Integrated Continuous Biomanufacturing II
November 1-5, 2015
The Claremont
Berkeley, California, USA

Poster Presentations
(September 30, 2015)

Analytics & Control

1. **Spectral deconvolution of chromatograms without offline analytics**
   Matthias Rüdt, Karlsruhe Institut für Technologie, Germany

2. **PAT concepts for the process monitoring and control of continuous biomanufacturing**
   Eike Zimmermann, Boehringer-Ingelheim, USA

3. **Inline spiking for viral clearance validation of continuous processes**
   Herb Lutz, Emd Millipore, USA

4. **Suitability of select in-line single-use sensors for PAT in continuous processing**
   James Furey, PendoTECH, USA

5. **Advanced computational tools to enhance continuous monoclonal antibody production**
   Maria M. Papathanasiou, Imperial College London, United Kingdom

6. **Optical enzymatic sensors for continuous monitoring of bioreactors**
   Kenneth F. Reardon, Colorado State University, USA

7. **Optimal control of a continuous bioreactor for maximized beta-carotene production**
   M. Nazmul Karim, Texas A&M University, USA

8. **Strategy for scaling semi-continuous downstream and integration of process analytical tools for monoclonal antibody toxicology**
   Darshini Shah, Merck Research Laboratories, USA

Integrated Processes

9. **Continuous production of proteins: Integration of polishing using MCSGP**
   Fabian Steinebach, ETH Zurich, Switzerland

10. **Process time and cost savings achieved through automation and islands of integration in existing facilities.**
    Lynne Frick, Pall Life Sciences, United Kingdom

11. **Tools for process intensification upstream and continuous processing downstream**
    James Rusche, Repligen Corporation, USA

12. **Integrated solutions for continuous processing in Mobius® bioreactor systems**
    Andrew Clutterbuck, Merck Millipore, France
13. **Laboratory scale continuous linear purification as a development tool for recombinant blood protein processing, using chromatographic resins and membranes**  
Rimenys J. Carvalho, Federal University of Rio De Janeiro, Brazil

14. **Integrated and single use continuous manufacturing**  
Atul Mohindra, Lonza, United Kingdom

15. **Enabling technologies for integrated / continuous downstream processing of biologics**  
Jeff Salm, Pfizer, USA

### Process Technologies

16. **Design criteria and requirements for development of perfusion media**  
Jochen B. Sieck, Merck KGaA, Germany

17. **GlycoExpress: A toolbox for the high yield production of glycooptimized fully human biopharmaceuticals in perfusion bioreactors at different scales**  
Steffen Kreye, Glycotope GmbH, Germany

18. **Genomics based methodology of cell-culture media formulation for improved biotherapeutic productivity and quality consistency**  
Hemlata Hemlata, University of Massachusetts, Lowell, USA

19. **Novel compact cell settlers for continuous perfusion bioreactor cultures of microbial (and mammalian) cells**  
Dhinakar Kompala, Sudhin Biopharma Company, USA

20. **Continuous countercurrent tangential chromatography for purification of high value therapeutic proteins**  
Andrew Zydney, The Pennsylvania State University, USA

21. **Factors affecting the productivity of 4-Column Periodic Counter Current Chromatography (4C-PCC)**  
Laura Fagan, Actavis Biologics Ltd., United Kingdom

22. **Experimental and computational studies on continuous SMB chromatography of protein mixtures**  
Ajoy Velayudhan, University College London, United Kingdom

23. **Continuous processing key economic factors influencing process economics for monoclonal antibody manufacture**  
Andrew Sinclair, Biopharm Services, United Kingdom

24. **Monitoring intracellular component pools to identify steady state in mammalian cell perfusion culture**  
Daniel Karst, ETH Zurich, Switzerland

25. **Simple method transfer from batch to continuous chromatography process to fit parameters to business needs**  
Rene Gantier, Pall Life Sciences, USA

26. **EcoPrime twin – Scale-up of CaptureSMB to the process scale**  
Kathleen Mihlbachler, LEWA Process Technologies, USA
27. A novel plant cell culture platform for semicontinuous production of recombinant proteins: Butyrylcholinesterase as a case study
Karen A. McDonald, University of California, Davis, USA

28. Case study: Optimisation of a stabilised large scale atf perfusion process
Jarno Robin, Novo Nordisk, Denmark

29. Evaluation of a continuous chromatography process through process modeling and resin characterization
Ketki Behere, University of Mass Lowell, USA

30. Developing a scale down model for high density perfusion bioprocess
Haofan Peng, Biogen, USA

31. Comparison of bioreactor systems operated at high bacterial cell density for the production of lactic acid: Batch – CSTR – CSTR cascade – Tubular reactor
Ulrich Kulozik, Technische Universitaet Muenchen, Germany

32. Scale up and implementation of a high density long-term perfusion suspension cell culture in a 250L single use bioreactor
Weichang Zhou, WuXi AppTec Co., Ltd, China

33. BioSC® predict simulation software: FLexibility and optimization of your multi-column process
Fabien Rousset, Novasep, France

34. Mathematical modeling of a bioreactor producing Epo-hr operating in perfusion mode
Osmán Fernández, Center of Molecular Immunology, Cuba

35. Efficient approaches for perfusion medium development
Andreas Castan, GE Healthcare Life Sciences, Sweden

36. Continuous production of viral vaccines with a two-stage bioreactor system
Felipe Tapia, Max Planck Institute Magdeburg, Germany

37. Continuous downstream processing of a monoclonal antibody using Periodic Counter Current Chromatography (PCC) and Straight Through Processing (STP)
Hans Blom, GE Healthcare, Sweden

38. Bioprocess economics and optimization of continuous and pre-packed disposable chromatography
Richard Allmendinger, University College London, United Kingdom

39. Modeling perfusion at small scale using ambr15
Delia Lyons, SAFC, USA

40. Evaluation of novel CEX resin for continuous processing of MAb purification
Takuya Muramoto, Takeda Pharmaceutical Company Limited, Japan

41. Designing a microbial cultivation platform for continuous biopharmaceutical production
Nicholas J. Mozdzierz, Massachusetts Institute of Technology, USA

42. Continuous purification of hepatitis C virus-like particles by multi-column chromatography
José Mota, FCT-UNL, Portugal
43. **BHK cells physiological response to spin-filter stress condition**  
   Aldo Tonso, University of Sao Paulo, Brazil

44. **mAb product consistency achieved in long duration microfiltration-based CHO perfusion process**  
   Douglas Rank, EMD Millipore, USA

45. **Design of a continuous precipitation operation for protein capture**  
   Todd Przybycien, Carnegie Mellon University, USA

46. **Biopharmaceutical capacity planning for batch and semi-continuous bioprocesses under various strategic criteria**  
   Cyrus Siganporia, University College London, United Kingdom

47. **Salt-tolerant cation exchange HD-Sb hydrogel membrane: mAb purification performance in flowthrough mode**  
   Annabel Shang, Natrix Separations Inc, Canada

48. **Toward complete continuity in antibody biomanufacture: Multi-column continuous chromatography for Protein A capture and mixed mode hydroxyapatite polishing**  
   Anthony C. Grabski, Semba Biosciences, Inc., USA

49. **Continuous culture in the age of single-use**  
   Christel Fenge, Sartorius Stedim Biotech, Germany

50. **Alternating flow filtration as an alternative to internal spin filter based perfusion process: Impact on productivity and product quality**  
   Guillermina Forno, Universidad Nacional Del Litoral, Argentina

51. **Pilot scale hybrid fed batch and continuous processing of biologics**  
   Dave Sullivan, Pfizer, USA

52. **From fed-batch to perfusion: Productivity and quality considerations for a late-stage program**  
   Sen Xu, Merck Research Laboratories, USA