

2012 SPP Spring Meeting Workshops

Learning Objectives

Workshop A – Selected Rare Tumors in the Pediatric Population

John Hicks, MD, PhD, Texas Children's Hospital, Houston, TX.

Upon completion of this workshop, participants should be able to:

- Develop an appropriate differential diagnosis for rare pediatric tumors based upon clinical, diagnostic imaging and histopathologic features.
- Determine ancillary histochemical, immunocytochemical, molecular pathology and clinically relevant additional studies to provide a definitive diagnosis, predict prognosis and direct clinical therapy.
- List guidelines for the diagnosis of rare pediatric tumors.
- Describe the pathogenesis of rare pediatric tumors and the relationship to diagnosis, treatment and prognosis.

Workshop B – Pediatric Neuropathology Update

Brian Harding, MD, Alexander R. Judkins, MD, Mariarita Santi, MD, PhD, Children's Hospital of Philadelphia, Philadelphia, PA.

Upon completion of this workshop, participants should be able to:

Neurometabolic disease (Dr. Harding):

- Describe the principal pathologic features of the main mitochondrial disorders affecting the CNS.
- Discuss the differential diagnosis of dysmyelinating disease in childhood.
- Diagnose CNS mitochondrial and pediatric dysmyelinating disease and discuss their pathogenic mechanisms to enable clinical teams to provide optimal genetic counseling to the family.

CNS embryonal tumors (Dr. Judkins):

- Describe key developments in the molecular characterization of embryonal CNS tumors.
- Describe the histopathological features associated with these changes.
- Discuss the use of key molecular test or data relevant to embryonal CNS tumors.

Muscle diseases (Dr. Santi):

- List the techniques applied to muscle biopsy.
- Describe the characteristic morphological features of most common forms of congenital myopathies such as nemaline rod myopathy.
- List causative gene defects identified for most of the common forms of congenital myopathies.
- List appropriate molecular analyses workup upon combined clinical and pathological assessment.

Workshop C – Molecular Biology – An Introduction to the Conventional and New Diagnostic Tests

Luc Oligny, MSc, MD

CHU Sainte-Justine, Montreal, Quebec, Canada

Upon completion of this workshop, participants should be able to:

- Describe each of these techniques.
- Explain the utility of each of these techniques.
- Choose the best technique, depending on the material received and the answers sought.
- Explain the shortcomings of each of these techniques, including common artifacts.

Workshop D – Gestational Trophoblastic Disease

Debra Heller, MD, New Jersey Medical School, Newark, NJ.

Upon completion of this workshop, participants should be able to:

- Associate the current pathological classification and know how it relates to the clinical classifications, staging
- and grading of trophoblastic disease.
- Interpret histopathologic criteria and utilize immunohistochemistry in diagnosing GTD.
- Describe newer diagnostic modalities in distinguishing early hydatidiform moles from their mimics.
- Relate criteria for the diagnosis of problematic lesions such as placental site nodule and exaggerated placental site.

Workshop E – Peripheral Neuroblastic Tumors in Children: An Update

Hiroyuki Shimada, MD, PhD, Children's Hospital of Los Angeles, CA. Bruce R. Pawel, MD, Children's Hospital of Philadelphia, Philadelphia, PA.

Upon completion of this workshop, participants should be able to:

- Diagnose peripheral neuroblastic tumors and describe morphologic features and ancillary techniques applicable to resolving questions of differential diagnosis.
- Properly classify ganglioneuromas, ganglioneuroblastomas, and neuroblastomas, and assign a favorable or unfavorable histology according to the criteria of the International Neuroblastoma Pathology Classification.
- Describe recent, molecular-genetic advances that show promise in improving our understanding of the etiology and natural history of neuroblastoma.

Workshop F – Pediatric Thymus Pathology

Xiayuan Liang, MD and Mark A. Lovell, MD, The Children's Hospital, Denver, CO

Upon completion of this workshop, participants should be able to:

- Discuss age-related changes in thymic histology and function.
- Describe morphologic features of non-neoplastic lesions of the thymus and their underlying etiologies, mechanisms, and genetic defects.
- Diagnose and subclassify thymic epithelial neoplasms, and distinguish epithelial neoplasms from neoplasms of other cell origin using immunohistochemical, flow cytometric, cytogenetic, and molecular techniques.