ESPE NEWS

BRINGING THE LATEST IN PAEDIATRIC ENDOCRINOLOGY TO YOU

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

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Technology in diabetes

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ESPE 2019 – DON'T FORGET TO SUBMIT YOUR ABSTRACTS BY **15 APRIL!**

Welcome

Technology has permeated all aspects of our lives and, not surprisingly, is having an impact on our healthcare. Its importance in the management of diabetes should not be underestimated. It is easy to think of such technology as the equipment used to monitor and regulate blood glucose and give insulin, but the technology that helps our patients takes many forms.

On **page 5**, Goran Petrovski examines social media's role in facilitating communication among patients, and between patients and healthcare providers, especially its potential to provide unique opportunities for online diabetes education, intervention and support.

Engineering islets *de novo* from induced pluripotent stem cells is a promising approach to achieving insulin self-sufficiency, but reconstructing complex 3D structures presents many challenges. On **page 6**, Daniela Nasteska and David J Hodson discuss their research into how different β-cells come together and maintain normal islet function: an essential prerequisite to achieving successful islet reconstruction *ex vivo*.

Student Kamil Armacki was diagnosed with type 1 diabetes in 2012. He built his own DIY closed-loop system (a pump system that automatically adjusts insulin delivery) after researching online. On **page 7**, he explains how he achieved this, and the peace of mind that access to this 'diabetes community-approved' technology provides.

We are also delighted to publish our first 'Meet a Member' interview, on **page 8**, where Francesco Chiarelli of Chieti, Italy, reflects on his passion for improving global health and for the importance of humanitarian work in paediatric endocrine care.

The rest of the issue is packed with news and information as always. Most importantly, don't forget to submit your abstracts for ESPE 2019 by 15 April at the latest! You can find out more about the ESPE Meeting, including registration details, at **www.espe2019.org**.

Sarah Ehtisham
Editor, *ESPE News*
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ESPE grant deadlines 2019

For full details see **www.eurospe.org/grants-awards**

ESPE Research Fellowship

€125 000 for up to 2 years of research training in a centre of excellence, with a further €15 000 for consumables.

Application deadline **30 April 2019**

Early Career Scientific Development Grant

€2500 to enable an individual to gain experience of a specific research issue or laboratory technique.

Application deadline **30 April 2019**

ESPE Clinical Fellowship

Subsistence and reasonable travel expenses for 3 or 6 months of training in a European clinical centre.

Application deadline **31 May 2019**

Join the *ESPE News* team

Would you enjoy working with a lively and creative team, coming up with ideas for articles and commissioning them from leading paediatric endocrinologists?

If so, you may be interested in the current vacancy on the Board of *ESPE News*. We need a new member, and are looking for someone with skills in medical writing. Your term of office would start in September 2019 for 3 years, but, in order to shadow the current role-holder, we invite you to start at the Editorial Board teleconference in June 2019. Further details are at **www.eurospe.org/about/vacancies/newsletter-editorial-board-vacancy**.

Deadline **28 April 2019**

Jean-Pierre Bourguignon

We are sad to report the death of ESPE member Jean-Pierre Bourguignon of Liège, Belgium. Jean-Pierre's work helped advance our understanding of the hypothalamic control of puberty, and led to him to receive the 2014 Andrea Prader Prize, ESPE's most prestigious award. You can read a full obituary at **www.eurospe.org/news/item/13277/Obituary-Jean-Pierre-Bourguignon**.

‘Variety and variation’ at ESPE 2019

19–21 September 2019, Vienna, Austria

ESPE 2019

Abstract submission: **15 April**

Early bird registration: **20 June**

www.espe2019.org

It’s time to submit your abstracts for the 58th ESPE Annual Meeting, which takes place in Vienna, Austria, on 19–21 September 2019, with the theme ‘Variety and variation in paediatric endocrinology’.

The abstract deadline is 15 April (23.59 Western European Summer Time), and ESPE Meeting Grants are awarded for the best submissions.

Registration is also open now: early bird rates are available until 20 June.

ESPE 2019 will bring together the global community of paediatric endocrine specialists to learn about the latest developments in treatment, clinical best practice and cutting edge research.

The Meeting’s theme relates to the diversity we encounter in our discipline and the care that we have to exercise when using the term ‘normality’. Join us as we explore this theme through an exciting mix of plenary lectures, symposia, meet the expert sessions, debates on controversies and sessions on novel advances.

You will also enjoy oral communications and posters submitted by scientists and clinicians from around the world. Submitting an abstract to ESPE 2019 is a fantastic way to disseminate your research and get the attention of potential collaborators.

Whether you are a clinician, a researcher, a nurse or an allied health professional, ESPE 2019 has something for you.

ESPE schools 2019

The application deadlines for the following ESPE schools are approaching. Find out more on **page 9**, or see **www.eurospe.org/education**.

Diabetes, Obesity & Metabolism School
22–24 September
Burg Feistritz, Austria

Caucasus & Central Asia School
11–15 October
Astana, Kazakhstan

Maghreb School
18–22 November
Sousse, Tunisia

ESPE e-Learning news

www.espe-elearning.org Registration is **free!**

Diabetes mellitus in ESPE e-Learning

Under ‘General content’/ Diabetes:
- a chapter and case on diabetic ketoacidosis
- a chapter on type 2 diabetes mellitus

Under ‘General content’ / Diabetes ISPAD Guidelines:
- 21 chapters
- 6 cases

Under ‘Resource limited countries’ / Diabetes ISPAD Guidelines:
- a chapter on ‘Diabetes in children and adolescents’, based on the CDIC (Changing Diabetes® in Children) manual

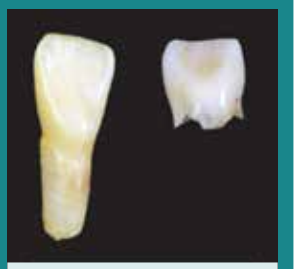
New items under ‘General content’

Multiple endocrine deficits:
Late endocrine effects of treatments for childhood cancer

Growth:
An 8-year-old boy with tall stature

Obesity:
A case of early-onset obesity

Calcium and bone:
Hypophosphatasia (case study, see image, right)



Early (<5 years) deciduous tooth loss is a hallmark of hypophosphatasia. The tooth is lost with its root intact.

Bringing you recent highlights from the world of research

Safety of paediatric GH therapy

The GeNeSIS prospective observational study has just published data on the long term safety of paediatric growth hormone (GH) in 22 311 patients across 30 countries from 1999 to 2015.

The cohort mainly comprised patients with GH deficiency (63%), idiopathic short stature (13%) and Turner syndrome (8%), with mean follow-up 4.2 years. Forty-two deaths were recorded, with an elevated mortality rate in those with GH deficiency secondary to neoplasia. The type 2 diabetes risk was elevated, particularly in those with additional risk factors. In patients without cancer history, 14 primary cancers were observed. Second neoplasms occurred in 5% of cancer survivors, with intracranial tumour recurrences in 8.1% of tumour survivors. All three haemorrhagic stroke cases had other risk factors.

These data support the favourable safety profile of paediatric GH treatment, with no overall elevation of mortality or risk of primary cancer, and no increase in stroke risk observed. We must continue to obtain long term data, to build a complete picture.

Read the full article in Child *et al.* 2019 *Journal of Clinical Endocrinology & Metabolism* **104** 379–389

Acceleration of BMI in childhood and obesity risk

This longitudinal study in Germany tracked body mass index (BMI) in 51 505 children from infancy to adolescence, and the annual change in BMI in 34 196 children, in order to determine the age of onset of obesity.

Most normal weight adolescents had had a normal weight throughout childhood. However, about half (53%) of the obese adolescents had been obese or overweight from the age of 5 years. In prospective analyses, almost 90% of the children who were obese at 3 years of age were overweight or obese in adolescence, with the greatest acceleration of BMI per year occurring between 2 and 6 years of age. Children who were born large for gestational age or whose mothers were obese had an especially high risk of obesity.

In conclusion, obesity develops early in childhood and persists into adolescence, with a critical period characterised by accelerated and sustained weight gain between the ages of 2 and 6 years.

Read the full article in Geserick *et al.* 2018 *New England Journal of Medicine* **379** 1303–1312

GDF15 as an endocrine signal of nutritional stress

Growth and differentiation factor 15 (GDF15) is known as a biomarker for diverse disease states related to cellular stress. Recently, GDF15 was implicated in the regulation of energy metabolism, since GDF15-overexpressing mice show weight loss due to reduced food intake.

Patel *et al.* showed that, while circulating levels of GDF15 are only moderately altered by fasting in mice and humans, chronic high-fat and lysine-deficient diets upregulated GDF15 in the circulation and GDF15 expression (mainly in the liver and white and brown adipose tissue) in mice. They also found that GDF15 is regulated by the cellular integral stress response triggered via various stressors, dependent upon the mediators ATF4 and CHOP. Acute administration of GDF15 elicited an aversive response, which led to lower food intake in rodents.

This research identifies a relationship between GDF15 production and nutritional state, and establishes GDF15 as a systemic endocrine signal of the cellular integral stress response.

Read the full article in Patel *et al.* 2018 *Cell Metabolism* doi: 10.1016/j.cmet.2018.12.016

Ethical issues with early genitoplasty in DSD

Whether genitoplasty in patients with ambiguous genitalia should be performed in early childhood or during adolescence (after the child is mature enough to decide) remains a matter of debate.

Early intervention aims to reconstruct genitalia to be concordant with a child's designated gender and enhance urological and future sexual function, while ensuring better tissue healing, fewer complications, and decreased psychological stress after surgery. However, there is cumulative concern that additional surgical procedures may be required later, due to complications or dissatisfaction with genital appearance. Ethical issues are also raised against genitoplasty in the framework of principles of beneficence, non-maleficence, autonomy and the concepts of an open future and the best interests of the child.

Unfortunately, data from studies of differences of sex development (DSD) give inconsistent results, which make generalisability problematic. Thus, families should be counselled about all available options for early genitoplasty, deferring genitoplasty and other alternatives. This review discusses these issues using an ethical framework and sheds light on challenges that arise from DSD research.

Read the full article in Harris & Chan 2018 *Current Opinion in Endocrinology, Diabetes & Obesity* **26** 49–53

Social media and diabetes

Management of type 1 diabetes is a challenge for both patients and healthcare providers. Technology and social media can provide an additional opportunity to support care and improve communication between the parties, though there are benefits and risks.

Goran Petrovski

> *"Social media provides an additional form of unique support, which cannot be offered by regular clinic visits"*

A valuable tool

Social media enables interaction within the online community. It provides opportunities for people to generate, share, receive and comment in a multi-user environment.[1] Such platforms and discussion forums are very popular among young people, providing unique opportunities for online diabetes education, intervention and support.[2]

The use of social media in healthcare identifies positive effects and outcomes: it fosters patients' education, provides psychosocial support, enhances patients' empowerment and reduces the stigma associated with illness.

Social media provides an additional form of unique support, which cannot be offered by regular clinic visits. For example, it highlights the perspective of patients and offers an almost unlimited amount of time to listen and share experiences.

The caveats

However, the use of social media does not only have beneficial effects. It is also subject to a lack of confidentiality and privacy, an increased risk of disseminating misinformation, quality concerns and harmful or incorrect advice. Social media can be viewed as manipulative, and is often perceived as a business tool to sell goods and services.

Social media in action

Facebook[3] is the largest social media platform (2.19 billion users worldwide) and an important source of information, support and engagement for patients with chronic diseases. Facebook groups can be used as a supportive tool in disease management for patients and families.[4]

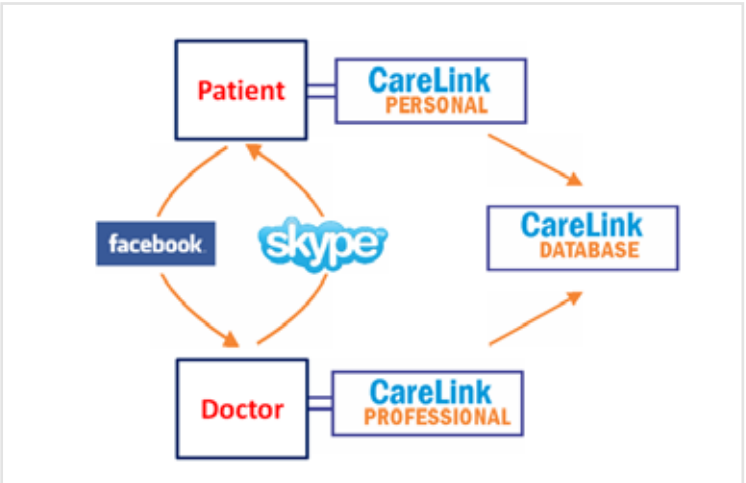
Facebook can be used as a communication tool for patients and families where information has led to better management of type 1 diabetes in children.[5] The communication between patients and healthcare providers has allowed active patient participation in the decision-making process, with improved glucose control in patients using an insulin pump.[6]

The combined use of Facebook and messaging service Viber can significantly decrease the glycated haemoglobin level when compared with patients using Facebook only, where patients on an insulin pump were more likely to use both social media for type 1 diabetes management.[7]

We believe that, in today's challenging healthcare environment of limited budgets and resources, with a desire to provide better diabetes care, new methods of patient interaction using social media can be beneficial. Social media can provide an additional communication tool between patients with type 1 diabetes and healthcare providers, and can improve glucose control.

Goran Petrovski
Paediatric Endocrine and Diabetes Division, Sidra Medicine, *Doha, Qatar*

References
1. Kaplan & Haenlein 2010 *Business Horizons* **53** 59–68.
2. Grey *et al.* 2013 *Diabetes Care* **36** 2475–2482.
3. Statista: the Statistics Portal 2018 *Number of Active Facebook Users Worldwide in 2018* www.statista.com.
4. De la Torre-Díez *et al.* 2012 *Telemedicine Journal & e-Health* **18** 404–408.
5. Troncone *et al.* 2015 *Health Psychology Open* **2** 1–8.
6. Petrovski *et al.* 2015 *Diabetes Care* **38** e51–e52.
7. Petrovski & Zivkovic 2018 *Journal of Diabetes Science & Technology* doi: 10.1177/1932296818795441.



Social media provides a communication tool between a patient with type 1 diabetes on an insulin pump and a physician who are using CareLink™ Management Software

A stepping stone to 'designer' islets

Daniela Nasteska and David Hodson examine the important role of β-cell heterogeneity in achieving insulin self-sufficiency.

The authors with their colleagues

Nearly a century ago, a 14-year-old boy from Toronto, Canada, became the first patient with type 1 diabetes to be successfully treated by insulin injection. Although insulin therapy remains essential for patients with type 1 diabetes and, eventually, for those with type 2, the search to bypass exogenous insulin sources continues.

Engineering islets *de novo* from induced pluripotent stem cells (iPSC) represents a promising avenue in achieving insulin self-sufficiency. However, reconstructing complex 3D structures is not without its challenges. Understanding how different β-cells come together and maintain normal islet function is crucial in achieving successful islet reconstruction *ex vivo*.

Single cells versus populations

A single β-cell is not an average representative of the population as a whole. Although β-cells are the sole source of circulating insulin in the body, they show architectural and functional diversity, while maintaining glucose homeostasis. The many differences include variations in individual β-cell maturity, glucose responsiveness, membrane activity and Ca^{2+} fluxes, intracellular and secreted insulin and cell-to-cell connectivity.

Understanding β-cell heterogeneity

Evidence for functional and some morphological β-cell heterogeneity has been present for decades. However, recent technological advances have revolutionised the field, allowing scientists to probe deeper into the ways in which heterogeneity is manifested, and the mechanisms behind it.

Mouse and human functional, transcriptional and marker-based single cell screening studies have provided high resolution data on an array of newly detected β-cell subpopulations or states. Alongside this, optogenetic tools, which allow control of cell activity by light, have paved the way for functional studies of β-cells within the islet context.

In 2016, Johnston *et al.* described a novel subgroup of immature β-cells termed 'hubs' that act as pacemakers.[1] Their susceptibility to glucolipotoxic attacks destabilises the functionality of the entire β-cell network, showcasing the potential importance of 'hubs' in the development of type 2 diabetes. Similarly, Westacott *et al.* contributed to mapping the islet circuitry by showing that the β-cell complement is regulated disproportionately by discrete β-cell subpopulations.[2]

Optimisation of smFISH (single molecule fluorescent *in situ* hybridisation) has recently revealed the existence of yet another β-cell subpopulation called 'extreme' β-cells. Using specific mRNA-tailored probes within a single cell in the intact pancreas, Farack *et al.* defined the 'extreme' population as β-cells specialised in basal insulin secretion, exhibiting high insulin mRNA and proinsulin, but low insulin protein.[3] Their proportion rises together with the development of insulin resistance, indicating an involvement of 'extreme' cells in either islet failure or insulin secretory compensation.

Cell marker approaches described β-cell subgroups based on the presence of cell-specific markers such as Flattop[4] or urocortin 3.[5]

> *"Although trail-blazing, current studies have not yet answered the question 'how can we replicate β-cell heterogeneity ex vivo?'"*

Impact of metabolic stress

Common traits in these studies include differences in subpopulation maturity and proliferative capacity that become more prominent under metabolic stress. In line with this, transcriptome-based scRNA-seq (single-cell RNA sequencing) and protein-selective CyTOF (time-of-flight mass cytometry) identified β-cell clusters with different gene and protein signatures which change in proportion depending on islet health.[6,7]

The balance between the immature and mature β-cell populations, as well as proliferative capacity, appears to be a defining factor in the islet response to challenges, such as development, increased metabolic demand and ageing.

Next-generation challenges

Although trail-blazing, current studies have not yet answered the question 'how can we replicate β-cell heterogeneity *ex vivo*?' The subpopulations identified to date offer significant clues, but are insufficient to decipher the code of cellular diversity.

Future technologies should be able to integrate existing knowledge of subpopulations and reconcile discrepancies between different approaches, leading to construction of robust and functional iPSC-derived islets.

Daniela Nasteska and David J Hodson
IMSR and COMPARE, University of Birmingham, and Centre for Endocrinology, Diabetes and Metabolism, Birmingham Health Partners, *Birmingham, UK*

References
1. Johnston *et al.* 2016 *Cell Metabolism* **24** 389–401.
2. Westacott *et al.* 2017 *Biophysics Journal* **113** 1093–1108.
3. Farack *et al.* 2019 *Developmental Cell* **48** 115–125.e4.
4. Bader *et al.* 2016 *Nature* **535** 430–434.
5. van der Meulen *et al.* 2017 *Cell Metabolism* **25** 911–926.e6.
6. Dorrell *et al.* 2016 *Nature Communications* **7** 11756.
7. Wang *et al.* 2016 *Cell Metabolism* **24** 616–626.

DIY looping: my own perspective

Kamil Armacki (@nerdabetic) is a tech-savvy advocate in the diabetes online community, who has recently started using a 'DIY closed loop' pump system. He tells us about his experience.

I have been a type 1 diabetic since April 2012. My diagnosis was a huge surprise; I was and still am the only person with diabetes in the entire family. The first 3–4 years after diagnosis were extremely tough. I tried hard to maintain my glucose levels at reasonable levels, but just couldn't.

When I first started to use a glucose sensor, my type 1 diabetes journey changed forever. I was able to access my glucose information instantly and I realised that diabetes technology was the answer to my struggles.

I built my DIY closed-loop system (a pump system that automatically adjusts insulin delivery) in May 2018. I already had an insulin pump and continuous glucose monitoring (CGM). I could access my CGM values on my Apple watch, and found I was constantly setting temporary basal rates to keep my glucose in range, and this impacted my productivity. Automating this was the obvious next step in my technology journey.

Kamil Armacki

My research

I had been aware of DIY closed-loop systems for about a year from Facebook groups. After getting my insulin pump, I started looking into it further. I collected as much feedback as possible about different closed-loop systems from ten people using them. Each system has an extraordinary website maintained by members of our DIY community, with detailed instructions on how to build it as well as useful tips. I decided that the Loop (DIY system for iOS devices) was the system for me.

> *"My time in target has increased from 50% to 75% but, more than that, looping has given me PEACE OF MIND"*

Kamil's set-up, showing the pump and the RileyLink, which communicates between the pump and the smartphone

The Loop system calculates recommended basal insulin based on personal settings, the Loop algorithm and live data such as insulin on board, current glucose, predicted glucose and carbohydrate absorption. It can take the glycaemic index of meals into account.

The system

There are four components:

1. **iPhone:** needed to run the Loop app.
2. **Rileylink:** a small box connecting the phone's Bluetooth to the insulin pump's wireless signal.
3. **Insulin pump (Medtronic 722):** I needed an 'old Medtronic pump' and was lucky enough to be given this pump by a friend.
4. **Continuous glucose monitor:** in my case Dexcom G6.

The initial set-up took about an hour, and I was 'open-looping' (manual mode) for the first couple of days. No technical knowledge was needed, as the instructions were excellent. After that I was 'closed looping'. I occasionally need to give corrections because I have customised my system to be less aggressive with automated corrections. Loop performs incredibly well when I am ill, as it is able to constantly adjust my insulin delivery.

Lack of FDA approval

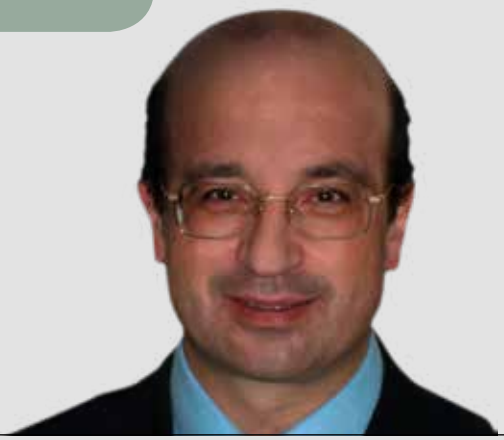
It is important to recognise that, at present, DIY systems are not approved by the US Food and Drug Administration (FDA). However, I prefer to refer to them as ***'community-approved'***. Over 1000 people with type 1 diabetes mellitus are known to be using DIY systems, with more than 8.1 million hours of experience. The algorithms are constantly being improved to ensure maximum safety and ease of use.

The Loop algorithm app can undertake basal rate adjustments more precisely than I can, and does this every 5 minutes. Since May 2018, my time in target has increased from 50% to 75% but, more than that, looping has given me PEACE OF MIND.

Type 1 diabetes is something that you always need to think about (intentionally or not). Going to bed knowing that Loop is making sure I am constantly in range gives me the safety net that I had always needed.

Kamil Armacki
Manchester, UK

Kamil is currently a student, studying accounting and finance. For more information you can find him as 'Nerdabetic' on YouTube, Twitter and Instagram.



Q&A
Francesco Chiarelli

Francesco Chiarelli, Professor of Paediatrics and Paediatric Endocrinology from Chieti, Italy, has nearly 40 years of experience in paediatric endocrine care and research. He talks to Sujatha Gopal about the importance of global health and humanitarian work in paediatric endocrine care.

Why is global health so important to you?

Diseases such as diabetes and obesity are real issues for children in this era. Global health not only concerns developing countries but also developed countries. I was recently appointed as a consultant to the European Commission and the WHO for Non-Communicable Diseases in Children. I have real passion to achieve global health in paediatric endocrinology.

"No child should die in this world due to lack of insulin, steroids or other drugs"

And what about your humanitarian work?

The last 2 years have been quite interesting for me, as well as very moving in some aspects. I have been travelling intensively over the last 30 months, particularly in developing countries, to try to help with education, access to medicine and patient care.

What is the main issue in global care for paediatric endocrinology?

It is access to healthcare. In many places children die due to lack of availability of insulin, and that is unjustifiable. In Tajikistan in October 2017, I saw a 10-year-old child with severe hypothyroidism with a height of 85cm. This was because there is no screening programme for congenital hypothyroidism in such countries, and partly also because of a lack of availability of L-thyroxine.

To me, this is the main challenge for someone who wishes to dedicate their life towards improving global health in paediatric endocrinology and diabetes. No child should die due to lack of insulin, steroids or other drugs.

Recently I went to the Royal Society in London. Their motto is 'Nullius in verba', Latin for 'There is no room for words'. This means you have to do something and to show convincing evidence!

What else needs to be addressed?

The education of doctors is also important, to help them access evidence-based medicine and the worldwide literature. I have been to Turkmenistan, a country that is rich in oil and gas. Despite the availability of money, the quality of healthcare is very poor because the doctors are not well educated. Teaching healthcare professionals is absolutely crucial in developing countries.

What about newborn screening?

In order to introduce newborn screening into developing countries, it is essential to involve policymakers. Government organisations would need to take it on board.

What role does ESPE play?

Having served as a Secretary General for ESPE for 7 years (2004–2011) and as President in 2013, I am obviously biased, but I really think ESPE makes a major contribution to improving knowledge and education in paediatric endocrinology.

GPED (Global Paediatric Endocrinology and Diabetes; **www.globalpedendo.org**) is an initiative supported by ESPE and its sister societies, which works hard under the leadership of Jean-Pierre Chanoine to improve care and education in developing countries. In addition, ESPE supports the Paediatric Endocrinology Training Centres for Africa (PETCA) with the aim of improving care and education in this region.

What does ESPE mean to you?

For me, ESPE is my favourite scientific society, and is among the best societies for paediatric endocrinology in the world. First, it is a leading society for science and, as I said before, 'there is no room for words in science'; science is based on evidence. So ESPE to me means a scientific society that works a lot on science and evidence of science, as well as with an eye to solidarity and education, towards improving global health in children with endocrine disorders and diabetes. ESPE is very close to my heart because of its vision and mission.

If you had a magic wand, what one thing would you change?

As I said, 'No child should die in this world due to lack of insulin, steroids or other drugs.'

Spotlight on ESPE Schools

Would you or a colleague benefit from ESPE's active programme of schools? They provide a wonderful learning environment for trainee paediatricians and basic scientists to develop their understanding of our field and to network.

ESPE has six schools, and application deadlines for the following three are approaching. Here are some highlights from 2018 to whet your appetite. Applications for 2019 are due soon!

For full information see **www.eurospe.org/education**

Participants are entitled to 1 year's FREE membership*

*For the year immediately following their attendance at a school; this offer does not apply to existing ESPE members.

Apply for 2019!

6th ESPE C&CA School
11–15 October 2019
Astana, Kazakhstan

Deadline **30 April 2019**

5th ESPE Caucasus & Central Asia School

21–25 October 2018, Bishkek, Kyrgyzstan

The 27 students came from Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan, Azerbaijan and Ukraine. They enjoyed comprehensive and intensive lectures on growth, puberty, thyroid disorders, diabetes and obesity, disorders of sexual differentiation, adrenal disorders and endocrine genetics, as well as the popular teachers' cases. All lectures and cases were, as usual, provided in both Russian and English.

In 2019, successful applicants will be joined by some of the best students from previous schools. On the final day, there will be a symposium, open to all interested paediatricians in Central Asia.

Alina German

8th ESPE Maghreb School

19–24 November 2018, Algiers, Algeria

We welcomed 26 students from Algeria, Morocco, Tunisia and Mauritania. The sessions, conducted in French as usual, included interactive lectures on growth, calcium and bone, adrenal disorders, disorders of sexual differentiation, diabetes and obesity, and thyroid problems.

Small group sessions included the ever-popular teachers' cases, four parallel groups of research presentations by six or seven students to three teachers, and rehearsal of case presentations. Each student delivered a case study to the plenum, and ten were selected to show their research projects in a plenary session. The 5th Maghreb Seminar on the final day attracted more than 300 doctors from the area.

Malcolm Donaldson

Apply for 2019!

9th Maghreb School
18–22 November 2019
Sousse, Tunisia

Deadline **3 May 2019**

plus: 6th Maghreb Seminar 23 November 2019

Apply for 2019!

6th ESPE DOM School
22–24 September 2019
Burg Feistritz, Austria

Deadline **3 June 2019**

5th ESPE Diabetes, Obesity & Metabolism School 30 September–2 October 2018, Delphi, Greece

The ESPE Diabetes, Obesity & Metabolism (DOM) School aims to provide up-to-date teaching in selected areas of diabetes and obesity, to promote discussions and interactions between younger and more senior pediatric endocrinologists and to develop the next leaders in paediatric endocrinology.

Our meeting in Delphi, Greece, immediately after ESPE 2018, attracted 26 participants from 19 countries.

The scientific programme consisted of plenary lectures, interactive small group teaching and case presentations. We were delighted to receive excellent feedback from the participants, as in previous years.

Moshe Phillip

Future meetings

See **www.eurospe.org/meetings** for details of all future meetings

58th Annual ESPE Meeting
19–21 September 2019
Vienna, Austria

59th Annual ESPE Meeting
10–12 September 2020
Liverpool, UK

60th Annual ESPE Meeting
May/June 2021
Copenhagen, Denmark

11th International Meeting of Pediatric Endocrinology
September 2021
Buenos Aires, Argentina

OTHER EVENTS

SEPTEMBER

ESPE Summer School
Burg Feistritz, Austria
16–18 September 2019

ESPE Diabetes, Obesity & Metabolism School
Burg Feistritz, Austria
22–24 September 2019

OCTOBER

ESPE Caucasus & Central Asia School
Astana, Kazakhstan
11–15 October 2019

NOVEMBER

ESPE Maghreb School
Sousse, Tunisia
18–22 November 2019

HELP RUN YOUR SOCIETY

Find details of vacancies at: **www.eurospe.org/about/vacancies**.

DEADLINES

APRIL

ESPE 2019 Abstract and Travel Grant deadline 15 April 2019

IFCAH-ESPE Grant applications (for accepted letters of intention only) 22 April 2019

***ESPE News* Editorial Board vacancy applications** 28 April 2019

Research Fellowship applications 30 April 2019

Early Career Scientific Development Grant applications 30 April 2019

Research Unit Grant final applications 30 April 2019

Caucasus & Central Asia School applications 30 April 2019

MAY

Accreditation & Syllabus Convenor vacancy applications 1 May 2019

Maghreb School applications 3 May 2019

Science Committee vacancy applications 19 May 2019

Clinical Fellowship applications 31 May 2019

JUNE

Diabetes, Obesity & Metabolism School applications 3 June 2019

Winter School Steering Committee vacancy applications 16 June 2019

ESPE 2019 early bird registration 20 June 2019

ESPE
European Society for Paediatric Endocrinology

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

Secretary General:
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ESPE Newsletter

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