed. Since many pathogens cannot be cultured and the isolation of pure oligosaccharides is difficult, synthetic oligosaccharide antigens are an attractive alternative. This plenary lecture will describe a medicinal chemistry approach to the development of semi- and fully synthetic glycoconjugate vaccines against severe bacterial infections, including resistant hospital microorganisms.

Peter Senter, Ph.D., *Chemistry Department, Seattle Genetics, United States*

Antibody-Based Therapeutics for Cancer Therapy

An alternative approach involving the identification of biochemical inhibitors of the enzymes fucosyltransferase and GDP-d-mannose dehydratase (GMD) has been discovered. The inhibitors are fucose analogues, and can be added to cells that not only produce mAbs, but other proteins in which fucosylation is important for activity. Several applications of this technology will be discussed, both in vitro and in vivo.

In August 2011, ADCETRIS was approved by the US Food and Drug Administration for use in relapsed or refractory Hodgkin lymphoma and relapsed or refractory systemic anaplastic large cell lymphoma, two diseases with significant unmet medical needs. An overview will be provided of how this drug was developed, and how we are extending the technology.