# PEDIATRIC ENDOCRINE SOCIETY

## APRIL 25 - APRIL 28, 2015

SAN DIEGO CONVENTION CENTER
SAN DIEGO, CA

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<thead>
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<th>FRIDAY, APRIL 24</th>
<th>SUNDAY, APRIL 26</th>
<th>MONDAY, APRIL 27</th>
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<td>7:00pm–9:00pm</td>
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<tr>
<td><strong>PES President’s Poster Reception</strong></td>
<td><strong>PES Practice Workshop</strong></td>
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<tr>
<td></td>
<td>PES/SCAMPs®: Quality-Improvement Networking for Management of Endocrine Disorders</td>
<td>PES Drug &amp; Therapeutics Committee Update: Neoplasia Risk with GH Therapy / Inhaled Glucocorticoids</td>
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</tbody>
</table>

### SATURDAY, APRIL 25

7:00am–8:00am

**PES Meet the Professor**
- Type 1 Diabetes in Developing Countries - Dr. Holley Allen, Baystate Children’s Hospital, Springfield, MA
- Puberty in Obese Children - Dr. Ilene Fennoy, Columbia University, NY

8:00am–11:00am

**PES Plenary Session I**
- Business Meeting
- Lawson Wilkins Lecture
- Del Fisher History Lecture

11:15am–12:45pm

**PES Year In Review**
- Safety of GH Therapy - Dr. Bradley Miller, University of Minnesota
- Puberty - Dr. Sara Divall, Seattle Children’s Hospital
- Calcium - Dr. Linda DiMeglio, Riley Children’s Hospital, Indianapolis

1:15pm–2:30pm

**Poster Session I & PAS Opening Reception**
- Endocrinology Posters I

2:45pm–4:45pm

**Invited Science**
- Caring for Youth with Gender Dysphoria
- Case Discussions with the Experts: Management of Differentiated Thyroid Cancer in the Pediatric Patient, Highlighting the New Pediatric Thyroid Cancer Guidelines.

5:00pm–6:30pm

**PAS Opening General Session**
- Keynote Address
- Joseph St. Geme Leadership Award

7:00am–10:00am

**Invited Science**
- Bone Beyond Growth
- Neonatal Hypoglycemia: How Low Can You Go?

10:10am–11:50am

**APS Presidential Plenary and Awards**
- Safety of GH Therapy - Dr. Bradley Miller, University of Minnesota
- Puberty - Dr. Sara Divall, Seattle Children’s Hospital
- Calcium - Dr. Linda DiMeglio, Riley Children’s Hospital, Indianapolis

1:00pm–3:00pm

**March of Dimes Prize in Developmental Biology Lectures**
- Can I Get Some Growth Hormone?
- Saltwater: The Spectrum of Salt and Water Balance in Pediatrics

3:30pm–5:30pm

**Invited Science**
- Exercise and Diabetes
- Life in the Time of Whole Genome Sequencing
- New Developments in Childhood Malnutrition: Global Dynamics, Metabolomics, Microbiomics, and Therapy

5:45pm–7:30pm

**Poster Session III**
- Endocrinology Posters III

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5:45pm–7:30pm

**Poster Session III**
- Endocrinology Posters III
Join us in San Diego, where the Pediatric Endocrine Society (PES) and the Pediatric Academic Societies (PAS) will host tightly aligned annual meetings. PES programming will be held at the San Diego Convention Center and includes the plenary, mini symposia, business meeting, presentations by award winners, fellows’ seminar, and original science presentations.

Registration Information
There will be a single registration fee for the PES/PAS meeting set at the PAS registration fee schedule. This fee allows participants to attend all PES and PAS functions.

Continuing Education
Continuing Education Credit is available through the PAS. See page 373 for complete information.

FRIDAY, APRIL 24

7:00pm–9:00pm
0575A  PES President’s Poster Reception
Hilton Bayfront Hotel - Aqua Salon ABC

7:30  AAP and PES Leona Cuttler Award
Allison Smego, Cincinnati Childrens Hospital Medical Center, Cincinnati, OH

7:40  Human Growth Foundation Award
Ovidiu Adrian Galescu, National Institutes of Health, Bethesda, MD

SATURDAY, APRIL 25

7:00am–8:00am
1045A  Meet the Professor: Puberty in Obese Children
PES Meet the Professor
San Diego Convention Center - 30A
Ilene Fennoy, Columbia University Medical Center, New York, NY

7:00am–8:00am
1050A  Meet the Professor: Type 1 Diabetes in Developing Countries
PES Meet the Professor
San Diego Convention Center - 33ABC
Holley F. Allen, Baystate Medical Center, Springfield, MA

8:00am–11:00am
1225A  PES Plenary Session I, Business Meeting
PES Symposium
San Diego Convention Center - 33ABC
Target Audience: Pediatric Endocrine Society members and other interested individuals.

Objectives:
- Understand the different approaches to the prepubertal gender non-conforming child

Chair: Mitchell Geffner, Children’s Hospital Los Angeles, Los Angeles, CA

9:05  Clinical Scholar Awardee
Lily Chao, Children’s Hospital Los Angeles, University of Southern California, Los Angeles, CA

9:15  Clinical Scholar Awardee
Janet Crane, Johns Hopkins University SOM, Baltimore, MD

9:25  Clinical Scholar Awardee
Natalie D. Shaw, Children’s Hospital Boston, Boston, MA

9:35  The ABCs of DSD: Changing and Unchanging Perspectives Regarding Intersex in the Last Half Century
Peter A. Lee, The Milton S. Hershey Medical Center, Hershey, PA

10:25  Fisher History Lecture: Tissue-Specific Hypothyroidism: A History of Identification, Characterization and Treatment
Samuel Refetoff, University of Chicago, Chicago, IL

11:15am–12:45pm
1425A  PES Year in Review: Safety of GH Therapy, Puberty & Calcium
PES Special Symposium
San Diego Convention Center - 33ABC

11:15  Safety of GH Therapy
Bradley S. Miller, University of Minnesota Amplatz Childrens Hospital, Minneapolis, MN

11:45  Puberty
Sara DiVall, Seattle Childrens Hospital, Seattle, WA

12:15  Calcium
Linda Anne DiMeglio, Indiana University School of Medicine, Indianapolis, IN
1:00pm–4:00pm

Posters Available for Viewing
San Diego Convention Center, Exhibit Hall F

Posters Available for Viewing: 1:00pm–4:00pm
Author Attendance and Opening Reception: 1:15pm–2:30pm

1:15pm–2:30pm

Poster Session I and Opening Reception
San Diego Convention Center, Exhibit Hall F

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<td>1518</td>
<td>Growth I</td>
<td>133-139</td>
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<tr>
<td>1519</td>
<td>Growth II</td>
<td>140-146</td>
</tr>
<tr>
<td>1520</td>
<td>Gonads/Reproduction</td>
<td>147-156</td>
</tr>
<tr>
<td>1521</td>
<td>Calcium &amp; Bone I</td>
<td>157-166</td>
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<tr>
<td>1522</td>
<td>Calcium &amp; Bone II</td>
<td>167-174</td>
</tr>
<tr>
<td>1523</td>
<td>Puberty</td>
<td>175-180</td>
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</tbody>
</table>

Refer to PAS Daily Programming for complete details.

2:45pm–4:45pm

1615 Caring for Youth with Gender Dysphoria
PAS Hot Topic
San Diego Convention Center - 30B

Target Audience: Clinicians involved in the care of children and adolescents with gender dysphoria including psychologists, pediatric endocrinologists, adolescent medicine specialists, and general pediatricians.

Objectives:
– To be able to define gender dysphoria and identify a patient who may need diagnostic evaluation
– To learn the psychological outcomes of adolescents with gender dysphoria undergoing endocrine therapy vs. those who are not
– To describe therapy protocols for puberty suppression and cross-sex hormones, potential adverse effects, and surgical options for transitioning patients

Chairs: Ximena Lopez, University of Texas Southwestern Medical Center, Dallas, TX, May Lau, University of Texas Southwestern, Dallas, TX

The recognition and diagnosis of children and adolescents with gender dysphoria has increased over the last several years, and endocrine therapy starting in adolescence has been adopted as standard of care by the Endocrine Society and Pediatric Endocrine Society. A growing number of clinicians, including pediatricians, adolescent medicine specialists, and endocrinologists are providing care for these children, signifying the importance of multidisciplinary discussions and collaborations. Moreover, care for these children and adolescents require close collaboration with mental health providers who make the diagnosis of gender dysphoria. Management of these children and adolescents is complex, new to most pediatricians, and controversial to many both in the health care realm and in the community. This session will enable clinicians to review the basics and understand the intricacies, challenges, and dilemmas of managing patients with gender dysphoria, and an opportunity for a multidisciplinary discussion with pediatric endocrinologists, adolescent medicine specialists, and psychologists.

2:45 Overview of Gender Dysphoria in Children and Adolescents
Amy C. Tishelman, Boston Children’s Hospital, Boston, MA

3:00 Psychological Functioning Outcomes of the “Dutch Protocol”: Endocrine Therapy Starting in Adolescence
Annelou L.C. de Vries, VU University Medical Center, Amsterdam, Netherlands

3:30 Therapy Protocol for Suppression of Puberty and Potential Adverse Effects
Stephen M. Rosenthal, UCSF, San Francisco, CA
5:00  PAS Welcome
D. Michael Foulds, Professor, Division of General Pediatrics, University of Texas Health Science Center at San Antonio, San Antonio, TX and 2015 PAS Program Chair

5:05  Introduction of Joseph W. St. Geme, Jr. Leadership Award*
Donna M. Ferriero, W.H. and Marie Wattis Distinguished Professor and Chair, Department of Pediatrics, Physician-in-Chief UCSF Benioff Children’s Hospital-SF, San Francisco, CA
President, American Pediatric Society

5:35  Introduction of Inaugural Debbie Anagnostelis Keynote Address
Donna M. Ferriero, W.H. and Marie Wattis Distinguished Professor and Chair, Department of Pediatrics, Physician-in-Chief UCSF Benioff Children’s Hospital-SF, San Francisco, CA
President, American Pediatric Society

5:45  “Seven Great Pediatric Research Achievements of the Past 40 Years” Video and Introduction of Keynote Speaker
D. Michael Foulds, Professor, Division of General Pediatrics, University of Texas Health Science Center at San Antonio, San Antonio, TX and 2015 PAS Program Chair

5:55  Inaugural Debbie Anagnostelis Keynote Address: Genes, Genomes and the Future of Medicine
Richard P. Lifton, Chair, Department of Genetics, Sterling Professor of Genetics and Internal Medicine, Executive Director of the Yale Center for Genome Analysis and Investigator of the Howard Hughes Medical Institute, Yale University School of Medicine, New Haven, CT

*S The Joseph W. St. Geme, Jr. Leadership Award is presented by the Federation of Pediatric Organizations on behalf of the Academic Pediatric Association, American Academy of Pediatrics, American Board of Pediatrics, American Pediatric Society, Association of Medical School Pediatric Department Chairs, Association of Pediatric Program Directors and Society for Pediatric Research.

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7:00  Introduction: Mission and Vision and How We Got Here
Morey W. Haymond, Baylor College of Medicine, Houston, TX

7:10  Overview of a SCAMP – What Is the Methodology
Erinn Thoyer Rhodes, Boston Children’s Hospital, Boston, MA

7:20  Elements of a SCAMP
Robert L. Rosenfield, University of Chicago, Chicago, IL

7:30  PES Website and Other Support for Your Participation
Karen Rubin, Connecticut Children’s Medical Center, Hartford, CT

7:40  PES Website and Other Support for Your Participation
Siri Atma W. Gereele, University of Chicago, Chicago, IL

8:00am–10:00am

2100A  Bone Beyond Growth
PES Topic Symposium
San Diego Convention Center - 28E

Target Audience: Scientists and clinicians who wish to understand new concepts in the relationships between the skeletal system and other organs or systems. This session will appeal to translational investigators, general pediatricians, and pediatric specialists particularly endocrinologists, nephrologists, and immunologists.

Objectives:
- Understand how the skeletal system interacts with other organs or systems
- Understand the scope of factors involved in skeletal metabolism
- Develop an understanding of the clinical implications associated with disordered skeletal metabolism

Leaders: Patricia M. Vuguin, Cohen Children’s Hospital, Lake Success, NY, Dennis E. Carey, Cohen Children’s Medical Center, Lake Success, NY

It has only recently been appreciated that the skeletal system has major interactions with other organs such as the immune system, pancreatic islet cells and fat depots. This symposium will bring together a group of leading scientists that will provide novel information on “skeletal system cross talk” with other organs to regulate bone metabolism and vice versa. Clinical implications such as impact on acquisition and maintenance of bone mineral density, seasonal bone growth, osteoporosis, and diabetes will be discussed.

8:00  Osteoimmunology: A New Science?
Matthew Greenblatt, Brigham and Women’s Hospital, Boston, MA

8:40  The Bone-Fat Connection: Takes 2 To Tango
Clifford Rosen, Maine Medical Center Research institute, Scarborough, ME
8:00am – 10:00am

**2115 Neonatal Hypoglycemia: How Low Can You Go?**

PAS Topic Symposium
San Diego Convention Center - 33ABC

Target Audience: Clinical and academic general pediatricians and pediatric subspecialists, including endocrinologists and neonatologists.

Objectives:
– Identify newborns infants that require more comprehensive evaluation to rule out persistent hypoglycemia before being discharged
– Better assess and manage newborn infants with hypoglycemia
– Understand the evidence linking hypoglycemia and neurodevelopmental outcome in infants with hypoglycemia

Chairs: Joseph I. Wolfsdorf, Boston Children’s Hospital, Boston, MA, Charles A. Stanley, Children’s Hospital of Philadelphia, Philadelphia, PA

Glucose is the predominant fuel for the brain and neuronal survival depends on its continuous supply. Recurrent episodes of hypoglycemia during the period of rapid brain growth and development can lead to long-term developmental disability and seizures. Therefore, prevention and timely effective treatment of hypoglycemia as well as prompt diagnosis of the underlying etiology are essential to prevent the potentially devastating long-term consequences of hypoglycemia.

8:00 Neonatal Hypoglycemia: Historical Perspective
Charles A. Stanley, Children’s Hospital of Philadelphia, Philadelphia, PA

8:00 Epidemiology, Clinical and Pathologic Characteristics, Prevention and PICU Care
James D. Cherry, Mattel Children’s Hospital, UCLA, Los Angeles, CA

8:05 Recent Pertussis Epidemiology in California With Particular Attention To Infants <4 Months of Age
Kathleen T. Winter, California Department of Public Health, Richmond, CA

8:10 Neonatal Hypoglycemia: Overview and Summary of New PES Management Guidelines
Paul S. Thornton, Cook Children’s Medical Center, Fort Worth, TX

8:30 Mechanisms of Infection and Pathophysiology of B. pertussis Infection
James D. Cherry, Mattel Children’s Hospital, UCLA, Los Angeles, CA

8:45 Managing Blood Sugars in the NICU: A Neonatologist’s Perspective
Paul Rozance, University of Colorado, Aurora, CO

9:20 Neonatal Hypoglycemia and Neurodevelopmental Outcomes
Diva D. De Leon, The Children’s Hospital of Philadelphia/Univ of Pennsylvania, Philadelphia, PA

10:00am – 12:00pm

**2315 Endocrinology I: Basic**
Platform
San Diego Convention Center - Room 33ABC

Chairs: TBD

Refer to PAS Daily Programming for complete details.

12:30pm – 4:00pm

**2500 AAP Presidential Plenary and Annual Silverman Lecture**
San Diego Convention Center - Ballroom 20BC

1:00pm – 3:00pm

**2555 Go Gonads! Fertility Preservation in Children and Adolescents**

PAS Topic Symposium
San Diego Convention Center - 32AB

Target Audience: Clinical and academic general pediatricians and pediatric subspecialists, including endocrinologists, oncologists, geneticists, and adolescent medicine specialists.

Objectives:
– Participants will have an understanding of the genetics of ovarian and testicular differentiation
– Participants will be aware of current fertility preservation techniques available for females
– Participants will be aware of current fertility preservation techniques available for males

Chairs: Lawrence A. Silverman, Goryeb Children’s Hospital / Atlantic Health System, Morristown, NJ, Laurie E. Cohen, Boston Children’s Hospital, Boston, MA

Children and adolescents with several different syndromes, diseases, or treatments are at risk for infertility, including girls with Turner syndrome, boys with Klinefelter syndrome, and children of both sexes who are survivors of childhood cancer. Recent advancements, such as micro-TESE in boys and oocyte cryopreservation in girls, have lowered the age at which fertility preservation techniques can be utilized. This symposium will provide up-to-date knowledge as to how the gonads develop and what makes an ovary fail; and information about fertility preservation techniques for both females and males to educate pediatric practitioners on new and potential future modalities for their patients. Ethical considerations will also be discussed.

1:00 The Genetics of Ovarian and Testicular Differentiation
Eric Vilain, UCLA, Los Angeles, CA

1:40 Fertility Preservation in Females
Clarisa Gracia, University of Pennsylvania, Philadelphia, PA

2:20 Fertility Preservation in the Male: A New Clinical Paradigm
Robert E. Brannigan, Northwestern University, Feinberg School of Medicine, Chicago, IL

Cosponsored by the Pediatric Endocrine Society, Society for Adolescent Health and Medicine and the Pediatric Academic Societies
Verification to be able to provide council and support to their patients. There are

Physicians should be aware of current policy and controversies regarding gender

Pediatricians care for child athletes who may become elite competitors in sport.

Objectives:
– Learn to recognize and treat monogenic diabetes (MODY)
– Understand the screening recommendations and management of cystic
fibrosis related diabetes (CFRD) and its affect on patient outcomes
– Formulate a treatment plan for medication-induced diabetes (glucocorticoids,
prograf, etc)

Chairs: Pallavi Iyer, All Children’s Hospital, Saint Petersburg, FL, Dorothy J.
Becker, Childrens Hospital of Pittsburgh of UPMC, Pittsburgh, PA

Hyperglycemia beyond type 1 and type 2 diabetes mellitus plays an important
role in the management of other acute and chronic diseases. The management
of blood glucose in these “other” forms of diabetes is challenging but has
significant impact on patient outcomes. The goal of this symposium is to review
pathophysiology and management of these “other” forms of diabetes.

1:00 Next-Gen Diabetes Care: A Clinical Update on MODY and Other Forms of
Monogenic Diabetes
Siri Atma W. Greeley, Comer Children’s Hospital, University of Chicago,
Chicago, IL

1:40 Cystic Fibrosis-Related Diabetes
Antoinette Moran, University of Minnesota, Minneapolis, MN

2:20 Medication-Induced Diabetes
David Roy Repaske, Nationwide Children’s Hospital, Columbus, OH

3:30pm–5:30pm

Obesity & Disordered Eating - I
Platform – Room 30E

Chairs: Allison Gorman and Mary Jo Messito

Refer to PAS Daily Programming for complete details.

3:30pm–5:30pm

PES Ethics Symposium: Controversies Regarding
“Gender Verification” of Elite Female Athletes: Sex
Testing to Hyperandrogenism
PES Special Symposium
San Diego Convention Center - 33ABC

Target Audience: Clinical and academic general pediatricians and pediatric
subspecialists, including endocrinologists, geneticists, adolescent medicine
and sports medicine physicians.

Objectives:
– Be familiar with the history and rationale of the gender verification at the
Olympic games
– Know the current IOC policy for gender verification to participate in
Olympic competition
– Understand the controversies surrounding this policy, particularly as it
relates to elite female athletes

Chairs: Jill Lindsey Brodsky, The Mid-Hudson Medical Group, Poughkeepsie,
NY, and Myron Genel, Yale Child Health Research Center, New Haven, CT

Pediatricians care for child athletes who may become elite competitors in sport.
Physicians should be aware of current policy and controversies regarding gender
verification to be able to provide council and support to their patients. There are
4:15pm–7:30pm

**Posters Available for Viewing**
San Diego Convention Center, Exhibit Hall F

Posters Available for Viewing: 4:15pm–7:30pm
Author Attendance: 5:45pm–7:30pm

5:45pm–7:30pm

**Poster Session II**
San Diego Convention Center, Exhibit Hall F

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<td>Type I Diabetes I</td>
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Refer to PAS Daily Programming for complete details.

**MONDAY, APRIL 27**

7:00am–8:00am

**3050 Pediatric Policy Council Breakfast Session: The Political Landscape of the Midterm Elections: How Will Children Fare?**

PPC Mini Course
Hilton Bayfront Hotel - Aqua 300A

Target Audience: Target Audience is practicing clinicians and scientists who are interested and positioned to effect public policy for children at the federal level.

Objectives:
– Understand the biology the growth plate
– Understand concerns of parents seeking evaluation and treatment for their short child
– Review appropriate reevaluation and management of childhood growth hormone deficiency when linear growth is complete

Chairs: Paul J. Chung, UCLA, Los Angeles, CA, Richard Lee Bucciarelli, University of Florida/Peds, Gainesville, FL

Session will be interactive and will focus on the midterm elections, changes in the composition of Congress, and implications for developing national health policy for children through 2016 and beyond. The program will begin with an overview of the current status of Congress presented by Mark Del Monte, JD (Director, AAP Department of Federal Affairs) and will be followed by a panel discussion from members of the press, political experts, and key national child advocacy groups. There will be ample time for questions and comments from session attendees. The goal will be for attendees to have a clear understanding of what key opportunities and challenges exist with this Congress and what strategies advocates can use to influence the national agenda for children.

8:00 Biology of the Growth Plate
Jeffrey Baron, National Institutes of Health, Bethesda, MD

8:30 Short Child – Who Gets Evaluated and Why?
Adda Grimberg, Children’s Hospital of Philadelphia, Philadelphia, PA

9:00 Transitioning Young Adults with Childhood Onset GHD – How To Evaluate and Whom To Treat
Beverly M.K. Biller, Massachusetts General Hospital, Boston, MA

9:30 Future of GH Therapy – Predictions and Wishes
Ron G. Rosenfeld, STAT5, LLC, Los Altos, CA

8:00am–10:00am

**3100 Saltwater: The Spectrum of Salt and Water Balance in Pediatrics**

PAS Topic Symposium
San Diego Convention Center - 30D

Target Audience: Clinical and academic general pediatricians and pediatric subspecialists, including endocrinologists, nephrologists, intensivists, and neonatologists.

Objectives:
– Understand the basic science of disorders of ADH production and action
Disorders of salt and water homeostasis are common in the pediatric ICU and endocrine clinics alike. Acute management of these disorders may be lifesaving in the ICU setting. Lifelong management in patients with pituitary dysfunction provides challenges to physicians and patient/caregivers alike. Neonates with DI or SIADH are amongst the most difficult to manage, to allow for normal growth and development.

8:00 The Biology and Genetics of Antidiuretic Hormone Production and Signaling
Daniel G. Bichet, University of Montreal, Montreal, QC, Canada

8:40 Cerebral Salt Wasting: Myth or Reality?
Michael L. Moritz, Children’s Hospital of Pittsburgh, Pittsburgh, PA

9:20 Management Conundrum: Hypernatremia in the Infant
Joseph A. Majzoub, Harvard/Children’s Hospital, Boston, MA

Cosponsored by the Pediatric Endocrine Society and the Pediatric Academic Societies

1:00pm - 3:00pm

3500A Twentieth Annual Lecture: The March of Dimes Prize in Developmental Biology
San Diego Convention Center - 26AB

1:00pm - 3:00pm

3575 Endocrinology II: Clinical Platform
San Diego Convention Center - Room 33ABC

Chair: Robert Benjamin
Refer to PAS Daily Programming for complete details.

1:00pm - 3:00pm

3595 Obesity & Disordered Eating - II Platform
San Diego Convention Center - Room 28E

Chairs: Rachel Gross and Jane Lynch
Refer to PAS Daily Programming for complete details.

1:30pm - 5:15pm

3650 Academic Pediatric Association Presidential Plenary and Armstrong Lecture
San Diego Convention Center - Ballroom 20BC

3:30pm - 5:30pm

3710A Exercise and Diabetes PES Topic Symposium
San Diego Convention Center - 30E

Target Audience: Pediatric endocrinologists, adolescent medicine and general pediatricians interested in the effects of exercise in children with diabetes.

Objectives:
– To understand the physiologic responses to exercise
– To be aware of the effects of exercise in type 2 diabetes
– To learn management techniques for athletes with type 1 diabetes

Chairs: Andrew B.S. Muir, Emory Children’s Center, Atlanta, GA, Michael J. Tansey, University of Iowa, Iowa City, IA

Children and adolescents are encouraged to be physically active. Children with diabetes type 1 and type 2 diabetes have unique responses to exercise and it is vital that providers understand the physiology and endocrine effects of exercise.

3:30 The Effect of Exercise, Stress and Diabetes on the Hypothalamo-Pituitary-Adrenal (HPA) Axis
Michael Riddell, York University, Toronto, ON, Canada

4:10 The Effects of Exercise on Prevention and Treatment of Type 2 Diabetes in Children
Kristen J. Nadeau, University of Colorado, Colorado, Aurora, CO

4:50 The Management of Type 1 Diabetes in Competitive Athletes
Craig Taplin, Seattle Children’s Hospital, Seattle, WA

3:30pm - 5:30pm

3720A Life in the Time of Whole Genome Sequencing PES Topic Symposium
San Diego Convention Center - 33ABC

Target Audience: Academic general pediatrics, pediatric endocrinologists, geneticists, neonatologists, general pediatrics and other subspecialists.

Objectives:
– Understand the strengths, weaknesses, and applicability of various genetic tests
– Apply and interpret genetic studies related to endocrine disorders
– Balance the costs, benefits, and ethical considerations of genetic testing

Chairs: Kurt Joseph Griffin, Sanford Health, Sioux Falls, SD, Robert Rapaport, Mount Sinai School of Medicine, New York, NY

New genetic technologies are being developed at an accelerating pace. Sequencing, in particular, is becoming less expensive as well as more powerful. This symposium will provide an overview of new technologies, examples of applications, and highlight some of the pitfalls of genetic testing.

3:30 Life in the Time of Whole Genome Sequencing
Richard A. Spritz, University of Colorado School of Medicine, Aurora, CO

4:10 Application of New Genetic Testing Techniques in Clinical Endocrinology
Joel N. Hirschhorn, Boston Children’s Hospital, Boston, MA

4:50 Ethical Considerations of Genetic Testing in Children
Margaret R. Moon, Johns Hopkins School of Medicine, Baltimore, MD

3:30pm–5:30pm

3730 New Developments in Childhood Malnutrition: Global Dynamics, Metabolomics, Microbiomics, and Therapy
PAS State of the Art Plenary
San Diego Convention Center - Ballroom 20A

Target Audience: This session will appeal to endocrinologists, immunologists, gastroenterologists, epidemiologists, neonatologists, and academic general pediatricians and clinical scientists with interests in nutrition, metabolism, infectious diseases, and global health. Basic scientists will find interest in studies using targeted and non-targeted metabolomics and in genetic analyses of the microbiome in malnourished children.

Objectives:
– The global dynamics of childhood malnutrition and its effects on childhood morbidity and mortality
– Maternal health and childhood malnutrition: the effects of nutrient interventions
– The pathogenesis of malnutrition and its implications for therapy: metabolomics and the microbiome

Chairs: Robert E. Black, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Millions of the world’s children suffer from malnutrition, which predisposes to death from diarrhea and infectious diseases including measles, malaria, and HIV. Despite advances in nutrient supplementation, the mortality rates among infants and toddlers remain staggeringly high, in part because the pathogenesis of acute malnutrition and its complications remain poorly understood. In this plenary session Dr. Robert Black, the Chair, will review the global dynamics of childhood malnutrition and its effects on childhood morbidity, mortality, and cognitive development. Dr. Zulfiqar Bhutta will explore the relationship between maternal health and childhood malnutrition, focusing on the efficacy of nutrient interventions. Dr. Michael Freemark will describe new studies of the endocrinology and metabolomics of severe malnutrition, focusing on the identification of biomarkers that predict mortality. Dr. Mark Manary will delineate the role of the microbiome in the pathogenesis of malnutrition and reflect on its implications for treatment.

4:20 Endocrinology and Metabolomics in Nutrition Research: Biomarkers Predicting Mortality in Childhood Malnutrition
Michael Freemark, Duke University Medical Center, Durham, NC

4:50 Malnutrition and the Microbiome: Implications for Prevention and Treatment
Mark J. Manary, Washington University in Saint Louis, Saint Louis, MO

5:20 Discussion

4:15pm–7:30pm

Posters Available for Viewing
San Diego Convention Center, Exhibit Hall F

Posters Available for Viewing: 4:15pm–7:30pm
Author Attendance: 5:45pm–7:30pm

5:45pm–7:30pm

Poster Session III
San Diego Convention Center, Exhibit Hall F

Course # Topic Board #
3888 Type II Diabetes 368-372
3889 Metabolic Syndrome / PCOS I 373-379
3890 Metabolic Syndrome / PCOS II 380-387
3891 Metabolic Syndrome / PCOS III 388-395
3892 Obesity I 396-401
3893 Obesity II 402-406
3894 Other I 407-414
3895 Other II 416-420

Refer to PAS Daily Programming for complete details.

TUESDAY, APRIL 28

7:00am–11:00am

Poster Session IV
San Diego Convention Center, Exhibit Hall F

Author Attendance: 7:30am–9:30am
Refer to PAS Daily Programming for complete details

THURSDAY, APRIL 23

8:00am - 5:00pm

PES Board of Directors Meeting
Hilton Bayfront Hotel – Aqua 310A

FRIDAY, APRIL 24

8:00am - 10:00am

PES Program Directors Meeting
Hilton Bayfront Hotel – Aqua 310A

9:00am - 11:00am

PES Obesity Committee
Hilton Bayfront Hotel – Aqua 300A

COMMITTEES
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>9:00am - 12:00pm</td>
<td><strong>PES MOCE</strong></td>
<td>Hilton Bayfront Hotel – Aqua 309</td>
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<tr>
<td>10:00am - 11:00am</td>
<td><strong>PES Public Policy Council Meeting</strong></td>
<td>Hilton Bayfront Hotel – Aqua 307</td>
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<td>10:00am - 12:00pm</td>
<td><strong>PES Research Affairs</strong></td>
<td>Hilton Bayfront Hotel – Aqua 303</td>
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<td>10:00am - 12:00pm</td>
<td><strong>PES Education Council Meeting</strong></td>
<td>Hilton Bayfront Hotel – Aqua 311A</td>
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<td>10:00am - 12:00pm</td>
<td><strong>PES Drug and Therapeutic Committee Meeting</strong></td>
<td>Hilton Bayfront Hotel – Aqua 310B</td>
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<td>10:00am - 12:00pm</td>
<td><strong>PES Practice Management</strong></td>
<td>Hilton Bayfront Hotel – Aqua 311B</td>
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<td><strong>PES Program Committee Meeting</strong></td>
<td>Hilton Bayfront Hotel – Aqua 314</td>
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<td><strong>PES Training Council</strong></td>
<td>Hilton Bayfront Hotel – Aqua Boardroom</td>
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<td><strong>PES/SCAMPS</strong></td>
<td>Hilton Bayfront Hotel – Aqua 305</td>
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<td>12:00pm - 1:00pm</td>
<td><strong>PES Board and Committee Chairs Luncheon (By Invitation Only)</strong></td>
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<td>1:00pm - 3:00pm</td>
<td><strong>PES Board and Committee Chair Meeting</strong></td>
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<td>2:00pm - 5:00pm</td>
<td><strong>PES International Relations Council</strong></td>
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<td>4:00pm - 6:00pm</td>
<td><strong>PES Ethics Committee</strong></td>
<td>Hilton Bayfront Hotel – Aqua 305</td>
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<td>5:00pm - 6:00pm</td>
<td><strong>PES Mentor/Mentee WS and Networking Session</strong></td>
<td>Hilton Bayfront Hotel – Indigo Ballroom D</td>
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<td>5:00pm - 7:00pm</td>
<td><strong>PES History Committee</strong></td>
<td>Hilton Bayfront Hotel – Aqua 309</td>
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<tr>
<td>6:00pm - 7:00pm</td>
<td><strong>PES Fellows Meet and Greet</strong></td>
<td>Hilton Bayfront Hotel – Aqua 303</td>
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<tr>
<td>7:00pm - 9:00pm</td>
<td><strong>PES President’s Poster Reception</strong></td>
<td>Hilton Bayfront Hotel – Aqua Salon ABC</td>
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**SATURDAY, APRIL 25**

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<tbody>
<tr>
<td>12:30pm - 1:30pm</td>
<td><strong>PES Past President’s Luncheon (Past Presidents Only - By Invitation Only)</strong></td>
<td>Hilton Bayfront Hotel – Cobalt 520</td>
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<td>5:00pm - 7:30pm</td>
<td><strong>PES MOCE Part 2</strong></td>
<td>Hilton Bayfront Hotel – Indigo Ballroom C</td>
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<td>6:30pm - 9:00pm</td>
<td><strong>Pediatric Endocrine Society (PES) Speakers’ Dinner (By Invitation Only)</strong></td>
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**SUNDAY, APRIL 26**

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<tr>
<td>11:00am - 1:00pm</td>
<td><strong>PES Fellows Luncheon</strong></td>
<td>Hilton Bayfront Hotel – Sapphire 411B</td>
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**VISIT THE Pediatric Endocrine Society AT**

[www.pedsendo.org](http://www.pedsendo.org)

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URL: [www.pedsendo.org](http://www.pedsendo.org)