Cell Culture Engineering XII
Poster Presentations

1 **Using Systematic Metabolite Analysis To Guide Cell Culture Process Optimization**
Zhaohui Geng, Pfizer Inc, USA

2 **Integrated Strategies to Improve Cell Line Development Proces**
Lin Zhang, Pfizer Inc, USA

3 **Cell And Vector Engineering To Generate Highly Productive Cell Lines**
Nic Mermod, University of Lausanne, Switzerland

4 **With A Little Help From My (Viral) Friends: Ways To Resolve The Low-Titer-Issue In CHO Transient Production Processes**
Sabine Geisse, Novartis Institutes for BioMedical Research, Switzerland

5 **Mesenchymal Stem Cells For Tissue Engineering Applications**
PD Dr. Cornelia Kasper, Leibniz University of Hannover, Germany

6 **Proliferation Controlled Cell Lines with In Vivo Physiology**
Hansjoerg Hauser, Helmholtz Centre for Infection Research, Germany

7 **Development Of A Reproducible System For Production Of Human Red Blood Cells From Haematopoietic Stem Cells**
Mohamed Al-Rubeai, University College Dublin, Ireland

8 **Metabolomics: Designing And Engineering Cell Culture Development Processes**
Alan Dickson, University of Manchester, United Kingdom

9 **Insights Into Scale Up Of High-Yield Chemically-Defined Platform Process: Bringing Early Stage Products From Development To Manufacturing By Considering Cell Line Sensitivity To Hydrodynamic Forces**
Helena Y. Makagiansar, Biogen Idec, USA

10 **A Case Study for Applying QbD Concept into Cell Culture Process Design**
Tongtong Wang, Eli Lilly and Comapany, USA

11 **Development Of A High Throughput Cell Culture Platform For Clone Selection And Process Development**
Anli Ouyang, Eli Lilly and Company, USA

12 **NMDA Expression in HEK293/GLAST Cells Using BacMam**
Kim Stutzman-Engwall, Pfizer PharmaTherapeutics Research and Development, USA

13 **Intensifying CHO Cell Based Fed-Batch Culture For High Yield Antibody Production Using A Chemically Defined Process Format**
Thomas Ryll, Biogen Idec, USA

14 **Strategies For Enhanced Productivity Of A Hydrophobic Recombinant Protein**
Maureen Spearman, University of Manitoba, Canada

15 **Noval Orbital Shaken Bioreactor For Cell Cultivation In Disposable Bags**
Dr. Tibor Anderlei, Adolf Kühner AG, Switzerland

16 **Single-Batch Manufacturing Of Recombinant Human Polyclonal Antibody For Human Therapy**
Anne Bondgaard Tolstrup, Symphogen A/S, Denmark

17 **Quest For Quantity And Quality; How Are We Meeting This Challenge In Cell Line Development?**
Rohini Deshpande, Amgen. Inc, USA

18 **Early Identification Of Molecules With Expression-Related Manufacturability Issues**
Laura Simmons, Genentech, Inc., USA

19 **Profiling Highly Conserved MicroRNA Expression in Chinese Hamster Ovary Cells and Its Applications in Cell Engineering**
Nan Lin, Sigma-Aldrich, USA

20 **The Challenge to Produce Glycoproteins of High Quality - Control of Catabolite Formation in Minimal Culture Media with CHO Cells**
Ferruccio Messi, Cell Culture Technologies, Switzerland

21 **Manipulating The Energy Metabolism In The Baculovirus-Insect Cells System: A Bridge Between Metabolic And Bioprocess Engineering**
Nuno Carinhas, ITQB-UNL/IBET, Portugal

22 **Next Generation of Cell Line Selection and Process Optimization: 10 mL Bioreactor Technology (Micro-24 Micro BioReactor)**
Tiffany D Rau, PhD, GlaxoSmithKline, USA

23 **Regulation Of Transferrin Receptor Numbers At The Cell Surface May Drive Growth And Productivity**
Andrew Sakko, Novozymes Biopharma, Australia

24 **Construction Of A Recombinant Bacmid For Expression Of An Antiapoptotic Protein From Lonomia Obliqua Hemolymph In A Baculovirus/ Uflag Cells System**
Ana Carolina Viegas Carmo, UFSCar, São Carlos/SP, Brazil

25 **A Genomic - Cell Engineering Approach For Optimization Of Adenovirus Production In HEK 293 Cells**
Mohamed Al-Rubeai, University College Dublin, Ireland

26 **Identification Of A Productivity "Hot Spot" Within A Narrow Temperature Band Near 38°C In An NS0 Cell Line**
Charles Sardonini, PhD, Genzyme Corporation, USA

27 **Factors Causing Antibody Reduction Observed During Harvest Clarification Of CHO Cell Culture**
Pratik Jaluria, Alexion Pharmaceuticals, USA

28 **Strategies For Chondrocyte Culture In A Novel Airlift Bioreactor**
Dr Pradeep Srivastava, Banaras Hindu University, India

29 **Avoiding Pitfalls During Scale Up And Tech Transfer – Minimize Risk Of Failures By Equipment Characterization**
Michael Pohlscheidt, Roche Diagnostics GmbH, Germany

30 **Improving Human Hepatocyte Functionality for Drug Testing Applications: 3D culture in Stirred Bioreactor**
Sofia B Leite , IBET/ITQB-UNL, Portugal

31 **Cell Culture Process Media Development: A Framework For Timeline - And Resource-Constrained Programs**
Anne Kantardjieff, Alexion Pharmaceuticals, USA

32 **Development of a Glutamine Synthetase (GS) Knockout CHO Host Using Zinc Finger Nucleases**
Christopher C. Frye, Eli Lilly and Company, USA

33 **Development and Implementation of High Density Cell Banking Technology Improves Operational Efficiency in Large-Scale Protein Biomanufacturing**
Martin S. Sinacore, Ph.D., Biogen Idec Inc., USA

34 **Establishment of Chemically-Defined Cell Culture Platform for Therapeutic Antibody Production: Opportunities and Challenges**
John C. H. Fann, Abbott Bioresearch Center, USA

35 **Development of a Chemically-Defined Platform Medium for CHO Processes: Identification and Interactions of Key Media Components**
Martin Gawlitzek, Genentech, Inc., USA

36 **Optimization Of Culture Modes For Fermentative Production Of Polysialic Acid By E. Coli K235**
Zhan XiaoBei, Jiangnan University, China

37 **Impact Of Antibody Molecule And Cell Lineage On Product Quality And Manufacturing Process**
Pranhitha Reddy, Amgen, USA

38 **Understanding The Fate Of Polyethylenimine In Transient Gene Expression: Towards GMP-Grade Recombinant Protein Production**
Sophie Nallet, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

39 **Stable Transduction Of CHO Cells Within Two Days Following Lentiviral Vector-Mediated Gene Transfer**
Agata Oberbek, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

40 **Alginate Encapsulation As A Novel Strategy For The Cryopreservation Of Neurospheres**
Rita Malpique, IBET/ITQB-UNL, Portugal

41 **How Systems Biology Can Help To Develop Vaccine Processes: The Case Of Rotavirus-Like Particles**
António Roldão, ITQB-UNL/IBET, Portugal

42 **The Addition Of Sirnas To CHO Culture To Improve The Yield And Quality Of Biotherapeutics**
David A. Kocisko, Alnylam Therapeutics, USA

43 **HEK-293 Cells Is An Efficient Platform For Large Scale Manufacturing Of Influenza Vaccines**
Amine A. Kamen, National Research Council, Canada

44 **Development of a Robust Bioprocess Platform for A Soluble Recombinant Protein Production**
Peifeng Chen, MedImmune, USA

45 **Systems Biology Approach to High Yielding CHO Cell Bioprocess**
Shun Luo, Amgen, Inc., USA

46 **Strategic Opportunities and Applications of High Throughput Technology in Cell Culture Development**
Xiaoming (Jerry) Yang, Amgen Inc., USA

47 **Long Term Preservation Of Liver-Specific Phenotype In Hepatocytes Through A Novel Gravimetric Controlled Perfusion Bioreactor System**
Rui Tostões, IBET/ITQB-UNL, Portugal

48 **Analytical Fingerprinting Tools: Linking Chemical Characteristics to Media Formulation Quality and Biological Performance**
Cheryl Moody Bartel, Life Technologies, USA

49 **Continuous Improvement of Process, Cost, and Product Quality through Post-Licensure Process Changes**
Jin Wang, Bayer HealthCare LLC, USA

50 **Investigation of Cellular Factors Influencing Productivity in CHO Cell Fed-batch Processes: Glutamine Metabolism and Autophagy**
Mario A. Jardon, University of British Columbia, Canada

51 **Viral Vectors for the Treatment of Alcoholism: Gene Therapy Strategies, Vector Design and Production**
Juan A. Asenjo, University of Chile, Chile

52 **Study Of Alternating Tangential Flow Filtration For Perfusion And Harvest In Chinese Hamster Ovary Cells Cultivation**
Veronique Chotteau, Royal Institute of Technology (KTH), Sweden

53 **Development Of Robust Protocols Based On Recombinant Histone H3.1 To Increase The Retroviral Transduction Efficiency Of Primary Hematopoietic Stem Cells**
Pascal R. Beauchesne, University of British Columbia, Canada

54 **Rapid Creation Of Platform Fed-Batch Process Using A High Throughput (Simcell™) System**
Zhihua Xiao, Life Technologies Corporation, USA

55 **Improving Mammalian Cell Line Protein Production using a Metabolic Model-based Approach**
Iman Famili, Ph.D., GT Life Sciences, Inc., USA

56 **Production, Characterization, And Pharmacokinetic Properties Of Antibodies With N-Linked Mannose-5 Glycans Towards Enhanced ADCC Function**
Marcella Yu, Genentech, Inc., USA

57 **Continuous Improvement Of Commercial Drug Substance Manufacturing Through Application Of Analytical Tools**
Eric Fallon, Genentech, Inc., USA

58 **High-Throughput Culture of Single Cells in Nanovolume Bioreactors Allows Assessment of Heterogeneity in Hematopoietic Stem Cell-Enriched Populations**
Véronique Lecault, Michael Smith Laboratories, Canada

59 **Quantitative Metabolomics for Mammalian Cells - Development of an Optimized Protocol for Sampling and Extraction**
Stefanie Dietmair, Australian Institute for Bioengineering and Nanotechnology, Australia

60 **Ex Vivo Manufacture of Red Blood Cells**
Nicholas E. Timmins, The University of Queensland, Australia

61 **Cell Quality Prediction Based On Image Analysis Combined With Bioinformatics For Practical Cell Processing**
Ryuji Kato, Nagoya University, Japan

62 **Accelerating Cell Culture Process Development: Scale-Up From Micro Wells To Miniaturised And Bench Scale Reactors**
Frank Baganz, University College London, United Kingdom

63 **Inhibition of Pro-domain Cleavage Enhances Recombinant hBMP-2 Yield in Mammalian Cell Culture Systems**
Aileen JJ Zhou, University of Toronto, Canada

64 **High-Throughput Analysis and Modulation of Cellular Responses to Process Conditions**
Susan T. Sharfstein, Rensselaer Polytechnic Institute, USA

65 **A Systems Approach To Quantify And Exploit Metabolic Reprogramming In Anti-Apoptotic CHO Cells**
Jamey D. Young, Vanderbilt University, USA

66 **Establishment Of An On-Line, Dynamic Feeding Method And Applications For High Titer CHO Processes**
Jincai Li, Genentech, Inc., USA

67 **Preservation of Balanced Cell Culture Environment for Fed-Batch Process**
Yen-Tung Luan, Pfizer, USA

68 **In Vitro And In Silico Studies Of The Antibody Production Process; A Through-Culture Analysis In Mammalian Cells**
Claire M Bennett, University of Sheffield, United Kingdom

69 **Rational Feed Design Based On Metabolite Profiling Of Mammalian Cell Lines**
Christopher Sellick, The University of Manchester, United Kingdom

70 **Enhanced And Scalable Mab Production Using The *EPI*CHO Transient Expression System**
Giuseppe Codamo, University of Queensland, Australia

71 **Aeration And Mixing Strategies For A CO2 Sensitive CHO Process**
Kevin Johnson, Genentech, USA

72 **Making An Improved CHO Host Cell: Engineering Or Evolution?**
Trent Munro, University of Queensland, Australia

73 **Molecular Characteristics of CHO Host Cell Lines Optimised by Cell Sorter Assisted Directed Evolution**
Nicole Borth, University of Natural Resources and Applied Life Sciences, Austria

74 **Development And Implementation Of Shaking Culture Systems For Recombinant Protein Production By Animal Cells**
Chao-Min Liu, Hoffmann-La Roche Inc., USA

75 **Novel Host Cell Engineering Strategy Enabled The Establishment Of A High-Yield Strain**
Hisahiro Tabuchi, Chugai Pharmaceuticals, Japan

76 **The BAC-Based Physical Map Of Chinese Hamster Ovary DG44 Cell Line**
Yihua Cao, Osaka University, Japan

77 **The Genomic Structure Of Exogenous Dhfr Amplicon And Its Application In CHO Gene Amplification**
Takeshi Omasa, Osaka University, Japan

78 **Improvement Of Productivity Of A Chinese Hamster Ovary Cell By Unfolded Protein Response - Related Pathway Engineering**
Tomoshi Ohya, Mitsubishi Tanabe Pharma Corporation, Japan

79 **IRES-Mediated Tricistronic Vector For Rapid Generation Of Monoclonal Antibody Expressing Cell Lines With High Productivity And Consistent Quality**
Yuansheng Yang, Bioprocessing Technology Institute , Singapore

80 **HTLV Tax Activates Human CMV MIE Promoter Enhancing Production Of Recombinant Proteins In Mammalian Cells**
Sheng-Hao Chao, Bioprocessing Technology Institute , Singapore

81 **Novel Single-Use Bioreactor Development Using Pneumatic Mixing Mechanism**
Brian Lee, PBS Biotech, Inc., USA

82 **Chemical Chaperones Provide Improved Productivity And Reduce Aggregation Of Recombinant FLAG-COMP-ANG1 In CHO Cells**
Sung Kwan Yoon, Aprogen, South Korea

83 **Utility Of Aggregation-Sensitive Dyes In Detecting IGG High Molecular Weight Aggregates**
Nigel Jenkins, National Institute of Bioprocessing Research and Training, Ireland

84 **Changes in Media Composition due to Expression of IgG1 in HEK and CHO Cells**
Peter G. Slade, Life Technologies, USA

85 **Continuous Feeds of Sodium Lactate and Sodium Chloride in Bioreactors: Decoupling the Effects of Lactate from Osmolality on CHO cells**
Inn H. YUnited Kingdom, Genentech, USA

86 **Maximizing Antibody Productivity Through Media Optimization For CHO Cell Culture**
Jian Wu, Amgen Inc., USA

87 **Development of novel high-expression vector system•G'Mammalian PowerExpress System TM' for the production of biopharmaceutical from CHO cells.**
Kenji Masuda, Toyobo Co., Ltd., Japan

88 **Protein and Membrane Supply for High Throughput Screening Assays by Transient Transfection and Baculovirus Insect Cell Expression**
G. Schmid, F. Hoffmann-La Roche Ltd, Switzerland

89 **Robust Bioreactor Strategies For The Expansion Of Undifferentiated Human Embryonic Stem Cells**
Margarida Serra, ITQB-UNL/IBET, Portugal

90 **Application of Multivariate Data Analysis to the Understanding of Factors Influencing the Glycosylation Profile of a CHO-derived Fusion Protein**
Neysi Ibarra, Eimear O'Donovan, Enda Moran, Pfizer Inc, Ireland

91 **Development Of A Shaken Scale Down Model In USP: From 1000 L To 0.1 L Scale**
Robert Puskeiler, Roche Group, Germany

92 **Autophagy As A Positive Cell Survival Mechanism In Recombinant CHO Cells Treated With Sodium Butyrate**
Jae Seong Lee, KAIST, South Korea

93 **Enhancing Recombinant Protein Production And Extending Culture Longevity In CHO Cell Culture**
Jong Kwang Hong, KAIST, South Korea

94 **Characterization of Lentiviral Vector Production Kinetics by On-Line Monitoring of Cell Culture Permittivity**
Sven Ansorge, National Research Council, Canada

95 **Safer, Faster HD Cell Banking For More Productive Manufacturing**
John Bonham-Carter, Refine Technology, USA

96 **Microscale Culture Of Multiple CHOK1SV Clonal Isolates Allows Selection Of Cell Lines With Desirable Monoclonal Antibody Glycosylation**
Rhian Grainger, University of Sheffield, United Kingdom

97 **Enhancement Of Sialylation In Biopharmaceuticals Production By Overexpression Of CHO ƒÀ-GALACTOSIDE ƒ¿2,6-Sialytransferase**
Wook-Dong Kim, Osaka University, Japan

98 **Disposable Bioreactor, Recovery, And Probe Technologies – Can The Reality Match The Hype?**
Sigma S. Mostafa, Merck, USA

99 **Improving Cell Screening For High Producers, Using A Simple 6-Well Plate Fed-Batch Culture**
Risa Ogawa, Kyowa Hakko Kirin Co., Ltd., Japan

100 **Novel Mitogenic Factors For Serum-Free Culture**
Satoshi Terada, University of FUnited Kingdomui, Japan

101 **USE OF POLY-¥Ã-GLUTAMIC ACID FOR SHEAR PROTECTING BIOMATERIAL IN CELL CULTURE**
Bok-Hwan Chun, Korea University, South Korea

102 **CHO Cell Culture Improvements using a Controlled Nutrient Limiting Feed Strategy**
Matthew Gagnon, Pfizer, USA

103 **Deciphering The Cell Surface Antigens Expressed on Human Pluripotent Stem Cells - Improving the Safety of Stem Cell Therapy**
Andre Choo, Bioprocessing Technology Institute, Singapore

104 **Integrated Medium and Feed Design for Five -Fold IgG Titer Improvement**
Shawn Barrett, Life Technologies, USA

105 **Fed-Batch Optimization Using DOE And A 24-Well Arrayed Bioreactor System Increased T-PA Production To >2.5 G/L**
Do Yun Kim, University of British Columbia, Canada

106 **Metabolic Profiling Is Sensitive To Subtle Changes In The Physiology Of Industrial-Scale Perfusion Cultures Due To Cell Age**
Maria I. Klapa, Foundation for Research and Technology-Hellas, Greece

107 **Development Of A Carboxymethyl Cellulose-Based Semi-Solid Media For Selecting And Cloning Hybridoma Cells For The Production Of Monoclonal Antibodies**
Pellegrini M.P., Laboratory of Monoclonal Antibodies Technology/Oswaldo Cruz Foundation, Brazil

108 **Cytoprotective Effects Of NHRI-901 In CHO Cells**
John T.-A. Hsu, National Health Resaerch Institutes, Taiwan

109 **Implications Of P53 Loss For Megakaryocytic Differentiation And Platelet Production From Human Stem Cells**
Pani A. Apostolidis, Northwestern University and Delaware Biotechnology Institute, USA

110 **Profiling Of microRNAs Expression In CHO Host Cells With Increased Transient Antibody Productivity**
Matthias Hackl, University of Natural Resources and Applied Life Sciences, Austria

111 **Characterization of microRNA And messengerRNA Expression Pattern Of A CHO K1 Cell Line Adapted To Growth In Glutamine Free Medium**
Juan A. Hernandez Bort, University of Natural Resources and Applied Life Sciences, Austria

112 **Development of a High-Titer Cell Culture Platform - A Case Study**
Raghavan V. Venkat, MedImmune, USA

113 **Engineering Hek-293 Cells For Reduced Metabolic By-Products Formation And Enhanced Recombinant Glycoprotein Production**
Olivier Henry, Ecole Polytechnique, Canada

114 **A High-Throughput, Disposable Micro-Bioreactor Model For Early Process Development Using Product Quality As A Performance Metric**
Rachel Legman, Seahorse Bioscience, USA

115 **Thick Shear Mode Acoustic Devices As A Tool To Study Cell Adhesion And Proliferation**
Guilherme N.M. Ferreira, Universidade do Algarve, Portugal

116 **Viral Nanoparticle Platform For Targeted Therapies**
Luisa Pedro, Universidade do Algarve, Portugal

117 **High-Level Recombinant Protein Production In CHO Cells Using Lentiviral Vectors And The Cumate Gene-Switch**
Bernard Massie, CNRC, Canada

118 **Bone Marrow Niche-Inspired, Multi-Phase Expansion Of Megakaryocytic Progenitors With High Polyploidization Potential**
Swapna Panuganti , Northwestern University, USA

119 **Design And Development Of Model-Based Selection Systems In Mammalian Cell Lines**
Renata Usaite Black, GT Life Sciences, USA

120 **Process Mapping Strategy To Monitor Rthrombin Product Quality During Manufacture**
Gautam Nayar, ZymoGenetics, USA

121 **Intracellular Localization Of Adeno-Associated Viral Proteins Expressed In Insect Cells**
Lilí E. Gallo-Ramírez, UNAM, Mexico

122 **A Kinetic-metabolic model describing CHO cell behaviour**
Mario Jolicoeur, Ecole Polytechnique de Montreal , Canada

123 **Tools and Strategies for Delivering Clinical Products in a Just-in-Time World**
Minh Luu, Genentech, Inc., USA

124 **Effect Of Moderate Hypothermia On Productivity Of Hmab Anti-Il8 Produced In Cho Cells: Transcriptional Analysis Of N-Glycosylation Genes And Determination Exoglycosidase Activity**
Martha Hidalgo-Morales, Universidad Nacional Autónoma de México, Mexico

125 **Cytochalasin D Increases CHO Cell Productivity and Causes Multinucleation**
Jeffrey C Swanberg, University of Delaware , USA

126 **CFD-Study Of Roller Bottles: Influence Of Geometry And Rotation Direction**
Ricardo A. Medronho, Federal University of Rio de Janeiro, Brazil

127 **Comparative Transcriptome Profiling Of Chinese Hamster Ovary Cells Through High Throughput Sequencing**
Nitya M. Jacob, University of Minnesota, USA

128 **Engineering Scalable Culture Systems For Generating Functional Liver Hepatocytes From Pluripotent Stem Cells**
Kartik Subramanian, University of Minnesota, USA

129 **Targeting Viral Infectivity Factor With Specific Antibodies: A Molecular Therapy Approach Against HIV-1**
Sandra S. Soares, Institute for Biotechnology and Bioengineering (IBB), Centre for Molecular and Structural Biomedicine (CBME), Portugal

130 **Accelerating the Time to Generate Clonal Cell Lines using a One Stage Approach to CHO Cell Line Development**
Krista Alvin, Merck & Co, Inc, USA

131 **Combining High-throughput Screening of Caspase Activity with Anti-apoptosis Genes for the Development of Robust Chinese Hamster Ovary Production Cell Lines**
Haimanti Dorai, Centocor R & D, USA

132 **Estimating Respiration Rates for Mammalian Cells in Perfusion Culture**
Chetan T. Goudar, Bayer HealthCare Pharmaceuticals, USA

133 **Integrated and Fully Customizable Control of High Density Mammalian Cell Perfusion Cultures**
Christopher Cruz, Bayer HealthCare, USA

134 **Optimization Of Product Quality Of A Recombinant Antibody Expressed In CHO Cells: Influence Of Ph And Process Time On Charge Heterogeneity**
Christine Jung, Roche Diagnostics GmbH, Germany

135 **Evolution And Continuous Improvement Of Antibody Production To Ensure Product Quality And Speed**
Steven Lang, Centocor, USA

136 **Sequential Protein Free Media Development And Optimization For A Recombinant Non GS NS0 Cell Line.**
Adolfo Castillo, Center of Molecular Immunology, Cuba

137 **Qualification Of A Reduced Scale Perfusion Bioreactor Model For A Commercial Monoclonal Antibody Production Bioreactor Process**
Frank Wunfeng Lee, Ph.D., Centocor R&D Inc., USA

138 **Comparison Of Humanized Igg And Fvfc Anti-CD3 Monoclonal Antibody Expressed In CHO Cells**
Ana Maria Moro, Lab Biopharmaceuticals in Animal Cells, Instituto Butantan, Brazil

139 **The Use of Shaken 96-Deepwells Plates in Screening for Cell Line Development**
Ronald Schoner, MedImmune, Inc., USA

140 **Large-Scale Cell Recycle Repeated Batch Culture For Humanized Anti-Gpiib/Iiia Antibody Production**
Masami Yokota, Ph.D., Astellas Pharma Inc., Japan

141 **Glycosylation As A Complex Biochemical Network: Interpreting Detailed Mass Spectrometry Profiles And Gene Expression Data Using Intracellular Processing Models**
Michael Betenbaugh, Johns Hopkins University, USA

142 **Polymer-Ceramic Hybrid Scaffolds For Bone Cell Culture**
Ruipeng Xue, State University of New York (SUNY) at Stony Brook, USA

143 **The Effect Of Media And Culture Components On A Recombinant Protein Produced In A Gpex® CHO Cell Line**
Dona York, Catalent Pharma Solutions, USA

144 **Mammalian Expression of EuCODE™ Modified Therapeutic Proteins**
Barney Barnett, Ambrx, USA

145 **The Use Of Suspension MDCK Cells As Substrates For Influenza Virus Production**
Chia Chu, National Institutes of Health and Johns Hopkins University, USA

146 **Cell Culture Process Characterization – A QbD Prospective**
Wei Lian, Abbott Bioresearch Center, USA

147 **Enhancing Recombinant Protein Production in CHO Cells Using Genomic Tools and Cofilin siRNA**
Stephanie Hammond, University of Delaware, USA

148 **Towards On-line Control of Glycosylation in MAbs**
Melissa St. Amand, Univeristy of Delaware , USA