

AE-PCOS

ANDROGEN EXCESS & PCOS SOCIETY

NEWSLETTER

Strengthening care for women with Androgen Excess Disorders

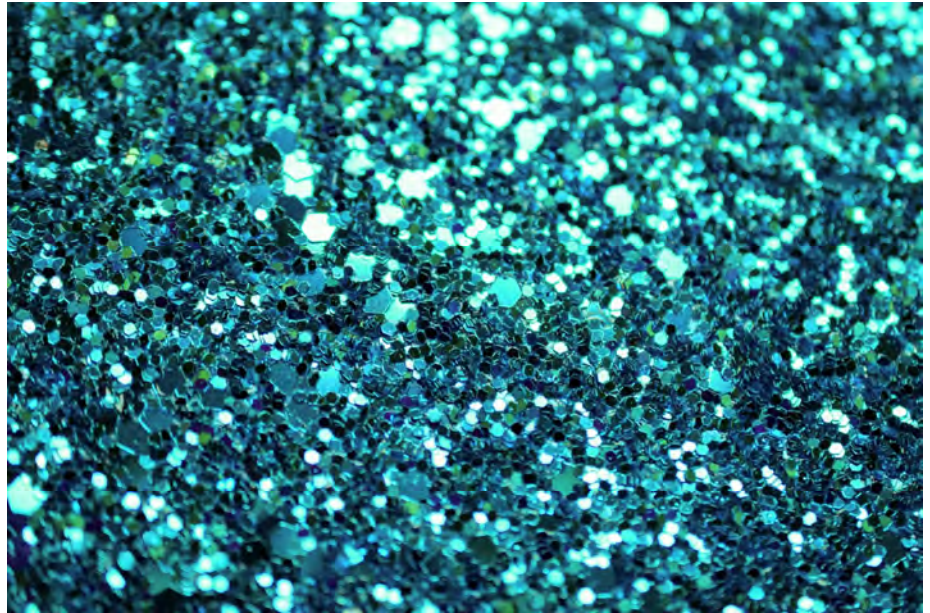


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FOREWORD

FROM THE PRESIDENT



Dear members of the AE PCOS society hope that all of you are looking forward to a well-deserved summer holiday. We had a very exciting and well attended update meeting in the charming city of Stockholm. This was also the first time that we held the meeting in Europe as a joint meeting with the European Endocrinology Society (ECE). The theme of the meeting was Immune Function in PCOS organized by Rebecca Campbell and Terhi Piltonen. They succeeded to put together a very interesting program with several renowned speakers from all across the world. Moreover, in the main program of the ECE there was also some attention for PCOS. And during the last day of the conference there was a well-attended joint symposium about several clinical aspects of the new International Guideline on PCOS. Elsewhere in this newsletter you will find some more detailed information and photos of both meetings.

More recently, our CEO and myself along with one of our senior members Rob Norman attended the annual meeting of the Indian PCOS Society which took place in Mumbai, India. All three of us delivered several lectures at that meeting and we witnessed a lot of great research which was presented in a three-day scientific program.

Looking forward to the upcoming annual meeting in Queenstown, New Zealand. It looks like it is going to be an inspiring meeting in breathtaking scenery. The title of that meeting, very much focusing on clinical science, will be “Long-term Health Sequelae of PCOS”. We have already received quite a large number of abstracts and all of the ones that were sent in will be presented either as a poster or an oral presentation. Again, within this two-and-a-half-day program there are speakers from all over the world addressing the long-term health issues associated with PCOS. Moreover, there is also more room for the younger scientists to present their research as well. Similar as in the past meetings there will be some “speed date” sessions with leading scientists interacting with members of the early career special interest group. Finally, there will be several debates about some controversies regarding the long-term health issues in PCOS.

Hopefully a lot of you, members as well as non-members, will attend this exciting meeting. Hope to see you all down under in Queenstown, New Zealand!

Cheers,
Joop Laven MD PhD REI
President, AE-PCOS Society

AE-PCOS

UPDATE MEETING

The AE-PCOS Update Meeting took place on May 10th in Stockholm, Sweden, at ECE2024.

By Sandro Graca & Tina Gorsek Sparovec

Following the warm welcome by **Terhi Piltonen** (Finland), Chair of the update meeting committee, **Elisabet Stener-Victorin** (Sweden), Chief scientific officer, and the President of the society, **Joop Laven** (Netherlands) provided some AE-PCOS news and officially started the presentations around the topic of the update meeting: *Immune functions in PCOS*.



The first session focused on “Steroid hormones and immune functions” and had two plenary presenters: **Camila Consiglio** (Lund University, Sweden), and **Oleg Varlamov** (Beaverton, United States) with his presentation on “**Prepubertal primate model and immune function**”.

During this morning session there were also abstract presentations by **Sara Torstensson** (Stockholm, Sweden) “**Alterations of eosinophil and natural killer cell populations in a dihydrotestosterone-induced mouse model of polycystic ovary syndrome**”, and **Hüseyin Cihan** (Basel, Switzerland) “**The Impact of Testosterone on TLR Expression in Transgender Men**”. **Michael O’Reilly** (Dublin, Ireland) was standing in for **Tara McDonnell** (Dublin, Ireland) to present “**The differential impact of oral classic and 11-oxygenated androgen precursor administration on downstream androgen metabolism and insulin sensitivity in women with PCOS**”.



After some valuable networking during the first coffee break, the second session focused on “PCOS and the immune system” and was chaired by **Joop Laven**, Netherlands and **Anju Joham**, Australia. **Bijal Patel** (London, United Kingdom) presented “**Kisspeptin as a test of hypothalamic function in women presenting with oligo / amenorrhoea**”, and **Camilla Palm** (Odense C, Denmark) showcasing the findings from the Odense Child Cohort: “**Prenatal testosterone exposure and offspring body composition at 7 years-of-age**”.

Before lunch, there was time for a short summary of the morning session and a quick presentation by **Caroline Andrews** representing the patient group Verity (UK).



The Early-Career Special Interest Group, with **Tina Gorsek Sparovec** (Sweden), **Heidi Vanden Brink** (USA), and **Sandro Graca** (Ireland) highlighted some of the work that the Early-Career Special Interest Group has been doing, including some of the social media outreach. As Social Media Officer, Sandro reminded attendees to follow AEPICOS and share our posts, in order to help spreading evidence-based information about PCOS.



The first afternoon session, “Female reproductive tract”, was chaired by **Kathy Hoeger** (USA) and **Tina Gorsek Sparovec** (Sweden) and started with a plenary presentation by **Douglas Gibson** (Edinburgh, United Kingdom) focusing on “**Endometrial immune function**”.



Abstract presentations followed, by **Mojca Jensterle** (Ljubljana, Slovenia) “**Endometrial Transcriptome Alterations Following Short-Term Liraglutide Treatment in Infertile Women with PCOS and Obesity**” and **Alessandra Tomaselli** (Rome, Italy) reporting on findings from their clinic: “**Impact of Drospirenone-Only-Pill on sexual function: Experience of our PCOS and Female Endocrinology Outpatient clinic**”. **Terhi Piltonen**, standing in for **Dorte Glintborg** (Odense C, Denmark) presented on the findings from the **National cohort study from Denmark, Finland and Sweden: “Risk of type 2 diabetes in 99,892 Nordic women with polycystic ovary syndrome and 446,055 controls”**.

The last session focused on “Pregnancy and immune function” and was chaired by **Paolo Giacobini**, (France) and **Heidi Vanden Brink** (USA). **Lachlan Moldenhauer** (Adelaide, Australia) delivered a presentation on “**Immune-metabolic interactions in pregnancy**”, followed by **Eszter Vankey** (Trondheim, Norway) and **Qiaolin Deng** (Stockholm, Sweden) who presented on “**Cytokines in pregnancy**” and “**Immune cell profile in PCOS placenta**”, respectively.

presentations had engaging Q&A sessions and there was still some time at the end to have a general discussion led by **Terhi Piltonen** (Finland). Last but not least, the Chair of the Annual Meeting, **Anju Joham** (Australia) announced the opening of registration and abstract submission (deadline extended to July 1st) to the **2024 meeting in Queenstown, New Zealand**.



The AEP-COS update meeting at ECE2024 in Stockholm featured informative presentations, engaging Q&A sessions, and precious networking, with attendees from all parts of the world connecting and sharing insights about their work in the field. For the ECSIG members, there was one extra opportunity to network and socialise at a delicious Swedish dinner.



Thank you to those who attended, and we look forward to seeing you in New Zealand later this year!

Update from the PCOS society, India



Dr. Duru Shah
MD, FRCOG
Founder President, The PCOS Society, India

Dear Friends,

The **International Conference of the PCOS Society of India** to be held between **21st June – 23rd June 2024** in Mumbai, India.

The PCOS Society India was delighted to organize a 3-day event of Academics and Fellowship at the Majestic Leela Hotel in Mumbai, In collaboration with the world-renowned **Androgen Excess and PCOS Society**.

The Workshop on **“Obesity in PCOS”** was fantastic with excellent discussions on topics which were extremely relevant to Gynecologists, Nutritionists, and Fitness experts on a daily basis. The Workshop on **“PCOS and Fertility”** was based on Case Discussions on various difficult or controversial areas, with experts in the field.



During the two day conference, as always, very interesting updates on the enigma of PCOS were unraveled based on Research on this subject, which is galloping and newer therapies are finding their way into the management of PCOS with some of them are already available to us for effective management. 3 of our International speakers and researchers, Profs. Rob Norman from Australia, Joop Laven from Netherlands and Anuja Dokras from USA were involved in our Workshops and Conference along with our National multidisciplinary experts, creating a huge canvas to include all the aspects related to PCOS in the life of a woman.

The conference was held in the most pulsating city of India- Mumbai, leading to an unforgettable experience as we explored the most in-depth understanding of PCOS. Valuable insights into this fascinating subject, were found by the 275 delegates who attended the meeting leaving a very positive feedback to this Meeting which earned them 6 credit points from the Medical Council.



The Opening Ceremony was beautiful during which Profs Joop Laven and Rob Norman were honored with an Hon. Fellowship of the PCOS Society, India. Prof. Anuja Dokras being the first Recipient a few years ago! Our **“PCOS Champions”** who volunteer for PCOS awareness programs were appreciated and our Chief Guest was the **“Director General of the Indian Council of Medical Research”**

We thank AE-PCOS for having collaborated with us and Prof. Joop Laven, Rob Norman and Anuja Dokras who represented the Organization for being with us and sharing their knowledge and research with us.

With Warm regards,

Duru Shah, President



Early Career Special Interest Group

BY JAMIE BENHAM

The Early Career Special Interest Group (EC-SIG) aims to support the professional development of early career professionals who have an interest in androgen excess disorders and polycystic ovary syndrome.

The EC-SIG objectives set by the Leadership Committee in collaboration with EC-SIG members are:

- 1) To expand collaborations between EC-SIG members.
- 2) To increase social media presence of EC-SIG to promote members and connect with early career professionals internationally.
- 3) To improve EC-SIG members knowledge about PCOS awareness initiatives.

The EC-SIG holds four meetings annually over Zoom. In addition, several Meet the Professor sessions are planned each year and in person events at AEPCOS meetings.

Join EC-SIG!

Please contact EC-SIG if you're interested in joining:
aepcos.ecsig@gmail.com



2024 Leadership Committee

Faculty Lead
Marla Lujan

Chairs
Snigdha Alur-Gupta
Nour El Houda Mimouni

Secretary
Sharmin Abbasi

Upcoming EC-SIG Events

- EC-SIG Quarterly Meeting
 - July 25, 2024, at 5 PM EST
- Pitfalls and Progress in Management of PCOS in New Zealand and Australia
 - Planning for September 2024, more info to come!
- EC-SIG events are planned at the AE-PCOS Annual Meeting in New Zealand

EC-SIG CORNER

EC-SIG HIGHLIGHTS

- The EC-SIG hosted an international symposium **Pitfalls & Progress in Management of PCOS in South Asia** on March 14, 2024 over Zoom. This symposium was hosted by EC-SIG co-chairs Drs. Snigdha Alur-Gupta and Nour Mimouni.

- The featured speakers were:



- In this engaging panel, several barriers to PCOS care in Bangladesh and India were raised including misinformation, underdiagnosis, knowledge gaps, lack of evidence-based guideline translation, and academic barriers.
- The panelists shared progress and efforts underway to increase awareness of PCOS. These include school outreach programs, webinars, patient resource materials, and disseminating copies of the guidelines.
- This symposium was the first in a series of planned symposia designed to:
 - 1) Increase collaboration of early career researchers around the world
 - 2) Highlight efforts and limitations in treating PCOS in different regions around the world

-
- The EC-SIG hosted a virtual Meet the Professor session on June 20, 2024
 - The featured speaker was Prof. Rebecca Campbell, AE-PCOS Director at Large
 - It was an engaging session where Prof. Campbell shared her career trajectory and offered insights into succeeding as an early career researcher and overcoming early career challenges

AE-PCOS
ANDROGEN EXCESS & PCOS SOCIETY

Meet the Professor

AE-PCOS Early Career SIG
Online Session:

Thursday, June 20
6pm (EDT)

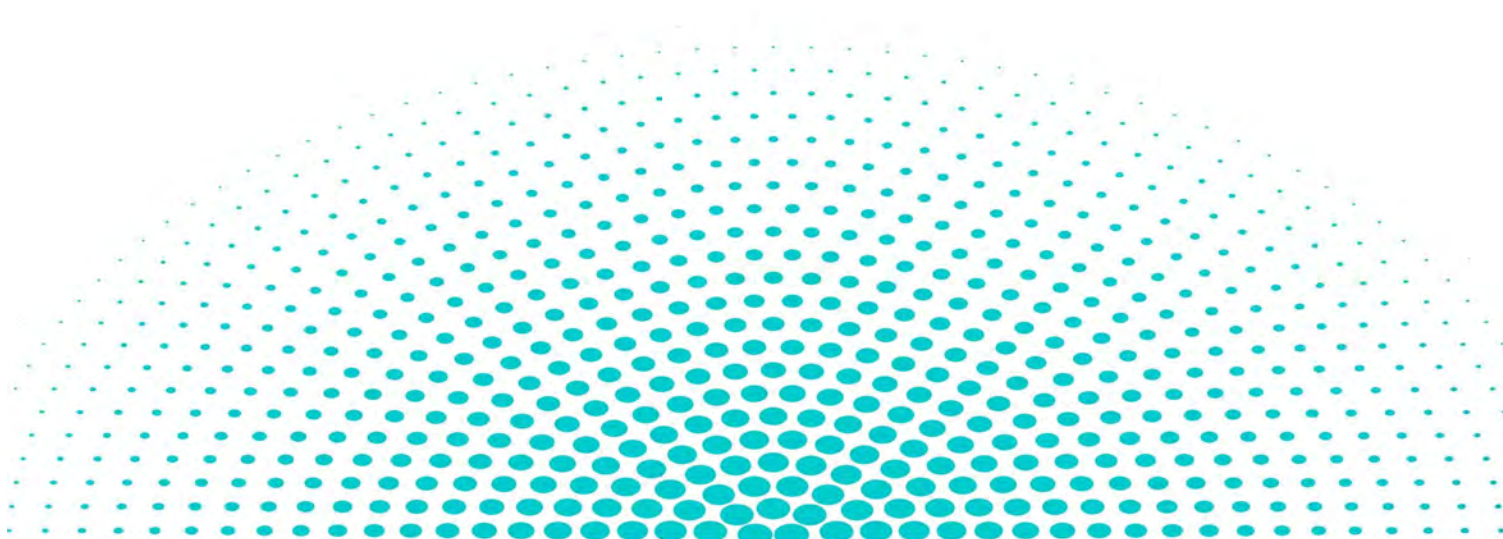
Speaker

Prof. Rebecca Campbell
AE-PCOS Director-at-Large
University of Otago
Dunedin, New Zealand

www.ae-society.org

EC-SIG MEMBER HIGHLIGHTS

Many EC-SIG members attended the AEP-COS Update Meeting in Stockholm, Sweden in May and got together for an EC-SIG mingle.



Research updates:

Probiotics, Prebiotics and Synbiotics in PCOS.

Joop S.E. Laven

Women with PCOS do have a specific gut microbiome that seems to be disrupted leading to a so-called leaky gut. By far the best evidence for this comes from a recent paper which showed that transplantation of fecal microbiota from women with PCOS into mice resulted in increased disruption of ovarian functions, insulin resistance, altered bile acid metabolism, reduced interleukin-22 secretion and infertility. (Qi et al, 2019). Looking in more detail at the gut microbiome in women with PCOS it seems that the gut microbiome in women with PCOS is more diverse and there is an abundance of other microbes generally not or to a lesser extent encountered in non PCOS women (Yang et al, 2024). Other studies have shown similar findings and also indicated that the hyperandrogenemic phenotypes are different from the one without hyperandrogenism in terms of richness of the gut microbiome (Li et al, 2024). Similarly, the vaginal microbiota are also different and more diverse with a higher heterogeneity in women with PCOS. In this paper they also found a correlation between certain species and clinical parameters such as LH/FSH ratios, sex steroid, AMH and insulin serum levels (Jin, 2023).

Because the supposed effect of pro-, pre- and synbiotics a lot of our patients are using some of these in order to correct the disrupted gut microbiome. Most of us as clinicians should become much more aware that patients use those without telling us because they generally don't see these food supplements which might in turn impact on all kind of outcomes we are investigating. Probiotics are foods or supplements that contain live microorganisms intended to maintain or improve the "good" bacteria (normal microflora) in the body.

Prebiotics are foods (typically high-fiber foods or fermented substances) that act as food for human microflora. Prebiotics are used with the intention of improving the balance of these microorganisms. Synbiotics or symbiotics are combinations of pro- and pre-biotics. In a large recent meta-analysis including 12 trials on probiotics it was shown that probiotic supplementation significantly reduced the HOMA-IR and fasting glucose concentrations. However, supplementation with probiotics did not affect inflammation and oxidative stress in women with PCOS. The authors of this paper concluded that although probiotics supplementation had beneficial effects on some PCOS-related outcomes, the certainty of the evidence was rated as low to very low (Talebi et al., 2023). The same study also looked at the impact of prebiotics in PCOS patients and concluded that waist/hip circumference, fasting glucose concentration, the lipid profile, DHEAS, hs CRP and hirsutism scores were significantly reduced after prebiotics supplementation however, similarly with low certainty of evidence (Talebi et al. 2023). Finally, the meta-analysis concluded that synbiotic supplementation had some beneficial effects on glycemic control, lipid profile, and hormonal parameters, but the certainty of the evidence was rated as low to very low. However, all the above results should be interpreted with caution because almost all the significant findings in the analyses received low and very low-quality evidence based on the GRADE tool. Moreover, most of the analyses were performed on a limited number of studies with less than 1 year of follow up duration. The results also showed high evidence of statistical heterogeneity between the studies in some analyses which weakens the clinical certainty of the results

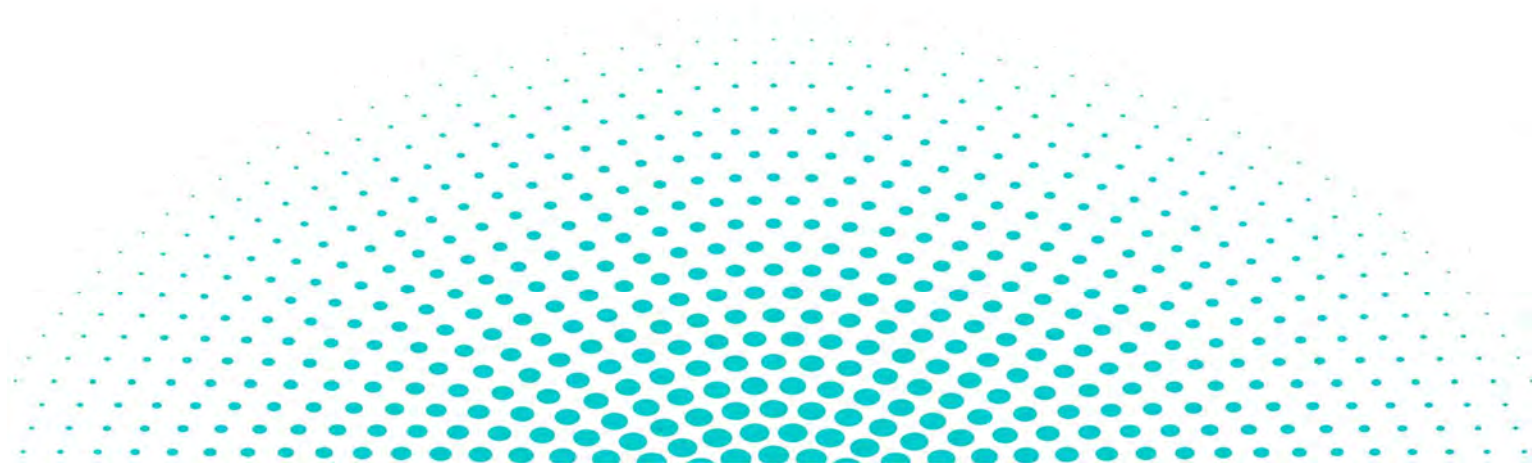
Research update continued:

Probiotics, Prebiotics and Synbiotics in PCOS.

Lastly, the effects of an intervention on selected outcomes are not solely based on statistical significance but should also be judged on clinical relevance. For example, the results of the current umbrella review showed inconsistent and contradictory findings regarding the potential effects of pro-, pre-, and synbiotics supplementation on waist circumference in patients with PCOS. Taken all these issues together it seems fair to state that because the low to very low quality of this evidence further well-designed RCTs might help to confirm the findings in women with PCOS and eventually prove that pro-, pre- and syn-biotics might improve some of the phenotypical features of the syndrome (Talebi et al., 2023).

References:

1. Qi X, Yun C, Sun L, Xia J, Wu Q, Wang Y, Wang L, Zhang Y, Liang X, Wang L, Gonzalez FJ, Patterson AD, Liu H, Mu L, Zhou Z, Zhao Y, Li R, Liu P, Zhong C, Pang Y, Jiang C, Qiao J. Gut microbiota-bile acid-interleukin-22 axis orchestrates polycystic ovary syndrome. *Nat Med*. 2019 Aug;25(8):1225-1233.
2. Yang T, Li G, Xu Y, He X, Song B, Cao Y. Characterization of the gut microbiota in polycystic ovary syndrome with dyslipidemia. *BMC Microbiol*. 2024 May 17;24(1):169.
3. Li M, Chang Q, Luo Y, Pan J, Hu Y, Liu B, Ma M, Wang Q, Guo Y, Wang Q. The gut microbial composition in polycystic ovary syndrome with hyperandrogenemia and its association with steroid hormones. *Front Cell Dev Biol*. 2024 May 30;12:1384233.
4. Jin C, Qin L, Liu Z, Li X, Gao X, Cao Y, Zhao S, Wang J, Han T, Yan L, Song J, Zhang F, Liu F, Zhang Y, Huang Y, Song Y, Liu Y, Yao Z, Chen H, Zhang Z, Zhao S, Feng Y, Zhang YN, Qian Y, Sun T, Feng Q, Zhao H. Comparative analysis of the vaginal microbiome of healthy and polycystic ovary syndrome women: a large cross-sectional study. *Reprod Biomed Online*. 2023 Jun;46(6):1005-1016.
5. Talebi S, Zeraattalab-Motlagh S, Jalilpiran Y, Payandeh N, Ansari S, Mohammadi H, Djafarian K, Ranjbar M, Sadeghi S, Taghizadeh M, Shab-Bidar S. The effects of pro-, pre-, and synbiotics supplementation on polycystic ovary syndrome: an umbrella review of meta-analyses of randomized controlled trials. *Front Nutr*. 2023 Sep 27;10:1178842.
6. Polycystic ovary syndrome: An integrative review. *Int J Reprod Biomed*. 20(9):723-738.
7. Pastoor H, Mousa A, Bolt H, Bramer W, Burgert TS, Dokras A, Tay CT, Teede HJ, Laven J. Sexual function in women with polycystic ovary syndrome: a systematic review and meta-analysis. *Hum Reprod Update*. 2024 Jan 17:dmad034.



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Want to be featured in next issue? Share with us any news or announcements.

We want to hear from you!

Interested members please email newsletter@ae-society.org.

Use the subject line "Member engagement"

Join up on social media:

Our AEPCOS society has several social media accounts! Please follow us on Twitter: **@aepcossociety**

Instagram: **aepcossociety**

Facebook: **Androgen Excess & Polycystic Ovary Syndrome**

EC-SIG plans to start a 'Ted Talks' type series **EDGE-PCOS = Evidence-based Dissemination of Guidelines and Expertise (in) PCOS** that features EC-SIG members.

Do you have ideas or want to contribute?

Contact dr.basselwa@gmail.com

CALENDER OF EVENTS

- September 2024 **62nd Annual Meeting of the European Society for Pediatric Endocrinology** Liverpool, UK
- September 2024 **60th Annual Meeting of the European Association for the Society of Diabetes** Madrid, Spain
- October 2024 **Annual Conference of the International Society for Pediatric and Adolescent Diabetes** Lisbon, Portugal
- October 2024 **American Society for Reproductive Medicine Scientific Congress and Expo** Denver, Colorado, USA
- November 2024 **Obesity Week hosted by the Obesity Society** San Antonio, Texas, USA

REGISTRATION IS OPEN FOR OUR ANNUAL MEETING

<https://ae-society.org/meetings/>

November 7-9, 2024

22nd Annual Meeting of the Androgen Excess and PCOS Society

The meeting will be held in Queenstown, New Zealand at the Millenium Hotel from 7th to 9th November 2024. The theme for the 22nd Annual Meeting will be ***Life-Long Sequelae in PCOS***. The meeting will explore recent mechanistic and clinical advances related to cardiovascular, metabolic and psychological health in this chronic, lifelong condition, highlighting the latest research findings in PCOS-related basic and clinical research.

