LIST OF POSTERS

Posters with a double asterisk (**) will also be presented in the poster snapshot sessions.

Monday 11 July 2022

Theme 1: Accelerating Development

1. Implications and Impact of accelerated regulatory pathways on process development, technical transfer and validation activities: Case studies
Andre Dumetz, GSK, United States

2. General approaches and considerations for purification of hydrodynamically large Fab conjugates**
Eileen Duenas, Genentech, United States

3. Overcoming chromatography resin supply challenges during the Covid pandemic by rapid re-development of downstream processing
Graham McCartney, Samsung Bioepis, Netherlands

4. Overcoming raw material supply chain challenges during a global pandemic
Krista Petty, Amgen, United States

5. Milliscale devices to accelerate process development for protein precipitation and filtration
Maria del Carme Pons Royo, BOKU, Austria

6. Straightforward multimodal mechanistic modeling in early-stage downstream process development
Rudger Hess, Boehringer-Ingelheim and Karlsruhe Institute of Technology (KIT), Germany

7. Machine learning and advanced data analytics to better exploit process analytical technology for chromatography operation**
Stephen Goldrick, University College London (UCL), United Kingdom

8. Development, Scale Up and Tech Transfer Challenges of the Commercial Vaxzevria Manufacturing Process
Thomas Linke, AstraZeneca, United States

Theme 2: Viral Products, Cell Therapies, Diverse Expression Systems

9. Implementation of novel affinity ligand for Lentiviral vector purification**
Ana Sofia Moreira, Instituto de Biologia Experimental e Tecnológica (iBET), Portugal

10. Re-thinking process conventions for enhanced lentiviral vector recovery: insights from ultra scale-down bioprocessing
Andrea Rayat, University College London (UCL), United Kingdom

11. Cost analysis of adeno-associated viral vector (AAV) manufacturing and development
Annabel Lyle, University College London (UCL) and AstraZeneca, United Kingdom

12. Production of complex recombinant proteins in plant-based systems – From case studies in process development to regulatory approval**
Johannes Buyel, Fraunhofer IME/RWTH Aachen University, Germany

13. Filtration insights in gene therapy processing
Nicholas Marchand, Pall, United States

14. From big loss to high yield, impactful upstream and downstream process improvements in the manufacturing of viral vectors for gene therapy
Rene Gantier, Repligen, United States

15. Membranes and monoliths for biopharmaceutical product capture and purification: advances and prospects
Ruben Carbonell, North Carolina State University, United States

16. Process Design and Comparison for Batch and Continuous Manufacturing of Recombinant Adeno-Associated Virus
Yinying Tao, Eli Lilly and Company, United States

Theme 3: Purification Case Studies

17. Understanding the Loss of Performance in Affinity Resolving Chromatography
Andrew Barmasse, Regeneron Pharmaceuticals, United States

18. Evidence of Protein Aggregate Formation Directly on the Surface of Multimodal Chromatography Media
Giorgio Carta, University of Virginia, United States

19. Evaluation of the contribution of mAb domains and surface patches to their binding behavior on multimodal resins using covalent labeling and molecular dynamic simulations
Kabir Dhingra, Rensselaer Polytechnic Institute, United States

20. Protein A Affinity Chromatography: Past, Present, Future
Rainer Hahn, BOKU, Austria

21. Downstream Bioprocess Challenges of a Novel Class of Nanobodies; Understanding Protein A Capture Step Aggregation Removal, Aggregation Formation and Formulation Utilizing Biophysical Analysis and Computational Modeling**
Sandra Rios, Merck and Co., Inc., United States

22. The use of antichaotropic salts in mixed mode chromatography to improve aggregate removal from monoclonal antibodies
Susanne Konrad, Roche Diagnostics GmbH, Germany

23. On the resurgence of colloidal chromatography models
Tobias Hahn, Cytiva, Germany

24. Role of harvest depth filtration in controlling product impurities for a bispecific antibody
Xuankuo Xu, Bristol Myers Squibb, United States

Theme 4: New Purification Technologies

25. Development of Fibrous Separation Platform for Large Particle Purification
Alexei Voloshin, 3M Company, United States

26. Rethinking convective chromatography
Cristiana Boi, Università di Bologna, Italy

27. Evaluation of Ecofriendly Alternatives for a Virus Inactivation Detergent used in Biologics Manufacturing Process**
Dong Yang, Bristol Myers Squibb, United States

28. Predictive scaling of fiber-based Protein A capture chromatography using mechanistic modeling
Gunnar Malmquist, Cytiva, Sweden

29. A new high capacity affinity resin for large scale purification of mRNA
Hans Johansson, Purolite Life Sciences, Sweden

30. Evaluation of new cell culture harvesting strategies for current and next generation processes
Hendri Tjandra, Bayer Healthcare, United States

31. Novel Dual Affinity Protein technology provide 80% increase in yield of IVIG from human plasma - and secure efficient utilization of the scarce resource.
Jan Kyhse-Andersen, CHRETO ApS, Denmark

32. Intensifying Cell Clarification by Fluidized Bed Centrifugation: Feasibility Study and Cost Analysis for Industrial Scale Single-Use Biomanufacturing
Martin Saballus, Sartorius, Germany

Theme 5: Future Facility Design and Control Concepts

33. MaruXTM: A Continuous Process Platform for Manufacturing Monoclonal Antibodies Driving Novel Process Technology, Automation and Facility Design
Jonathan Haigh, Fujifilm Diosynth Biotechnologies, United Kingdom

34. Advancing End-to-End Integrated and Continuous Biomanufacturing at Sanofi through Technology and Organizational Innovation
Kevin Brower, Sanofi, United States

35. Exploration and Evaluation of Modular Concepts for the Design of Full-scale Manufacturing Pharmaceutical Facilities
Mariona Bertran, Novo Nordisk, Denmark

36. Continuous ultrafiltration/diafiltration using a novel design of a two membrane single pass tangential flow filtration module
Matthias Franzreb, Karlsruhe Institute of Technology (KIT), Germany

37. Considerations for Viral Filtration in an End-to-End Continuous Process
Megan McClure, Just - Evotec Biologics, United States

38. A unified high-throughput and miniaturised semi-continuous chromatography mechanistic model
Razwan Hanif, UCB, United Kingdom

39. Fitting More Into the Same Space: A Journey To 5K Liter Downstream Processing
Samuel Ruesing, Thermo Fisher Scientific, United States

40. Continuous downstream process designed based on the process characterization
Shuchi Yamamoto, Yamaguchi University, Japan

Wednesday 13 July 2022

Theme 1: Accelerating Development

41. Upstream process qualification of a non-platform molecule: Leveraging high-throughput downstream automation to measure critical quality attributes in the bioreactor
Arch Creasy, Pfizer, United States

42. Integrated process modelling and machine-learning in downstream process development
Cornelia Walther, Boehringer-Ingelheim, Austria

43. Supporting journeys and enabling strategies for the creation and application of dynamic end-to-end bioprocess digital twins using mechanistic models
Edward Close, Siemens Process Systems Engineering, United Kingdom

44. Predicting the mixing performance of UF/DF units using computational fluid dynamics using the V&V40 standard for establishing the credibility of first principles in silico models toward regulatory filings.
Elcin Icten-Gencer, Amgen, United States

45. HTS for rapid and reliable prediction of monovalent antibody binding behaviour in flowthrough mode
Julius Klemens Lorek, Novo Nordisk, Denmark

46. Analysis and optimization of oxidative refolding in vitro
Luisa Buscajoni, Boehringer Ingelheim, Austria

47. Learnings from the past and building the future of new modalities
Susanne Richter, Novartis, Austria

48. Enabling COVID-19 Vaccine Scale-up from 40 million doses/mo. to 200 million doses/mo. in 14 Weeks
Vinit Saxena, Sepragen Corporation, United States

Theme 2: Viral Products, Cell Therapies, Diverse Expression Systems

49. Replacing gradient ultracentrifugation with chromatography: Redevelopment of a robust and scalable purification process for an oncolytic virus immunotherapy
Andrew Swartz, Merck and Co., Inc., United States

50. Development of a universal purification tool for DNA removal of bioprocesses
Cristina Peixoto, Instituto de Biologia Experimental e Tecnológica (iBET), Portugal

51. Continuous and integrated processing of viral capsomeres and virus-like particle purification using new generation multi-modal chromatography strategies**
Lukas Gerstweiler, University of Adelaide, Australia

52. Evaluation of Fibro AIEX prototypes for chromatographic purification of retroviral vector product streams
Nathaniel Kingsbury, Kite Pharma, United States

53. Tackling a capacity bottleneck to permit large-scale downstream processing of an adenovirus-vectored vaccine
Piergiuseppe Nestola, Sartorius , Switzerland

54. Allogeneic CAR T-Cell Therapy Manufacturability Assessment
Raquel Orozco, Bayer Pharmaceuticals, United States

55. The road less taken: A trip through varied expression systems and what that does to the downstream process.
Sheldon Oppenheim, Takeda Pharmaceuticals, United States

56. Removal of Empty Capsids from AAV9 Viral Vectors to Enable Manufacture of High Dose Gene Therapy Products for Clinical Applications
William Kish, Pfizer, United States

Theme 3: Purification Case Studies

57. Integration of Cation Exchange and Anion Exchange Chromatography for the Development of Robust and Economical Mab Polishing Process.
Abhijit Shirke, Teva Pharmaceuticals, United States

58. Tracking host-cell proteins in mAb bioprocessing: Phenomenology and mechanisms
Abraham M. Lenhoff, University of Delaware, United States

59. Characterization techniques from formulation chemists that provide fundamental understanding to enable virus filtration of difficult to filter mAb streams
Benjamin Cacace, MilliporeSigma, United States

60. Strategies for translating powerful analytical hydrophobic interaction chromatography (aHIC) separations into successful manufacturing unit operations when your molecule is very hydrophobic
Brian Bowes, Eli Lilly and Company, United States

61. Mechanistic modeling and uncertainty analysis of real chromatography equipment
Eric von Lieres, Research Center Jülich, Germany

62. Binding Behaviors of Antibodies and Sialylated Fc-fusion Protein Species in Protein A Chromatography
Jing Guo, Bristol Myers Squibb, United States

63. Industry wide proof of concept collaboration for CIEX pooling based on real-time aggregate detection
Matthias Wiendahl, Novo Nordisk, Denmark

64. To explore novel approaches to remove host cell proteins (HCPs) for antibodies and other Fc fusion proteins' production**
Tingting Cui, AstraZeneca, United Kingdom

Theme 4: New Purification Technologies

65. Evolution of a clarification platform strategy using a novel chromatographic clarification technology**
Agathe Drapé, Sanofi, France

66. Designing high density isopore membranes with "à la carte" surface chemistries for downstream mAb purification and applications in cell and gene therapies & diagnostics**
Daniele Gerion, Terapore Technologies, United States

67. Evolving column chromatography to modular, bed-supported cassette chromatography: Productivity and product quality assessment
Guido Stroehlein, JSR Life Sciences, Belgium

68. Continuous Recovery and Purification of Bioproducts on the Basis of Adsorption Technology
Marcelo Fernandez Lahore, Luxembourg Institute of Science and Technology, Luxembourg

69. Single Pass Tangential Flow Filtration to Enable Ultra-High Concentration Drug Substance Manufacturing
Nicholas Levy, Janssen, United States

70. 3D printed stationary phases for bioseparations: control of morphology across scales, from mm to µm to nm**
Simone Dimartino, University of Edinburgh, United Kingdom

71. Detergent toolbox to inactivate viruses in the manufacturing process of complex protein modalities
Mary Lunson, Lonza, United Kingdom

72. 3D Printed Monolith Adsorption as an alternative to Expanded Bed Adsorption for protein purification
Yuanjun Pei, University of Canterbury, New Zealand

Theme 5: Future Facility Design and Control Concepts

73. Evaluating new facility designs and PAT integration for continuous mAb production
Catarina Neves, University College London (UCL) , United Kingdom

74. Using real-time data to enable smart decision making on the manufacturing floor**
Christine O'Sullivan, Amgen, Ireland

75. Improving Process Control Using PAT and a Digital Twin Model of a Continuous Capture Process
George Weeden, Sanofi, United States

76. Pragmatic control concepts for end-to-end drug substance continuous manufacturing platform
Huanchun Cui, National Resilience, United States

77. On-line Simulated Moving Bed Chromatography – Continuous Sample Preparation for Mass Spectrometry as Process Analytical Tool
Juliane Diehm, Karlsruhe Institute of Technology (KIT), Germany

78. Continuous Virus Filtration: An Existing Technology with a Promising Future
Julie Kozaili, Asahi Kasei Bioprocess America, United States

79. Design for Decades: Bioprocess Facility Considerations for Maximum Flexibility
Mark Brower, Merck and Co., Inc., United States

80. Creating a Digitally Integrated, Continuous System as a Platform for Bioprocess Development
Sean Ruane, Centre for Process Innovation, United Kingdom