

Preparing to Take The Qualification In Apheresis Exam

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Argos Therapeutics

WAA and The French Society For Apheresis 2016 Congress

April 27-29, 2016

Paris, France

Exam process

- The examination consists of a 50-question multiple choice timed-test that must be completed in 90 minutes.
The successful candidate will receive documentation of his/her qualification which is valid for 3 years.
- Requalification may be obtained every 3 years with a \$50 application fee and documentation of completion of 6 contact-hours of acceptable continuing education / other activities in apheresis.
- We are happy to announce that there will be a dedicated room in the Westin Mission Hills Golf Resort & Spa in Palm Springs where you can take the exam, providing you bring a laptop.
- Please note that to be eligible to take the QIA exam at the ASFA meeting in early May, you should apply online at the beginning of February. **Apply through ASCP as early as possible if you wish to take the exam at the ASFA Annual Meeting.**

The ASFA Website

- www.apheresis.org

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Qualification in Apheresis (QIA)

Qualification in Apheresis (QIA)

ASFA is pleased to offer a Qualification in Apheresis (QIA) in partnership with The Board of Certification (BOC) of the American Society for Clinical Pathology (ASCP) as of January 2016!

Prove your competency in apheresis by taking the QIA exam! In order to add the letters QIA after your name, follow this link:
<http://www.ascp.org/content/board-of-certification/qualification/step-1/qualification-in-apheresis-qia>

An eligible applicant does not have to be a member of ASFA or ASCP but must satisfy the requirements of at least one of the following routes:

- **ROUTE 1:** RN, LPN, or LVN with U.S. state license, certificate, or diploma*, AND 3 years full-time acceptable experience in apheresis or 5 years part-time acceptable experience in apheresis within the last 10 years.
- **ROUTE 2:** Professional nurse diploma or equivalent received outside of the U.S.*, AND 3 years full-time acceptable experience in apheresis or 5 years part-time acceptable experience in apheresis within the last 10 years.
- **ROUTE 3:** ASCP or ASCPi certification in the following categories: MLS/MT, BB, SBB or MLT AND 3 years of full-time acceptable experience in apheresis or 5 years part-time acceptable experience in apheresis within the last 10 years.
- **ROUTE 4:** Baccalaureate degree from a regionally accredited college/university in the U.S. or an accredited/approved

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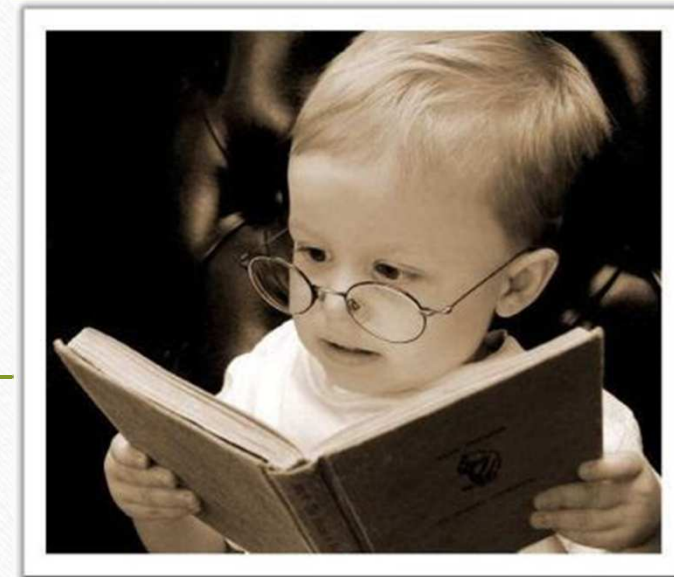
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How do I begin to Study?



- Each of these subtests comprises a specific percentage of the overall 50-question qualification examination. The subtests for the examination are outlined in the slides to follow.

Content Outline

How the Exam is Structured

- The Qualification in Apheresis examination questions encompass different topics or subtests within the area of Apheresis:

Topics Covered

- Basic Science
- Clinical Applications
- Donor/Patient Care
- Instrumentation
- Operational Considerations and Standards
- Guidelines
- Regulations (ASFA, AABB, CAP, FDA, FACT, HIPAA, TJC, etc.).



QUALIFICATION IN APHERESIS (QIA) Topic Outline

The Qualification in Apheresis examination questions encompass different topics or subtests within the area of Apheresis: Basic Science, Clinical Applications, Donor/Patient Care, Instrumentation, Operational Considerations, and Standards, Guidelines, and Regulations (ASFA, AABB, CAP, FDA, FACT, HIPAA, TJC, etc.). Each of these subtests comprises a specific percentage of the overall 50-question qualification examination. The subtests for the examination are outlined below:

- I. **Basic Science (5-10%)**
 - A. Hematology/Coagulation
 - B. Immunohematology/Genetics
 1. Blood component therapy
 2. HLA
 3. ABO
 - C. Immunology
 1. Antibodies
 2. Immune complexes
 - D. Laboratory Testing
- II. **Clinical Applications (10-20%)**
 - A. Donor Apheresis
 1. Platelets
 2. Red blood cells
 3. Plasma
 4. White blood cells (e.g., granulocytes)
 - B. Therapeutic Apheresis
 1. Plasma exchange
 2. Red cell exchange
 3. Cell depletion
 4. Selective adsorption/filtration procedures
 - C. Cellular Therapy
 1. Hematopoietic progenitor cells
 2. Extracorporeal photopheresis (ECP)
 3. Mononuclear cell collections (e.g., lymphocytes, monocytes)
 - D. Diseases Treated with Apheresis
- III. **Donor/Patient Care (30-40%)**
 - A. Assessment/Monitoring
 - B. Replacement/Fluids
 - C. Anticoagulation
 - D. Medications (e.g., calcium, antihistamine) and Drug Interactions
 - E. Venous Access
 - F. Fluid Balance
 - G. Age-Related Considerations
 - H. Adverse Reactions

- IV. **Instrumentation (10-20%)**
 - A. Theories and Techniques of Separation
 1. Centrifugation (e.g., intermittent and continuous flow)
 2. Membrane
 3. Columns
 - B. General Principles of Automated Instruments*
 1. Anticoagulation of extracorporeal circuit
 2. Extracorporeal blood volume
 3. Efficiencies of separation and/or collection
 4. Clinical applications (see II.A.—D.)

*The majority of instrument questions will address general processes and procedures applicable to most instruments (e.g. alarm codes for specific instruments will NOT be tested). In troubleshooting questions, the instrument to be repaired or replaced on any instrument, they will not be instrument specific.

- V. **Operational Considerations (10-20%)**
 - A. Quality Assurance (e.g., cGMP, cGTP, validation)
 1. Product yield
 - B. Instrument efficiencies
 2. Instrument efficiencies
 - C. Equipment Maintenance
 3. Safety (e.g., OSHA, CDC)
 - D. Infection Control
 4. Infection Control
- VI. **Standards, Guidelines, and Regulations (ASFA, AABB, CAP, FDA, FACT, HIPAA, TJC, etc.) (10-20%)**
 - A. Informed Consent
 - B. Confidentiality
 - C. Donor Selection
 - D. Facility License and Accreditation
 - E. Training and Competency

All Board of Certification examinations use conventional and SI units for results and reference ranges.

END OF TOPIC OUTLINE



QUALIFICATION IN APHERESIS (QIA) Suggested Reading for Examination Preparation

This list is intended only as a partial reference source. Its distribution does not indicate endorsement by the Board of Certification, American Society for Clinical Pathology; nor does the Society wish to imply that the content of the examination will be drawn solely from these publications.

JOURNALS

Journal of Clinical Apheresis. American Society for Apheresis (ASFA). Wiley, British Columbia. [Link to View](#)

TEXTS

APHERESIS PRINCIPLES
Linz, W. et al. (2014). *Principles of Apheresis Technology* (5th ed.). Vancouver, British Columbia: ASFA. [Link to Purchase](#)
McLeod, B.C. et al. (2010). *Apheresis: Principles and Practice* (3rd ed.). Delfield, MD: AABB Press. [Link to Purchase](#)

REGULATIONS

AABB. (2014). *Standards for Blood Banks and Transfusion Services* (19th ed.). Bethesda, MD: AABB Publications [Link to Purchase](#)
AABB. (2013). *Standards for Cellular Therapy Services* (5th ed.). Bethesda, MD: AABB Publications. [Link to Purchase](#)

****NEW EDITION DUE OUT JULY 2016****
Center for Biologics Evaluation Research. (2007). *Guidance for Industry and FDA Review Staff: Collection of Platelets by Automated Methods*. (published yearly). [Available online](#). [Link to View](#)

Federal Register. National Archives and Records Administration Publication. Parts 210, 211, 600, 601, 606, 607, 610, 640, 1771. Washington, D.C.: Printing Office of the Superintendent of Documents. [Link to View](#)
Food and Drug Administration. (January 2007). *Guidance for Industry: Recommendations for Collecting Red Blood Cells by Autologous Apheresis Methods* (Technical Correction). Rockville, MD: FDA. Available online. [Link to View](#)

Food and Drug Administration. (March 10, 1995). *Revision of FDA Memorandum of August 27, 1989: Requirements for Infrequent Plasma/pheresis Donors*. Rockville, MD: FDA. Available online. [Link to View](#)
The Joint Commission. (2011). *2011 Comprehensive Accreditation Manual for Hospitals (CAHAP)*. Oakbrook Terrace, IL. [Link to Purchase](#)

ONLINE

AABB www.aabb.org
American Neurology Nurses Association www.aannurses.org
American Society for Apheresis www.asfa.org
American Society of Hematology www.hematology.org
American Society of Nephrology www.asn-online.org
Centers for Disease Control and Prevention www.cdc.gov
College of American Pathologists www.cap.org
Food and Drug Administration www.fda.gov
HITAA www.cms.hhs.gov/hitaa
Occupational Safety and Health Administration www.osha.gov

Basic Science (5-10%)

A. Hematology/Coagulation

B. Immunohematology/Genetics

1. Blood component therapy

2. HLA

3. ABO

C. Immunology

1. Antibodies

2. Immune complexes

D. Laboratory Testing

Clinical Applications (10-20%)

A. Donor Apheresis

1. Platelets
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4. White blood cells
(e.g., granulocytes)

B. Therapeutic Apheresis

1. Plasma exchange
2. Red cell exchange
3. Cell depletion
4. Selective adsorption/filtration
procedures

Clinical Applications (cont.)

C. Cellular Therapy

1. Hematopoietic progenitor cells
2. Extracorporeal photopheresis (ECP)
3. Mononuclear cell collections
(e.g., lymphocytes, monocytes)

D. Diseases Treated with Apheresis

Donor Patient Care (30-40%)

- A. Assessment/Monitoring
 - B. Replacement Fluids
 - C. Anticoagulation
 - D. Medications (e.g., calcium, antihistamine) and Drug Interactions
 - E. Venous Access
 - F. Fluid Balance
 - G. Age-Related Considerations
 - H. Adverse Reactions
-

Instrumentation (10-20%)

A. Theories and Techniques of Separation

1. Centrifugation

(e.g., intermittent and continuous flow)

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B. General Principles of Automated Instruments*

1. Anticoagulation of extracorporeal circuit

2. Extracorporeal blood volume

3. Efficiencies of separation and/or collection

4. Clinical applications (see II.A.-D.)

Operational Considerations(10-20%)

- A. Quality Assurance (e.g., cGMP, cGTP, validation)
- B. Quality Control
 - 1. Product yield
 - 2. Instrument efficiencies
- C. Equipment Maintenance
- D. Safety (e.g., OSHA, CDC)
- E. Infection Control

Standards, Guidelines, and Regulations (10-20%)

- **Including: ASFA, AABB, CAP, FDA, FACT, HIPAA, TJC, etc.**
 - A. Informed Consent
 - B. Confidentiality
 - C. Donor Selection
 - D. Facility Licensure and Accreditation
 - E. Training and Competency

Reading list

- The suggested reading list can be found on the ASFA website under the QIA tab.
 - Journals
 - Text
 - Regulations

Journals

- *Journal of Clinical Apheresis*. American Society for Apheresis (ASFA), Wiley, British Columbia.
- Reference for special issue

Journal of Clinical Apheresis



Journal of Clinical Apheresis

The Official Journal of the **ASFA** American Society for Apheresis

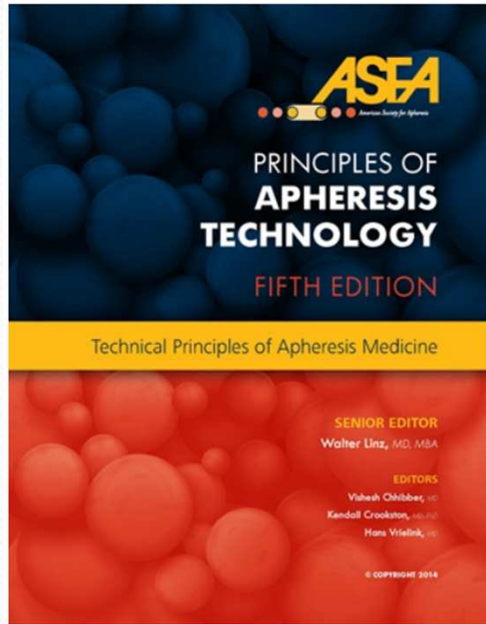
WILEY-LISS

The Journal of Clinical Apheresis, the official publication of ASFA, provides the world's premier source of current information in the field of apheresis. The Journal presents work in all aspects of basic and clinical research, practical applications, emerging technologies and regulation in apheresis and related fields including hematology, nephrology, neurology, rheumatology, transplantation, cellular therapies, blood banking, transfusion medicine and others.

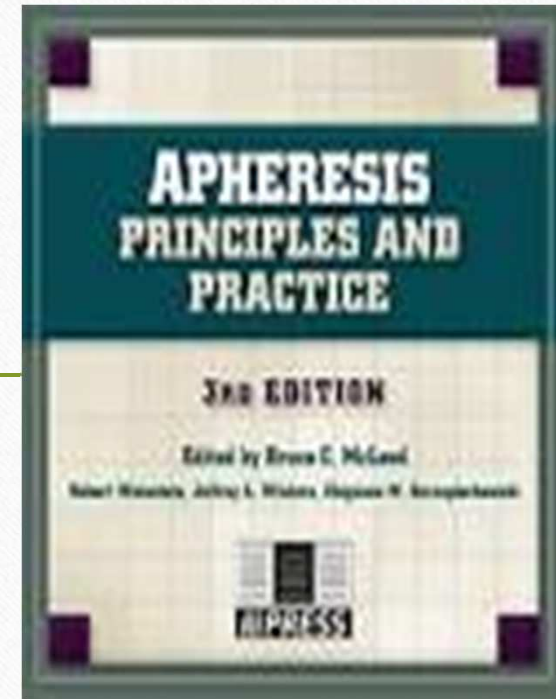
Publication Schedule:

The 2015 Journal of Clinical Apheresis publication schedule is as follows:

- Volume 29, Issue 1: February 2016
- Volume 29, Issue 2: April 2016
- Volume 29, Issue 3: June 2016
- Volume 29, Issue 4: August 2016
- Volume 29, Issue 5: October 2016
- Volume 29, Issue 6: December 2016



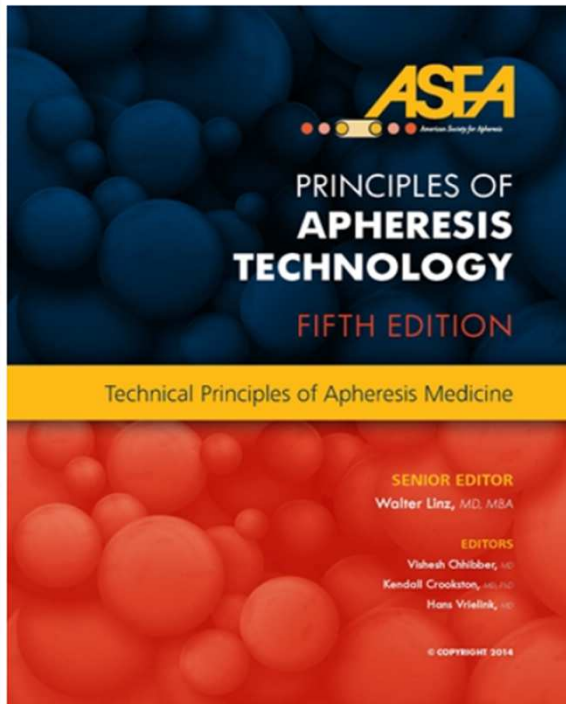
TEXTS



- **APHERESIS PRINCIPLES**
- Linz, W. et al. (2014). *Principles of Apheresis Technology* (5th ed.). Vancouver, British Columbia: ASFA. [Link to Purchase](#)
- McLeod, B.C. et al. (Eds.). (2010). *Apheresis: Principles and Practice* (3rd ed.). Bethesda, MD: AABB Press. [Link to Purchase](#)

Principles of Apheresis Technology

Principles of Apheresis Technology - 5th Edition



Principles of Apheresis Technology - 5th Edition (2014)

The Principles of Apheresis Technology is intended to provide the user with a basic overview of the theory and applications of apheresis. This publication is not intended to be all-inclusive, but rather, a tool to supplement past education and experience in the field of apheresis. The Principles of Apheresis Technology is intended to increase the reader's awareness and understanding regarding apheresis technologies and applications. Additionally, The Principles of Apheresis Technology may be used as a basis for developing training programs for those new to the field of apheresis.

This invaluable textbook, published by ASFA, provides a basic overview of the theory and applications of apheresis and can serve as a basis for developing training programs for those new to the field of apheresis. Topics covered include:

- Basic Science
- Apheresis Instrumentation
- Therapeutic Apheresis Procedures
- Clinical Decision Making & the ASFA Guidelines
- Vascular Access
- Care of Patients Receiving Therapeutic Apheresis
- Donor Apheresis
- Apheresis for Cellular Therapies
- Apheresis Program Management Essentials
- Regulatory Issues and Quality Activities
- Pediatric Apheresis Special Considerations for Children <25 Kg

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Download PDF Book Apheresis Principles and Practice, 3rd ...



<https://www.youtube.com/watch?v=yq0jkwu7ewg>

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Apheresis: Principles and Practice, 3rd edition - AABB

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With several new chapters and expansions on previous chapters, anyone with specific questions about the scientific, technical and practical aspects of ...

Apheresis: Principles and Practice, 3rd edition Free Online ...

onlinemedicabook.blogspot.com/.../apheresis-principles-and-practice-3rd... ▼

Oct 30, 2013 - **Apheresis Principles and Practice 3rd edition** Hardcover Amazon com ... within this latest edition Medical books Apheresis **Download** link for ...

REGULATIONS



- AABB. (2014). *Standards for Blood Banks and Transfusion Services* (29th ed.). Bethesda, MD: AABB Publications. [Link to Purchase](#)
- AABB. (2013). *Standards for Cellular Therapy Services* (6th ed.). Bethesda, MD: AABB Publications. [Link to Purchase](#) ****NEW EDITION DUE OUT JULY 2016****
- Center for Biologics Evaluation Research. (2007). *Guidance for Industry and FDA Review Staff: Collection of Platelets by Automated Methods*: Food and Drug Administration. Available online: [Link to View](#)
- The Joint Commission. (2015). *2016 Comprehensive Accreditation Manual for Hospitals (CAMH)*. Oakbrook Terrace, IL: The Joint Commission. [Link to Purchase](#)

More Regulations

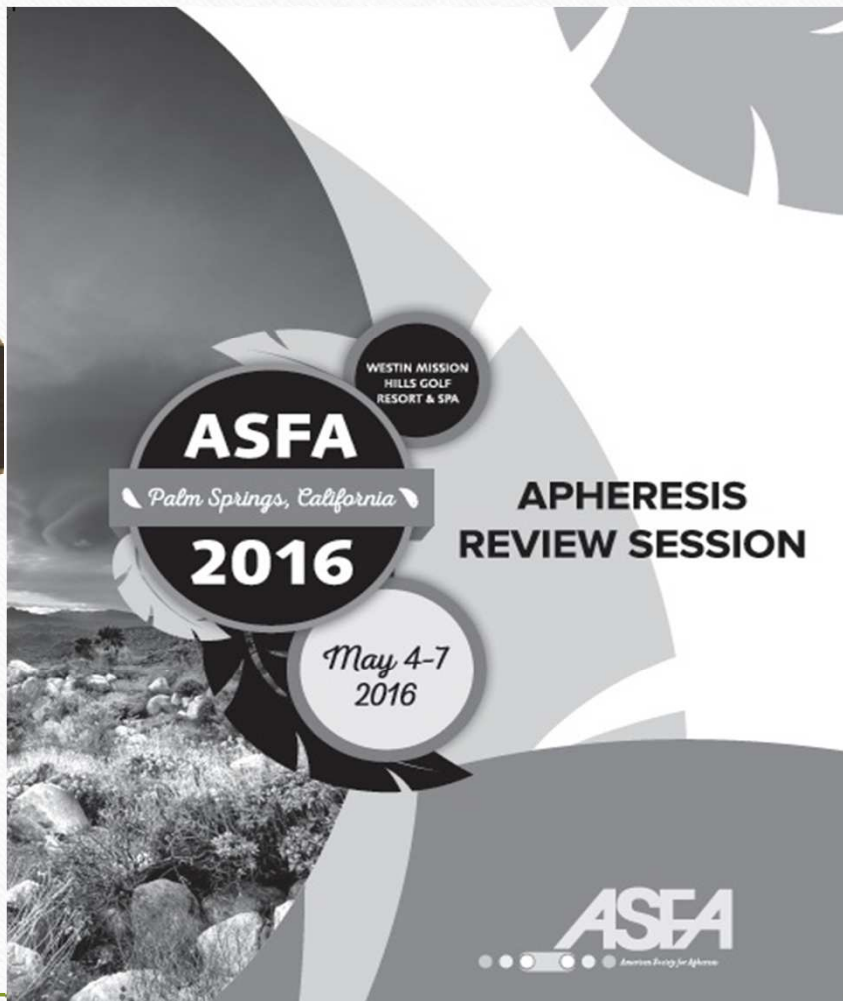


- Food and Drug Administration. (published yearly). *Code of Federal Regulations Title 21: Food and Drugs*. Office of the Federal Register National Archives and Records Administration Publication, Parts 210, 211, 600, 601, 606, 607, 610, 640, 1271. WashingtonD.C.: Printing Office of the Superintendent of Documents. [Link to View](#)
- Food and Drug Administration. (February 2001). *Guidance for Industry: Recommendations for Collecting Red Blood Cells by Automated Apheresis Methods (Technical Correction)*. Rockville, MD: FDA. Available online: [Link to View](#)
- Food and Drug Administration. (March 10, 1995). *Revision of FDA Memorandum of August 27, 1982: Requirements for Infrequent Plasmapheresis Donors*. Rockville, MD: FDA. Available online: [Link to View](#)

Online Resources

- AABB www.aabb.org
- American Nephrology Nurses Association www.annanurse.org
- American Society for Apheresis www.apheresis.org
- American Society of Hematology www.hematology.org
- American Society of Nephrology www.asn-online.org
- Centers for Disease Control and Prevention www.cdc.gov
- College of American Pathologists www.cap.org
- Food and Drug Administration www.fda.gov
- HIPAA www.cms.hhs.gov/hipa
- Occupational Safety and Health Administration www.osha.gov

Other Sources of Information



PRECONFERENCE WORKSHOP: APHERESIS REVIEW SESSION (PRE-REGISTRATION WITH ASFA AND ADDITIONAL REGISTRATION FEES REQUIRED)

Celebrity ABCD

The Apheresis Review Session will provide a basic overview of the theory and applications of apheresis medicine. Experts in the field will provide a broad overview of each of the topics and participants will have an opportunity to work with case studies. The Review Session is an appropriate preparatory course for the Qualification in Apheresis (QIA) Exam, offered by ASCP.

Morning Chairs: *Debbie Ferrell, MSN, RN, HP(ASCP) & Margaret Hannan, LPN, AT (ASCP)*

Afternoon Chairs: *Bryan Prentice, RN, MSN & Alicia Garcia, RN, HP(ASCP)*

7:00AM – 7:30AM	Continental Breakfast	
7:30AM – 7:45AM	Welcome	
7:45AM – 8:15AM	Introduction to ASCP Qualification in Apheresis (QIA) Exam	Christina Anderson, RN, BSN, HP(ASCP)
8:15AM – 9:00AM	Basic Science in Apheresis	Hans Vrieling, MD
9:00AM – 10:00AM	Clinical Applications: Therapeutics	Jeffrey L. Winters, MD
10:00AM – 10:30AM	Break	
10:30AM – 11:30AM	Clinical Applications: Donor and Cellular Therapy	Jay S. Raval, MD
11:30AM – 12:15PM	Apheresis Instrumentation	Edwin A. Burgstaler, MT, HP(ASCP)
12:15PM – 1:15PM	Lunch and Equipment Fair	<i>Rancho Mirage Foyer</i>
1:15PM – 2:45PM	Donor and Patient Care	Leah L. Irwin, RN, MSN, CRNP
2:45PM – 3:30PM	Apheresis Program Essentials	Darlene Cloutier, MT, HP
3:30PM – 3:45PM	Break	
3:45PM – 4:30PM	Standards, Guidelines, and Regulations	Theresa C. Stec, BA, MT(ASCP)
4:30PM – 5:00PM	Wrap Up	Alicia Garcia, RN, HP(ASCP)

Additional Resources

- Joint Task Force For Apheresis Education
- Contact Information:
 - <http://www.sanquin.nl/en/products-services/consulting-services>
 - H.vrirlink@sanquin.nl

Thank You

