

# ESPE

NEWS

**ESPE**  
European Society for  
Paediatric Endocrinology  
Improving care of children with  
endocrine diseases by promoting  
knowledge and research

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BRINGING THE LATEST IN PAEDIATRIC ENDOCRINOLOGY TO YOU

## Welcome to Athens!

| ESPE 2018 special issue **P5-8** >

### George Chrousos

| An interview with  
the ESPE President **P5** >

### Looking at the microbiome

| Eran Segal's plenary  
lecture on personalising  
treatment **P6** >

### Embracing metabolomics

| ESPE 2018 speaker Maria Klapa  
examines its potential **P7** >

### What you'll find at ESPE 2018

| There's plenty to enjoy! **P8** >

### IN THIS ISSUE:

#### NEWS

'ESPE Live' survey, Keep in touch,  
Connect in Athens **P2** >

Yearbook online, New guidance,  
e-Learning news **P3** >

#### HOT TOPICS

The latest research **P4** >

#### THEME FEATURES

George Chrousos on his career  
and ESPE 2018 **P5** >

Plenary lecturer Eran Segal  
looks at the microbiome **P6** >

Highlights from Maria Klapa's  
forthcoming talk on  
metabolomics **P7** >

Exciting programme details  
from ESPE 2018 **P8** >

#### EVENTS AND DIARY

NEW! Postgraduate Education  
Course, 1st Science Symposium  
and Winter School **P9** >

Future meetings, dates and  
deadlines **P10** >

ESPE 2018 – REGISTER BY 10 AUGUST FOR STANDARD RATES – [www.espe2018.org](http://www.espe2018.org)

# Welcome

The ESPE Annual Meeting is nearly here. Its topical theme is 'Narrative and precision medicine in paediatric endocrinology', and the exciting programme is sure to stimulate discussion amongst delegates across the breadth of our discipline.

You have until 10 August to take advantage of the standard registration rate, so hurry now to reserve your place in Athens.

This issue of *ESPE News* takes the ESPE Meeting as its theme. We are delighted to have an interview with ESPE President, George Chrousos. Of course, Professor Chrousos hails originally from Greece, and has now returned there to lead the First Department of Pediatrics at Athens University Medical School. Much of his inspirational career was, however, spent at the National Institutes of Health in the USA. You can learn about the people who have influenced him and the achievements he remembers most proudly on **page 5**.

We are honoured to have previews of topical talks from two of the speakers at ESPE 2018 in this issue. On **page 6**, plenary lecturer Eran Segal (Rehovot, Israel) examines the use of the microbiome in personalising treatment. Amongst his group's astonishing discoveries is that an individual's microbiome owes little or nothing to genetic ancestry and far more to environmental factors such as diet, drugs and anthropometric measurements.

Metabolomics is an increasingly important investigative tool. On **page 7**, Maria Klapa (Patras, Greece) previews her talk from the 'Novel Advances' sessions. She examines the potential for this technique in diagnosis and in designing personalised therapies.

The rest of the issue is rich in news about ESPE 2018 and our Society's many other activities and events. I wish you happy reading and I look forward to seeing you in Athens!

**Sarah Ehtisham**  
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Cover image: Seen in Athens: owls are a symbol of Athena, Greek goddess of wisdom and patron of the city.  
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## Follow ESPE online...

Keep an eye on the latest ESPE news and activities at [www.eurospe.org](http://www.eurospe.org)

You can also follow ESPE on Facebook and Twitter

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## 'ESPE Live' – tell us your opinions!

ESPE is conducting market research to understand what you as ESPE members would like from ESPE online resources to enhance your professional development. How can we best bring ESPE's high quality digital content to life to enrich your practice and your learning? To help shape this 'ESPE Live' project, please take a few minutes to complete our survey:

[www.surveymonkey.co.uk/r/BJFZ2HK](http://www.surveymonkey.co.uk/r/BJFZ2HK)

## Don't miss out on ESPE News

Following the implementation of the EU General Data Protection Regulation, we need your permission to keep sending you *ESPE News*. We'll be asking you to update your email preferences when you renew your membership. When you do, please make sure you tick 'General updates on ESPE activities' and the newsletter will continue to wing its way to your inbox!



You can update your preferences at any time at [www.eurospe.org/members/profile/email-preferences](http://www.eurospe.org/members/profile/email-preferences).



We look forward to meeting many of you in Athens, Greece, at the 57th ESPE Annual Meeting on 27-29 September. As always, the ESPE Connect stand will be a place for you to meet with colleagues and peers, pick up some information, explore ESPE's online learning offering, or come and chat with us about matters relating to your Society. Find us on stand number 33, which can be found on level 0 in the main exhibition hall.

## Best clinical practice

The following consensus statement and clinical guideline have been developed with ESPE's support:

### Diagnosis and management of pseudohypoparathyroidism and related disorders: first international consensus statement

Mantovani *et al.* 2018 *Nature Reviews Endocrinology* **14** 476–500

### Endocrine treatment of gender-dysphoric/gender-incongruent persons: an Endocrine Society Clinical Practice Guideline

Hembree *et al.* 2017 *Journal of Clinical Endocrinology & Metabolism* **102** 3869–3903

Remember, if you'd like ESPE to develop or endorse a new guideline, a member of our Clinical Practice Committee must be involved throughout the development process. More guidance for consensus meetings and guideline development is available on our website.

See [www.eurospe.org/clinical-practice/consensus-meeting-and-guideline-development](http://www.eurospe.org/clinical-practice/consensus-meeting-and-guideline-development).



## ESPE e-Learning news

### New interactive case presentations have been added to the 'Obesity' and 'Pituitary' chapters within 'General content'.

The Online Learning Committee has also developed a separate e-learning module containing teaching material intended for the three levels of healthcare (primary, secondary, tertiary) within 'Resource limited countries' (RLC). The RLC content is currently available in French, Spanish, Swahili and Chinese, and was developed in collaboration with the International Consortium of Paediatric Endocrinology (ICPE), whose societies are represented on the e-Learning Editorial Board.

ESPE is currently reviewing its e-learning provision to ensure we are maximising its benefit within our wider education and training strategy.



Registration for access to all of ESPE's e-learning content is free of charge. See [www.espe-elearning.org](http://www.espe-elearning.org).

## Yearbook of Pediatric Endocrinology online

The 2018 *Yearbook of Pediatric Endocrinology*, edited by Ken Ong and Ze'ev Hochberg, is being published online for the first time.

This valuable reference tool provides a collection of abstracts summarising the highlights of publications from the past year. Online access will be available to all ESPE members and ESPE 2018 delegates. Details will be made available at ESPE 2018 in September and in the ESPE online members' area.

## Event news

Read more about these forthcoming ESPE events on **page 9**:



### 1st ESPE Science Symposium: the Science of Gender

18–19 October 2018, London, UK



### NEW! Postgraduate Education Course on Type 1 Diabetes in Children, Adolescents and Young Adults

22–24 November 2018, Prague, Czech Republic



### ESPE Winter School

February 2019, Azerbaijan

## Early life stress in narrative and precision medicine

25 September 2018, Athens, Greece

The Institute of Stress Biology and Medicine has organised this symposium, which will take place just before ESPE 2018. It will examine the science of early life stress, summarising evidence of functional alteration of the neuroendocrine-immune network by early life stressors, and of how these alterations increase vulnerability to chronic diseases later in life.



You can find out more at [www.facebook.com/events/193710847959513](https://www.facebook.com/events/193710847959513)

## Bringing you recent highlights from the world of research

## Could BCG vaccine really change the course of type 1 diabetes?

Kühtreiber *et al.* studied 49 adults with established type 1 diabetes and an average disease duration of 19 years. Nine received two doses of the BCG vaccine 4 weeks apart, and three received a placebo.

Of these, three patients in each group were followed up to 8 years, when the mean HbA1c (glycated haemoglobin) of the BCG vaccine group was 6.65% compared with 7.22% in those who had placebo. This improvement was without any increase in C peptide, and so not due to increased endogenous insulin production. This contrasts with results in NOD (non-obese diabetic) mice, where BCG vaccine is associated with increased C peptide and pancreatic regeneration is hypothesised.

The researchers investigated epigenetic effects of the repeat BCG vaccine on the immune system. They hypothesise a metabolic shift from oxidative phosphorylation to early aerobic glycolysis, which may affect blood glucose levels. Whilst the proposed mechanisms are fascinating, the small number of patients in the final analysis means the results must be interpreted with caution, and may not be generalisable to the wider population with type 1 diabetes.


 Read the full article in Kühtreiber *et al.* 2018 *npj Vaccines* 3 23

## Neurologic outcomes after i.v. fluids in paediatric diabetic ketoacidosis

In a multicentre randomised controlled trial, Kuppermann *et al.* evaluated 1255 children and 1389 episodes of diabetic ketoacidosis (DKA). Children were randomly assigned to receive 0.9% or 0.45% sodium chloride and a rapid or slow rate of administration.

There were no significant differences in the percentage of episodes in which the Glasgow Coma Scale (GCS) score was below 14, or in the magnitude of the decline or in the duration of time for which the GCS score was below 14. The results of short term memory tests and the incidence of clinically apparent brain injury were not significantly different amongst treatment groups, and nor were the memory or IQ scores obtained after the children's recovery.

Neither intravenous fluid administration rate nor sodium chloride content affected the neurologic outcomes in children with DKA in this trial, suggesting that other mechanisms such as cerebral hypoperfusion, the effects of reperfusion or neuroinflammation could have a potential role in DKA-associated brain injury.

 Read the full article in Kuppermann *et al.* 2018 *New England Journal of Medicine* 378 2275–2287


## Imitating the cortisol profile improves the immune system

In a single-blind randomised controlled study of 89 adults with adrenal insufficiency (AI), Isidori *et al.* found that switching from twice- or thrice-daily standard hydrocortisone to an equivalent dose of once-daily modified-release hydrocortisone markedly reduced body weight and improved glucose metabolism.

Notably, restoring a more physiological profile with the once-daily treatment improved the immune cell profile and reduced infections, compared with the standard therapy.

Regular twice- or thrice-daily standard hydrocortisone replacement therapy is well known to be non-physiological. After oral intake of hydrocortisone tablets, serum cortisol often peaks above the corticosteroid-binding globulin binding capacity. Human monocytes, macrophages, T lymphocytes and natural killer cells are influenced by glucocorticoids, suggesting that high levels of unbound cortisol directly affect immune cells.

Modified-release hydrocortisone might thus help prevent life-threatening adrenal crises as a result of infections in AI. In the absence of objective indicators to assess the appropriateness of glucocorticoid replacement therapy, these results also support the use of leucocyte profiling as a novel tool to monitor AI.

 Read the full article in Isidori *et al.* 2018 *Lancet Diabetes & Endocrinology* 6 173–185

## Burosumab in X-linked hypophosphataemia

X-linked hypophosphataemia is characterised by increased secretion of fibroblast growth factor 23 (FGF-23). Carpenter *et al.* investigated the efficacy and safety of burosumab, a monoclonal antibody targeting FGF-23, given subcutaneously every 2 or 4 weeks in 52 children with X-linked hypophosphataemia. The primary end-point was a change in Thacher rickets severity total score and additional end-points included changes in pharmacodynamic markers and linear growth from baseline to weeks 40 and 64. Physical ability, patient-reported outcomes and adverse events were also recorded.

Mean Thacher rickets severity total score decreased and the improvement persisted at week 64. Renal tubular phosphate reabsorption and mean serum phosphorus level increased, while mean serum alkaline phosphatase level decreased in both groups. Mean standing-height z score increased in both groups, with greater improvement seen at all time points with dosing every 2 weeks rather than every 4 weeks. Physical ability improved and pain decreased. Nearly all adverse events were mildly or moderately severe.

Burosumab was found to have a beneficial effect on phosphate homeostasis, linear growth, physical function pain and severity of rickets.

 Read the full article in Carpenter *et al.* 2018 *New England Journal of Medicine* 378 1987–1998

## An interview with... George Chrousos

ESPE President George Chrousos tells us about his career in paediatric endocrinology, and what you can look forward to at the forthcoming ESPE Meeting in his home city of Athens.



George Chrousos

### **How did you come to choose a career in medicine?**

I was born and raised in the beautiful Greek seaside town of Patras, the capital of the southern peninsula of Peloponnesus. I was impressed by and idolised my family physician, and read inspiring books by AJ Cronin, but I also had a talent for painting. I chose to pursue medicine rather than art when I was 17. I was accepted at the Medical School of the National and Kapodistrian University of Athens, and graduated 6 years later as the valedictorian of my class.

### **Who or what inspired you to become a paediatric endocrinologist?**

I decided to enter paediatrics after a 1-year residency in internal medicine. I enjoy interacting with children, and the dynamic developmental dimension of paediatrics appeals to me as a scientist. After my paediatric residency at New York University Medical School, I went into endocrinology at the National Institutes of Health (NIH), because of its integrative nature and strong scientific basis. I have been lucky to have great mentors throughout my career. Gordon B Cutler, D Lynn Loriaux and Mortimer B Lipsett, all outstanding endocrinologists and role model physician-scientists, had a powerful effect on me. I would not have been who I am if my path had not crossed theirs.

### **What have been the highlights of your career and why?**

I would count among these the honour of working with unique individuals at the NIH, and other fantastic collaborators, fellows and friends, as well as caring for complex patients referred to NIH by colleagues around the world.

Over 60 young endocrine investigators from all over the world spent formative years in my department. Many of them now hold major academic and industry posts all over the world. My career at the NIH included establishing an accredited Fellowship Training Program in Pediatric Endocrinology in the 1980s, which thrives and still produces paediatric endocrinologists who take key academic positions internationally.

After a long career at the NIH I moved back to my *alma mater* to become Chairman of the First Department of Pediatrics, the oldest, largest and most prestigious department in Greece. My role changed, but what I learned in Bethesda came to be of great use in Athens.

### **What has been your most satisfying discovery?**

Amongst many examples was having the good fortune to study the first cases of primary generalised, familial or sporadic glucocorticoid resistance, a hereditary disease of the glucocorticoid signalling system with a very broad clinical spectrum. Figuring out its pathophysiologic mechanisms, its therapy and, lastly, its molecular aetiology was a thrilling experience. Theorising on the extensive pervasiveness of target tissue glucocorticoid sensitivity changes in human nosology has provided a transformative concept in medicine and paediatrics.

### **What role has ESPE played for you?**

I have been an ESPE member since I finished my endocrine training. I have always been impressed by the scope of ESPE's work and support, its many schools, scholarships, prizes and awards, its contributions to young people, and its commitment to the spread of paediatric endocrine knowledge to other continents, where such knowledge is sparse and greatly needed.

### **What have you most enjoyed about organising ESPE 2018?**

It has been a pleasure to work with the ESPE Programme Organising Committee to create a cutting-edge science programme, featuring fantastic plenaries and many clinically useful sessions for all the participants. It has also been a great opportunity to work with Bioscientifica (the meeting organiser) and its wonderful, experienced staff on the many practical aspects and details of this large and complex meeting.

### **What will ESPE members most enjoy about ESPE 2018 in Athens?**

The amazing scientific programme of course! We should also mention the historic city where western civilisation was born, the calm Cerulean Sea and the countryside, set off by the deep blue sky of Greece's Attic region, and the traditional hospitality of the country and its people.

### **Finally, what is your message to current young paediatric endocrinologists?**

Follow the Hippocratic exhortation 'Give your assistance to all for the love of man and for the love of the art' and through this find 'εὐδαιμονία'-eudaimonia.\*

\*Eudaimonia is a Greek word which translates as 'a state of having a good indwelling spirit or being in a contented state of being healthy, happy and prosperous'.

“  
My role changed, but what I learned in Bethesda came to be of great use in Athens.”

# Using the microbiome to personalise treatment

In the first of two articles written by speakers at the forthcoming ESPE Meeting, plenary lecturer Eran Segal (Rehovot, Israel) looks to the microbiome to personalise treatment.

“

*Blood glucose responses were found to vary greatly between people, even when consuming identical foods.”*



Eran Segal

You can see Eran Segal's plenary lecture on Saturday 29 September 2018 at 11.00–11.30

Accumulating evidence supports a causal role for the human gut microbiome in obesity, diabetes, metabolic disorders, cardiovascular disease, and numerous other conditions.

At ESPE 2018, I am delighted to be presenting our research on the role of the human microbiome in health and disease, aimed at developing approaches to personalised medicine that combine human genetics, the microbiome and nutrition.

## The personal nature of blood glucose responses

We conducted a study to tackle the subject of personalisation of human nutrition, using a cohort of over 1000 people in whom we measured blood glucose responses to more than 50 000 meals, and undertook lifestyle, medical and food frequency questionnaires, blood tests, and genetics and gut microbiome analyses.<sup>1</sup>

Blood glucose responses to meals were found to vary greatly between people, even when consuming identical foods. We then devised the first algorithm for accurately predicting personalised glucose responses to food based on clinical and microbiome data, and showed that personalised diets based on our algorithm successfully balanced blood glucose levels in prediabetic individuals.

## Microbiome and environment

Using the same cohort, we studied the relative contribution of host genetics and environmental factors in shaping human gut microbiome composition.<sup>2</sup> Notably, although our cohort consisted of individuals from several distinct ancestral origins who shared a relatively common environment, we found no association between microbiome and genetic ancestry. In contrast, we showed that over 20% of the gut microbiome variance can be explained by environmental factors related to diet, drugs and anthropometric measurements.

In addition, we found that 24–36% of the variance of several human traits and disease risk factors can be explained by the microbiome, even after accounting for the contribution of human genetics. These results suggest that the composition of the human microbiome is dominated by environmental factors rather than by host genetics.

## Microbial subgenomic variations

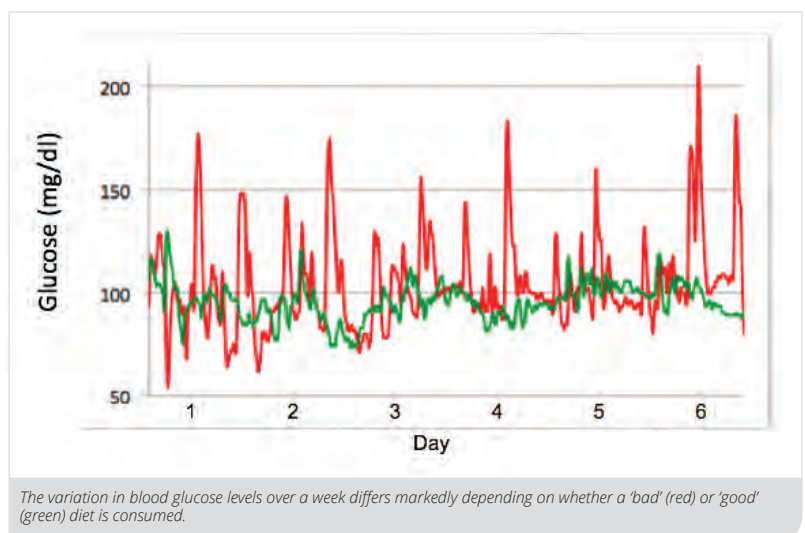
In my talk, I will also present an algorithm that we devised for identifying variability in microbial subgenomic regions. We have found that such subgenomic variations (SGVs) are prevalent in the microbiome across multiple microbial phyla, and that they are associated with bacterial fitness. Their member genes are enriched for CRISPR-associated and antibiotic-producing functions and depleted from housekeeping genes. We have found over 100 novel associations between SGVs and host disease risk factors and have uncovered possible mechanistic links between the microbiome and its host, demonstrating that SGVs constitute a new layer of metagenomic information.

### Eran Segal

Computational Biologist, Weizmann Institute of Science, Rehovot, Israel

#### References

1. Zeevi et al. 2015 *Cell* **163** 1079–1094.
2. Rothschild et al. 2018 *Nature* **555** 210–215.



# The clinical relevance of metabolomics

In this second article by invited speakers at the forthcoming ESPE Meeting, Maria Klapa (Patras, Greece) examines the developing role of metabolomics.

High-throughput biomolecular ('omic') analyses in the systems biology era have revolutionised the way in which biological problems are now approached. They have achieved this by enabling the simultaneous quantification of hundreds or thousands of transcripts, proteins or metabolites in a biological system (cell culture, tissue or biological fluid).

'Omic' analyses contribute to the identification of characteristically discriminatory multi-component molecular profiles of a disease, transforming studies in molecular medicine from uni- or oligovariate (in the search for one or few specific biomarkers), to multivariate, thus enhancing precision and personalisation.<sup>1</sup>

We can now view molecular physiology as a dynamic arrangement of interacting biomolecular networks and interpret the molecular mechanisms underlying a disease as disruptions in this network's connectivity and dynamics (network biology and medicine). Molecular quantities being interconnected, even subtle differences in one component can carry significance, if viewed in the context of the observed changes in the rest of the molecules. Thus, there is a higher probability of identifying considerable variations in molecular profiles in complex medical cases, when conventional analyses fail to provide statistically significant results. In this context, 'omic' analyses pave the way for in-depth systemic studies of human (patho)physiology.<sup>2</sup>

## The emergence of metabolomics

Metabolomics is the most recently introduced, but very fast-growing, 'omic' analysis. It refers to the analysis of the (relative) concentration profile of the free small metabolite pools of a biological system. This metabolic profile provides a comprehensive metabolic signature and a direct link to the phenotype.<sup>3</sup>

Since the concentrations of the free small molecules affect and are affected by the *in vivo* metabolic activity, the metabolic profile is a significant component of the epigenetic fingerprint of an individual,<sup>4</sup> providing information about the molecular physiology, which is not directly available from the profiling of transcripts or proteins.

In this context, metabolomics of biological fluids or tissues (when available) can be crucial in disease diagnosis and appropriate design of therapeutic treatments, either as singly applied or as part of integrated multi-omic studies.



Maria Klapa

“*Metabolomics can and should be part of clinical practice, as a major component of the clinical chemistry laboratory.*”

Maria Klapa's presentation takes place in 'Novel Advances 1' on Friday 28 September 2018 at 14.30–16.00

In endocrinology in particular, metabolomics can be an integral component of both research and practice. In the investigation of diagnostic profiles, untargeted blood metabolomics has mainly been used, as it is least invasive and directly mirrors the metabolic physiology of an individual (e.g. in a study of predisposition to latent insulin resistance).<sup>5</sup>

Excretome (urine and stool) analysis using metabolomics has also been applied, especially in pharmacometabolomic research, and lately as an integral part of the gut microbiome analysis and its connection to disease.<sup>6</sup> More specific analyses of cerebrospinal fluid have been carried out to assess the molecular mechanisms of neurological diseases.<sup>1,7</sup> Metabolomics has also been considered as part of personalised nutrition research and practice in the context of disease prevention and treatment.<sup>8</sup>

## A tool of great potential

Metabolomics can and should be part of clinical practice, as a major component of the clinical chemistry laboratory. It has numerous advantages over the other 'omic' analyses, including its lower cost and the absence of a need for special technological platforms. Metabolomics uses classical analytical chemistry equipment, most of which is part of a clinical chemistry laboratory: nuclear magnetic resonance (NMR) spectroscopy and/or mass spectrometry (MS), integrated with gas or liquid chromatography (GC or LC).

However, the broad deployment of the metabolomic analytical platform to systems and precision medicine research and practice requires its standardisation for accurate, reproducible and validated performance. There have been international efforts to harmonise experimental and computational analysis protocols among laboratories. This would ensure comparable results and enable appropriate deposition of the acquired data into standardised repositories, facilitating their integrated use and meta-analysis.

Moreover, the development of software that can help the clinician to correctly interpret the acquired data in the context of the available knowledge is important. In the near future, as metabolomics becomes established as an essential tool of medical research, and accurate *in silico* models of the human metabolic physiology are developed, we foresee that the acquisition of a metabolic profile will complement the classical biochemical tests, and provide doctors with direct assistance in accurately diagnosing and designing a personalised therapy.

### Maria I Klapa

Head of the Metabolic Engineering & Systems Biology Laboratory, Institute of Chemical Engineering Sciences, Foundation for Research & Technology – Hellas (FORTH/ICE-HT), Patras, Greece

#### References

1. Geschwind & Konopka 2009 *Nature* **461** 908–915.
2. Vidal 2009 *FEBS Letters* **583** 3891–3894.
3. Patti et al. 2012 *Nature Reviews Molecular Cell Biology* **13** 263–269.
4. Nicholson et al. 2011 *Molecular Systems Biology* **7** 525.
5. Gkourogianni et al. 2014 *PLoS One* **9** e94001.
6. Daliri et al. 2017 *Critical Reviews in Food Science & Nutrition* **57** 3565–3576.
7. Vasilopoulou et al. 2016 *Frontiers in Physiology* **7** 183.
8. Scherer et al. 2013 In *Foodomics: Advanced Mass Spectrometry in Modern Food Science & Nutrition*, ch 10. Ed. A Cifuentes. Hoboken, NJ, USA: Wiley & Sons.

# Book now for ESPE 2018!

27–29 September, Athens, Greece



With the 57th ESPE Annual Meeting fast approaching, remember that the **deadline for standard registration is 10 August**. You can register online at [www.espe2018.org](http://www.espe2018.org).



This year's topic is 'Narrative and precision medicine in paediatric endocrinology', and we are delighted to include insights into two of the many exciting lectures on **pages 6 and 7** of this issue of *ESPE News*.

In addition to the plenary sessions, the symposia and meet the expert sessions will provide you with the opportunity to exchange high quality clinical information and basic science with international experts. Free communications and poster sessions will allow delegates from around the world to present and discuss their latest findings in an interactive environment and to promote international collaboration in research and clinical practice.

Other highlights include special sessions devoted to Novel Advances, Controversies, How do I...? and *Yearbook of Pediatric Endocrinology*, as well as our new Young Investigators session. This will include novel data from several ESPE award winners and grant recipients.

The Greek capital, Athens, hosts this year's ESPE annual meeting, and the venue is conveniently located in the city centre. This means you will be well-positioned to enjoy the sights and sounds of this lively metropolis alongside the excellent scientific programme. You are sure to enjoy the delicious Greek cuisine during your stay, and perhaps see one or more of the famous ancient archaeological sites.

The meeting's many networking opportunities include the chance for you to meet with colleagues at our informal welcome event on the first day of the meeting. After the meeting closes, our ESPE Evening will provide you with a final, very enjoyable, networking event to discuss the event's highlights with your fellow endocrinologists before you return home. Tickets can be purchased online when you register.

We look forward to welcoming you all to Athens for ESPE 2018.

## Plenary lectures at ESPE 2018

**Oncofertility: from bench to bedside to babies**  
Teresa Woodruff (USA)

**Oxytocin and the healing power of love**  
Sue Carter (USA)

**Clinical and molecular genetics of corticotroph pituitary tumours (Cushing's disease)**  
Constantine Stratakis (Rockville, MD, USA)

**Prediction, identification and treatment of early stage type 1 diabetes**  
Anette-Gabriele Ziegler (Germany)

**Dynamic control of tissue glucocorticoids – lessons for optimising replacement therapy**  
Brian R Walker (UK)

**Personalised treatments using gut microbiome and clinical data**  
Eran Segal (Israel)

**New curative treatment strategies for type 1 diabetes**  
Stefan Bornstein (Germany)

**Turner syndrome: new insights from prenatal genomics and transcriptomics**  
Diana Bianchi (USA)

## ESPE Working Groups

The eight ESPE Working Groups each organise a symposium at the meeting, bringing you a selection of talks on a special interest:

- Bone and Growth Plate
- Diabetes Technology
- Disorders/Differences of Sex Development\*
- Gender Dysphoria
- Obesity
- Paediatric and Adolescent Gynaecology
- Paediatric Endocrine Nurses
- Turner Syndrome\*

You can view the programme for each symposium on the working groups' web pages at [www.eurospe.org/about/espe-working-groups](http://www.eurospe.org/about/espe-working-groups). All take place at 08.00–10.00 on Thursday 27 September, except for the nurses' session which is at 14.30–16.30 on Friday 28 September.

\* The ESPE Working Groups on Disorders/ Differences of Sex Development and Turner Syndrome are organising a joint symposium at ESPE 2018.

## How can ESPE help shape my career?

This special ESPE Activities session on Saturday 29 September at 14.45–15.30 will give you an informative and inspiring insight into all the opportunities the Society offers to progress your career.

From grants to awards, schools, fellowships and science symposia,

we'll show you what's available and you will hear from successful paediatric endocrinologists whose careers have been shaped by these opportunities over the years.

Don't miss this chance to get a real insight into how ESPE can make a difference to your career!



## NEW! Postgraduate Education Course

*Type 1 Diabetes in Children, Adolescents and Young Adults*

22–24 November 2018, Prague, Czech Republic



**ESPE has developed this new postgraduate course jointly with the European Association for the Study of Diabetes (EASD) and the International Society for Pediatric and Adolescent Diabetes (ISPAD).**

It will cover essential topics within type 1 diabetes, and participants will be able to listen to and interact with experts and researchers in the field of diabetes from all over Europe in an informal setting. During lectures and workshops, faculty members

will share their knowledge and clinical experiences and participants will gain new insights into the treatment of type 1 diabetes and its complications.

Registration is free for successful applicants and the deadline for applications is 31 August 2018.



Further details and the preliminary programme are available at [www.easd.org/easd-ispad-espe-course-t1d.html](http://www.easd.org/easd-ispad-espe-course-t1d.html)

## ESPE Winter School

February 2019, Azerbaijan

**If you are completing or have finished your basic paediatric training and are interested in endocrinology and diabetes, the ESPE Winter School could be for you!**

You can expect:

- Interactive lectures from the teaching faculty
- Case presentations by each student
- Presentation of student research projects
- Critical evaluation of selected publications
- Small group teaching: student and teacher clinical case and research project presentations



Details will be available shortly at [www.eurospe.org/education/winter-school](http://www.eurospe.org/education/winter-school). Supported by an educational grant from Ferring Pharmaceuticals A/S.

## The Science of Gender

*1st ESPE Science Symposium*

18–19 October 2018, London, UK



**You can now register for paid-for places at the 2018 Science Symposium on 'the Science of Gender', as the application deadline for free places has passed.**

This 2-day symposium will look at:

- The evidence for what influences gender development and gender dysphoria and the respective impact of nature and nurture
- The potential psychological–psychosocial impacts of endocrine treatment for gender dysphoria and the relevant science

This, the first of ESPE's Science Symposia, is brought to you by ESPE's Working Group on Gender Dysphoria together with the UK Gender Identity Development Service, and is supported by an educational grant from Pfizer.



The registration fee is €80. You can find further details and apply via [www.eurospe.org/education/espe-science-symposium](http://www.eurospe.org/education/espe-science-symposium).

## Symposium speakers

Sarah-Jayne Blakemore, *London, UK*  
 Gary Butler, *London, UK*  
 Polly Carmichael, *London, UK*  
 Martine Cools, *Ghent, Belgium*  
 Sarah Davidson, *London, UK*  
 Neil Evans, *Glasgow, UK*  
 Alessandra Fisher, *Florence, Italy*  
 Vibe Frokjaer, *Copenhagen, Denmark*  
 Riittakerttu Kaltiala-Heino, *Tampere, Finland*  
 Baudewijntje Kreukels, *Amsterdam, The Netherlands*  
 Leighton Seal, *London, UK*  
 Nicos Skordis, *Nicosia, Cyprus*  
 Annelou de Vries, *Amsterdam, The Netherlands*  
 Martine de Vries, *Leiden, The Netherlands*

The event will also include:

- case and scenario presentations by delegates
- poster presentations by student participants and delegates
- a networking dinner (included in the registration fee)

## Future meetings

See [www.eurospe.org/meetings](http://www.eurospe.org/meetings) for details of all future meetings



### 57th Annual ESPE Meeting

27–29 September 2018

Athens, Greece



### 58th Annual ESPE Meeting

19–21 September 2019

Vienna, Austria



### 59th Annual ESPE Meeting

10–12 September 2020

Liverpool, UK



## OTHER EVENTS

### SEPTEMBER

#### ESPE Summer School

Delphi, Greece  
24–26 September 2018

#### ESPE Diabetes, Obesity & Metabolism School

Delphi, Greece  
30 September–2 October 2018

### OCTOBER

#### 1st ESPE Science Symposium

London, UK  
18–19 October 2018

#### ESPE Caucasus & Central Asia School

Bishkek, Kyrgyzstan  
22–25 October 2018

#### ASPED-ESPE School

Dubai, UAE  
31 October–3 November 2018

### NOVEMBER

#### ESPE Maghreb School

Algeria  
19–24 November 2018

#### Postgraduate Education Course:

**Type 1 Diabetes**  
Prague, Czech Republic  
22–24 November 2018

### FEBRUARY

#### ESPE Winter School

Azerbaijan  
February 2019

## DEADLINES

### AUGUST

#### ESPE 2018 standard registration

10 August 2018

#### Postgraduate Education Course applications

31 August 2018

### SEPTEMBER

#### Summer School Steering Committee vacancy applications

13 September 2018

### OCTOBER

#### Early Career Scientific Development Grant applications

31 October 2018

### DECEMBER

#### Andrea Prader Prize nominations

10 December 2018

#### Research Award nominations

10 December 2018

#### International Award nominations

10 December 2018

#### Outstanding Clinician Award nominations

10 December 2018

#### International Outstanding Clinician Award nominations

10 December 2018

#### Young Investigator Award nominations

10 December 2018

# ESPE

European Society for  
Paediatric Endocrinology

Improving care of children with  
endocrine diseases by promoting  
knowledge and research

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### ESPE Newsletter

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Bioscientifica Ltd (address above)  
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It is also the Professional Congress  
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Joanne Fox-Evans and Hannah Bonnell

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## HELP RUN YOUR SOCIETY

There are many opportunities to get involved with ESPE's Committees. To see which roles are currently available, check [www.eurospe.org/about/vacancies](http://www.eurospe.org/about/vacancies).