

For this year's Education Spotlight Program, ASH will offer six exciting topics. Each 90-minute session will be presented once on either Sunday or Monday, in a small-venue format for approximately 100 ticketed attendees. Speakers will discuss the topic with ample time reserved for audience questions and participation. The talks will facilitate discussions of evidence-based practice, decision making, and controversies in diagnosis and management. The scientific lectures will address the current state of knowledge, translational and clinical applications, and future directions. Audio recordings and slides from the Education Spotlight Sessions will be available on the Complete Annual Meeting DVD (see page 53).

#### **Ticket Prices (per session)**

**Member: \$25**

**Non-Member in Training: \$25**

**Non-Member: \$40**

The Education Spotlight Sessions are restricted to medical professionals only; no businesspersons or media will be admitted. Individuals are limited to one ticket per session. Tickets may be purchased during the online registration process.

#### **Attention Trainees!**

A number of tickets for the Education Spotlight Sessions will be reserved especially for trainees. Proof of status as a trainee will be required to purchase a ticket at the discounted non-member-in-training rate.



## **The Cost of Survival in Hematology: A Practical Approach to Pharmaco- Economics for the Hematologist**

**SUNDAY, DECEMBER 5, 4:30 P.M. – 6:00 P.M.**

#### **CO-CHAIRS:**

Joseph R. Mikhael, MD, Mayo Clinic Arizona, Scottsdale, AZ

Paul Cornes, MD, Bristol Haematology and Oncology Centre, Bristol, United Kingdom

Kevin R. Imrie, MD, Sunnybrook Health Sciences Centre, Toronto, ON, Canada

The cost of health care is increasing dramatically, most notably the cost of medications. These increases are evident in the practice of hematology, particularly in cancer therapies. Historically physicians have paid little attention to the costs of care, opting to focus on clinical effectiveness in making treatment decisions. However, it has become apparent that costs factor greatly in our practices and are often mandated by governments, insurance companies, HMOs, or others, and that the current rate of growth is unsustainable. It is no longer sufficient to demonstrate that a new drug or therapy is safe and effective to have it available for clinical use – it now must demonstrate “cost effectiveness.” This spotlight session is designed to provide insight into the often complex world of pharmaco-economics for practicing hematologists and help them appreciate its importance in hematology. The intent is to both educate and empower attendees as their involvement in this issue is inevitable in the years to come, especially with escalating drug costs and limited budgets. Drs. Mikhael, Imrie, and Cornes will provide an overview of the field, review major clinical trials in hematology in which health economics has been prominent, and discuss its relevance to clinical practice and research. Unique national perspectives will be given for the United States, Canada, and the United Kingdom.

## Prospects in Regenerative Medicine in Hematology

SUNDAY, DECEMBER 5, 4:30 P.M. – 6:00 P.M.

### CO-CHAIRS:

Willem E. Fibbe, MD, PhD, Leiden University Medical Center, Leiden, Netherlands

Lee L. Rubin, MD, Harvard Stem Cell Institute, Harvard University, Cambridge, MA

Regenerative medicine is an emerging interdisciplinary field of research, and clinical applications have focused on the repair, replacement, or regeneration of cells, tissues, or organs. It uses a combination of approaches including soluble molecules, gene therapy, stem cell transplantation, tissue engineering, and the reprogramming of cell and tissue types. In this session, two novel approaches will be discussed. Dr. Willem Fibbe will review the biology and potential clinical applications of mesenchymal stromal cells, highlighting their immunomodulatory, reparative, and anti-inflammatory properties. Dr. Lee Rubin will discuss adult cell reprogramming and advances in regulating cell differentiation and specification. In particular, the application of stem cell technology to understanding human disease mechanisms and to finding safer and more effective drugs will be highlighted.

## Personalized Medicine for the Practicing Physician

MONDAY, DECEMBER 6, 10:30 A.M. – 12:00 NOON

### CO-CHAIRS:

David Ginsburg, MD, Howard Hughes Medical Institute, University of Michigan Medical School, Ann Arbor, MI  
*What to Tell Patients Who Come to You With Their SNP Data From a Commercial Firm*

David Garcia, MD, University of New Mexico, Albuquerque, NM  
*Pharmacogenomics*

This session will address “personalized medicine” with a focus on genetic information. The recent explosion in genomic technologies now permits patients and physicians to routinely obtain testing for panels of a million or more common DNA sequence variations (SNPs). These results may be associated with increased or decreased risk for a number of common diseases (or a variable response to selected medications), which has generally led to many more questions than answers. This rapidly changing landscape will present major challenges for the practicing physician. The presenters will provide an overview of how this technology has developed and what the future might look like from the perspectives of stakeholders such as biotech companies, basic scientists, clinicians, and patients. Using specific examples relevant to hematology, an evidence-based approach to the incorporation of currently available genetic testing into clinical practice will be proposed. Emphasis will be placed on how genetic information fits in with other important “bedside” characteristics in the ultimate management of an individual patient.

## Interrupting Anticoagulant or Antiplatelet Therapy: Is Bridging Treatment Needed?

MONDAY, DECEMBER 6, 10:30 A.M. – 12:00 NOON

### CO-CHAIRS:

Peter B. Berger, MD, Geisinger Clinic, Danville, PA  
*Interrupting Antiplatelet Therapy*

David M. Keeling, MD, Oxford Haemophilia and Thrombosis Centre, Oxford, United Kingdom  
*Interrupting Anticoagulant Therapy*

Patients are usually taking anticoagulants to prevent stroke in atrial fibrillation, stroke or valve thrombosis in patients with mechanical heart valves, or recurrent venous thromboembolism in patients with a previous deep-vein thrombosis or pulmonary embolism. Anticoagulation vitamin K antagonists may need to be temporarily withdrawn so that surgery or an invasive procedure can take place. Whether perioperative full-therapeutic dose heparin (bridging therapy) needs to be given when the international normalized ratio is sub-therapeutic is controversial. This depends on the risk of bleeding due to the nature of the invasive procedure and on the risk of thrombosis off anticoagulation. These risks will be assessed and practical advice given as to how to manage these patients in the perioperative period. Also, many patients require unanticipated invasive procedures in the months after receiving coronary stents. Many require cessation of aspirin, clopidogrel, or both; yet both are required to prevent stent thrombosis. When stent thrombosis occurs, about 40 percent of patients die; the remainder suffer a large myocardial infarction. The risk of delaying surgery, or bleeding if surgery is performed on antiplatelet therapy, must be balanced against the risk of stent thrombosis if surgery is performed and antiplatelet therapy is interrupted. We will review the period of risk after bare and drug-eluting stents and the data regarding bridging therapy. We will also review the risk of bleeding if surgery is performed on antiplatelet therapy and how the risk of post-operative thrombosis can be reduced when surgery does require cessation of antiplatelet therapy.



### DNA-Repair Pathways: Cancer Syndromes to Novel Therapies

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MONDAY, DECEMBER 6, 2:45 P.M. – 4:15 P.M.

#### CO-CHAIRS:

Alan D. D'Andrea, MD, Dana-Farber Cancer Institute, Boston, MA

Michael B. Kastan, MD, PhD, St. Jude Children's Research Hospital, Memphis, TN

Conventional anticancer therapy (chemotherapy and radiation) kills tumor cells by causing DNA damage. Tumors differ in their response to these agents, at least in part, through their variable levels of DNA-repair activity. Human tumor cells have six independent DNA-repair pathways, including base-excision repair (BER), nucleotide-excision repair (NER), homologous recombination (HR), mismatch repair (MMR), non-homologous endjoining (NHEJ), and translesion DNA synthesis (TLS). Here, we will discuss the six major DNA-repair pathways found in human tumors, the relevant inherited cancer syndromes, the available biomarkers for assessing these pathways, and the emerging class of drugs referred to as DNA-repair inhibitors. These inhibitors, including those that target PARP or the ATM protein kinase, block DNA-repair pathways and can enhance the sensitivity of tumor cells to conventional therapy. Dr. Alan D'Andrea will discuss the Fanconi anemia/BRCA pathway and its synthetic lethal relationship with other DNA-repair mechanisms. Pharmacologic modulation of this pathway has led to novel therapies for cancer and for bone marrow failure. Dr. Michael Kastan will review another critical DNA-damage-response pathway, the ATM-p53 pathway. This pathway presents opportunities for development of novel anticancer agents, including potential approaches for both radiosensitization and radiation- or chemo-protection. As with the Fanconi anemia/BRCA pathway, the concept of "synthetic lethality" may also apply to this signaling pathway – thus, targeting these pathways could lead to preferential killing of tumor cells based on the genetic or microenvironmental abnormalities in the tumors.

### Ongoing Challenges in Imaging in Lymphoma

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MONDAY, DECEMBER 6, 2:45 P.M. – 4:15 P.M.

#### CO-CHAIRS:

Bruce D. Cheson, MD, Georgetown University Hospital, Lombardi Comprehensive Cancer Center, Washington, DC  
*The Role of PET Imaging in Lymphoma*

Sigrid Stroobants, MD, PhD, Katholieke Universiteit Leuven, Leuven, Belgium  
*Too Much or Too Little: Follow-Up of Lymphoma and the Risk of CT-Induced Cancers*

Despite hundreds of publications, the role of FDG-PET in the management of patients with lymphoma remains to be defined. Because PET is more sensitive and specific than other imaging modalities, it has been proposed to complement or even replace current staging. However, several histologic subtypes are not routinely FDG avid; stage is changed in fewer than 30 percent of patients, with therapy altered in a smaller fraction. Numerous papers suggest that PET scan during or following therapy predicts outcome and can be used to alter treatment. A number of risk-adapted protocols are actively accruing patients in which treatment is altered after one or more cycles of therapy based on PET results to augment treatment in PET-positive patients while limiting therapy in those likely to have a favorable outcome. Until the results of trials are available, routine use of PET imaging during treatment outside the context of a trial cannot be recommended. Finally, PET is often used as surveillance during patient follow-up, with no indication that it identifies relapse earlier than other measures. However, PET is valuable in distinguishing fibrosis from active lymphoma and, thus, has been incorporated into the revised response criteria. It is the technique of choice for restaging curable lymphomas, sparing patients unnecessary expense and radiation. The increasing use of serial PET/CT scans in the management of malignancy scanning is accompanied by substantial radiation dose and associated cancer risk, especially in younger patients. Risk-benefit ratios should be carefully weighed prior to every study, especially when clinical utility is less well established. Furthermore, PET/CT scanning protocols should be optimized to minimize dose while maintaining diagnostic utility.