

**SALZBURG CHOP SEMINARS**

**Pediatrics – 3-Year Curriculum**

YEAR 1 (i.e. 2015, 2018, 2021, 2024)

**Module I**

Course Directors: [Susan W. Levy, MD](#), [Claudia Klier, MD](#)  
Faculty: [Nathan J. Blum, MD](#), [Catherine Riley, MD](#), [Mary Pipan, MD](#)

**Core Area:** Behavioral Pediatrics and Child Development

Subdivisions of Core Area:

1. Prematurity: Impact on Development and Behavior
2. Cerebral Palsy: Diagnosis and Treatment
3. Autism Spectrum Disorders (ASD): Overview and Diagnosis
4. Autism Spectrum Disorders (ASD) Treatment and Controversies
5. Complementary & Alternative Medical (CAM) Treatments in Developmental Disabilities
6. Mood and Anxiety Disorders
7. Workshop: Diagnostic Dilemmas (Fellows Case Presentations)
8. Principles of Developmental and Behavioral Pediatrics
9. Screening and Developmental Assessment
10. Developmental Delay and Intellectual Disability
11. Sleep Disruptions and Disorders
12. Elimination Disorders
13. Workshop Case Presentations by Faculty to Fellows
14. Language and Learning Disorders
15. Sensory Impairment: Visual and Hearing Loss
16. Attention-Deficit Hyperactivity Disorders (ADHD) Diagnosis and Treatment
17. Psychopharmacology for Children with Developmental Disabilities
18. Early Infant Development
19. Genetic Disorder and Associated Developmental Disabilities
20. Down Syndrome
21. Behavioral Management-Part I and Part II

## Module II

Course Directors: [Shobha Natarajan, MD](#), [Jörg Ingolf Stein, MD](#)

Faculty: [Andrew Glatz, MD](#), [Christine Falkensammer, MD](#), [Chitra Ravishankar, MD](#), [Christian Meierhofer, MD](#)

**Core Area:** Pediatric Cardiology

Subdivisions of Core Area:

1. Introduction to Congenital Heart Diseases
2. Diagnostic Catheterization
3. Pediatric Echocardiography
4. Assessment and Treatment of Rhythm Abnormalities
5. Shunt Lesions (ASD, VSD, and more)
6. Catheter-Based and Surgical Therapies for Shunt Lesions
7. Tetralogy of Fallot & Truncus Arteriosus
8. Pulmonary Atresia/Intact Ventricular Septum
9. Fetal Cardiology
10. Management of Heart Disease in the Fetus
11. Single Ventricle Heart Defects in the Neonate
12. Fontan Physiology: Short & Long-Term Outcome
13. Tricuspid & Mitral Valve Abnormalities
14. Chest Pain & Syncope
15. Cardiovascular Risk Assessment in Children
16. Adult Congenital Heart Disease
17. Aortic Valve & Arch Anomalies
18. Coronary Artery Anomalies
19. Pulmonary Hypertension
20. Cardiomyopathy
21. Cardiac MRI

## Module III

Course Directors: [Louis M. Bell, MD](#), [Reinhold Kerbl, MD](#)

Faculty: [Carol A. Ford, MD](#), [Gerhard Köstl, MD](#), [Philip V. Scribano, DO, MSCE](#), [Katherine Yun, MD](#)

**Core Area:** General Pediatrics

Subdivisions of Core Area: TBA

## Module IV

Course Directors: [Sudha Anupindi, MD](#), [Erich Sorantin, MD](#)  
Faculty: [Nancy Chauvin, MD](#), [Ann Johnson, MD](#), [Andrew Mong, MD](#)

**Core Area:** Pediatric Radiology

Subdivisions of Core Area:

1. Imaging of Common Pediatric Musculoskeletal Diseases
2. Imaging of Normal Anatomy & Variants
3. Imaging of Trauma, Child Abuse & Infections
4. Imaging of Tumors with a Focus on Radiographs, CT and MRI
5. Systematic Review of the Interpretation of X-Rays in Children with Cyanotic and Acyanotic Heart Diseases
6. How to Perform and Interpret Cardiac CT
7. Introduction to Cardiac MRI.
8. Systematic Approach to Cong Heart Disease
9. Cong Heart Disease Role of CXR
10. CMRI & cCT Basics and Pitfalls
11. Imaging of Pulmonary Hypertension
12. Cardiac CT Made Simple: How I Do It
13. Radiology of the Battered Child Syndrome
14. Common Fractures: The Child Who Falls
15. Normal Pediatric Skeleton & Mimickers of Disease
16. Bone Infections
17. Upper Extremity Trauma
18. Lower Extremity Trauma
19. Developmental Abnormalities of the Hip and Shoulder
20. Benign Bone Tumors
21. Malignant Bone Tumors
22. MSK Ultrasound
23. Imaging of Arthritis: Multimodality Approach

## Module V

Course Directors: [Phyllis Dennery, MD](#), [Berndt Urlsberger, MD](#)  
Faculty: [Kevin Dysart, MD](#), [Nadja Haiden, MD](#), [Karen Puopolo, MD, PhD](#), [Huayan Zhang, MD](#)

**Core Area:** Neonatology

Subdivisions of Core Area:

1. Neonatal Jaundice
2. Limits of Viability
3. Late Preterm
4. Neonatal Shock
5. HIE/Cooling
6. Neonatal Nutrition
7. Parenteral Nutrition
8. NEC
9. Sepsis/Nosocomial Infections
10. ROP
11. Quality Measures
12. Physiology of Neonatal Transition

13. Neonatal Seizures / Amplitude-integrated EEG [aEEG]
14. Oxygen Use in the NICU
15. PPHN
16. RDS
17. Lung Protective Ventilation to Prevent BPD

## Module VI

Course Directors: [Thomas Kolon, MD](#), [Josef Oswald, MD, FEAPU](#)  
Faculty: [Christoph Berger, MD, FEAPU, FEBU](#), [Arin K. Srinivasan, MD](#), [Dana A. Weiss, MD](#)

**Core Area:** Pediatric Urology  
Subdivisions of Core Area: TBA

YEAR 2 (i.e. 2016, 2019, 2022, 2025)

## Module VII

Course Directors: [Julian Allen, MD](#), [Ernst Eber, MD](#)

**Core Area:** Pediatric Pulmonology  
Subdivisions of Core Area:

1. Cystic Fibrosis
2. RSV/Bronchiolitis
3. Chronic lung Disease of Infancy
4. Sleep Disorders
5. Pulmonary Function Testing: Infant, Pre-School
6. Pulmonary Function Testing: Older Children and Adult
7. Non-Invasive Ventilation
8. Pulmonary Complications of Neuromuscular Disorders: Asthma- Pulmonology Perspective
9. Asthma-Allergy Perspective
10. Physiology-Clinical Applications
11. Congenital Lung Disorders
12. Exercise Testing/6 Minute Walk Test
13. Lung Transplantation
14. Noisy Breathing
15. Recurrent Pneumonia
16. Interstitial Lung Disease
17. Allergy
18. Chest Physiotherapy

## Module VIII

Course Directors: Daniela H. Davis, MD, MSCE, Siegfried Rödl, MD

Faculty: Donald Boyer, MD, MEd, Frank McGowan, MD, Alexis Topjian, MD, MSCE, Kate Madden, MD, MMSc

**Core Area:** Pediatric Anesthesiology

Subdivisions of Core Area:

1. Circulatory Shock
2. Septic Shock
3. Acute Lung Injury
4. Advanced Ventilatory Strategies
5. ECMO
6. Cardiac Arrest and Resuscitation
7. Ventilator-Associated Pneumonia
8. Deep Vein Thrombosis
9. Quality and Safety in the PICU
10. Brain Death
11. 2010 PALS Guideline Changes
12. Renal Replacement Therapies
13. Traumatic Brain Injury
14. Nosomial Infections in the PICU
15. Pulmonary Hypertension
16. Burns

## Module IX

Course Directors: Kathleen Taub, MD, Barbara Plecko, MD

**Core Area:** Pediatric Neurology

Subdivisions of Core Area:

1. Tutorial on Pediatric Electroencephalography
2. Neurogenetics: Neuromuscular disease, Mental Retardation, Diseases that Affect Neurotransmitter Synthesis
3. Head Trauma and Management of Increased Intracranial Pressure
4. Childhood Cerebrovascular Disease
5. Pediatric Multiple Sclerosis

## Module X

Course Directors: [James Callahan, MD](#), [Burkhard Simma, MD](#)

**Core Area:** Pediatric Emergency Medicine

Subdivisions of Core Area:

1. Emergency Airway Management
2. Respiratory Emergencies
3. Management of Shock
4. Evaluation of Febrile Children
5. Seizures
6. Abdominal Pain
7. Acute Multisystem Trauma & Minor Trauma
8. Orthopedics
9. Radiology

## Module XI

Course Directors: [Chris Liacouras, MD](#), [Almuthe Hauer, MD](#)

**Core Area:** Pediatric Gastroenterology

Subdivisions of Core Area:

1. Celiac disease
2. Gastroesophageal reflux
3. Eosinophilic Esophagitis
4. Inflammatory Bowel Disease
5. Constipation
6. Gastrointestinal bleeding
7. Gastrointestinal technology (Endoscopy, Manometry, Video Capsule, Bleeding Intervention)
8. Neonatal Jaundice
9. Liver Failure
10. Cystic Fibrosis
11. Malabsorption
12. Food Allergy
13. Pathology of the gastrointestinal tract
14. Foreign Bodies
15. Viral Hepatitis
16. Metabolic Liver Disease
17. Gastrointestinal Polyps
18. Cyclic Vomiting
19. Short Gut
20. Pancreatitis
21. Fatty Liver

## Module XII

Course Directors: [Sandy Burnham, MD](#), [Franz Grill, MD](#)

**Core Area:** Pediatric Orthopedics

Subdivisions of Core Area: TBA

YEAR 3 (i.e. 2017, 2020, 2023, 2026)

### Module XIII

**Core Area:** Pediatric Infectious Diseases

Subdivisions of Core Area:

1. Infections Due to Unusual and Antibiotic-Resistant Organisms
2. Infections in Vulnerable Patient Populations
3. Prevention of Healthcare-Associated Infections
4. Vaccines and Vaccine-Preventable Diseases

### Module XIV

**Core Area:** Pediatric Immunology

Subdivisions of Core Area:

1. Anaphylaxis
2. Atopic Dermatitis: Pathogenesis and Management
3. Atopic Dermatitis and Immunodeficiency
4. Hematopoietic Stem Cell Transplantation: Expanding Use in Immunodeficiency
5. Testing for Environmental Allergens
6. Food Allergy Review: IgE Mediated & Non-IgE Mediated.
7. State of the Art in Food Allergy Therapies
8. Overview of Eosinophilic Esophagitis
9. Immunology Overview
10. Disorders of Adaptive Immunity
11. Disorders of Innate Immunity
12. Immunodeficiency Cases
13. Wheezing in Preschool Children
14. Management of Chronic Asthma: Review of Guidelines
15. Management of Difficult to Control Asthma
16. Spirometry in Children
17. Allergy: Epidemic of the 21st Century?
18. Allergen Immunotherapy in Children: The European Viewpoint
19. Venom Allergy in Children
20. Urticaria in Children: Need for a Pediatric Allergist

### Module XV

**Core Area:** Pediatric Emergency Medicine

Subdivisions of Core Area:

1. Pediatric Advanced Life Support
2. Emergency Management of the Pediatric Airway
3. Sepsis and Shock in Children
4. Asthma
5. Hypertensive Emergencies
6. Head Trauma in Children
7. Cervical Spine Injuries in Children
8. Abdominal Pain in Children and Adolescents

9. Seizures and Febrile Seizures in Children
10. Diabetic Ketoacidosis
11. Approach to Young Children with Fever
12. Urinary Tract Infections
13. Methemoglobinemia
14. Approach to Children with Heat Illness
15. Pediatric Eye Emergencies including Trauma
16. Gastrointestinal Foreign Bodies
17. Procedural Sedation and Analgesia
18. Drowning and Submersion Injuries
19. Tips of the Trade: Minor Procedures in the ED
20. Approach to Toxicological Emergencies
21. Child Abuse and Sexual Assault
22. Care of the Technology Dependent Child
23. The Year in Review: Impact Articles in PEM 2013
24. Simulation Exercises with High Fidelity Patient Simulators

## Module XVI

### Core Area: Pediatric Hematology/Oncology

Subdivisions of Core Area:

1. Acute Lymphoblastic Leukemia
2. Acute Myelogenous Leukemia
3. Lymphoma
4. Palliative Care
5. Brain Tumors
6. Approach to Anemia
7. Bone Marrow Failure
8. Transfusion Therapy/Iron Overload
9. Hemophilia and Bleeding Disorders
10. Thrombosis
11. ITP and Platelet Disorders
12. Malignant Bone Tumors
13. Malignant Soft Tissue Tumors
14. Neuroblastoma
15. Nephroblastoma
16. Bone Marrow Transplant

## Module XVII

### Core Area: Pediatric Endocrinology/Nephrology

Subdivisions of Core Area

1. Primary Hypertension/Obesity
2. Secondary Hypertension
3. SLE/Vasculitis
4. Transplantation
5. Glomerulonephritis
6. AKI
7. CDK/Dialysis
8. Tubular Disorders
9. Urinary Tract Infections
10. Obstructive Uropathy
11. Nephrotic Syndrome





12. Nephrolithiasis
13. Infection-Induced HUS
14. Non-Infection-Induced HUS
15. Renal Anemia
16. Growth Disorders
17. Disorders of Puberty
18. Thyroid Disorders
19. Pituitary Disease
20. Late Effects in Cancer Survivors
21. Adrenal Disease