



Thursday November 14, 2024

4:00 pm - 8:00 pm	On-site ISBS Registration Desk – pick up conference badge & materials - RiverView Ballroom Foyer
6:00 pm - 8:00 pm	Welcome Reception - RiverView Ballroom Foyer

Friday November 15, 2024

7:30 am - 8:30 am				Exhibits & Coffee/Pastries			
8:30 am - 9:00 am				Welcome & Introductions			
8:30 am - 9:00 am RiverView A		Jonathan Jahr, MD, PhD Professor Emeritus of Anesthesiology and Perioperative Medicine, David Geffen School of Medicine at UCLA		Allan Doctor, MD Professor of Pediatrics and Bioengineering, Director, Center of Blood Oxygen Transport and Hemostasis, University of Maryland; CSO, KaloCyte			
9:00 am - 10:00 am				Track Introductions			
9:00 am - 10:00 am RiverView A		Oxygen Carriers Andre Palmer, PhD Professor of Chemical & Biomolecular Engineering, Ohio Eminent Scholar, The Ohio State University		Plasma Shibani Pati, MD, PhD Director Center for Research in Transfusion Medicine and Cell Therapies Vice Chair and Professor UCSF		Platelets Anirban Sen Gupta, PhD Professor of Engineering, Biomedical Engineering, Case Western Reserve University, CTO, Haima Therapeutics	
10:00 am - 10:30 am				Opening Session			
10:00 am - 10:30 am RiverView A				Blood Substitutes Have Led to Success in Artificial Cell Development: Is It Now Time for Blood Substitutes' Successes? Session Chair --- ISBS Honorary President, Thomas MS Chang, MD, PhD Emeritus Professor of Physiology, Medicine and Bioengineering McGill University Director, Artificial Cells and Organs Research Centre Professor Chengmin Yang Former Director of the Institute of Blood Transfusion, Peking Union Medical College, Chinese Academy of Medical Sciences Scientific Advisor of the International Society for Artificial Cell Blood Substitutes and Biotechnology Honorary President of Blood Substitute Branch of Chinese Biomedical Engineering Society (immediate past co-President ISBS 2019) Hiromi Sakai, PhD Professor of Chemistry, Nara Medical University, Japan (immediate past co-President ISBS 2019)			
10:30 am - 10:50 am							
10:50 am - 11:10 am							
11:10 am - 11:25 am				Break & Exhibits			
11:25 am - 12:25 pm				Presidential Lecture			
11:25 am - 12:25 pm RiverView A				BioSynthetic Blood Components: Use Case and Approaches to Clinical Trial Design Philip Spinella, MD Professor of Surgery and Critical Care Medicine, Co-Director, Trauma and Transfusion Medicine Research Center, University of Pittsburgh			
12:25 pm - 2:00 pm				Lunch & Exhibits			
2:00 pm - 2:20 pm		Oxygen Carriers Basic Science RiverView A		Plasma Basic Science RiverView 4/5		Platelets Basic Science RiverView B	
2:00 pm - 2:20 pm		Hb and HBOC Biochemistry Leif Bulow, PhD Professor, Pure and Applied Biochemistry Lund University, Sweden		Biomarker Responses to Trauma and Blood Product Resuscitation Jillian Richter, PhD Associate Professor of Surgery at UAB		Thrombopoiesis - Megakaryocyte and Platelet Biology Joseph Italiano, PhD Associate Professor Harvard Medical School	
2:20 pm - 2:40 pm		Encapsulated HBOCs (Benefits and Risks) Hiromi Sakai, PhD Professor of Chemistry Nara Medical University		Defining and Modulating the Endotheliopathy of Trauma with Plasma Product Transfusion Shibani Pati, MD, PhD Director Center for Research in Transfusion Medicine and Cell Therapies Vice Chair and Professor UCSF		Platelets in Hemostasis Wolfgang Bergmeier, PhD Professor of Biochemistry, University of North Carolina	
2:40 pm - 3:00 pm		PolyHb with Novel Recombinant Human Catalase-SOD-Carbonic Anhydrase Jing Ning, MD, PhD Former Senior Biologist/Clinical Evaluator, Health Products and Drug Branch, Health Canada		The Therapeutic Potential of Plasma Extracellular Vesicles Philip Norris, MD VP Research Vitalant Research Institute/UCSF		Platelets-Fibrin-RBC Interactions in Hemostatic Clots John Weisel, PhD Professor of Cell and Developmental Biology University of Pennsylvania	
3:00 pm - 3:20 pm		Freeze Dried RBC's Brett Janis, PhD Co-Founder and Chief Executive Officer, DesiCorp Inc		What Goes Around Comes Around: Blood and Modern Resuscitative Medicine Joseph Rappold, MD (CAPT Ret.) US Navy Professor of Surgery Maine Medical Center, Tufts University		Cell Damage Contribution to Platelet Activation: From Inflammatory Bleeding to Thrombo-Inflammation Julie Rayes, PhD Associate Professor of Cardiovascular Sciences University of Birmingham	
3:20 pm - 3:30 pm		Q&A Moderator: Andre Palmer		Q&A Moderator: Shibani Pati		Q&A Moderator: Cedric Ghevaert	
3:30 pm - 3:45 pm				Break & Exhibits			
3:45 pm - 4:05 pm		Oxygen Carriers Technical Formulation Approaches RiverView A		Plasma Technical Formulation Approaches RiverView 4/5		Platelets Technical Formulation Approaches RiverView B	
3:45 pm - 4:05 pm		Metal-Organic Framework-Based Oxygen Carriers Leticia Hosta-Rigau, PhD Associate Professor, Health, Cell and Drug Technologies, Technical University of Denmark		Challenges in Producing a Lyophilized Plasma Product Adam Gerber, MD, PhD Scientific and Medical Director, Critical Care, Octapharma		Strengthening Platelet Supply Resilience: Innovative Technology Solutions Shaping the Future Pampee Young, MD, PhD Chief Medical Officer, Biomedical Services American Red Cross, Nashville	
4:05 pm - 4:25 pm		HBOC Design Using Protein Engineering Leif Bulow, PhD Professor, Pure and Applied Biochemistry Lund University, Sweden		Regulatory Challenges for Dried Blood Components Toby Silverman, MD, MPH Subject Matter Expert, Tunnell Government Services, contractor to BARDA (Former Deputy Associate Director for Medical Affairs, FDA Office of Blood Research and Review)		Apheresis Platelet Product Functional Variability Susan Shea, PhD Assistant Professor of Surgery and Bioengineering University of Pittsburgh	
4:25 pm - 4:45 pm		On-Demand RBCs Janice Moser, PhD Lead Biologist, Sciperio, Inc.		Pathogen Reduction for Novel Blood Product Development Alison Nair, MD Associate Professor, Pediatric Critical Care Medicine University of California, San Francisco		Platelets from Stem Cells Cedric Ghevaert, MD PhD FRCP FRCPATH Professor in Transfusion Medicine University of Cambridge	
4:45 pm - 5:05 pm		Bis-Tetramers from β-Subunit-Specific Azido Acyl Methyl Phosphate Cross-Linking of Hb Followed by Azide-Alkyne Coupling Deliver O₂ and Avoid NO Ronald Kluger, PhD Professor of Organic and Biological Chemistry University of Toronto		Technical Formulations of Plasma Anthony Pusateri, PhD Chief Scientist Leidos and Naval Medical Research Unit		Characterization of Freeze-Dried Platelet Hemostatic (FPH) and Cryopreserved Platelets (CPP) Mike Fitzpatrick, PhD Chief Scientific Officer, Cellphire Therapeutics, Inc	
5:05 pm - 5:15 pm		Q&A Moderator: Andre Palmer		Q&A Moderator: Shibani Pati		Q&A Moderator: Anirban Sen Gupta	
5:15 pm - 6:00 pm				Poster Presentations & Exhibits Reception			

Friday November 15, 2024 (cont'd)			
6:00 pm - 7:30 pm	Dinner on Own		
RiverView A	Evening Seminar: Updates on Bio-Synthetic Blood Components		
7:30 pm - 7:55 pm	PEGylated Bovine Hemoglobin: Manufacturing and Characterization Shaunak Pandya, PhD Director, CMC R&D, Kashiv BioSciences LLC		
7:55 pm - 8:20 pm	Recombinant Hbs with Enhanced Oxidative Stability Brandon Reeder, PhD Senior Lecturer, University of Essex		
8:20 pm - 8:45 pm	Fractionated Polymerized Hbs Andre Palmer, PhD Professor of Chemical & Biomolecular Engineering, Ohio Eminent Scholar, The Ohio State University		
8:45 pm - 9:10 pm	The Regenerative Properties of Plasma-Derived Biotherapies Shibani Pati, MD, PhD Director Center for Research in Transfusion Med and Cell Therapies Vice Chair and Professor UCSF		
9:10 pm - 9:35 pm	Freeze Dried Plasma - State of the Science Anthony Pusateri, PhD Chief Scientist, Leidos and Naval Medical Research Unit		
	Moderator: Allan Doctor		
Saturday November 16, 2024			
7:30 am - 8:00 am	Exhibits & Coffee/Pastries		
RiverView A	Plenary Lectures		
8:00 am - 8:40 am	Multifunctional Bio-Synthetic Resuscitation Fluids Allan Doctor, MD Professor of Pediatrics and Bioengineering, Director, Center of Blood Oxygen Transport and Hemostasis, University of Maryland; CSO, KaloCyte		
8:40 am - 9:20 am	Overview of HBOC Toxic Effects and Some Molecular Control Solutions Abdu I Alayash, PhD, DSc Chief, Laboratory of Biochemistry and Vascular Biology, OBRR/CBER/FDA		
9:20 am - 10:00 am	Personalized Assessment of Hemostatic Deficits to Guide Precision Transfusion Mitchell Cohen, MD Professor and Associate Vice Chair of Basic and Translational Research, University of Colorado		
	Moderator: Jonathan Jahr		
10:00 am - 10:15 am	Break & Exhibits		
10:15 am - 12:15 pm	Oral Abstracts Artificial Oxygen Carriers/ HBOC RiverView A		Oral Abstracts Plasma, Hemostasis, Transfusion Medicine RiverView 4/5
	10:15am - 10:25am - #6: VS-101, a Next-Generation PEGylated Hemoglobin-based Oxygen Carrier - Ashok Malavalli		10:15am - 10:25am - #3: Insight into the Biophysical Properties of Polymerized Human Serum Albumin and its Ability to Serve as a Potential Plasma Expander - Amna Abdalbaqi
	10:30am - 10:40am - #5: VS-101, a Next-Generation PEGylated HBOC, Improves Survival Versus Standard of Care in Rat Models of Hemorrhagic Shock - Bjorn K. Song, PhD/William Nugent, PhD		10:30am - 10:40am - #79: Detection of Hemostatic Impairment Caused by Platelet Number and Function Defects Using Platelet-specific Dielectric Coagulometry - Dante Disharoon
	10:45am - 10:55am - #78: Perfluorocarbon-based artificial oxygen carriers for hypothermic machine perfusion - Jacqueline Hausherr		10:45am - 10:55am - #65: Interpretation of platelet signaling defects in thromboelastography - Robert H. Lee
	11:00am - 11:10am - #86: Clinical Evaluation of PP-007 Treatments of Severe Anemia - Ronald Jubin, PhD		11:00am - 11:10am - #10: Evaluation of Field Fluid Support and Follow-on 72-Hour Survival after 60% Blood Loss in Rats - William Light, PhD/Bjorn K. Song, PhD
	11:15am - 11:35am - #61: Polyoxazoline-Conjugated Hemoglobin as an Alternative to PEGylated Hemoglobin. - Teruyuki Komatsu, PhD		11:15am - 11:25am - #14: Impact of Controlled and Uncontrolled Hemorrhage (Two-Hit Model) and Resuscitation of OxyBridge and/or Plasma on Coagulopathy and Hemostasis in Rats - Bjorn K. Song, PhD/William Nugent, PhD
	11:40am - 11:50am - #54: A synthetic strategy for hemoglobin-PEG architectures using supramolecular polymerization - Takashi Matsuhiro		11:30am - 11:40am - #13: Impact of Controlled and Uncontrolled Hemorrhage (Two-Hit Model) and Resuscitation on Coagulopathy and Hemostasis in Rats - Bjorn K. Song, PhD/William Nugent, PhD
	11:55am - 12:05am - #11: Dodecafluoropentane Improves Return of Spontaneous Circulation and Functional Survival in a Swine Model of Cardiac Arrest - Travis Murphy, MD, E-AEC		11:45am - 11:55am - #1: Production of the Apohemoglobin-Haptoglobin Complex for the Treatment of Hemolytic Conditions - Quintin O'Boyle
	Q&A Moderator: Stephen Rogers		Q&A Moderator: Cedric Ghevaert, Alison Nair
12:15 pm - 1:45 pm	Lunch & Exhibits		
	Oxygen Carriers Translational Science RiverView A	Plasma Translational Science RiverView 4/5	Platelets Translational Science RiverView B
1:45 pm - 2:05 pm	Microvascular Response to HBOCs Pedro Cabrales, PhD Professor of Bioengineering University of California, San Diego	Prothrombin Complex Concentrate as a Therapeutic in Trauma Martin A. Schreiber, MD FACS FCCM COL, MC, USAR Adjunct Professor of Surgery Uniformed Services University of the Health Sciences	SynthoPlate-Platelet Inspired Design and Evaluation Christa Pawlowski, PhD Co-Founder, Chief Operating Officer Halma Therapeutics
2:05 pm - 2:25 pm	Safety Biomarkers for Exploratory Toxicology Studies Felice D'Agnillo, PhD Principal Investigator, Office of Blood Research & Review (OBRR), Center for Biologics Evaluation & Research (CBER)	Regenerative Properties of Plasma in Burns Jeff Shupp, MD Professor of Surgery, Plastic Surgery, Biochemistry, Cellular & Molecular Biology, Georgetown University	Platelet Mimicry for Biomechanical Function Ashley Brown, PhD Associate Professor of Biomedical Engineering, NC State/UNC Chapel Hill; CoFounder Selsym Biotech
2:25 pm - 2:45 pm	Animal Models for Preclinical HBOC Down Selection Paul Buehler, PharmD, PhD Professor of Pathology & Pediatrics, Principle Investigator, Center for Blood Oxygen Transport and Hemostasis University of Maryland	Plasma Derived Pathogen Reduced Cryoprecipitate in Trauma Rosemary Kozar, MD, PhD Professor of Surgery, Co-Director, Surgery, Trauma and Anesthesiology Research Center, University of Maryland	Genetic Modification of Transfusable Donor Platelets using mRNA Therapy Mitch Dyer, MD Principal Investigator Versiti / Medical College of Wisconsin
2:45 pm - 3:05 pm	Innovative Pre-Clinical Models to Prepare Products for FDA Review Bjorn Song, PhD CEO, Song Biotechnologies	Whole Blood vs Components Martin A. Schreiber, MD FACS FCCM COL, MC, USAR Adjunct Professor of Surgery Uniformed Services University of the Health Sciences	Regenerating the Injured Brain with Platelet-Derived Biologics Shibani Pati, MD, PhD Director Center for Research in Transfusion Med and Cell Therapies Vice Chair and Professor UCSF
3:05 pm - 3:15 pm	Q&A Moderator: Paul Buehler	Q&A Moderator: Jeff Shupp	Q&A Moderator: Julie Rayes
3:15 pm - 3:30 pm	Break & Exhibits		

Saturday November 16, 2024 (cont'd)			
	Oxygen Carriers Potency RiverView A	Plasma Potency RiverView 4/5	Platelets Potency RiverView B
3:30 pm - 3:50 pm	In Vitro Models of HBOC Potency Stephen Rogers, PhD Assistant Professor of Pediatrics, Center for Blood Oxygen Transport and Hemostasis, University of Maryland	Regulatory Aspects of Developing Novel Plasma and Platelets Products: Thoughts on Potency Measures Toby Silverman, MD, MPH Subject Matter Expert, Tunnell Government Services, contractor to BARDA (Former Deputy Associate Director for Medical Affairs, FDA Office of Blood Research and Review)	Detecting Platelet Heterogeneity John Hwa, MD, PhD Professor of Cardiovascular Medicine Co-Director Yale Cooperative Center of Excellence in Hematology, CT
3:50 pm - 4:10 pm	HBOC Impact Upon Vasoactive Effectors, Rheology and Blood Flow Dany Kim-Shapiro, PhD Professor and Chairman, Department of Physics, Wake Forest University	Measuring Dynamic Changes in Fibrinolysis During Blood Product Resuscitation Hunter Moore, MD Transplant Surgeon AdventHealth Transplantant Institution at Porter Hospital,	Trauma-Induced Platelet Dysfunction Paul Vulliamy, MD Senior Clinical Lecturer Trauma Sciences, Blizard Institute, Queen Mary University of London
4:10 pm - 4:30 pm	Blinded, Randomized, Controlled Trials of HEMOPURE Jerrold Levy, MD Professor of Anesthesiology and Critical Care Professor of Surgery (Cardiothoracic) Duke University School of Medicine Vice Chair, Scientific Subcommittees of the ISTH		Platelets in TBI: Fact, Fiction, and Function Michael Goodman, MD Professor of Surgery, University of Cincinnati
4:30 pm - 4:50 pm	Expanded Access when Blood Not an Option: Use of Hemopure and Sanguinate Jonathan Waters, MD Professor of Anesthesiology and Perioperative Medicine and Bioengineering, Director of Blood Management Program, University of Pittsburgh Medical Center	Plasma versus Factor Concentrates Beth Shaz, MD Professor and Deputy Director of Marcus Center for Cellular Cures, Duke University	Cold Stored Platelets: Clinical Efficacy and Safety Phil Spinella, MD Professor of Surgery and Critical Care Medicine, Co-Director, Trauma and Transfusion Medicine Research Center, University of Pittsburgh
4:35 pm - 5:00 pm	Q&A Moderator: Stephen Rogers	Q&A Moderator: Rosemary Kozar	Q&A Moderator : Susan Shea
5:00 pm - 6:15 pm	Poster Presentations & Exhibits Reception		
6:15 pm - 7:30 pm	Dinner on Own		
RiverView A	Evening Seminar: Novel Engineering for Bio / Synthetic Blood Components		
7:30 pm - 7:55 pm	Perfluorocarbon-based Artificial Oxygen Carriers for Ex Vivo Organ Perfusion Katja Bettina Ferenz, PhD Professor of Physiology, University Duisburg-Essen		
7:55 pm - 8:20 pm	Non-hemoglobin Engineered Protein Oxygen Carriers Emin Maltepe, MD Professor Department of Pediatrics and Neonatology UCSF		
8:20 pm - 8:45 pm	Biochemically Encoded Wetware for Context Responsive Oxygen Carriers Allan Doctor, MD Professor of Pediatrics and Bioengineering, Director, Center of Blood Oxygen Transport and Hemostasis, University of Maryland; CSO, KaloCyte		
8:45 pm - 9:05 pm	Polymerized Albumin to Stabilize Colloid Oncotic Pressure and Functional Capillary Density During Resuscitation Andre Palmer, PhD Professor of Chemical & Biomolecular Engineering, Ohio Eminent Scholar, The Ohio State University		
9:05 pm - 9:30 pm	Functionalizing Platelet Mimetics for Targeted Activities Anirban Sen Gupta, PhD Professor of Engineering, Biomedical Engineering, Case Western Reserve University, CTO, Haima Therapeutics		
	Moderator: Leif Bulow		
Sunday November 17, 2024			
7:45 am - 8:45 am	Sunrise Seminar: Octapharma Industry Spotlight Rewriting the Protocols: How Concentrates are Transforming Bleeding Management Includes Continental Breakfast		
RiverView A	Plenary Lecture		
9:00 am - 9:40 am	Microcirculatory Physiology of Bio-Synthetic Blood Components Pedro Cabrales, PhD Professor of Bioengineering, University of California, San Diego		
9:40 am - 10:00 am	Microcirculation Forum Panelists: Ashley Brown, Felice D'Agnillo, Michael Goodman, Brandon Reeder, Bjorn Song		
	Moderator: Allan Doctor		
10:00 am - 10:15 am	Break & Exhibits		
	Oxygen Carriers Cardiac Effects & Solutions RiverView A	Oral Abstracts Plasma, Hemostasis, Transfusion Medicine RiverView 4/5	
10:15 am - 10:40 pm	There Are Different Types of HBOCs, Some Have No Adverse Cardiac Effects Thomas MS Chang, MD, PhD Emeritus Professor of Physiology, Medicine and Bioengineering Director, Artificial Cells and Organs Research Centre, McGill University	10:15am - 10:25am - #77: Simulating The Impact of Transfusion Products on Clotting Kinetics and Patient Outcome - Andrew Gosselin 10:30am - 10:40am - #81: Apohemoglobin conjugated to haptoglobin prevents kidney injury form venovenous extracorporeal membrane oxygenation - Pedro Cabrales, PhD	
10:40 am - 11:05 pm	Hemoglobin Based Oxygen Carriers, Oxidative Stress & Myocardial Infarction Tim Estep, PhD President, Chart Biotech Consulting LLC; Former VP Hemoglobin Therapeutics, Baxter	10:45am - 10:55am - #66: A synthetic short-chain polyphosphate (polyP) complexed with silica nanoparticle (SNP, polyP-SNP), corrects coagulopathy under hemodilute, hypothermic, or acidotic conditions as assessed by in vitro coagulation assays - Damien Kudela	
11:05 am - 11:30 pm	Cardiac Safety and Troponin Findings in a Phase 2b Trial with MP40X for Treatment of Severe Hemorrhagic Shock Peter Keipert, PhD President, KEIPERT Corp. Consulting, Formerly VP Clinical Development, Sangart	11:00am - 11:10am - #84: Functional and Pharmacokinetic Evaluation of an Intramuscular TXA Autoinjector in Swine - Kelly Mottet 11:15am - 11:25am - #2: Nationwide/Worldwide Impact of Covid 19 on the Blood Supply (Donation & Contamination) What UMC El Paso did to combat the crisis - Bradford Ray, LP, PBMT	
11:30 am - 11:55 pm	Cardiac Responses to Polymerized Hemoglobin in Guinea Pigs Felice D'Agnillo, PhD Principal Investigator, Office of Blood Research & Review (OBRB), Center for Biologics Evaluation and Research (CBER)	11:30am - 11:40am - #74: Hemostatic Performance Analysis of Biosynthetic Whole Blood Analogue in an in vitro Human Massive Transfusion Model - Sonali Rohiwal 11:45am - 11:55am - #16: Assessment of Microvascular, Tissue, and Organ Oxygenation in Hemorrhagic Shock with Phosphorescence Quenching Method (PQM) - William H. Nugent, PhD/Bjorn Song, PhD	
11:55 am - 12:30 pm	Panel Discussion Abdu Ayalash, Paul Buehler, Felice D'Agnillo, Allan Doctor, Jonathan Jahr, Andre Palmer	11:55am - 12:15pm - Challenges and Opportunities in Neonatal Platelet Transfusion Medicine - Christopher Thom, MD, PhD	
	Moderator: Thomas Chang, Tim Estep	Moderator: Anirban Sen Gupta	
12:30 pm - 1:30 pm	Lunch On Own		

Sunday November 17, 2024 (cont'd)			
RiverView A	Bio-Synthetic Blood Components in Active Human Trials		
1:30 pm - 1:45 pm	Framing: Lessons Learned and Future Directions Jonathan Jahr, MD, PhD Professor Emeritus of Anesthesiology and Perioperative Medicine, David Geffen School of Medicine at UCLA		
1:45 pm - 2:10 pm	HbV Hiromi Sakai, PhD Professor of Chemistry, Nara Medical University, Japan		
2:10 pm - 2:35 pm	Dry Plasma Jose Cancelas, MD, PhD Member of the Faculty of Medicine, Harvard Medical School; Director Cell Manufacturing, Dana Farber Cancer Institute		
2:35 pm - 3:00 pm	Sanguinate Clinical Trials Ron Jubin, PhD Vice President R&D, Prolong Pharmaceuticals		
3:00 pm - 3:25 pm	Plasma Derived Products (Lyophilized: PCCs, Cryo, Fibrinogen) Joseph Rappold, MD Professor of Surgery, Maine Medical Center / Tufts University		
3:25 pm - 3:45 pm	Thrombosomes Mike Fitzpatrick, PhD Chief Scientific Officer, Cellphire Therapeutics, Inc Moderator: Phil Spinella		
3:45 pm - 4:00 pm	Break		
	Oxygen Carriers Ex Vivo Organ Support RiverView A	Hemostatic Therapeutics Clinical Efficacy RiverView 4/5	Oral Abstracts Artificial Oxygen Carriers/HBOC RiverView B
4:00 pm - 4:30 pm	Hemarina For Organ Preservation Franck Zal, PhD CEO, Hemarina	Cold Stored Platelet Post-Injury: Results of Two Recent Randomized Clinical Trials Jason Sperry, MD, MPH Professor of Surgery and Critical Care, University of Pittsburgh	4:00pm-4:10pm - #85: Evaluation of the Storage Stability of ErythroMer as a Lyophilized Powder and as a Reconstituted Liquid - Esma Alp, PhD 4:15pm - 4:25pm - #67: Nanozyme-Mediated Antioxidant Protection of Hemoglobin-Based Oxygen Carriers - Despoina Douka 4:30pm - 4:40pm - #69: Nanoscale tools for the formation of complex giant unilamellar vesicles - Towards artificial red blood cells. - Willemien Gosselé 4:45pm - 4:55pm - #91: Polymerized human hemoglobin improves oxygenation compared to blood in venovenous extracorporeal membrane oxygenation. - Pedro Cabrales, PhD
4:30 pm - 5:00 pm	High Molecular Weight PolyHb For Lung Perfusion Bryan Whitson, MD, PhD Professor of Surgery, Ohio State University	Plasma and Plasma Derived Products in Liver Transplantation Seth Karp, MD Professor and Chair, Department of Surgery, Vanderbilt University	4:30pm - 5:10pm - #4: Polymerized Human Hemoglobin-Based Oxygen Carrier Preserves Lung Allograft Function During Normothermic Ex Vivo Lung Perfusion. - Alisyn Greenfield 5:15pm - 5:25pm - #68: Development of an In Vitro Model for Evaluating Hemoglobin-Based Oxygen Carriers as Hypoxia Alleviating Agents - Eva Jakljević 5:30pm - 5:40pm - #57: LENOX: Perfluorodecalin-based artificial oxygen carriers with mixed shell composition and improved stability. - Fabian Nocke 5:45pm - 5:55pm - #63: OXSEALIFE - Lara Oller, MD
5:00 pm - 5:30 pm	PFCs For Kidney and Heart Perfusion Katja Bettina Ferenz, PhD Professor of Physiology, University Duisburg-Essen	Treatment of Coagulopathy with Canine Freeze-Dried Plasma (cFDP) Robert Buntz Research & Veterinary Medicine, Mantel Technologies	6:00pm - 6:10pm - #83: Evaluation of safety metrics for a Whole Blood Analog in an in vitro Human Massive Transfusion (HMT) model: Dynamic viscosity analysis and endothelial function using microfluidic models of human microvasculature - Oshin Sharma 6:15pm - 6:25pm - #8: Hemoglobin vesicles improve neurological outcome after cardiac arrest in rats - Keisuke Tsuruta 6:25pm - 6:35pm - #75: Design and Development for a Deployable, Shelf-Stable, Whole Blood Substitute Packaging System for In-Field Resuscitation of Hemorrhagic Shock - Nicholas McMahon
5:30 pm - 6:00 pm	HBOCs: Ex Vivo, In Vivo, or Both? William Light, PhD Chief Scientific Officer, VirTech Bio	Prehospital Plasma and Whole Blood for Trauma Jason Sperry, MD, MPH Professor of Surgery and Critical Care, University of Pittsburgh	6:00pm - 6:10pm - #83: Evaluation of safety metrics for a Whole Blood Analog in an in vitro Human Massive Transfusion (HMT) model: Dynamic viscosity analysis and endothelial function using microfluidic models of human microvasculature - Oshin Sharma 6:15pm - 6:25pm - #8: Hemoglobin vesicles improve neurological outcome after cardiac arrest in rats - Keisuke Tsuruta 6:25pm - 6:35pm - #75: Design and Development for a Deployable, Shelf-Stable, Whole Blood Substitute Packaging System for In-Field Resuscitation of Hemorrhagic Shock - Nicholas McMahon
6:00 pm - 6:30 pm	Panel Discussion Katha Ferenz, Bryan Whitson, Franck Zal	Panel Discussion Robert Buntz, Seth Karp, Jason Sperry, Phil Spinella	6:25pm - 6:35pm - #75: Design and Development for a Deployable, Shelf-Stable, Whole Blood Substitute Packaging System for In-Field Resuscitation of Hemorrhagic Shock - Nicholas McMahon
	Moderator: Franck Zal, William Light	Moderator: Martin Schreiber	Moderator: Andre Palmer, Dany Kim Shapiro
6:30 pm - 7:00 pm	Reception		
7:00 pm - 9:30 pm	Banquet Dinner & Award Ceremony - Introduction of ISBS 2026 President RiverView 1-3		
Monday November 18, 2024			
	Select Oral Presentations		
7:30 am - 9:30 am RiverView A	7:30am - 7:50am - #9: A new treatment protocol for critical limb ischemia, reports on phase 1 and II trials. - Bing Lou Wong, Heron Han 7:50am - 8:10am - #90: Recapitulating endogenous protective hypercoagulability in transfusion medicine: manipulation of platelet products with estrogen. - Julia Coleman	8:10am - 8:30am - Novel Preservation Solution Based on Polyhemoglobin with Three Synthetic Enzymes. - Thomas MS Chang, MD, PhD 8:30am - 8:50am - #80: Hemorrhagic Shock Resuscitation with Three Different Dosages of Polymerized Human Hemoglobin. - Carlos Munoz	8:50am - 9:10am - #49: Advancements in the Development of Polymerized Human Placental Hemoglobin (HBOC-CHP01): A Comprehensive Evaluation. - Wentao Zhou 9:10am - 9:30am - #60: Pharmacologic Modification of Hemoglobin: Enhancing Safety and Expanding Therapeutic Applications Beyond Blood Replacement. - Jan Simoni, PhD, DVM
	Moderator: Allan Doctor, Jonathan Jahr, Andre Palmer, Shibani Pati, Anirban Sen Gupta		
9:30 am - 9:45 am	Break		
9:45 am - 10:45 am RiverView A	Federal Sponsorship of Biosynthetic Blood Product Development ASPR/BARDA: John Esker, PhD NIH/NHLBI: Andrei Kindzelski, MD, PhD MTEC: Lauren Palestriini, PhD USAMMDA: Kendra L Lawrence, PhD, BCE, PMP DARPA: JP Chretien, MD, PhD DoD/CCC: CAPT Travis Polk, MD		
10:45 am - 11:45 am RiverView A	Government Stakeholder Forum NIH, NSF, DOD/DARPA, BARDA, USAMMDA, MTEC Moderator: Ken Bertram		
11:45 am - 12:15 pm	Break		
12:15 pm - 1:00 pm RiverView A	Regulatory Update (FDA/CBER) Victor Baum, MD Lead Physician, Division of Blood Components and Devices, Office of Blood Research and Review (OBRR), CBER, FDA		
1:00 pm - 1:45 pm RiverView A	Regulatory Forum Panelists: Abdu Alayash, Victor Baum, Paul Buehler, Felice D'Agnillo, Vijay Nair, Franck Zal Moderator: Jonathan Jahr		
1:45 pm - 2:00 pm	Closing Remarks: Allan Doctor and Jonathan Jahr		