AN EDUCATIONAL AND NETWORKING FORUM FOR PROFESSIONALS IN THE FIELD OF APHERESIS MEDICINE

- Propose a Session
- Recommend a Speaker
- Submit an Abstract
- Register to Attend
- Reserve Your Exhibit Space
- Plan Your Marketing and Advertising
- Book Your Corporate Symposium or Tutorial

PROGRAM FORMAT:
- Scientific Symposia
- Education Sessions
- Oral and Poster Abstract Presentations
- Interactive Case Studies and Discussions
- Receptions
- Committee Meetings
- Corporate Symposia and Tutorials
- Exhibit Hall
- Apheresis Review Session

VISIT APHERESIS.ORG FOR MORE INFO!
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WELCOME FROM THE PRESIDENT

As the 2014-2015 ASFA President and the representative of the Board of Directors, it is my honor to welcome you to the 36th Annual Meeting in San Antonio! I want to first of all thank Eileen Galvin Karr (ASFA President-Elect) and members of the Organizing Committee, who have spent countless hours preparing for this event. Until you do it yourself, as I had the privilege to last year, you have no idea what it takes to put together the many different aspects of this meeting. I must also mention the incredible efficiency and expertise of the ASFA Head Office staff chaired by Sarah McCarthy in guiding the Organizing Committee and the Board of Directors during the planning and the execution stages of the great experience we all have come to expect from ASFA. This year, we must also recognize the work and dedication of the consensus conference organizers led by Drs. Ravi Sarode and Bruce Sachais. Their small group (listed elsewhere in the program), did an outstanding job generating a list of topics and questions on red cell exchange in sickle cell disease. I am sure their time and efforts will enlighten all of us!

The theme for this Annual Meeting is Infectious Disease & Apheresis, and Eileen Galvin Karr and her committee prepared a cutting edge series of Scientific Symposia, Education Sessions, Oral and Poster Abstract Presentations, and Interactive Case Studies and Discussions that will make your trip to San Antonio worthwhile. There will also be Corporate Symposia and Tutorials, committee meetings and receptions, as well as the annual networking opportunity in the exhibit hall. New this year, the Breakfasts with the Experts will be on a first come-first served basis! There is no need to pre-register, only to get up early and find a seat at the table of your choice. There will be more than 10 tables to choose from, starting on Thursday until Saturday at 7:00am. On all three days there will be a variety of topics such as apheresis education, donor and therapeutic apheresis, management and quality in apheresis, and so on. Please take advantage of this additional opportunity to learn and to share experiences with colleagues, old and new. Finally, I encourage you to chat with the ASFA Board of Directors, Committee Chairs and ASFA Head Office Staff to learn more about our society and how to become actively involved in it.

Please accept my most sincere and warm welcome to the 36th ASFA Annual Meeting!

Marisa B. Marques, MD
ASFA President 2014-2015
WELCOME FROM THE CONFERENCE CHAIR

On behalf of the 2015 Annual Meeting Organizing Committee and the ASFA Board of Directors, I would like to extend a very warm welcome to our 36th Annual Meeting held in historic San Antonio, Texas at the Grand Hyatt hotel. The meeting venue is located on San Antonio’s famous Riverwalk which winds through the city center providing easy access to the city’s cultural hotspots and historic sites.

The Annual Meeting Organizing Committee has prepared an exemplary scientific and educational program that I am honored to share with you. It showcases ASFA’s commitment to providing current information and practices in the field of apheresis as well as innovative approaches to uncommon uses of apheresis.

The Red Blood Cell Exchange in Sickle Cell Disease Consensus Conference will take place pre-conference on Tuesday May 5th. This conference brings together sickle cell disease specialists who will present their specific area of expertise and facilitate discussion for establishing consensus on treatment modalities.

Continuing with our tradition, there will be three scientific and eight educational sessions. The Opening Combined Symposium will present different opinions of the use of apheresis in the treatment of infectious disease along with moderated discussion periods. The Scientific Symposium will focus on infectious diseases from both the donor and therapeutic perspective while the Closing Symposium presents rare uses of apheresis in the treatment of infectious diseases.

The topics of the educational sessions cover all areas of apheresis that are current or emerging in our everyday practice including topics such as Collecting Platelets using PAS (Intersol) and Maximizing Concurrent Plasma Collections, Review of a New Platform for Blood Prime and Photopheresis Anticoagulation.

Every morning, from Thursday to Saturday, attendees have the opportunity to have Breakfast with the Experts which provides an open forum for colleagues to share practices with each other. The Graduate Medical Forum is included in the Breakfast with the Experts for the first time this year.

Our industry supporters will offer corporate luncheons on Thursday and Friday as well as continuing to offer educational sessions along with dinner on Wednesday and Thursday evening. The Apheresis Review Session, cutting edge abstract presentations and poster presentations complement the scheduled offerings.

Throughout the meeting, please make an effort to visit and interact with our corporate supporters and exhibitors who have come prepared to share their most current platforms, information and tools.

Thank you for attending the ASFA Annual Meeting this year and on behalf of the Organizing Committee, the ASFA Board of Directors and I welcome you to San Antonio!

Eileen Galvin Karr, RN, BSN, HP(ASCP)
Conference Chair, ASFA President-Elect
MEETING LOCATION
The ASFA 2015 Annual Meeting events will take place at the Grand Hyatt Hotel in San Antonio, Texas. Please consult this program to determine the exact room or location of each event.

INCLUDED IN YOUR REGISTRATION FEE
Full-conference registered attendees receive:
• Access to the Welcome Reception
• Access to all Scientific and Education Sessions
• Access to all Abstract Sessions
• Access to Posters and Exhibits
• Access to the Abstract Poster Networking Evening
• Access to Corporate Lunch and Dinner Symposia
• Annual Meeting Materials
• Final Program
• Digital Access to the Abstract Issue of the Journal of Clinical Apheresis for all ASFA members (with open access to all delegates between May 1 - 9, 2015)
• Delegate Bag

Exhibit-only attendees receive:
• Access to the Exhibit Hall
• Conference Meals Served in the Exhibit Hall

Registered guests receive:
• Access to the Welcome Reception and the Abstract Poster Networking Evening

REGISTRATION
The Registration Desk is located in the Escalator Landing, Second Floor.
Registration hours are as follows:
• Tuesday, May 5, 2015 – 7:00am – 6:00pm
• Wednesday, May 6, 2015 – 7:00am – 6:00pm
• Thursday, May 7, 2015 – 7:00am – 6:00pm
• Friday, May 8, 2015 – 7:00am – 5:30pm
• Saturday, May 9, 2015 – 7:00am – 12:30pm

SPEAKER SERVICES CENTER
The Speaker Services Center, located in Goliad, is equipped with laptop PC computers, for all faculty members to review their presentations before their sessions. To better serve you, your presentation should be uploaded at least 24 hours prior to your session, and can be previewed up to 3 hours prior to your session.

The Speaker Services Center hours are as follows:
• Tuesday, May 5, 2015 - 7:00am – 6:00pm
• Wednesday, May 6, 2015 - 7:00am – 6:00pm
• Thursday, May 7, 2015 - 7:00am – 6:00pm
• Friday, May 8, 2015 - 7:00am – 5:30pm
• Saturday, May 9, 2015 - 7:00am – 12:30pm

ASFA 2015 MOBILE APP
ASFA is excited to present its first Annual Meeting mobile app for those who use smart devices. This free interactive tool is designed to enhance attendees’ meeting experience and can be downloaded from the Apple App Store or the Google Play Store under ASFA. Use this app to review the conference program, schedule sessions, and learn more about our speakers and conference supporters.
CONTINUING EDUCATION CREDIT INFORMATION

ACREDITATION AND CREDIT DESIGNATION

Target Audience
This activity has been designed to meet the educational needs of physicians, allied health professionals and medical students involved with donor and therapeutic apheresis. The specialties involved include, but are not exclusive of pathology, hematology, immunology, nephrology, pediatrics, and rheumatology.

Statement of Need/Program Overview
The ASFA Annual Meeting is the only one of its kind that offers a focus on apheresis medicine in both the donor and patient settings. It is a key educational and networking event for physicians, scientists, and allied health professionals in the field of apheresis.

The ASFA 2015 Annual Meeting will be the Society’s 36th conference. Each year, ASFA takes the feedback it receives from attendees to build a relevant program for the next year. The need for the ASFA 2015 Annual Meeting was determined through an analysis of the evaluation forms from the ASFA & WAA 2014 Joint Conference as well as through ongoing feedback from the Society’s over 700 members. The results of these evaluations clearly illustrate that attendees find the program useful and necessary for their professional development. The Organizing Committee used these results, as well as new developments in research, technology, and clinical experience, to plan the program for the 2015 Annual Meeting.

ASFA expects to attract over 400 apheresis professionals to the 2015 Annual Meeting, including MD and/or PhD clinicians and scientists, as well as allied health professionals who are involved in the field of apheresis medicine.

Educational Objectives
After completing this activity, the participant should be better able to:

• Explain the principles of evidence-based knowledge as they apply to therapeutic apheresis.

• Describe the latest scientific, clinical, and technological advances in donor and therapeutic apheresis.

• Describe the general practice of apheresis medicine and its role in the donor and patient setting.

CME

Physicians
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Association of Blood Banks (AABB) and the American Society for Apheresis (ASFA). AABB is accredited by the ACCME to provide continuing medical education for physicians (Provider number 0000381). AABB designates this educational activity for a maximum of 25.75 of Category 1 credit toward the AMA Physicians Recognition Award™. Each physician should claim those credits that he/she actually spent in the activity.

Live Learning Center
After the annual meeting, you will receive an email from AABB regarding the CME/CE certificate for the ASFA 2015 Annual Meeting. The e-mail will include instructions on how to print your CME/CE certificates for the meeting. To access the Live Learning Center, visit www.aabb.org>Professional Development>Live Learning Center.

Faculty Disclosure
Current ACCME guidelines state that participants in CME activities should be made aware of any affiliation or financial interest that may affect a speaker’s presentation and/or discussion of off-label therapies. Each speaker was asked to complete a Faculty Disclosure form. Written faculty disclosures are listed below. Please report any undisclosed information on your evaluation form.
CEU

ASFA is approved by the California Board of Registered Nursing, Provider Number 14122, as a provider of continuing nursing education programs. ASFA designates this event for a maximum of 25.75 contact hours.

CMLE

This continuing medical laboratory education activity is recognized by the American Society for Clinical Pathology (ASCP) as meeting the criteria for 25.75 of CMLE credit. ASCP CMLE credit hours are acceptable to meet the continuing education requirement for the ASCP Board of Registry Certification Maintenance Program.

ACKNOWLEDGEMENT

This activity was made possible by unrestricted educational grants from Terumo BCT, Therakos Inc., Fresenius Kabi USA, LLC, Alexion Pharmaceuticals, Baxter Healthcare Corporation, and Octapharma.

INSTRUCTIONS FOR CREDIT

Continuing education credits are offered for the Apheresis Review Session, Scientific Symposia, Education Sessions, the Francis S. Morrison, MD Memorial Lecture, Plenary Abstract Session, and Breakfast with the Expert Sessions.

In order to receive credit, participants must attend at least one session; fill out the record of attendance and evaluation forms. Certificates will be emailed within 6-8 weeks of the program.

In order to claim continuing education credits attendees must complete the online CEU/CMLE or CME survey. The survey will be emailed to all registered attendees on the last day of the meeting.

DISCLOSURE OF CONFLICTS OF INTEREST

<table>
<thead>
<tr>
<th>FACULTY NAME</th>
<th>NAME OF COMMERCIAL INTEREST</th>
<th>RELATIONSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jennifer Anderson</td>
<td>Novartis, AngioDynamics</td>
<td>Consultant, Speaker Bureau</td>
</tr>
<tr>
<td>Edwin A. Burgstaler</td>
<td>Fenwal Inc.</td>
<td>Consultant</td>
</tr>
<tr>
<td>Alicia Garcia</td>
<td>Therakos</td>
<td>Discussion of off-label/investigative uses</td>
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<tr>
<td>Joseph Kiss</td>
<td>Terumo BCT</td>
<td>Consultant</td>
</tr>
<tr>
<td>Oscar Lopez</td>
<td>Grifols, Baxter, Lilly, Lundbeck</td>
<td>Consultant</td>
</tr>
<tr>
<td>Regina Mack</td>
<td>Therakos</td>
<td>Discussion of off-label/investigative uses</td>
</tr>
<tr>
<td>Anand Padmanabhan</td>
<td>Terumo BCT</td>
<td>Honoraria</td>
</tr>
<tr>
<td>Keith Quirolo</td>
<td>Terumo BCT, AngioDynamics</td>
<td>Consultant, Honoraria, Discussion of off-label/investigative uses</td>
</tr>
<tr>
<td>Regina Rohe</td>
<td>Fresenius Medical Care</td>
<td>Employee</td>
</tr>
<tr>
<td>Joseph Roig</td>
<td>Terumo BCT</td>
<td>Employee</td>
</tr>
<tr>
<td>Bruce Sachais</td>
<td>Kaneka</td>
<td>Honoraria</td>
</tr>
<tr>
<td>Annie Winkler</td>
<td>CMES Corporation</td>
<td>Honoraria, Laboratory Equipment</td>
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</tbody>
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AWARDS

FRANCIS S. MORRISON LECTURE AWARD

The Francis S. Morrison Lecture is an annual keynote lecture at the ASFA Annual Meeting. The lecture was created to keep alive and honor the memory of Francis S. Morrison, MD, a true pioneer in apheresis medicine and a leading apheresis professional. The first lecture was held at the ASFA Meeting in 2002. The Francis S. Morrison Lecture is bestowed upon a member of the Society who has made major contributions to the field of apheresis medicine and an apheresis professional who has made a lasting difference in the field, preferably at the national level.

Edwin A. Burgstaler, MT, HP(ASCP)
Mayo Clinic, Rochester, Minnesota, USA

SOCIETY AWARDS

Lecturer Award

The Lecturer Award of the American Society for Apheresis is bestowed upon a member of the Society who has consistently contributed to the Society as a speaker, teacher, or mentor.

Christina Anderson, RN, BSN, HP(ASCP)
Oklahoma Blood Institute, Oklahoma City, Oklahoma, USA

Presidential Award

The Presidential Award of the American Society for Apheresis is bestowed upon a member of the Society who has consistently made major contributions to, and performed outstanding service for the Society over a number of years.

Ravi Sarode, MD
UT Southwestern Medical Center, Dallas, Texas, USA

SHS Award

The Society for Hemapheresis Specialists was the first national organization in the United States which provided a forum for the professional development of technical specialists in the field of apheresis. In the ensuing decades since the founding of SHS, its members contributed to the maturation of apheresis as a medical specialty and to the growth of the American Society for Apheresis into the principal platform for organized apheresis activities in North America. This award commemorates the pioneering efforts of SHS which have culminated in the high standards and sophistication which characterize the field of American apheresis. Its recipient is a hemapheresis specialist who has demonstrated sincere commitment to apheresis and who has emerged as a leader and role model in the field.

Irina Dobrusin, RN, BSN
Massachusetts General Hospital, Boston, Massachusetts, USA

BEST ABSTRACT AWARDS

The following abstracts will be presented on Thursday, May 7, 2015 in Plenary Abstract Session, 2:45pm - 5:15pm.

Allied Health Abstract Award

This award is given to the primary author of an outstanding abstract submitted by an allied health professional who is a member of ASFA. This year’s recipient abstract is “Comparison of 3 Anticoagulant Techniques used During Hematopoietic Progenitor Cell Collection using the Terumo BCT Spectra Optia”.

Edwin A. Burgstaler, MT, HP(ASCP)
Mayo Clinic, Rochester, Minnesota, USA
AWARDS

Donor Apheresis Abstract Award
This award is given to the primary author of an outstanding donor apheresis-related abstract. This year’s recipient abstract is “Hematopoietic Progenitor Cell Collection: A Comparison of COBE Spectra and Spectra OPTIA Collection Efficiencies Using ACD-A or ACD-A with Heparin Anticoagulation”.

James W. Smith, MD, PhD
Oklahoma Blood Institute, Oklahoma City, Oklahoma, USA

Junior Investigator Abstract Award
This award is given to the primary author of an outstanding abstract submitted by a junior investigator who is a member of ASFA. This year’s recipient abstract is “Comparison of Spectra Optia and COBE Spectra Apheresis Systems Performances for Red Blood Cell Exchange Procedures”.

Jaehyup Kim, MD, PhD
UT Southwestern Medical Center, Dallas, Texas, USA

Therapeutic Apheresis Best Abstract Award
This award is given to the primary author of an outstanding therapeutic apheresis-related abstract. This year’s recipient abstract is “Treatment of Thrombocytopenic Purpura Patients Remains Heterogeneous”.

Yara A. Park, MD
University of North Carolina Hospitals, Chapel Hill, North Carolina, USA

Best Donor Poster Abstract Award
Ten poster abstracts are identified each year to participate in this award. A sub-group of the Abstracts Committee will judge the posters for quality and content and a winner will be identified based on the highest score. The winner will be announced during the Annual Business Meeting.

Best Therapeutic Poster Abstract Award
Ten poster abstracts are identified each year to participate in this award. A sub-group of the Abstracts Committee will judge the posters for quality and content and a winner will be identified based on the highest score. The winner will be announced during the Annual Business Meeting.
### PROGRAM AT A GLANCE

#### TUESDAY, MAY 5, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>7:00am – 6:00pm</td>
<td>Meeting Registration</td>
</tr>
<tr>
<td>7:45am – 5:00pm</td>
<td>Preconference Workshop: Red Blood Cell Exchange in Sickle Cell Disease Consensus Conference (Pre-registration with ASFA and additional registration fees required)</td>
</tr>
<tr>
<td>5:30pm – 6:30pm</td>
<td>ASFA Board of Directors and Sponsors Meeting (by invitation only)</td>
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<tr>
<td>7:00pm – 10:00pm</td>
<td>ASFA Board of Directors and Red Blood Cell Exchange in Sickle Cell Disease Consensus Conference Speakers Dinner (by invitation only)</td>
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#### WEDNESDAY, MAY 6, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:00am – 6:00pm</td>
<td>Meeting Registration</td>
</tr>
<tr>
<td>7:00am – 5:00pm</td>
<td>FACT Cellular Therapy Collection Workshop (Pre-registration with FACT and additional registration fees required)</td>
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<tr>
<td>7:30am – 5:00pm</td>
<td>Preconference Workshop: Apheresis Review Session (Pre-registration with ASFA and additional registration fees required)</td>
</tr>
<tr>
<td>8:00am – 3:00pm</td>
<td>ASFA Board of Directors Meeting (by invitation only)</td>
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<tr>
<td>8:00am – 4:30pm</td>
<td>Exhibit Hall Move In</td>
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<tr>
<td>3:00pm – 6:00pm</td>
<td>Tour for International Delegates (Pre-registration with ASFA required)</td>
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<tr>
<td>3:00pm – 5:00pm</td>
<td>Journal of Clinical Apheresis Editorial Board Meeting (by invitation only)</td>
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<tr>
<td>4:30pm – 5:30pm</td>
<td>Poster Move In</td>
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<tr>
<td>5:00pm – 6:00pm</td>
<td>Committee Chairs Meeting with the Presidents</td>
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<tr>
<td>5:00pm – 7:00pm</td>
<td>WAA Board of Directors Meeting (by invitation only)</td>
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<tr>
<td>5:30pm – 6:00pm</td>
<td>Meet your Mentor</td>
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<tr>
<td>6:00pm – 8:00pm</td>
<td>Exhibit Hall Open</td>
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<tr>
<td>6:00pm – 8:00pm</td>
<td>Welcome Reception in Exhibit Hall</td>
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<tr>
<td>7:30pm – 9:30pm</td>
<td>Corporate Dinner Symposium (open to all registered delegates)</td>
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<tr>
<td>8:00pm – 10:00pm</td>
<td>ASFA Past Presidents’ Dinner in Honor of Robert Weinstein, MD (by invitation only)</td>
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#### THURSDAY, MAY 7, 2015

<table>
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<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:00am – 6:00pm</td>
<td>Meeting Registration</td>
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<tr>
<td>7:00am – 8:30am</td>
<td>Continental Breakfast</td>
</tr>
<tr>
<td>7:00am – 8:15am</td>
<td>Breakfast with the Expert I (First-come, first-served – arrive early for your favorite topic!) Join us for roundtable discussions with experts in the field.</td>
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<tr>
<td>8:30am – 12:15pm</td>
<td>Opening Combined Symposium: Apheresis in the Treatment of Infectious Disease</td>
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<tr>
<td>10:00am – 8:00pm</td>
<td>Exhibit Hall Open</td>
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<tr>
<td>10:15am – 10:45am</td>
<td>Break in Exhibit Hall</td>
</tr>
<tr>
<td>12:30pm – 1:30pm</td>
<td>Exclusive Corporate Lunch Symposium (open to all registered delegates)</td>
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<tr>
<td>12:45pm – 1:30pm</td>
<td>Lunch in Exhibit Hall</td>
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<tr>
<td>1:45pm – 2:30pm</td>
<td>Francis S. Morrison, MD Memorial Lecture</td>
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<tr>
<td>2:45pm – 3:15pm</td>
<td>Concurrent Session</td>
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<tr>
<td>2:45pm – 3:45pm</td>
<td>Concurrent Session</td>
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<tr>
<td>2:45pm – 3:45pm</td>
<td>Education Session I: Donor Eligibility Criteria</td>
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<tr>
<td>3:45pm – 4:15pm</td>
<td>Break in Exhibit Hall</td>
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<tr>
<td>4:15pm – 5:15pm</td>
<td>Concurrent Session</td>
</tr>
<tr>
<td>4:15pm – 5:15pm</td>
<td>Education Session II: ASFA &amp; ANNA Joint Session: Apheresis and Renal Diseases</td>
</tr>
<tr>
<td>5:30pm – 6:15pm</td>
<td>Committee Meetings *New members welcome! Applications Committee, Public Affairs and Advocacy Committee, Allied Health Committee</td>
</tr>
</tbody>
</table>
### ACADEMIC PROGRAM

**6:00pm – 8:00pm**  
Abstract Poster Networking Evening in Exhibit Hall  
*Please join us for a drink, hors d’oeuvres, and to visit the abstract posters!*

**7:30pm – 9:30pm**  
Corporate Dinner Symposium *(by invitation only)*

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#### FRIDAY, MAY 8, 2015

<table>
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<th>Time</th>
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<tr>
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<td>Meeting Registration</td>
</tr>
<tr>
<td>7:00am – 8:30am</td>
<td>Continental Breakfast</td>
</tr>
</tbody>
</table>
| 7:00am – 8:30am | Breakfast with the Expert II *(First-come, first-served – arrive early for your favorite topic!)*  
*Join us for roundtable discussions with experts in the field.*  
Concurrent Session |
| 7:30am – 8:30am | Breakfast Discussion for International Delegates                    |
| 8:45am – 12:15pm | Scientific Symposium: Infectious Disease from Both a Donor and Therapeutic Apheresis Perspective  
Concurrent Session |
| 9:15am – 10:15am | Education Session III: Instrument Troubleshooting & Validation      |
| 10:00am – 4:30pm | Exhibit Hall Open                                                   |
| 10:15am – 10:45am | Break in Exhibit Hall                                              |
| 10:45am – 12:15pm | Education Session IV: What Would You Do?: Case Studies and Discussion |
| 12:30pm – 1:30pm | Corporate Lunch Symposium *(open to all registered delegates)*      |
| 12:45pm – 1:30pm | Lunch in Exhibit Hall                                               |
| 1:40pm – 2:35pm | ASFA Annual Business Meeting *(ASFA members only)*  
*Members – please join us for coffee and dessert in honor of Robert Weinstein, MD and to learn more about ASFA’s activities, financials and leadership.*  
Concurrent Session |
| 2:45pm – 5:15pm | Abstract Session I: Therapeutic Apheresis                           |
| 2:45pm – 5:15pm | Abstract Session II: Donor and Therapeutic Apheresis                |
| 2:45pm – 3:45pm | Education Session V: Basic Therapeutics                             |
| 3:45pm – 4:15pm | Break in Exhibit Hall                                               |
| 4:15pm – 5:15pm | Education Session VI: What Do You Do?: Regulatory Preparation       |
| 4:30pm – 5:30pm | Poster Move Out                                                     |
| 4:30pm – 8:00pm | Exhibit Hall Move Out                                               |
| 5:15pm – 6:00pm | Committee Meetings *(New members welcome!)*  
*Communications Committee, Physicians Committee, Membership Committee, Education Committee, Abstracts Committee* |

#### SATURDAY, MAY 9, 2015

<table>
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<th>Time</th>
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<td>7:00am – 12:30pm</td>
<td>Meeting Registration</td>
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<tr>
<td>7:00am – 8:30am</td>
<td>Continental Breakfast</td>
</tr>
</tbody>
</table>
| 7:00am – 8:30am | Breakfast with the Expert III *(First-come, first-served – arrive early for your favorite topic!)*  
*Join us for roundtable discussions with experts in the field.*  
Concurrent Session |
| 8:45am – 12:15pm | Closing Combined Symposium: Rare Uses of Apheresis in the Treatment of Infectious Disease  
Concurrent Session |
| 8:45am – 10:15am | Education Session VII: Immuno Therapy in Apheresis                  |
| 10:15am – 10:45am | Break in Foyer                                                      |
| 10:45am – 12:15pm | Education Session VIII: Therapeutic Overviews                      |
| 12:15pm – 1:30pm | Post-conference ASFA Board of Directors Meeting *(by invitation only)* |
ACADEMIC PROGRAM

PROGRAM

PRECONFERENCE: TUESDAY, MAY 5, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tr>
<td>7:00am – 6:00pm</td>
<td>Meeting Registration</td>
<td>Escalator Landing Second Floor</td>
</tr>
<tr>
<td>7:45am – 5:00pm</td>
<td>PRECONFERENCE WORKSHOP: RED BLOOD CELL EXCHANGE IN SICKLE CELL DISEASE CONSensus CONFERENCE (Pre-registration with ASFA and additional registration fees required)</td>
<td>Lone Star BC</td>
</tr>
<tr>
<td>5:30pm – 6:30pm</td>
<td>ASFA Board of Directors and Sponsors Meeting (by invitation only)</td>
<td>Bowie B</td>
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<tr>
<td>7:00pm – 10:00pm</td>
<td>ASFA Board of Directors and Red Blood Cell Exchange in Sickle Cell Disease Consensus Conference Speakers Dinner (by invitation only)</td>
<td>Offsite</td>
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PRECONFERENCE: WEDNESDAY, MAY 6, 2015

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<th>Location</th>
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</thead>
<tbody>
<tr>
<td>7:00am – 6:00pm</td>
<td>Meeting Registration</td>
<td>Escalator Landing Second Floor</td>
</tr>
<tr>
<td>7:30am – 5:00pm</td>
<td>PRECONFERENCE WORKSHOP: APERESIS REVIEW SESSION (Pre-registration with ASFA and additional registration fees required)</td>
<td>Lone Star BC</td>
</tr>
<tr>
<td>7:00am – 7:30am</td>
<td>Continental Breakfast</td>
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<tr>
<td>7:30am – 7:45am</td>
<td>Welcome</td>
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</tr>
<tr>
<td>7:45am – 8:30am</td>
<td>Apheresis Basic Science</td>
<td>Jeremy Parsons, MD</td>
</tr>
<tr>
<td>8:30am – 9:15am</td>
<td>Principles of Blood Separation and Apheresis Instrumentation</td>
<td>Dobri Kiprov, MD, HP(ASCP)</td>
</tr>
<tr>
<td>9:15am – 10:15am</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>10:15am – 10:45am</td>
<td>Care of the Therapeutic Apheresis Patient</td>
<td>Regina Rohe, RN, BS, HP(ASCP)</td>
</tr>
<tr>
<td>10:45am – 11:35am</td>
<td>Therapeutic Plasma Exchange and Red Blood Cell Exchange</td>
<td>Vishesh Chhibber, MD</td>
</tr>
<tr>
<td>11:35am – 12:15pm</td>
<td>Leukocytapheresis for the Treatment of Hyperleukocytosis Secondary to Acute Leukemia</td>
<td>Nicole Aqui, MD</td>
</tr>
<tr>
<td>12:15pm – 1:30pm</td>
<td>Apheresis Equipment Fair and Lunch</td>
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</tr>
<tr>
<td>1:30pm – 1:50pm</td>
<td>Cellular Therapy – Technical</td>
<td>Jennifer Collins, RN</td>
</tr>
<tr>
<td>1:50pm – 2:10pm</td>
<td>Cellular Therapy – Regulatory &amp; Quality Issues</td>
<td>Jennifer Collins, RN</td>
</tr>
<tr>
<td>2:10pm – 3:00pm</td>
<td>Pediatric Apheresis: Optimizing Care in a Complex Patient Population</td>
<td>Christina Gallagher, RN, BSN</td>
</tr>
<tr>
<td>2:30pm – 3:00pm</td>
<td>Donor Apheresis – Technical</td>
<td>Jay S. Raval, MD</td>
</tr>
<tr>
<td>3:00pm – 3:30pm</td>
<td>Donor Apheresis – Regulatory, Quality, &amp; Donor Qualifications</td>
<td>Theresa Stec, BA, MT(ASCP)</td>
</tr>
<tr>
<td>3:30pm – 4:15pm</td>
<td>Break</td>
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</tr>
<tr>
<td>3:45pm – 4:15pm</td>
<td>Vascular Access</td>
<td>Camille Howell, RN, HP(ASCP), BSN</td>
</tr>
<tr>
<td>4:15pm – 4:45pm</td>
<td>Apheresis Program Management</td>
<td>Laura Collins, RN, BSN, HP(ASCP)</td>
</tr>
<tr>
<td>4:45pm – 5:00pm</td>
<td>Wrap Up</td>
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</tbody>
</table>
### ACADEMIC PROGRAM

#### PRECONFERENCE: WEDNESDAY, MAY 6, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:00am – 5:00pm</td>
<td>FACT Cellular Therapy Collection Workshop</td>
<td>Presidio AB</td>
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<tr>
<td></td>
<td>(Pre-registration with FACT and additional registration fees required)</td>
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</tr>
<tr>
<td>8:00am – 3:00pm</td>
<td>ASFA Board of Directors Meeting (by invitation only)</td>
<td>Mission A</td>
</tr>
<tr>
<td>8:00am – 4:30pm</td>
<td>Exhibit Hall Move In</td>
<td>Lone Star DEF &amp; Corridor</td>
</tr>
<tr>
<td>3:00pm – 6:00pm</td>
<td>Tour for International Delegates (Pre-registration with ASFA required)</td>
<td>Offsite</td>
</tr>
<tr>
<td>3:00pm – 5:00pm</td>
<td>Journal of Clinical Apheresis Editorial Board Meeting (by invitation only)</td>
<td>Bowie B</td>
</tr>
<tr>
<td>4:30pm – 5:30pm</td>
<td>Poster Move In</td>
<td>Lone Star DEF &amp; Corridor</td>
</tr>
<tr>
<td>5:00pm – 6:00pm</td>
<td>Committee Chairs Meeting with the Presidents (by invitation only)</td>
<td>Mission B</td>
</tr>
<tr>
<td>5:00pm – 7:00pm</td>
<td>WAA Board of Directors Meeting (by invitation only)</td>
<td>Mission A</td>
</tr>
<tr>
<td>5:30pm – 6:00pm</td>
<td>Meet your Mentor</td>
<td>Bowie B</td>
</tr>
<tr>
<td>6:00pm – 8:00pm</td>
<td>Welcome Reception in Exhibit Hall</td>
<td>Lone Star DEF &amp; Corridor</td>
</tr>
<tr>
<td>7:30pm – 9:30pm</td>
<td>Corporate Dinner Symposium (open to all registered delegates)</td>
<td>Bowie ABC</td>
</tr>
<tr>
<td>8:00pm – 10:00pm</td>
<td>ASFA Past Presidents’ Dinner in Honor of Robert Weinstein, MD (by invitation only)</td>
<td>Offsite</td>
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#### CONFERENCE DAY 1: THURSDAY, MAY 7, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>7:00am – 6:00pm</td>
<td>Meeting Registration</td>
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<tr>
<td>7:00am – 8:30am</td>
<td>Continental Breakfast</td>
<td>Prefunction A Second Floor</td>
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<tr>
<td>7:00am – 8:15am</td>
<td>BREAKFAST WITH THE EXPERT I (FIRST-COME, FIRST-SERVED – ARRIVE EARLY FOR YOUR FAVORITE TOPIC!)</td>
<td>Bowie ABC</td>
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<tr>
<td></td>
<td>Join us for roundtable discussions with experts in the field on the topics below.</td>
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<tr>
<td></td>
<td>Chairs: Matthew Strunk, PA-C and Joan Myers, RN</td>
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<td></td>
<td>Quality Connection Forum</td>
<td>Patricia Fredrich, RN</td>
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<td></td>
<td>IV Access</td>
<td>Camille Howell, RN, HP(ASCP), BSN</td>
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<td></td>
<td>HPC/MNS Collection</td>
<td>Darlene Rahn, MT, HP(ASCP)</td>
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<td></td>
<td>Photopheresis</td>
<td>Regina Mack, RN, HP(ASCP)</td>
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<td>Red Cell Exchange</td>
<td>Keith Quirolo, MD</td>
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<td>Healthy Donor Recruitment &amp; Regulation</td>
<td>Lee F. Clough, BSN, RN, HP(ASCP)</td>
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<tr>
<td></td>
<td>Tandem Procedures</td>
<td>Patricia Kellen-Wales, BSc</td>
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<td>Cellular Therapy (Spanish)</td>
<td>Joseph M. Roig, BS, CP</td>
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<tr>
<td></td>
<td>Pediatric Apheresis</td>
<td>Alicia Garcia, RN, HP(ASCP)</td>
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<td></td>
<td>Staff Training and Competency Assessment</td>
<td>Laura Collins, RN, BSN, HP(ASCP)</td>
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<tr>
<td></td>
<td>Graduate Medical Education – Career Paths in Apheresis</td>
<td>Anand Padmanabhan, MD, PhD and Jeffrey L. Winters, MD</td>
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<td></td>
<td>Renal Indications for Therapeutic Apheresis</td>
<td>Rasheed Balogun, MD, FCAP, FASN, HP(ASCP)</td>
</tr>
<tr>
<td>8:30am – 12:15pm</td>
<td>OPENING COMBINED SYMPOSIUM: APERESIS IN THE TREATMENT OF INFECTIOUS DISEASE</td>
<td>Lone Star BC</td>
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<td>Chairs: Laura Cooling, MD, MSc and Yara Park, MD</td>
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<tr>
<td>8:30am – 8:45am</td>
<td>Opening Remarks</td>
<td>Marisa Marques, MD &amp; Eileen Galvin Karr, RN, BSN, HP(ASCP)</td>
</tr>
<tr>
<td>8:45am – 9:15am</td>
<td>The Argument For the Role of Plasma Exchange in Severe Sepsis with Multiple Organ Failure</td>
<td>Joseph Kiss, MD</td>
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**ACADEMIC PROGRAM**

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### CONFERECE DAY 1: THURSDAY, MAY 7, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:30am – 12:15pm</td>
<td>9:15am – 9:45am The Argument Against the Role of Plasma Exchange in Severe Sepsis with Multiple Organ Failure</td>
<td>Lone Star DEF &amp; Corridor</td>
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<td></td>
<td>9:45am – 10:15am Moderated Discussion</td>
<td>Lone Star DEF &amp; Corridor</td>
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<td>10:15am – 10:45am Break in Exhibit Hall</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td></td>
<td>10:45am – 11:15am The Pathophysiology of E.coli-Mediated Hemolytic Uremic Syndrome</td>
<td>Lone Star DEF &amp; Corridor</td>
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<td>11:15am – 11:45am S. Pneumoniae-Associated HUS: It Is More Than Neuraminidase</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td></td>
<td>11:45am – 12:15pm Moderated Discussion</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td>10:00am – 8:00pm</td>
<td>Exhibit Hall Open</td>
<td>Lone Star DEF &amp; Corridor</td>
</tr>
<tr>
<td>12:30pm – 1:30pm</td>
<td>Exclusive Corporate Lunch Symposium (open to all registered delegates)</td>
<td>Lone Star BC</td>
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<tr>
<td>1:45pm – 2:30pm</td>
<td>FRANCIS S. MORRISON, MD MEMORIAL LECTURE</td>
<td>Lone Star BC</td>
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<td></td>
<td>Apheresis Instrumentation: From Cream Separator to Laser Beams – and Beyond</td>
<td>Lone Star BC</td>
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<td></td>
<td>PLENARY ABSTRACT SESSION ( award denotes abstract award winners)</td>
<td>Lone Star BC</td>
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<td></td>
<td>Chairs: Anand Padmanabhan, MD, PhD and Jeffrey L. Winters, MD</td>
<td>Lone Star BC</td>
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<tr>
<td>2:45pm – 5:15pm</td>
<td>2:45pm – 3:00pm Treatment of Thrombotic Thrombocytopenic Purpura Patients Remains Heterogeneous</td>
<td>Lone Star BC</td>
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<tr>
<td></td>
<td>3:00pm – 3:15pm Therapeutic Apheresis with 5% Albumin as a New Approach for the Treatment of Alzheimer’s Disease</td>
<td>Lone Star BC</td>
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<td>3:15pm – 3:30pm Anti-MPO ANCA-Associated Diffuse Alveolar Hemorrhage is Associated with Increased Mortality Compared to Anti-PR3 Disease</td>
<td>Lone Star BC</td>
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<td>3:30pm – 3:45pm Report of the ASFA Neuromyelitis Optica Apheresis Registry</td>
<td>Lone Star BC</td>
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<td>3:45pm – 4:15pm Break in Exhibit Hall</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
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<td>4:15pm – 4:30pm An Ex Vivo Clinical Study Demonstrates Lipoprotein Apheresis Reduces Levels of Circulating Galectin-3</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td></td>
<td>4:30pm – 4:45pm Hematopoietic Progenitor Cell Collection: A Comparison of COBE Spectra and Spectra OPTIA Collection Efficiencies Using ACD-A or ACD-A with Heparin Anticoagulation</td>
<td>Lone Star BC</td>
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<tr>
<td></td>
<td>4:45pm – 5:00pm Comparison of 3 Anticoagulant Techniques used During Hematopoietic Progenitor Cell Collection using the Terumo BCT Spectra Optia</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
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<td>5:00pm – 5:15pm Comparison of Spectra Optia and COBE Spectra Apheresis Systems Performances for Red Blood Cell Exchange Procedures</td>
<td>Lone Star DEF &amp; Corridor</td>
</tr>
<tr>
<td>2:45pm – 3:45pm</td>
<td>EDUCATION SESSION I: DONOR ELIGIBILITY CRITERIA</td>
<td>Lone Star A</td>
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<tr>
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<td>Chairs: Antonia Hagen-Coonradt and Eileen Galvin Karr, RN, BSN, HP(ASCP)</td>
<td>Lone Star A</td>
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<tr>
<td>2:45pm – 3:15pm</td>
<td>2:45pm – 3:15pm Determining Donor Eligibility - Blood Donor vs. Stem Cell Donor</td>
<td>Lone Star DEF &amp; Corridor</td>
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<td>3:15pm – 3:45pm Collecting Platelets using PAS (Intersol) and Maximizing Concurrent Plasma Collections</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td>3:45pm – 4:15pm</td>
<td>Break in Exhibit Hall</td>
<td>Lone Star DEF &amp; Corridor</td>
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### CONFERENCE DAY 1: THURSDAY, MAY 7, 2015

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>4:15pm – 5:15pm</td>
<td><strong>Concurrent Session</strong>&lt;br&gt; <strong>EDUCATION SESSION II: ASFA &amp; ANNA JOINT SESSION:</strong>&lt;br&gt; APERESSION AND RENAL DISEASES&lt;br&gt; Chairs: Tanya Ferber, RN and Christina Gallagher, RN&lt;br&gt; 4:15pm – 4:45pm&lt;br&gt; Invited Guest: What? My Patient Needs Dialysis and Apheresis?&lt;br&gt; Judy Kaufmann, MSN, RN, CNN&lt;br&gt; 4:45pm – 5:15pm&lt;br&gt; Apheresis Nurse Perspective: Tandem Procedures&lt;br&gt; Barbara Reasonover, RN, HP(ASCP)</td>
<td>Lone Star A</td>
</tr>
<tr>
<td>5:30pm – 6:15pm</td>
<td>Committee Meetings&lt;br&gt; Applications Committee&lt;br&gt; Allied Health Committee</td>
<td>Travis A</td>
</tr>
<tr>
<td>6:00pm – 8:00pm</td>
<td>Abstract Poster Networking Evening in Exhibit Hall&lt;br&gt; Please join us for a drink, hors d’oeuvres, and to visit the abstract posters!</td>
<td>Lone Star DEF &amp; Corridor</td>
</tr>
<tr>
<td>7:30pm – 9:30pm</td>
<td>Corporate Dinner Symposium (by invitation only)</td>
<td>Bowie ABC</td>
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### CONFERENCE DAY 2: FRIDAY, MAY 8, 2015

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>7:00am – 5:30pm</td>
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<tr>
<td>7:00am – 8:30am</td>
<td><strong>Concurrent Session</strong>&lt;br&gt; BREAKFAST WITH THE EXPERT II (FIRST-COME, FIRST-SERVED – ARRIVE EARLY FOR YOUR FAVORITE TOPIC!)&lt;br&gt; <em>Join us for roundtable discussions with experts in the field on the topics below.</em>&lt;br&gt; Chairs: Alicia Garcia, RN, HP(ASCP) and Margaret Hannan, LPN, AT(ASCP)</td>
<td>Bowie ABC</td>
</tr>
<tr>
<td>7:30am – 9:30am</td>
<td>Breakfast Discussion for International Delegates</td>
<td>Travis CD</td>
</tr>
</tbody>
</table>
| 8:45am – 12:15pm | **Concurrent Session**<br> SCIENTIFIC SYMPOSIUM: INFECTION DISEASE FROM BOTH A DONOR AND THERAPEUTIC APERESSION PERSPECTIVE<br> Chairs: Walter Linz, MD, MBA and Patricia Fredrich, RN, BSM<br> 8:45am – 9:15am<br> Infection-Associated Neurological Syndromes<br> Anand Padmanabhan, MD, PhD<br> 9:15am – 9:45am<br> Malaria: Disease, History and Treatment<br> Katerina Paveski, MD<br> 9:45am – 10:15am<br> Exchange Transfusion is No Longer Recommended as Adjunctive Treatment for Severe Malaria<br> Paul Arguin, MD | Lone Star BC
## ACADEMIC PROGRAM

### CONFERENCE DAY 2: FRIDAY, MAY 8, 2015

<table>
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<tbody>
<tr>
<td>8:45am – 12:15pm</td>
<td><strong>Concurrent Session</strong></td>
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<td>10:15am – 10:25am Q &amp; A Period</td>
<td>Lone Star DEF &amp; Corridor</td>
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<td></td>
<td>10:25am – 10:45am <strong>Break in Exhibit Hall</strong></td>
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<td></td>
<td>10:45am – 11:15am Therapeutic Parasite Reduction or Removal of Harmful Materials?</td>
<td>YanYun Wu, MD, PhD</td>
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<td>11:15am – 11:45am Babesia from a Donor Perspective</td>
<td>Bryan R. Spencer, MPH</td>
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<td>11:45am – 12:15pm Apheresis Therapy for Rickettsia-Related Infections &amp; Thrombotic Microangiopathy</td>
<td>Nick Rose, MD</td>
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<td>9:15am – 10:15am <strong>Concurrent Session</strong></td>
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<td></td>
<td><strong>EDUCATION SESSION III: INSTRUMENT TROUBLESHOOTING &amp; VALIDATION</strong></td>
<td>Lone Star A</td>
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<td>Chairs: Theresa Stec, BA, MT(ASCP) and Deborah Ferrell, RN, MSN, HP(ASCP)</td>
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<td>9:15am – 9:45am Validation: Process, Procedures, Support</td>
<td>Sheryl M. Kempin, RN, MA</td>
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<td>9:45am – 10:15am Troubleshooting</td>
<td>Edwin A. Burgstaler, MT, HP(ASCP)</td>
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<td>10:00am – 1:30pm Exhibit Hall Open</td>
<td>Lone Star DEF &amp; Corridor</td>
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<td></td>
<td>10:15am – 10:45am <strong>Break in Exhibit Hall</strong></td>
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<td><strong>EDUCATION SESSION IV: WHAT WOULD YOU DO?: CASE STUDIES AND DISCUSSION</strong></td>
<td>Lone Star A</td>
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<td>Chairs: Darlene Chambers, RN and Keith Quirolo, MD</td>
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<td>10:45am – 11:15am Use of Vortex Ports for Red Cell Exchange in Patients who have Poor Access</td>
<td>Jennifer Anderson, RN, BSN</td>
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<td>11:15am – 11:45am Anticoagulation in Cellex® Photopheresis</td>
<td>Alicia Garcia, RN, HP(ASCP)</td>
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<td>11:45pm – 12:15pm Cellular Therapy</td>
<td>Joan Myers, RN</td>
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<td>12:30pm – 1:30pm <strong>Corporate Lunch Symposium</strong> (open to all registered delegates)</td>
<td>Lone Star BC</td>
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<td>12:45pm – 1:30pm <strong>Lunch in Exhibit Hall</strong></td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td></td>
<td>1:40pm – 2:35pm <strong>ABSTRACT SESSION I: THERAPEUTIC APHERESIS</strong></td>
<td>Lone Star BC</td>
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<td>Chairs: Christina Anderson, RN, BSN, HP(ASCP) and Jay S. Raval, MD</td>
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<td>2:45pm – 3:00pm Novel Variant Detection is Essential When Attempting to Genetically Confirm the Clinical Diagnosis of Complement-mediated Thrombotic Microangiopathies (TMA)</td>
<td>Mike Ero, CLS, MT, MBA</td>
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<td>3:00pm – 3:15pm Use of a Rapid Genetic Assay to Confirm the Diagnosis of Complement-Mediated Thrombotic Microangiopathy: A Preliminary Report</td>
<td>Jan C. Hofmann, MD, MPH</td>
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<td>3:15pm – 3:30pm Platelet Recovery Rate at Day 5 of Therapeutic Plasma Exchange for Acquired Thrombotic Thrombocytopenic Purpura Can Aid in Identifying Risk of Disease Exacerbation</td>
<td>Suzanne Zhou</td>
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<td>3:30pm – 3:45pm Thrombotic Thrombocytopenic Purpura Patients Remain ADAMTS13 Deficient at the Conclusion of the Therapeutic Plasma Exchange Course</td>
<td>Jay S. Raval, MD</td>
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<td>3:45pm – 4:15pm <strong>Break in Exhibit Hall</strong></td>
<td>Lone Star DEF &amp; Corridor</td>
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<td>4:15pm – 4:30pm The Impact of Processing Less Blood with the Therakos™ Cellex® Photopheresis System for Pediatric Patients</td>
<td>Joanna Lynn Wigfield, DO</td>
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**ACADEMIC PROGRAM**

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### CONFERENCE DAY 2: FRIDAY, MAY 8, 2015

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker(s)</th>
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<tr>
<td>2:45pm – 5:15pm</td>
<td>Concurrent Session</td>
<td>In Vitro Evaluation of an Implantable Apheresis Port for Clinical Use</td>
<td>Jennifer Peterson, BSN, RN, CMSRN</td>
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<tr>
<td>2:45pm – 5:15pm</td>
<td>Concurrent Session</td>
<td>Iron Deficiency Anemia in Patients Undergoing Extracorporeal Photopheresis for Cutaneous T-Cell Lymphoma</td>
<td>Jennifer Anderson, RN, BSN</td>
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<td>5:00pm – 5:15pm</td>
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<td>Comparison of Transfusion Adverse Events in Sickle Cell Disease (SCD) Patients Receiving Simple Transfusions or Automated Red Cell Exchange (aRBX) for Stroke Prevention</td>
<td>Shannon Kelly, MD</td>
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<tr>
<td>2:45pm – 3:45pm</td>
<td>Concurrent Session</td>
<td>ABSTRACT SESSION II: DONOR AND THERAPEUTIC APHERESIS</td>
<td>Lone Star A</td>
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<tr>
<td>2:45pm – 3:00pm</td>
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<td>Erythrocyte Depletion of Bone Marrow in Stem Cell Transplantation in a Pediatric Center Comparison of Two Systems</td>
<td>Volker Witt, MD</td>
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<td>3:00pm – 3:15pm</td>
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<td>Impact of Blood Prime on Pediatric Autologous Peripheral Blood Stem Cell Collection</td>
<td>Laura Cooling, MD, MS</td>
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<td>3:15pm – 3:30pm</td>
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<td>Screening of Donor Platelet-rich Plasma to Predict Platelet Quality Before Production of Apheresis Platelet Concentrates</td>
<td>Audrey Labrie, BSc</td>
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<td>3:30pm – 3:45pm</td>
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<td>Performance Evaluation of Specta Optia MNC for Autologous PBSC Collections: a Preliminary Comparison with COBE Spectra</td>
<td>Theresa Bilodeau, MT(ASCP)</td>
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<td>4:15pm – 4:30pm</td>
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<td>Unique Features of a College On-Campus Donor Center: Impact of Exam Stressors and Donor Attributes on Platelet Apheresis Yield</td>
<td>Shelley Chang, MD, PhD</td>
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<tr>
<td>4:30pm – 4:45pm</td>
<td></td>
<td>Use of Convalescent Plasma Collected From Ebola Virus Disease (EVD) Survivors Treated With INTERCEPT Blood System for Pathogen Inactivation (PI) To Facilitate Passive Immune Therapy</td>
<td>Jessica L. Hanover, PhD</td>
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<td>5:00pm – 5:15pm</td>
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<td>Leukapheresis Collection (LC) Insights in Unmobilized Patients with Synchronous Metastatic Renal Cell Carcinoma (mRCC) Receiving a Combination of Autologous Immunotherapy (AGS-003) and Sunitinib: From the Ongoing International ADAPT Phase 3 Trial Experience</td>
<td>Christine Fernandez, RN, MSN</td>
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<td>2:45pm – 3:45pm</td>
<td>Concurrent Session</td>
<td>EDUCATION SESSION V: BASIC THERAPEUTICS</td>
<td>Bowie ABC</td>
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<td>2:45pm – 3:15pm</td>
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<td>Review of New Platforms for Blood Prime</td>
<td>Edwin A. Burgstaler, MT, HP(ASCP)</td>
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<td>3:15pm – 3:45pm</td>
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<td>Red Cell Exchange Overview</td>
<td>Robin Willis, RN, BSN, HP(ASCP)</td>
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<td>3:45pm – 4:15pm</td>
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<td>Break in Exhibit Hall</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td>4:15pm – 5:15pm</td>
<td>Concurrent Session</td>
<td>EDUCATION SESSION VI: WHAT DO YOU DO?: REGULATORY PREPARATION</td>
<td>Bowie ABC</td>
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<td>4:15pm – 4:45pm</td>
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<td>FACT Inspection Preparedness</td>
<td>Patricia Shi, MD</td>
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<tr>
<td>4:45pm – 5:15pm</td>
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<td>Inspection Preparedness: Donor Perspective</td>
<td>Darlene Cloutier, MT, HP</td>
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### ACADEMIC PROGRAM

#### CONFERENCE DAY 2: FRIDAY, MAY 8, 2015

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>4:30pm – 5:30pm</td>
<td>Poster Move Out</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td>4:30pm – 8:00pm</td>
<td>Exhibit Hall Move Out</td>
<td>Lone Star DEF &amp; Corridor</td>
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<tr>
<td>5:15pm – 6:00pm</td>
<td>Committee Meetings *New members welcome!</td>
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<td></td>
<td>Communications Committee</td>
<td>Mission A</td>
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<td>Membership Committee</td>
<td>Mission B</td>
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<td>Abstracts Committee</td>
<td>Independence</td>
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<td>Committee Meetings</td>
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<td>Physicians Committee</td>
<td>Travis A</td>
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<td>Education Committee</td>
<td>Travis B</td>
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#### CONFERENCE DAY 3: SATURDAY, MAY 9, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:00am – 12:30pm</td>
<td>Meeting Registration</td>
<td>Escalator Landing Second Floor</td>
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<tr>
<td>7:00am – 8:30am</td>
<td>Continental Breakfast</td>
<td>Prefunction A Second Floor</td>
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<tr>
<td>7:00am – 8:30am</td>
<td>BREAKFAST WITH THE EXPERT III (FIRST-COME, FIRST-SERVED – ARRIVE EARLY FOR YOUR FAVORITE TOPIC!)</td>
<td>Bowie ABC</td>
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<td>Join us for roundtable discussions with experts in the field on the topics below.</td>
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<td>Chairs: Anand Padmanabhan, MD, PhD and Matthew Coleman, MD, FASCP</td>
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<td></td>
<td>Anticipating and Preventing Complications During and After Therapeutic Apheresis Procedures</td>
<td>Rasheed Balogun, MD, FCAP, FASN, HP(ASCP)</td>
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<td>ASFA Leadership - How YOU Can Become Involved</td>
<td>Eileen Galvin Karr, RN, BSN, HP(ASCP)</td>
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<td>Immunotherapy and Collection of the Unstimulated Donor</td>
<td>Dana Atkinson, BS, MT(ASCP), CCRA</td>
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<td>Emerging Indications for Therapeutic Apheresis</td>
<td>Jill Adamski, MD, PhD</td>
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<td>Pediatric Apheresis</td>
<td>Christina Gallagher, RN, BSN</td>
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<td>Photopheresis</td>
<td>Amber Sanchez, MD</td>
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<td>Advancing Apheresis Practice through Research, Case Studies, &amp; Publications</td>
<td>Lee F. Clough, BSN, RN, HP (ASCP)</td>
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<td></td>
<td>Online Documentation</td>
<td>Laura Collins, RN, BSN, HP(ASCP)</td>
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<td></td>
<td>Atypical HUS</td>
<td>YanYun Wu, MD</td>
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<td>Implementation of PAS Platelet Collection</td>
<td>Margaret Hannan, LPN, AT(ASCP)</td>
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<td>Optimizing Your AB Plasma Donors, Automated Procedures on Mobile Blood Drives</td>
<td>Antonia Hagen-Coonradt</td>
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<td></td>
<td>Graduate Medical Education: Apheresis Education Issues</td>
<td>Kendall Crookston, MD, PhD</td>
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**SAN ANTONIO, TEXAS • Grand Hyatt • May 6-9, 2015**
## Conference Day 3: Saturday, May 9, 2015

### Closing Combined Symposium: Rare Uses of Apheresis in the Treatment of Infectious Disease

**Chairs:** Laura Collins, RN, BSN, HP(ASCP) and Michael Linenberger, MD  
**Location:** Lone Star BC

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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| 8:45am – 9:15am | PANDAS  
M. Elizabeth Latimer, MD |
| 9:15am – 9:45am | Dendritic Cell Vaccine for Treatment of HIV  
Cesar de Almeida Neto, MD, PhD |
| 9:45am – 10:15am | EBV-specific T cells for EBV-associated Lymphomas  
Patrick Hanley, PhD |
| 10:15am – 10:45am | Break in Foyer  
Prefunction A Second Floor |
| 10:45am – 12:15pm | Collection and Use of Convalescent Plasma for the Treatment of Viral Diseases  
Bruce Sachais, MD, PhD  
Jeffrey Bailey, MD, PhD  
Annie Winkler, MD, MSc |

### Education Session VII: Immunotherapy in Apheresis

**Chairs:** Lee F. Clough, BSN, RN, HP (ASCP) and Dana Atkinson, BS, MT(ASCP), CCRA  
**Location:** Lone Star A

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<th>Time</th>
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| 8:45am – 9:15am | Overview of Immunotherapy  
Christine Fernandez, RN, MSN |
| 9:15am – 9:45am | Current Clinical Trials that require Apheresis  
Lee F. Clough, BSN, RN, HP (ASCP) |
| 9:45am – 10:15am | Troubleshooting MNC Collections in the Unmobilized vs Stimulated Donors  
Christina Anderson, RN, BSN, HP(ASCP) |
| 10:15am – 10:45am | Break in Foyer  
Prefunction A Second Floor |

### Education Session VIII: Therapeutic Overviews

**Chairs:** Robin Willis, RN, HP, BSN and Catherine Hulitt, RN, BSN, HP  
**Location:** Lone Star A

<table>
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<tr>
<th>Time</th>
<th>Session</th>
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| 10:45am – 11:30am | Pediatric RBC Exchange: Indications, Benefits, and Barriers  
Keith Quirolo, MD |
| 11:30am – 12:15pm | Photopheresis  
Regina Mack, RN, HP(ASCP) |
| 12:15pm – 1:30pm | Post-conference ASFA Board of Directors Meeting  
(by invitation only)  
Presidio A |
SPEAKERS

RED BLOOD CELL EXCHANGE IN SICKLE CELL DISEASE: A CONSENSUS CONFERENCE SPEAKERS AND MODERATORS

Ravi Sarode, MD, UT-Southwestern Medical
George Buchanan, MD, UT-Southwestern Medical
Mark Brecher, MD, Laboratory Corporation of America, University of North Carolina
Martin H. Steinberg, MD, Boston University
Keith Quirolo, MD, UCSF Benioff Children’s Hospital
Michael DeBaun, MD, Vanderbilt University
Mark Gladwin, MD, University of Pittsburgh
Haewon Kim, MD, Children’s Hospital of Philadelphia
Araba Afenyi-Annan, MD, University of North Carolina - Chapel Hill
Cathy Hulitt, RN, Children’s Hospital of Philadelphia

APHERESIS REVIEW SESSION SPEAKERS

Jeremy Parsons, MD, Presbyterian Hospital
Dobri Kiprov, MD, HP(ASCP), California Pacific Medical Center, Apheresis Care Group (ACG)
Jeffrey L. Winters, MD, Mayo Clinic
Regina Rohe, RN, BS, HP(ASCP), Fresenius Medical Care
Vishesh Chhibber, MD, North Shore University Hospital
Nicole Aqui, MD, UPENN School of Medicine
Susan Pinkard, RN, Hoxworth Blood Center
Jennifer Collins, RN, Ann & Robert H. Lurie Children’s Hospital of Chicago
Christina Gallagher, RN, BSN, Nationwide Children’s Hospital
Jay S. Raval, MD, University of North Carolina
Theresa Stec, BA, MT(ASCP), Baystate Medical Center
Camille Howell, RN, HP(ASCP), BSN, Seattle Cancer Care Alliance
Laura Collins, RN, BSN, HP(ASCP), University of Iowa Hospitals and Clinics

OPENING COMBINED SYMPOSIUM SPEAKERS

Joseph Kiss, MD, The Institute for Transfusion Medicine
Tom Raife, MD, University of Wisconsin Hospital and Clinics
Deborah Stearns-Kurosawa, PhD, Boston University
Laura Cooling, MD, MSc, University of Michigan Hospitals and Clinics

SCIENTIFIC SYMPOSIUM SPEAKERS

Anand Padmanabhan, MD, PhD, Blood Center of Wisconsin
Katerina Pavenksi, MD, St. Michael’s Hospital
Paul Arguin, MD, Centers for Disease Control and Prevention
YanYun Wu, MD, PhD, Bloodworks Northwest
Bryan R. Spencer, MPH, American Red Cross
Nick Rose, MD, University of Wisconsin Hospital

CLOSING COMBINED SYMPOSIUM SPEAKERS

M. Elizabeth Latimer, MD, Latimer Neurology Center
Cesar de Almeida Neto, MD, PhD, Blood Center of São Paulo
Patrick Hanley, PhD, Children’s National Health System
Bruce Sachais, MD, PhD, New York Blood Center
Jeffrey Bailey, MD, PhD, University of Massachusetts Medical School
Annie M. Winkler, MD, MSc, Emory University School of Medicine

EDUCATION SESSION SPEAKERS

Wanda Koetz, RN, HP(ASCP), Memorial Blood Centers
Margaret Hannan, LPN, AT(ASCP), Blood Bank of Delmarva
Judy Kaufmann, MSN, RN, CNN, University of Virginia
Barbara Reasonover, RN, HP(ASCP), Carter BloodCare
Sheryl M. Kempin, RN, MA, Blood Systems Inc.
Edwin A. Burgstaler, MT, HP(ASCP), Mayo Clinic
Jennifer Anderson, RN, BSN, VCU Health System, MCV Hospital and Physicians
Alicia Garcia, RN, HP(ASCP), Children’s Hospital and Research Center in Oakland
Joan Myers, RN, Carter BloodCare
Robin Willis, RN, HP, BSN, Boston Children’s Hospital
Patricia Shi, MD, New York Blood Center
Darlene Cloutier, MT, HP, Baystate Medical Center
Christine Fernandez, RN, MSN, Argos Therapeutics, Inc.
Lee F. Clough, BSN, RN, HP(ASCP), BlueBird BioSciences
Christina Anderson, RN, BSN, HP(ASCP), Oklahoma Blood Institute
Keith Quirolo, MD, UCSF Benioff’s Children’s Hospital Oakland
Regina Mack, RN, HP(ASCP), Baylor University Medical Center Dallas

FRANCIS S. MORRISON, MD MEMORIAL LECTURE SPEAKER

Edwin A. Burgstaler, MT, HP(ASCP), Mayo Clinic
SPEAKERS

BREAKFAST WITH THE EXPERT

Patricia Fredrich, RN, BSM, BloodCenter of Wisconsin
Camille Howell, RN, HP(ASCP), BSN, Seattle Cancer Care Alliance
Darlene Rahn, MT, HP(ASCP), H. Lee Moffitt Cancer Center & Research Institute
Regina Mack, RN, HP(ASCP), Baylor University Medical Center Dallas
Keith Quirolo, MD, UCSF Benioff’s Children’s Hospital Oakland
Lee F. Clough, BSN, RN, HP(ASCP), BlueBird Biosciences
Patricia Kellen-Wales, BSc, Carter BloodCare
Joseph M. Roig, BS, CP, Terumo BCT

PLENARY ABSTRACT SESSION SPEAKERS

Yara A. Park, MD, University of North Carolina Hospitals
Oscar Lopez, MD, University of Pittsburgh
Grace M. Lee, MD, University of North Carolina
Shanna Michelle Morgan, MD, University of Minnesota
Isaac Eliaz, MD, MS, Lac, Amitabha Medical Clinic and Healing Center
James W. Smith, MD, PhD, Oklahoma Blood Institute
Edwin A. Burgstaler, MT, HP(ASCP), Mayo Clinic
Jaehyup Kim, MD, PhD, UT Southwestern Medical Center

ORAL ABSTRACT PRESENTERS

Mike Ero, CLS, MT, MBA, Machaon Diagnostics
Jan C. Hofmann, MD, MPH, California Pacific Medical Center
Suzanne Zhou, University of North Carolina
Jay S. Raval, MD, University of North Carolina
Joanna Lynn Wigfield, DO, Phoenix Children’s Hospital
Jennifer Peterson, BSN, RN, CMSRN, UT Southwestern Medical Center

Christina Gallagher, RN, BSN, Nationwide Children’s Hospital
Amber Sanchez, MD, University of California, San Diego
YanYun Wu, MD, Puget Sound Blood Center
Margaret Hannan, LPN, AT(ASCP), Blood Bank of Delmarva
Antonia Hagen–Coonradt, United Blood Services
Kendall Crookston, MD, PhD, University of New Mexico
APHERESIS REVIEW SESSION

Apheresis Basic Science
Jeremy Parsons, MD
This presentation will be a review/overview of the basic science of apheresis. Although everyone is welcome to attend, the material will be most beneficial to nurses, apheresis technologists, and clinicians who are new to the field or are looking to refresh their knowledge. Topics to be covered are: hematology and coagulation, immune system and blood antigens, blood component therapy, electrolyte physiology, blood product testing, common clinical laboratory testing, and an introduction to apheresis fluid replacement.

Principles of Blood Separation and Apheresis Instrumentation
Dobri Kiprov, MD, HP(ASCP)
In this presentation I will discuss the principals of blood component separation. The focus will be on the different technologies available today for blood cell and plasma separation. An overview of the instrumentation available in the US and around the world will be discussed. This will include specialized technologies such as photopheresis, LDL apheresis and immunoadsorption. The current status of blood cell separation and instrumentation will be reviewed. A brief discussion on troubleshooting of the most commonly used machines will be included.

Clinical Decision Making for ASFA Category I, II, III, IV, and Uncategorized Indications
Jeffrey L. Winters, MD
This session will focus on how to utilize the 2013 American Society for Apheresis guidelines in daily practice. The ASFA categories and recommendation grades will be reviewed. Examples of diseases treated with apheresis from each of the ASFA categories will be given and the speaker will review how the guidelines can be used to determine not only the appropriateness of an apheresis therapy in these diseases but also the course of therapy including replacement fluids, number of treatments, frequency of treatments, and when the treatments should be discontinued. The speaker will also discuss an approach to determining how to provide plasma exchange therapy for a disorder which is not covered in the ASFA guidelines. The goal of the presentation is to provide a useful and practical approach that can be used by physicians and allied health when requests are received to treat patients with therapeutic apheresis procedures.

Care of the Therapeutic Apheresis Patient
Regina Rohe, RN, BS, HP(ASCP)
This half-hour presentation will focus on four aspects of the care of the patient receiving therapeutic apheresis: pre-treatment assessment, elements of informed consent, considerations when planning for apheresis therapy, and interdisciplinary communication.

Therapeutic Plasma Exchange and Red Blood Cell Exchange
Vishesh Chhibber, MD
This session will provide an overview of therapeutic plasma exchange and red blood cell exchange. We will discuss the basic apheresis principles involved in performing these procedures. The discussion will include the volumes of blood exchanged, the replacement fluids used and the appropriate frequency of these procedures. This session will also review the indications for these procedures, some of the common adverse effects that may be seen, as well as some recent enhancements in how these procedures are performed.

Leukocytapheresis for the Treatment of Hyperleukocytosis Secondary to Acute Leukemia
Nicole Aqui, MD
Dr. Nicole Aqui will briefly describe the complications associated with hyperleukocytosis in leukemia and its prognostic significance. The pathophysiology and clinical manifestations of leukostasis will be reviewed. The technical aspects and difficulties related to the leukapheresis procedure will be discussed. Finally, Dr. Aqui will summarize data describing the efficacy of leukapheresis in decreasing both early and late mortality.

Photopheresis: Yesterday – Today – Tomorrow
Susan Pinkard, RN
The presentation will provide an overview of Photopheresis in all age groups and all conditions. Instrumentation will be reviewed to include differences
between the UVAR XTS and CellEx. An understanding of why the treatment works and how the procedure is performed will be presented. Discussion revolving the management of the instrument when patients have abnormal plasma: high bilirubin, high triglycerides or receiving TPN will occur. Blood priming of the instrument will be reviewed, when and why. Troubleshooting techniques to include system pressure and red cell pump alarms – what do you do will be reviewed.

**Cellular Therapy – Technical**

Jennifer Collins, RN

This session reviews the nuts and bolts of harvesting mononuclear cells from peripheral blood by apheresis. The objective of this review include information the apheresis nurse will need before, during and after the collection procedure. Most of the information before the procedure is obtained by an intake process or consultation with the transplant physician team who identifies the donor as eligible for stem cell harvest. This consultation includes information about the donor such as mobilization, venous access, collection goals and a review of special considerations for the orders. During this time special considerations are discussed that include need for a blood or albumin prime or criteria to begin the apheresis procedure. The presenter will review information crucial for setting up the machine and information crucial to preparing the donor for apheresis. Also, this review will offer ways to evaluate the collection during the procedure and after to evaluate the success of the collection. The presenter will review options to modify the collection for a successful harvest. The review will show different calculations to determine collection efficiency with data from cell dose yield and other lab results which can provide information to modify a procedure for the next day if needed.

**Cellular Therapy – Regulatory & Quality Issues**

Jennifer Collins, RN

This session reviews the necessary steps for having a successful regulatory inspection. The objective is to focus on quality and take the audience through an inspection. The presenter will review the importance of having processes in place for planning and preparing for collection, communicating with all members of the transplant team and evaluating the collection process. The review will focus on the quality aspect of evaluating all the crucial processes included in the collection of cells. Process and procedure is evaluated through audits and validations to review all factors that impact the collected cells and the safety of the recipient. Review of quality aspects of the collections will lead to a successful inspection of the apheresis program.

**Pediatric Apheresis: Optimizing Care in a Complex Patient Population**

Christina Gallagher, RN, BSN

This presentation will review aspects of care specific to small (<25kg) pediatric patients undergoing therapeutic apheresis. The highlights will include common diseases seen in this population, total blood volume calculations and their comparison to extracorporeal volumes of both Cobe Spectra as well as the Spectra Optia, examine types and sizes of access used, review blood and albumin machine priming, touch on electrolyte management and discuss the treatment of the child taking into account their developmental stage.

**Donor Apheresis – Technical**

Jay S. Raval, MD

In this section, topics that will be discussed include: (1) the different types of donor apheresis products which can be collected and their specific characteristics, (2) the various apheresis instrumentation involved in donor apheresis procedures, and (3) the common donor-related adverse events that can occur during collection.

**Donor Apheresis – Regulatory, Quality, & Donor Qualifications**

Theresa Stec, BA, MT(ASCP)

The presentation will include an overview of the FDA regulations for Suitability of Donor, cGMP, Quality System Requirements. Quality Program topics will include internal audit/self-assessment, quality assurance and quality monitoring of products prepared.

**Vascular Access**

Camille Howell, RN, HP(ASCP), BSN

This review session will be an interactive question and answer format similar to the style of the show “Jeopardy™”. The speaker will share her expertise on using temporary versus permanent central venous catheters, ports and peripherally inserted central lines (PICC) lines in both donor and therapeutic apheresis. Participants will leave with valuable tools to perform thorough assessments when choosing the best vascular access option for the specific type of therapy. Best practices for placing peripheral needles and
troubleshooting central venous catheters will also be discussed. References for future study will be part of the handouts. Come and see if you can win a prize while testing your knowledge of vascular access!

**Apheresis Program Management**
Laura Collins, RN, BSN, HP(ASCP)

Successful operation of an apheresis program involves balancing multiple resources in a complex and dynamic setting. Managers must hire and maintain a highly trained staff and utilize creative scheduling to adjust to unpredictable patient and donor volumes. Managers are required to review financial reports, productivity measures, and manage complex budgets. Continuous monitoring of adherence to regulatory standards and quality systems is essential to providing quality blood products and safe and effective patient care. This presentation will review key elements involved in managing an apheresis program.

**OPENING COMBINED SYMPOSIUM: APERESIS IN THE TREATMENT OF INFECTIOUS DISEASE**

The Argument For the Role of Plasma Exchange in Severe Sepsis with Multiple Organ Failure
Joseph Kiss, MD

Sepsis, a systemic inflammatory response to infection, is the most common cause of death in non-coronary intensive care units. The incidence and severity of sepsis have increased over the last two decades. With advances in supportive care, sepsis carries a mortality that averages 17%, however, this figure jumps to 50-80% in Multiple Organ Dysfunction Syndrome (MODS), defined as failure of 3 or more organ systems.

This talk will address the argument for the role of plasma exchange in severe sepsis with multiple organ failure.

The Argument Against the Role of Plasma Exchange in Severe Sepsis with Multiple Organ Failure
Tom Raife, MD

Plasma exchange for the treatment of sepsis has been explored since the 1970s. Overall, reported evidence for efficacy in human and animal studies is equivocal. The global approach to treatment of sepsis by exchanging patient plasma for donor plasma is based on the rationale that complex biochemical abnormalities make it difficult to effectively target individual effector molecules, but that wholesale removal of noxious factors and replacement of normal plasma constituents may help restore normal physiology. Although arguments can be made about the removal or replacement of one or another substance, the pathophysiology is so complex that only empirical observation of the clinical efficacy of plasma exchange can effectively test the rationale. The equivocal results of clinical experimentation with plasmapheresis for sepsis indicate that it is not a "magic bullet," and at best may be helpful in a subset of patients. The diversity of etiologies and complexity of the pathophysiology of sepsis make it difficult to prospectively identify potentially responsive patient populations. Meanwhile, further study of plasma exchange in sepsis may take up space in the realm of clinical research that might better be filled with more promising new therapies – some of which may be incompatible with plasma exchange. While plasma exchange may have been helpful in some patients with sepsis, in current practice it does not appear helpful enough for wide adoption.

**The Pathophysiology of E.coli-Mediated Hemolytic Uremic Syndrome**
Deborah Stearns-Kurosawa, PhD

In May 2014 the USDA initiated recall of 1.8 million pounds of ground beef potentially contaminated with E.coli O157:H7, which sickened 11 people in nine states. This is the latest in a decades-long string of outbreaks and nationwide food recalls due to enterohemorrhagic Shiga toxin-producing E.coli (STEC). STEC infection is a leading cause of acute kidney failure in otherwise healthy US children with an average infection rate of 2.32/100,000. Diarrhea-associated hemolytic uremic syndrome (D-HUS), the most severe form of STEC infection, is characterized by thrombocytopenia, thrombotic microangiopathy, and hemolytic anemia, often culminating in acute renal failure. The bacteria secrete ribosome inactivating Shiga-like toxins (Stx1, Stx2, and variants) into the gut lumen and vasculature, and are primary virulence factors leading to HUS. There are no approved pathogen-specific treatments and currently no means to predict which patients are at risk for developing HUS. Managing HUS risk means understanding the pathophysiology. This presentation will describe development of the only animal model that develops HUS from Shiga toxins, discuss HUS...
relative to other thrombotic microangiopathies, compare pathophysiology differences induced by the Shiga toxins, discuss biomarker development and show that late-stage therapeutic intervention can limit kidney damage.

S. Pneumoniae-Associated HUS: It is More than Neuraminidase

Laura Cooling, MD, MSc

A major risk factor for development of pHUS is the development of loculated fluid collections, especially parapneumonic and subdural empyemas, which may increase systemic adsorption of secreted bacterial proteins, including neuraminidase. Pneumococcal neuraminidase is bacterial virulence factor and trigger leading to the development of pHUS. The enzyme cleaves terminal sialic acids on glycoproteins and glycolipids and is responsible for the phenomena known as “T-activation”. The latter reflects extensive desialylation of core 1 O-glycans on red cell glycoporphins with exposure of cryptic Thomsen-Friedenreich or T-antigen (Galβ1-3GalNAc-O-Ser/Thr). In addition to red cells, several other tissues are susceptible to T-activation including kidney glomerular endothelium and platelets.

T-antigen is a target of naturally-occurring, anti-T IgM antibodies, which have long been assumed to play a pathogenic role in pHUS. However, anti-T antibodies are low-titer, cold autoantibodies and considered unlikely to cause significant complement-mediated hemolysis or tissue injury. More recent investigations have focused on the role of complement. Children with pHUS show severe complement dysregulation and consumption, which may be exacerbated by inherent genetic defects in complement regulatory proteins. Desialylation and soluble bacterial proteins may independently act to lower or decrease complement Factor H activity. Furthermore, desialylation with exposure of cryptic galactose epitopes may accelerate hepatic clearance of red cells and platelets. In addition, T-antigen is a receptor for galectin-3, a soluble galactose-lectin involved in inflammation, endothelial adhesion and host defense against pneumococcal infection. Studies have shown T-antigen/Gal-3 mediated cell-adhesion to endothelium.

Treatment of pHUS is generally supportive with only anecdotal use of plasma exchange or whole blood exchange. This may be due to historical concerns regarding the risks associated with passive transfusion of anti-T in donor plasma. The potential role of plasma exchange may evolve based on ongoing research in complement dysregulation and genetic risk factors, as well as clinical experience using plasma exchange for sepsis-associated thrombocytopenia in large pediatric ICUs. Finally, there are early reports of ecluzimab administration in pHUS.

ACADEMIC PROGRAM

FRANCIS S. MORRISON, MD
MEMORIAL LECTURE

Apheresis Instrumentation: From Cream Separator to Laser Beams – and Beyond

Edwin A. Burgstaler, MT, HP(ASCP)

As with most technology today, apheresis instrumentation has made major advancements in improving safety, efficiency, and versatility in the last four decades. The early instruments required the operator to do the calculations, monitor the harvesting process, and care for the patient/donor. The newer instruments now have microprocessors that do the calculations and monitor the harvesting process to improve efficiency, allowing the operator to pay closer attention to the patient/donor. In addition, the extracorporeal volumes have been reduced, the products are more specific, and the procedures shorter. Some systems have improved and are here today, others have come and gone. The beauty of apheresis and its instrumentation is that it is a dynamic area, constantly changing, striving to become better.

EDUCATION SESSION I: DONOR ELIGIBILITY CRITERIA

Determining Donor Eligibility – Blood Donor vs. Stem Cell Donor

Wanda Koetz, RN, HP(ASCP)

This presentation provides an overview of the process for determining eligibility for both the general donor (whole blood and apheresis) and the peripheral blood stem cell (PBSC) donor. The terms “eligibility” and “suitability” will be defined. We will look at the regulating agencies for both groups of donors and identify the applicable regulatory source documents. Comparisons about similarities as well as differences between the two groups will be made. We will also discuss the additional assessments that are made for PBSC donors in greater detail including:

- Physician evaluation to include medical history and physical exam
• Additional donor testing
• Non-medical factors
• Evaluation for psychological disorders
• Evaluation for factors specifically related to the apheresis procedure and use of Neupogen (filgrastim)

Lastly, we’ll spend some time reviewing the actions that are taken for various exceptions of donors to the criteria. A list of resources and reference materials will be provided.

Collecting Platelets using PAS (Intersol) and Maximizing Concurrent Plasma Collections
Margaret Hannan, LPN, AT(ASCP)
Collection of single donor platelets using Intersol Platelet Additive Solution (PAS) has many benefits for patients and blood centers alike, but the process of implementing a new product collection in your blood center and preparing an FDA licensure submission can be daunting; introducing a new product to your hospital customers adds further challenges. This session will cover the advantages for patients and blood centers of collecting platelets using PAS as well as introducing PAS to your hospital customers and helping them prepare for the transition. Additionally, we will look at one center’s experience with the implementation process as well as preparing and submitting for an FDA variance and product licensure. Finally, the positive impact on FFP inventory from concurrent plasma collections will be explored as well as the lessons learned by this blood center, who became the first in the US to be FDA licensed to collect platelets using Intersol Platelet Additive Solution.

EDUCATION SESSION II: ASFA & ANNA JOINT SESSION: APHERESIS AND RENAL DISEASES

Judy Kaufmann, MSN, RN, CNN
The presentation will have a brief overview of the history of dialysis and apheresis. There will be a discussion on the comparisons of apheresis and hemodialysis. We will discuss the indications for each modality of treatment. An overview of the circuits for each modality will be reviewed. There will be a discussion on the different types of vascular access that is recommended for each modality. We will briefly discuss the types of anticoagulation used for each therapy. We will wrap up the discussion with complication and interventions when performing the treatment.

Apheresis Nurse Perspective: Tandem Procedures
Barbara Reasonover, RN, HP(ASCP)
This talk will use a case study to address:
• Diagnosis
• Pre-Procedure
  • Pediatric Considerations
  • Patient Access
  • Consent
  • Labs
  • Timeout
• Procedure
  • Pre-Procedure Assessment
  • Anticoagulation
  • Blood Warmer
  • Connecting the Patient
  • Patient Monitoring
  • Disconnecting the Patient
• Post-Procedure

SCIENTIFIC SYMPOSIUM: INFECTIOUS DISEASE FROM BOTH A DONOR AND THERAPEUTIC APHERESIS PERSPECTIVE

Infection-Associated Neurological Syndromes
Anand Padmanabhan, MD, PhD
This talk will provide an overview of infection-associated neurological syndromes where apheresis may have a therapeutic role. The speaker will discuss what is known about pathophysiological aspects of specific neurological syndromes that have been associated with infectious disease. The talk will also discuss the therapeutic rationale for plasma exchange in these settings, describe frequently used apheresis treatment protocols and detail their impact on disease outcome.

Malaria: Disease, History and Treatment
Katerina Pavenski, MD
Malaria is a devastating disease that disproportionately kills young children and pregnant women. As a major pathogen, it has also been a significant driver in evolution of the human genome. Malaria pathogenesis
is complex and is thought to be driven by two distinct processes: sequestration and inflammation. Clinical presentation is variable and includes many hematological manifestations. Severe malaria in children encompasses three overlapping syndromes: cerebral malaria, metabolic acidosis, and severe anemia. Despite treatment with the newest and most effective antimalarial medications, artemisinin derivatives, severe malaria may still result in death in 15-20% of patients. Red cell exchange has been traditionally used as an adjunct to therapy with antimalarial drugs in severe malaria; however, recently its utility has been questioned. A rationale for using RBC exchange, as well as an argument on why the current evidence may not be sufficient to definitively dispense with this treatment, will be briefly presented.

**Exchange Transfusion is No Longer Recommended as Adjunctive Treatment for Severe Malaria**

Paul Arguin, MD  
Dr. Paul Arguin will provide some basic background on malaria including data about cases diagnosed and treated in the United States. The syndrome of severe malaria will be described and information will be provided about treatment. He will then review the history of the use of exchange transfusion associated with the treatment of malaria and adverse events associated with exchange transfusion. The presentation will conclude with a discussion of the impact of the use of exchange transfusion on survival of malaria patients as the basis for why CDC no longer recommends exchange transfusion as adjunctive treatment for severe malaria.

**Therapeutic Parasite Reduction or Removal of Harmful Materials?**

YanYun Wu, MD, PhD  
In this presentation I will discuss clinical presentation, diagnosis, risk factors and treatment options including apheresis for severe babesiosis.

**Babesia from a Donor Perspective**

Bryan R. Spencer, MPH  
Babesia microti and other Babesia parasites are the parasites most commonly transmitted in blood products in the US. At least 4 distinct Babesia organisms cause human illness, but the epidemiology and transfusion risk are best understood for B. microti. This presentation will discuss the epidemiology of babesiosis, including its distribution across the country, the parasite's transmission cycle in nature, clinical characteristics of human infection, and the particular properties that most contribute to transfusion risk. Different approaches to risk mitigation will be discussed, including results from recently conducted IND protocols. The challenges that follow eventual licensure of screening protocols will also be reviewed.

**Apheresis Therapy for Rickettsial-Related Infections & Thrombotic Microangiopathy**

Nick Rose, MD  
We will briefly review the pathophysiology, thrombosis risk, therapeutic apheresis rationale, therapeutic apheresis outcomes data, and risk of transmission via transfusion of each of the following diseases: human granulocytic anaplasmosis, human monocytic ehrlichiosis, and Rocky Mountain spotted fever.

**EDUCATION SESSION III: INSTRUMENT TROUBLESHOOTING & VALIDATION**

**Validation: Process, Procedures, Support**

Sheryl M. Kempin, RN, MA  
This presentation will provide a high level review of the concepts of validation. The topics include a review of concepts used in process validation, instrument qualification, computer software and hardware qualification/validation, and a brief discussion on regulatory process including FDA guidance documents, BECS and MDDS concepts.

**Troubleshooting**

Edwin A. Burgstaler, MT, HP(ASCP)  
Troubleshooting apheresis equipment can be very frustrating at times with factors such as screeching alarms, the importance of the procedure, and concerns of the patient/donor; in such situations, the operator needs to focus on the safety of the patient/donor and the cause of the alarm or issue. That means the operator must remain calm to think clearly and reassure the patient/donor that it is alright. The operator should focus on the source of the alarm, not the whole machine. If needed, they should seek help from troubleshooting screens on the machine (if available), the operator’s manual troubleshooting section, or vendor assistance hotlines (if available). A key element of troubleshooting is prevention. The following steps may be helpful: knowing how the machine works, taking extra care during set-up and prime, and keeping
the equipment clean and properly maintained. A few extra minutes of set-up and prime can prevent a lot of minutes trying to correct problems later.

EDUCATION SESSION IV: WHAT WOULD YOU DO?: CASE STUDIES AND DISCUSSION

Use of Vortex Ports for Red Cell Exchange in Patients who have Poor Access
Jennifer Anderson, RN, BSN
This presentation will discuss the advantage of using Vortex Ports for red cell exchange in sickle cell patients who require monthly exchanges for chest crisis and stroke prevention. Use of Vortex Ports allow for normalcy in life and lessen the risk of central line infection.

Anticoagulation in Cellex® Photopheresis
Alicia Garcia, RN
Heparin is the recommended anticoagulant for use in the Therakos® Cellex photopheresis instrument. This brief talk will outline the challenge of using heparin anticoagulation in pediatric Cellex procedures and present a successful method for using ACD-A.

Cellular Therapy
Joan Myers, RN

EDUCATION SESSION V: BASIC THERAPEUTICS

Review of New Platforms for Blood Prime
Edwin A. Burgstaler, MT, HP(ASCP)
Though many of the newer apheresis instruments have reduced their extracorporeal volume (ECV), the ECV’s are still too large for small pediatric patients. The use of a blood prime of the instrument makes it possible to treat very small patients because their circulation is extended into the machine. As blood is drawn from the patient, blood is simultaneously returned to the patient. Until recently, the blood prime required the operator to prime the instrument with saline first, then attach to a bag of blood and waste bag, then start the "procedure" to fill the instrument with blood. Once the instrument was primed, the operator needed to compensate for the volumes processed and returned prior to attaching to the patient. The TerumoBCT Spectra Optia, and Fenwal Amicus (software version 4.5) now have software with "Custom Prime". The procedure is similar to the manual method except now the software knows that a prime is being performed and allows faster pump rates, acknowledges that reinfusion likely won’t be performed, and zeroes the values prior to starting the actual procedure. It is called Custom Prime because priming with albumin or plasma can also be performed.

Red Cell Exchange Overview
Robin Willis, RN, HP, BSN
The Red Cell Exchange Overview is directed to nurses, apheresis operators and physicians. The presentation will cover the basic definition and pathophysiology of sickle cell disease and the clinical indications for red cell exchange. A discussion of the development of the treatment plan will include choosing the appropriate vascular access device, medical management of laboratory tests, the advantages of isovolemic hemodilution, the care of the patient undergoing red cell exchange and the specific goals of red cell exchange.

FACT Inspection Preparedness
Patricia Shi, MD
Inspection Preparedness: Donor Perspective
Darlene Cloutier, MT, HP
External Assessments are a necessary part of operating in a modern healthcare environment. It may be uncomfortable having someone look into our work because we have labored diligently to write procedures and policies, thoroughly trained staff to ensure competency and reviewed records in a manner to ensure quality. The fact is that when we are so close to the work, we may not appreciate a different way of interpreting a standard, recognize the inefficiencies in our process or identify how we might do things in a more streamlined manner. This is exactly why gaining an objective, outside perspective can be beneficial.

This lecture is designed to offer information to help support the development and/or improvement of inspection preparedness for the audience so that these assessments can be viewed in a positive and non-intimidating manner. The lecturer will provide examples
of tools and exercises that facilities can use to prepare and achieve inspection readiness. The lecturer will offer a perspective as an assessor to share some common areas where non-conformances with standards appear and where opportunities for improvement may exist.

**CLOSING COMBINED SYMPOSIUM: RARE USES OF APERESIS IN THE TREATMENT OF INFECTIOUS DISEASE**

**PANDAS**

**M. Elizabeth Latimer, MD**

**Dendritic Cell Vaccine for Treatment of HIV**

Cesar de Almeida Neto, MD, PhD

The global prevalence of HIV/AIDS has increased from 31 million in 2002, to 35 million in 2012, because people on antiretroviral therapy are living longer. The development of therapeutic vaccines designed to prompt cellular immune responses to control viral load and delay progression to disease is possible to be obtained.

Dendritic cells might be the most potent cellular adjuvant for a therapeutic HIV vaccine. Recent experiments provided the knowledge of the interaction of dendritic cells with T cells in the chronic phase of HIV-1 infection and opened up the possibility of an in vivo restoration of anti-HIV immunity in infected patients with sustained viral suppression.

Apheresis procedures have a central role to produce therapeutic vaccines to treat HIV/AIDS. Plasmapheresis can be used to collect HIV autologous virus to pulse dendritic cells and elicit an immune response against HIV. Additionally, functional Peripheral Blood Mononuclear Cells (PBMC) can be obtained by leukapheresis and monocytes separated and cultured in the presence of cytokines and growth factors to obtain immature dendritic cells. Immature dendritic cells are loaded with the antigen of interest and are activated by different stimuli for maturation. Matured dendritic cells, potentially able to migrate and present antigens, are reinoculated into the patient.

This presentation gives an overview of different vaccines for HIV/AIDS treatment and reviews the rationale and results of current protocols for therapeutic immunization with monocyte derived dendritic cells vaccines. A Brazilian Phase II ongoing study with an autologous HIV pulsed dendritic cell vaccine for HIV will be presented.

Hurdles and goals to produce the vaccine will be addressed with emphasis on the role of leukapheresis in the therapeutic vaccine process.

**EBV-specific T cells for EBV-associated Lymphomas**

Patrick Hanley, PhD

With > 90% of the population infected with Epstein-Barr virus (EBV), EBV infection in immunocompetent individuals typically causes a mild self-limiting illness, but it is also associated with a heterogeneous group of malignancies. These malignancies arise in both immunosuppressed and immunocompetent individuals and can be divided into three patterns of latency characterized by the viral genes that are expressed. In Type III latency malignancies, such as post-transplant lymphoproliferative disorder (PTLD), EBV has a direct role and the activated B-cell phenotype expresses all the immunodominant EBV latency proteins. Thus, EBV-infected B cells are good targets for EBV-specific cytotoxic T lymphocytes (CTLs). New cell therapy treatments for PTLD include the transfer of ex vivo expanded autologous EBV-specific CTLs or donor-derived EBV-specific CTLs (in the case of bone marrow transplant recipients). This strategy could potentially work in type II latency malignancies as well, where EBV acts as a cofactor instead of having a direct role. In preliminary studies, CTLs specific for the weakly immunogenic latent membrane protein 2 have been expanded ex vivo and have promoted tumor regression in a subset of patients. Future studies include later-phase clinical trials of EBV-specific CTLs for PTLD, later-phase clinical trials of EBV-specific CTLs for EBV-associated malignancies, as well as testing the efficacy of third-party, off-the-shelf EBV-CTL and EBV-specific CTLs targeting type I latency.

**Overview of Convalescent Plasma**

Bruce Sachais, MD, PhD

**Collection of Convalescent Plasma and Rebuilding of Healthcare Systems in Liberia**

Jeffrey Bailey, MD, PhD

**Collection of Ebola Convalescent Plasma in the United States**

Annie Winkler, MD
**ACADEMIC PROGRAM**

**EDUCATION SESSION VII: IMMUNO THERAPY IN APHERESIS**

**Overview of Immuno Therapy**  
Christine Fernandez, RN, MSN

**Current Clinical Trials that require Apheresis**  
Lee F. Clough, BSN, RN, HP (ASCP)  
Review of current Clinical trials that require apheresis procedures. Answers to what may be asked prior to your apheresis center being involved in a clinical trial.

**Troubleshooting MNC Collections in the Unmobilized Donors vs Stimulated Donors**  
Christina Anderson, RN, BSN, HP(ASCP)  
Leukocyte collections have been growing in numbers over the past years in apheresis facilities. These collections first began to increase in the 1990’s with the introduction of peripheral collected hematopoietic progenitor cells for bone marrow transplantation. Then we saw the introduction of mononuclear cell collections used in the preparation of autologous vaccines for various types of cancer therapy. Today, in many apheresis facilities, leukocyte collections using apheresis blood cell separators have become very common place and routine. However the technical aspects and various protocol requirements can make these procedures very challenging and confusing to the apheresis operators. During the presentation various protocols for leukocyte collections will be explored. Their similarities and differences will be identified. And methods to optimize the apheresis collections will be discussed and technical details reviewed.

**EDUCATION SESSION VIII: THERAPEUTIC OVERVIEWS**

**Pediatric RBC Exchange: Indications, Benefits, and Barriers**  
Keith Quirolo, MD  
Topics Covered:  
Indications  
• Rare Indications  
  ▪ Malaria, Babiosis  
  ▪ Detoxification, drug removal  
  ▪ Carbon monoxide poisoning

• Sickle Cell Disease  
  ▪ Acute Indications:  
    » Acute Chest Syndrome  
    » Stroke  
    » Multiorgan failure  
  ▪ Chronic Indications:  
    » Stroke Risk  
    » Stroke  
    » Hydroxyurea failure/toxicity  
    » Pain

Benefits  
• Sickle Cell Disease  
  ▪ Fluid balance  
  ▪ Plasma exchange (cytokine reduction)  
  ▪ Iron Reduction  
  ▪ Decreased alloimmunization  
  ▪ Improved outcomes

Barriers  
• Technology: Available expertise in transfusion medicine and nursing  
• Venous Access Children and Infants  
• Size of patient/blood volume  
• Sickle Cell Disease  
  ▪ Venous access in acute and chronic transfusion  
  ▪ Port placement  
  ▪ Acceptance  
• Acute Intervention  
  ▪ Venous Access/delay in line placement  
• Reimbursement  
  ▪ Inadequate Reimbursement for treatment  
  ▪ Hidden costs of care for simple transfusion in sickle cell disease

**Photopheresis**  
Regina Mack, RN, HP(ASCP)  
Learning objectives:  
• The participant will be able to verbalize a basic understanding of Photopheresis.  
• The participant will be able to list at least 3 conditions that are currently being treated by Extracorporeal Photopheresis.  
• The participant will verbalize FACT requirements according to 6th edition standards.
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<th>Membership Type</th>
<th>Price</th>
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<tr>
<td>Physician/PhD Membership</td>
<td>$190 USD/year</td>
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<td>Corporate Supplier Employee Membership</td>
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<tr>
<td>Allied Health Professional/Physician in Training Membership</td>
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Journal Free Membership (Receive the same great benefits, without the journal subscription)

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</table>

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An educational and networking forum for professionals in the field of apheresis medicine