# Biopharmaceutical Manufacturing and Development

**IBC's** 4<sup>th</sup> International Summit

December 8-9, 2008 Washington Duke Inn & Golf Club Durham, NC

# Monday, December 8, 2008

Ambassador Ballroom

8:00 Registration and Coffee

9:00 Chairperson's Opening Remarks James Weidner, Director, Process Engineering, Amgen Inc.

## **Keynote Presentations**

- 9:15 An Integrated Approach to Global Operations: Making Biotech Manufacturing and Operations Strategically Relevant in Today's Global Biotechnology Environment John Cox, Senior Vice President, Global Manufacturing, Biogen Idec
- 10:00 Translation of Operational Excellence Methodologies from Theory to Action, **Results and Sustainability** Curran Simpson, Senior Vice President, Operations, Human Genome Sciences, Inc.

10:45 Exhibit and Poster Hall Opens with Networking Refreshment Break

### Shared Session: Regulatory Updates, **Risk Management and Validation**

- 11:15 Risk Based Validation and Inspection Readiness Christa Hartmann, Ph.D., Director, Corporate Quality, Genentech, Inc.
- 11:45 Practical Experience from Execution of Risk-Based **Commissioning and Qualification** Magnus Jahnsson, Head of Function QA/HSE, Pharmadule AB, Sweden; Former Scientific Administrator, Inspections Sector, EMEA

#### 12:15 Technology Workshop Microbiological Performance of Commercially **Available Single-Use Connectors** Kerry Roche Lentine, Manager, Virology and Microbiological Sciences,



Bioprocess Division, Millipore Corporation

12:45 Networking Luncheon and Poster/Exhibit Viewing

# **Disposables and Facilities**

## Ambassador Ballroom

## Implementation of Disposable Technologies

- 2:00 Chairperson's Remarks Kellen Mazzarella, Engineer I, Process Development Engineering, Genentech, Inc.
- 2:15 Developing a Supplier Innovation Roadmap to Speed Development and Implementation of **Disposables** Technology Jennifer Maynard, Black Belt Operational Excellence, Bayer Healthcare
- 2:45 Integration of HyClone Single-Use Bioreactors into the Process R&D Early Stage Network Terrence Allotta, Engineer I, Process R&D, Genentech, Inc.
- 3:15 Networking Refreshment Break with Poster/Exhibit Viewing
- 3:45 Update: 1,000L Disposable Bioreactor System CASE **Evaluation and Performance** Kelly R. Wiltberger, Manager, Cell Culture Development, Biogen Idec
- 4:15 Use of Disposable Bag Technology in a Closed Upstream Biologics System STUDY Glen Williams, Senior Vice President, Technical Operations, Biolex Therapeutics
- 4:45 An Innovative Approach to the Use of CASE **Single-Use Products Based on Principles** STUDY of Lean Process Improvement Bryan Shingle, Manager, Clinical Material Services, Clinical Drug Substance Manufacturing, Centocor

# **Operational Excellence**

# Presidents III & IV

### **Applying Lean Principles for Cost Reduction**

- 2:00 Chairperson's Remarks Robert Bottome, Director, South San Francisco Production Operational Excellence, Genentech, Inc.
- 2:15 Lean Plants of the Future Application of Lean Tools to **Biotech Production** Robert Caren, Associate Director, Manufacturing Sciences and Technology, Genentech, Inc.
- 2:45 Creating a Culture of Continuous Improvement Dave Bain, Director, Industrial Engineering, Amgen



- 3:15 Networking Refreshment Break with Poster/Exhibit Viewing
- 3:45 The Keys to Sustaining High Performance Shane Yount, Senior Partner, Competitive Solutions, Inc. Tim Tousey, Manager of Operational Excellence, Zebulon Site, GlaxoSmithKline
- 4:30 Reducing Costs while Improving Compliance Chris S. Driscoll, Principal, Tunnell Consulting
- 4:45 Leading Change in Pursuit of **Operational Excellence** David Sadi, Associate Director, Operational Excellence, Biogen Idec

5:15 Networking Reception in Poster and Exhibit Hall Sponsored by IBC Life Sciences

CASE

STUDY

#### 6:15 Site Tour to Catalent Pharma Solutions

Buses depart the Washington Duke Inn & Golf Club at 6:15 pm and return at 9:45 pm. Refreshments will be served. Please sign up at IBC registration desk.

8:15 Morning Coffee

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# **Disposables and Facilities**

### Ambassador Ballroom

#### Current Perspectives on Extractables and Leachables

- 8:45 Chairperson's Remarks Jerold Martin, M.Sc., Senior Vice President, Pall Life Sciences; BPSA Director and Chair, Standards and Guidance Committee, **Bio-Process Systems Alliance (BPSA)** 9:00 Incorporating Industry Best Practices into Development of an Extractable/Leachable Program Aditya Wakankar, Ph.D., Associate Scientist, Pharmaceutical Development,
- Genentech, Inc. 9:30 Single-Use BioProcess Containers for Storage CASE of a Biopharmaceutical Drug Substance STUD
- Richard Strong, Ph.D., Scientist II, Analytical Development, Biogen Idec 10:00 Development of Supplier-Generated Extractables Data for Integrated Single-Use Systems
- Christopher J. Mach, Global Product Manager, Allegro Single Use Systems, Pall Life Sciences
- 10:30 Networking Refreshment Break with Poster/Exhibit Viewing
- 11:00 Audience Interactive Panel Discussion Moderator: Jerold Martin, Pall Life Sciences Panelists: Christopher J. Mach, Pall Life Sciences; Richard Strong, Ph.D., Biogen Idec; Aditya Wakankar, Ph.D., Genentech, Inc.
- 11:30 Technology Workshop **High Performance Disposable** Capture Chromatography Chris Shields, Marketing Director, Natrix Separations, Inc.
- 12:00 Luncheon Presentation Sponsored by Allegro<sup>™</sup> Flexible Solutions: An (PALL) Life Sciences **Overview of Pall Single Use** lew Science. New Thinking.ss Technologies, Systems and Capabilities Christopher J. Mach, Global Product and Marketing Manager, Allegro Single Use Systems
- 12:45 Coffee and Dessert in the Exhibit Hall

#### Logistical Considerations

- 1:15 Chairperson's Remarks Melody Scott, Process Engineer III, Biogen Idec
- 1:30 Production of Viral Products in a Multi-Product cGMP Environment Roger Lias, Ph.D., President, Eden Biodesign, Inc.
- 2:00 Developing Disposable Shipping Mechanisms: Overcoming **Challenges Inherent in a Fragile System**

Kellen Mazzarella, Engineer I, Process Development Engineering, Genentech, Inc.

- 2:30 Reduce, Reuse, Recycle, and Then What? Converting Waste-to-Energy To be Announced
- 3:00 The Current Limitations on the Use of Disposables in **Clinical Manufacturing**

Joshua Froimson, Associate Director, Site Support, Abbott Bioresearch Center

3:30 Networking Refreshment Break with Final Opportunity for Poster/Exhibit Viewing

#### Enhancing Productivity, Flexibility and Economics of **Biopharm Manufacturing Facilities and Operations**

- 4:00 Predicting Production Run Rates Using CASE **Realistic Process Models** STUDY Carnley L. Norman, Ph.D., Principal Engineer, Amgen
- 4:30 The Use of Simulation in the Design and Capacity Analysis of a Biotech Manufacturing Facility STUDY Richard G. Dargatz, P.E., Engineering Consultant, Engineering Tech Center, Eli Lilly and Company
- 5:00 Disposable Perfusion Bioreactor Technology for **Manufacturing Therapeutic Proteins** Gan Wei, Ph.D., Director, Bioengineering, Shire Human Genetic Therapies
- **Operational Excellence** Presidents III & IV 8:45 Chairperson's Remarks Siddharth J. Advant, Ph.D., Principal & Head, West Coast Office, **Tunnell Consulting** Impact of Raw Materials on Cost Reduction 9:00 Optimization of Resin and Membrane Use in Commercial **Biopharmaceutical Manufacturing** Sourav K. Kundu, Ph.D., Director, Process Development, Amgen 9:30 Shelf Life Extensions of Raw Materials, CASE **Resins and Disposable Components** Freddie W. West, Senior Scientist, Process Development, Amgen **Design for Manufacturability** 10:00 Validation and Six Sigma Robert Bottome, Director, South San Francisco Production Operational Excellence, Genentech, Inc. 10:30 Networking Refreshment Break with Poster/Exhibit Viewing 11:00 Application of the Lean Diagnostic Process CASE in a Biopharmaceutical API Plant Elizabeth Fabián, Business Excellence Lean Program Manager, Global Pharmaceutical Operations, Abbott Laboratories 11:30 Technology Workshop (Ambassador Ballroom) **High Performance Disposable** VATRI Capture Chromatography Chris Shields, Marketing Director, Natrix Separations, Inc. 12:00 Luncheon Presentation (Ambassador Ballroom) Sponsored by Allegro<sup>™</sup> Flexible Solutions: (PALL) Life Sciences An Overview of Pall Single Use New Science. New Thinking Technologies, Systems and Capabilities Christopher J. Mach, Global Product and Marketing Manager, Allegro Single Use Systems 12:45 Coffee and Dessert in the Exhibit Hall 1:15 Optimizing the Use of a Multi-Product **Biologics Clinical Manufacturing Facility** Joseph K. McLaughlin, Associate Research Fellow, Bioprocess R&D, Pfizer Inc **Process Analysis for Production Efficiency** 1:45 Chairperson's Remarks Joshua Froimson, Associate Director, Site Support, Abbott Bioresearch Center 2:00 BioPharma's New Paradigm in Operational Excellence (OpEx): How New Process Design Tools Support the Goals of Quality by Design (QbD) and Process Analytical Technology (PAT) William G. Whitford, Senior Manager, Technical Development Collaborations, Thermo Fisher Scientific 2:30 Audience Interactive Panel Discussion Impact of Operational Excellence on the Design of **Platform Processes and Facilities** Moderator: Chris S. Driscoll, Principal, Tunnell Consulting Panelists: Robert Bottome, Director, South San Francisco Production Operational Excellence, Genentech, Inc.; Robert Caren, Associate Director, Manufacturing Sciences and Technology, Genentech, Inc.; Parrish Galliher, Founder and Chief Technology Officer, Xcellerex, Inc.; Sourav K. Kundu, Ph.D., Director, Process Development, Amgen Gan Wei, Ph.D., Director, Bioengineering, Shire Human Genetic Therapies 3:30 Networking Refreshment Break with Final Opportunity for Poster/Exhibit Viewing 4:00 Use of Multivariate Analysis and Quality by Design for a Late-Stage Bioprocess Validation NingNing Ma, Ph.D., Senior Principal Scientist, Pfizer Inc 4:30 Improving Biomanufacturing Excellence Based on Process Analytical Technology (PAT) / Quality By Design Glenn Restivo, Life Sciences Specialist, Siemens 5:00 Using the Past to Design the Future: Using Empirical Data and Simulation Modeling in Process Design Rick Johnston, Co-Director, Center for Biopharmaceutical Operations,

# Wednesday, December 10, 2008

University of California, Berkeley

Site Tour to Golden LEAF BTEC Facility: A World-First and World-Class Training Facility Buses depart from the Washington Duke Inn & Golf Club at 8:00 am and return at approximately 12:30 pm, making a stop at Raleigh-Durham International Airport at approximately 11:45 am. Please sign up at IBC registration desk

