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# eyes NEWS

The newsletter of the ESE Young Endocrinologists and Scientists

**Pillow talk...**  
the hormonal  
secrets behind sleep



European Society  
of Endocrinology



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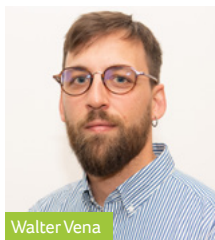
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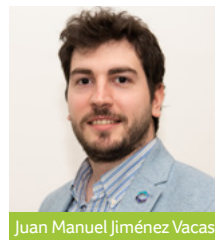
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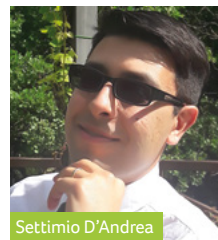
# Editorial



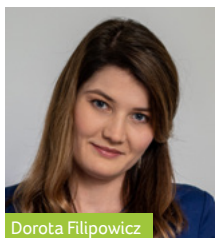
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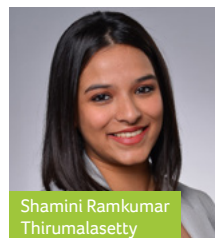
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**eyes**

ESE young endocrinologists  
and scientists  
looking forward

Pride, happiness and gratitude are the main emotions accompanying this, my final editorial as Editor-in-Chief of *EYES News*.

Pride for all the effort dedicated to the cause, for the constant 'juggling' between this and many other commitments, and for the ability to fit everything together so that it always works out.

Happiness for the unique opportunity to lead such a significant project for the EYES community and for all the young endocrinologists scattered across Europe and beyond.

Gratitude for the many things that I have been fortunate to learn and, above all, for the many lessons received from mentors and colleagues (especially younger colleagues), with whom I have inevitably interacted over these years, enriching my knowledge and, particularly, my human experience, and making me become a better version of myself.

I do not deny that I will be very sorry to have to give up this role but, at the same time, I am happy to hand over to the next Editor, Juan Manuel Jiménez Vacas, and to continue offering my support to him and this magnificent Editorial Team. I also extend a warm welcome to our new arrivals, Dorota Filipowicz and Shamini Thirumalasetty. Our group welcomes you and hopes to make you feel part of each of our projects.

We have dedicated this issue to the interaction between sleep and the functioning of endocrine glands. Don't miss all the facets of this subtle and sometimes dangerous relationship. You can also feel inspired by the amazing career story of Professor Guillaume Assié, whom I had the opportunity to interview during ECE 2024 in Stockholm. Although it was my last interview as Editor, I will forever be member of this family.

Enjoy the read!

**Walter Vena**  
Editor, *EYES News*



You can flick through past and present issues of *EYES News* at [www.e-se-hormones.org/eyesnews](http://www.e-se-hormones.org/eyesnews)





# From your EYES Co-Chairs

It is truly difficult to encapsulate the strong mix of emotions, unforgettable moments and sparkling brilliance that we were fortunate enough to experience during ECE 2024 in the stunning city of Stockholm. In this magnificent 'bubble', the EYES community really reached and exceeded its goals.

The outstanding EYES Symposium dedicated to neuroendocrine tumours saw extraordinary participation, with young 'promises' for the future of endocrinology proving their worth in the presence of giants. Our social evening, under the last light of the Stockholm sun, welcomed over 200 participants to enjoy a relaxed, cheerful and vibrant atmosphere. I believe everyone will remember it with affection and happiness.

But there is no time to stop! New commitments are already on the horizon, and our committee, refreshed by the arrival of a new member, Clara Lazzaretti (Italy), must immediately focus on future engagements: most importantly for our community, the EYES Annual Meeting.

The **11th EYES Annual Meeting** is just around the corner in beautiful Helsinki, Finland, on 6–8 September. In short, like us, it is a moving train, always full of energy and drive. Make sure to reserve your place by registering before 5 August.

I conclude with a warm welcome to 'JuanMa' by my side as the new Co-Chair of the EYES Committee. It will be a wonderful journey, and I am sure that our friendship will make every commitment easier and every duty a pleasure. Our wish is to continue growing this movement and to preserve its spontaneity and purity, which distinguish it and make it special.

**Walter Vena**  
**Juan Manuel Jiménez Vacas**  
EYES Committee Co-Chairs



EYES Committee members at ECE 2024: L–R (back) Jonathan Meertens, Walter Vena, Karin Zibar Tomšić, Juan Manuel Jiménez Vacas; (front) Victoria Withy, Clara Lazzaretti, Barbara Altieri, Kristina Saravinovska, Julia Beck

**'There is no time to stop!  
New commitments are  
already on the horizon.'**

## Key dates for your diary

Keep up to date at [www.es-e-hormones.org/events-deadlines](http://www.es-e-hormones.org/events-deadlines) and watch your inbox for emails with details, Early Bird rates, free places and grant information!

**5 August 2024**

**11th EYES Annual Meeting**

Registration deadline

**2 September–24 November 2024**

**Postgraduate Advanced Course on Pituitary Tumors**

Online

**3 September 2024**

**ESE Clinical Update on Adrenal and Cardiovascular Endocrinology 2024**

Early Bird Registration and Case Submission

**4–6 September 2024**

**13th European Congress of Andrology**

Stockholm, Sweden

**6–8 September 2024**

**11th EYES Annual Meeting**

Helsinki, Finland

**7–10 September 2024**

**46th Annual Meeting of the European Thyroid Association**

Athens, Greece

**9–13 September 2024**

**60th Annual Meeting of the European Association for the Study of Diabetes**

Madrid, Spain

**17 September 2024**

**ESE Talks... Rare Diseases**

Online

**19 September 2024**

**ESE Spotlight on Science: Tracking the intracellular movement of membrane proteins**

Online

**24–26 September 2024**

**ESE Clinical Update on Adrenal and Cardiovascular Endocrinology 2024**

Online

**2–4 October 2024**

**23rd ENS@T and 3rd COST Harmonis@tion Meeting**

Palma de Mallorca, Spain

**3 October 2024**

**ESE Talks... led by EUWIN (European Women in Endocrinology)**

Online

**17–20 October 2024**

**EndoBridge**

Antalya, Turkey

**28 October–1 November 2024**

**34th Postgraduate Course in Clinical Endocrinology, Diabetes and Metabolism**

Online

**5 November 2024**

**ESE Talks... Thyroid hormone resistance**

Online

**6 November 2024**

**ESE Talks... led by EUWIN (European Women in Endocrinology)**

Online

**12–14 November 2024**

**ESE Clinical Update on Calcium and Bone**

Online

**18–20 November 2024**

**EuroPit 2024**

Annecy, France

**20 November 2024**

**ESE Talks... for Nurses: Osteoporosis**

Online

**10–13 May 2025**

**Joint Congress of ESPE and ESE 2025 Endocrinology Across the Life Course**

Copenhagen, Denmark



# Amazing careers: Meet Guillaume Assié

Professor Guillaume Assié, from the Cochin Hospital, Paris, France, is a physician and researcher with expertise in endocrine tumours, focusing on the adrenals and pituitary. He also teaches artificial intelligence in medical school. Walter Vena talked to him about his career to date.



Guillaume Assié

## What led you to choose endocrinology?

After the second year of medical training, I started some parallel studies in biology – the research was definitely very important to me. So one reason I chose endocrinology was because I think it's not far from biology. Another important aspect was the holistic view. When a hormone is dysregulated, it impacts the whole body and, for me, it's important not just to focus on a small part of someone. I considered doing internal medicine (in France, it's a separate specialty). However, I found that endocrinology would also bring a holistic view of patients, while being specialised enough not to have to know all of medicine – which in my view is not possible. Endocrinology also shares features with intensive care, in terms of the holistic side. For instance, you have to have an opinion if an endocrine disease disrupts the heart, you can't just call a cardiologist. So these are my reasons.

## Did any key moments shape your career?

I was always undecided between research and clinical medicine, and I started to alternate between the lab and clinics. As a second year resident, I stopped in order to do a full-time year in the lab, and this alternating pattern continued for some years. So, in this way, I built my training in order not to choose between them. Then, by becoming a professor, it became possible for me to avoid choosing at all!

**'You need to be happy with what you do, otherwise you can't continue in the long term.'**

I think the key moments were those alternate steps in clinics and in the lab, giving me time to go deeply into a specialty. When you do just one thing, you can go deeper. I think being focused when you're training is very important. This approach has also allowed me, over many years, to develop an innovative team structure where lab work is integrated with the clinics, and to train young people across both disciplines.

## What is the biggest challenge for young endocrinologists?

The importance of balancing private and working lives. Twenty years ago, you would not even be asked, 'Are you OK or not?' However, finding this balance is key and always has been. Positions where you do clinics, research, teaching and so on need a lot of work. Most important is definitely the ability to keep smiling. You need to be happy with what you do, otherwise you can't continue in the long term.

## What obstacles lie at the start of their career paths?

The first is deciding what they want to do. It's good to visit and talk to more experienced people, see their lives, ask them professional and personal questions, so that you can make up your mind. But not everyone needs advice: probably the majority don't. I also know people who navigate life without a plan. But in all cases, what is mandatory is to keep smiling.

## Who has inspired you most in your career?

We had extraordinary teachers for medicine. At Cochin School, I was trained in endocrinology by Jean-Pierre Luton and Xavier Bertagna, who was my head for years, and now Jérôme Bertherat. My PhD mentor, Eric Clauser, was very rigorous. Then I went to the USA and met Constantine Stratakis and Charis Eng, who changed the way I thought to be 'Just do what you want. Just go fast. What do you want to do? You can do anything. You want to do this? OK. You have the means to do it. Do it like you're free. But you must perform.' These people were very inspiring, because they gave me freedom in ways of thinking in research.

## What advice would you give your younger self?

Be happy – just very simple advice. There are disadvantages of doing what I did, because I dived deeply into things for years without any publications, for instance. You have to address your medium term doubts about whether you are making progress, and balance your long term objectives against potential short term gains.

## Have you had any failures, and how did you cope?

I have been working for 20 years on adrenal cortical cancer and, when you are so invested and you still have patients dying, you think, 'Maybe we have not won yet.' The way to overcome this is to figure out that the priority of medicine is to cure, but the priority of research is to understand. So you should not feel obliged to always succeed in curing when you are doing research. It is part of accepting the situation.

## What should be the most important goal for EYES?

I think that networking is important: the ability to travel, to see the world, to meet people from everywhere who think differently from you. EYES can support the community of young endocrinologists in moving between centres, by providing connections and good opportunities. The rise of nationalism in Europe is concerning, so any initiative encouraging people to feel like they belong to the same community is important.

Watch the full interview [↗](#) and our other Amazing Scientist interviews [↗](#)



# Hormones and sleep

We consider the factors affecting the two-way relationship between endocrinology and a good night's rest.

## Am I tired because of my thyroid?

Sleep has a bidirectional relationship with the hypothalamic-pituitary-thyroid axis, and a disturbance in either can result in dysregulation of the other.<sup>1</sup>

There are two mechanisms that connect sleep and endocrine function: the circadian rhythm and the sleep-wakefulness state.<sup>2</sup> Thyroid hormone secretion follows a distinct daily rhythm and is regulated, in part, by the circadian clock. Thyrotrophin (TSH) levels display a circadian pattern, where the lowest levels are observed between 15.00 and 19.00 and the highest levels between 22.00 and 05.00.<sup>1</sup> Free tri-iodothyronine (T3) also exhibits a 24-hour circadian rhythm, similar to TSH, but with a delayed onset. Conversely, free thyroxine (T4) levels do not show a clear circadian pattern, possibly due to the extended half-life of free T4.<sup>2,3</sup>

The quality and quantity of sleep impact the circadian pattern of TSH and thyroid hormone secretion. On the other hand, the changes in thyroid hormone levels can affect the sleep-wakefulness state.

### The effects of sleep alteration on the thyroid

TSH secretion is strongly influenced by the circadian rhythm and the sleep-wakefulness state. Studies have indicated that sleep deprivation, as a form of acute physiological stress, can result in a decrease in the nocturnal rise in TSH.<sup>1</sup> The impact of changes in sleep on thyroid hormone secretion has been found to rely on the pattern of sleep deprivation (short term or long term sleep deprivation). While short term sleep deprivation may lead to an increase in thyroid hormone secretion regardless of TSH, to sustain alertness during acute stress, long term sleep deprivation could lead to decreased thyroid hormone secretion. This is thought to be a protective response against a catabolic state, to meet the brain's metabolic needs.<sup>1</sup> Further studies confirming the link between sleep alterations and thyroid function in a large group of subjects are needed.<sup>2,3</sup>

### The effects of thyroid alteration on sleep

#### Hypothyroidism

Current evidence from investigations into the connection between low thyroid hormone levels and sleep quality is based on relatively small sample sizes, and does not effectively



identify the underlying mechanisms.<sup>4</sup> Some studies have shown that untreated clinical hypothyroidism may result in prolonged sleep onset and decreased sleep quality.<sup>4</sup> Clinical hypothyroidism can also impact sleep by triggering or worsening pre-existing obstructive sleep apnoea (OSA). Negative markers of OSA, such as the apnoea-hypopnoea index and the time spent asleep with oxygen saturation <90%, were higher in hypothyroid patients compared to those with normal thyroid function and established OSA.<sup>1</sup>

However, the link between subclinical hypothyroidism and sleep quality remains uncertain, based on limited current evidence. Additionally, the symptoms of hypothyroidism are often vague and can resemble symptoms associated with lifestyle changes or other conditions unrelated to thyroid disease. Common complaints of patients with thyroid issues include persistent fatigue, chronic anxiety and reduced quality of life. The promotion of thyroid hormone therapy and alternative substances, as a potential cure for these symptoms, has led to the widespread use of various therapies for hypothyroidism, including subclinical hypothyroidism.<sup>5</sup>

#### Hyperthyroidism

Sleep disruption is a hallmark and a common presenting complaint in patients with hyperthyroidism, due to increased thyroid hormone synthesis or thyrotoxicosis in

the course of a destructive/inflammatory process affecting the thyroid gland.<sup>1</sup> Levels of the circulating thyroid hormone have a significant impact on sleep, as higher thyroid hormone levels are linked to difficulties falling asleep and a shorter sleep duration, with the severity of insomnia symptoms being directly related to a degree of thyroid hormone excess.<sup>6</sup> Furthermore, hyperthyroidism can exacerbate anxiety, depression, tremor and other conditions, further influencing insomnia and sleep quality.<sup>3</sup>

Additional research is needed to definitively determine the nature of sleep disruptions in hyperthyroidism.

#### Thyroid nodules and thyroid cancer

To date, there has been no definitive evidence showing a direct connection between structural thyroid disorders and sleep. However, there is a common belief that there may be a change in the circadian rhythm of gene expression within the thyroid tissue. The study of altered circadian genomics has attracted significant scientific attention, not only in terms of carcinogenesis, but also as a potential avenue for therapeutic exploration.<sup>1</sup>

Ana Majić Tengg  
Croatia

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**'Common complaints of patients with thyroid issues include persistent fatigue, chronic anxiety and reduced quality of life.'**





# Cortisol and sleep disorders

## Does a vicious circle exist between sleep disorders and cortisol secretion, linked to a disrupted circadian rhythm?

Our circadian rhythm is our 24-h internal clock, mainly regulated by the daily cycle of day and night. This biological clock is fundamental to regulate several functions in the human body, including sleep patterns, hormone release, temperature and digestion.

In particular, sleep is a vital activity for every organism, regulated through both circadian and homeostatic processes. It is highly conserved across evolution, confirming its essential role in the preservation of crucial biological processes. Indeed, sleep disorders are associated with detrimental physiological responses, and can result in many chronic conditions, including obesity, diabetes, and cardiovascular and mood disorders. Several factors can alter sleep quality, such as travel between time zones, shift work, neurological diseases and stressful conditions.

Cortisol is the main hormone involved in the adaptive response to stress. Its secretion follows a circadian rhythm, characterised by a nadir during the early night, followed by a rise in adrenocorticotrophin, with a consequent peak of cortisol near the awakening time. During daytime, there is a progressive decline, which is potentiated by sleep. It follows that sleep and cortisol secretion disorders interact in a bidirectional fashion, sharing multiple pathways that could explain the observed increase in the prevalence of sleep- and stress-related disorders.

### Misalignment of the cycle

It has been established that the misalignment of the sleep–wakefulness cycle disrupts the hypothalamic–pituitary–adrenal (HPA) axis. For example, insomnia is a common sleep disorder characterised by difficulties in falling or staying asleep, associated with daytime impairment or distress. Some studies in patients with insomnia reported a positive correlation between polysomnographic indices of sleep disturbance and hyperactivation of the HPA axis, with high levels of cortisol in the evening and at sleep onset.

Reduction in sleep duration has also been associated with increased risk of developing obesity, because of changes in several hormones and peptides implicated in food intake and energy expenditure, such as insulin, ghrelin and leptin, which are targets of cortisol activity. Thus, the hyperactivation of the HPA axis may contribute to the vicious circle perpetuation of chronic insomnia and metabolic disorders.<sup>1</sup>

### Obstructive sleep apnoea

Obstructive sleep apnoea (OSA) is a prevalent sleep-induced breathing disorder associated with diabetes and cardiovascular disease. Mainly because of methodological inconsistencies, it is still a matter of debate whether OSA is associated with alterations in cortisol secretion and/or if treatment with continuous positive airway pressure (CPAP) can reverse hypercortisolism.

A recent randomised controlled trial compared treated and untreated OSA in the same patients after CPAP withdrawal,<sup>2</sup> and found that withdrawal of CPAP caused recurrence of OSA associated with a parallel increase in nocturnal levels of cortisol, metabolic parameters, respiratory events, hypoxaemia, heart rate accelerations and sleep fragmentation during sleep.

In this form of ‘sleep-induced metabolic syndrome’, the excessive HPA axis activation may result from sleep loss, hypoxaemia and autonomic activation, possibly playing a pivotal role in the cardiometabolic alterations arising from OSA.

### Cushing’s syndrome or adrenal insufficiency

Chronic exposure to hypercortisolism, namely Cushing’s syndrome, induces consistent sleep disturbances which are partially reversible after remission.<sup>3</sup> This could be influenced by the persistence of several cardiometabolic abnormalities even after long term remission of Cushing’s syndrome. Indeed, chronic hypercortisolism causes several co-morbidities, including hypertension, visceral obesity and diabetes.

In contrast, in patients with adrenal insufficiency, the dynamics of glucocorticoid administration are crucial to avoid potential circadian rhythm-related complications of overtreatment. Several studies have compared the effects of the same total daily dose of hydrocortisone administered through different formulations: conventional hydrocortisone (two or three times a day) versus dual-release hydrocortisone (once daily). These have demonstrated favourable effects of dual-release hydrocortisone on different metabolic parameters and even on immune cell profile. These effects are attributed to the more physiological cortisol exposure time profile obtained with dual-release hydrocortisone, ultimately safeguarding the physiological expression of the clock gene system.<sup>4</sup>

In addition to the traditional ‘vertically hierarchical’ control system of the circadian rhythm from the hypothalamus, the synchronisation of peripheral clocks is achieved horizontally, through multiple signals from metabolic fluxes (from food intake and liver processing), as well as cytokine and peripheral modulation of glucocorticoid action.<sup>5</sup> Cortisol is the main signal synchronising peripheral clocks in tissues involved in metabolism, adipogenesis, immune response and oxidative stress. Changes in the cortisol rhythm hinder glucose uptake and secretion, insulin sensitivity, lipid biosynthesis and catabolism,<sup>6</sup> explaining the different metabolic phenotypes associated with altered cortisol secretion, such as the central obesity in Cushing’s syndrome and weight loss in adrenal insufficiency.

### In conclusion

The bidirectional interaction between sleep and the HPA axis is complex and fragile. HPA axis hyperactivation is associated with sleep disturbances, and the perpetuation of sleep disorders favours metabolic complications and several other chronic health conditions. Gender, age, race and disease state contribute to the variability of HPA axis responsiveness. Nevertheless, many other factors involved in cortisol metabolism in peripheral tissues, such as 11 $\beta$ -hydroxysteroid dehydrogenase activity, cortisol-binding globulin levels and polymorphisms of glucocorticoid receptors, may modulate the individual risk of adverse effects associated with chronic glucocorticoid overexposure at the tissue level.

**Chiara Sabbadin**  
Italy



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# Sleep and testicular function

The body's circadian rhythm exerts a significant influence over the endocrine system, regulating various hormones, including cortisol, insulin, glucagon and testosterone, among others.

Research dating back to the 1970s has elucidated the circadian secretion pattern of testosterone, which begins to increase with the onset of sleep, peaks at the first rapid eye movement (REM) sleep episode, and remains at that level until wake time, gradually decreasing throughout the day, finally reaching its nadir around bedtime.

## Sleep disturbance

In contemporary society, sleep disorders have emerged as a pressing public health concern. They are often related to 'constantly connected' modern lifestyle rhythms or employment-related factors, such as shift work. Sleep disturbance ranges from sleep deprivation to poor sleep quality as a result of many conditions, such as behaviourally induced insufficient sleep syndrome, insomnia, and factors such as obstructive sleep apnoea syndromes, stimulant abuse or excessive usage of electronic devices before bedtime.

These forms of sleep disturbance are known to be associated with numerous health issues, due to the disruption of the physiological circadian rhythm. Examples include depression, hypertension, glucose deregulation, obesity, cardiovascular disease, impaired cognitive function, anxiety disorders and, notably, disruption of testicular function, with scientific evidence indicating impacts on both testosterone production and fertility.<sup>1-3</sup>

## Sleep deprivation and testicular function

In this context, it's important to recall that testosterone isn't just critical for male sexual behaviour and reproduction. It also has significant positive impacts on muscle mass, strength, body composition, bone density and overall vitality and health.

To explore the effects of sleep deprivation on testicular function, many studies have utilised a mouse model. Regarding fertility, seven days of sleep deprivation led to a worse seminal quality, with a statistically significant reduction in sperm motility. From a hormonal perspective, an increase in corticosteroid concentrations and a corresponding significant decrease in testosterone concentrations have been highlighted. Although the aetiology has not been fully elucidated yet, it is speculated that a suppression of the hypothalamus-pituitary-gonadal axis is the cause.

**'There is evidence indicating a higher prevalence of decreased testosterone levels among shift workers, especially among those dissatisfied with their schedules.'**



Moreover, the disruption of the physiological sleep pattern may impede the natural increase in testosterone levels that typically occurs during sleep onset, representing another potential aetiological factor. Another mechanism that is hypothesised to explain the testosterone inhibition during sleep deprivation is linked to the increase in serotonin (5HT) levels which occurs in these cases. That's because serotonin receptors have been identified on Leydig cells in hamster testes, and their activity has been demonstrated to exert an inhibitory effect on testosterone production. Sleep deprivation also has a detrimental effect on sexual behaviour in male rats, leading to a decreased rate of mating effort.

## Studies in humans

Human studies include an interesting experimental study conducted by Leproult *et al.* on healthy young men, which showed that restricting sleep to five hours per night for eight consecutive days resulted in a significant decrease of approximately 10–15% in daytime testosterone levels, with unchanged cortisol levels.<sup>4</sup>

Furthermore, research by Schmid *et al.* highlighted the critical role of sleep timing in affecting male pituitary-gonadal axis function.<sup>5</sup> In a study involving young volunteers, testosterone levels decreased notably when sleep was restricted to the first half of the night (from 22.30 to 03.30), yet remained stable when sleep was limited to the second half (from 02.45 to 07.00). These findings suggest that the latter portion of sleep might have a more significant

impact on pituitary-gonadal axis activity and on testicular function, challenging previous studies that emphasised the importance of the first REM phase. In this regard, it's worth noting that, while some studies indicated that testosterone peaks during the first REM sleep episode in the initial half of sleep, the latter half of sleep generally features more REM sleep time. At the moment, conclusive evidence on this matter is still lacking.

Examining shift workers provides a fascinating avenue for investigating how disruption in circadian rhythm affects hormone levels, given that shift work often leads to compromised sleep quality. While findings aren't consistently clear-cut, so preventing definitive conclusions, numerous studies have observed poorer seminal parameters (both in terms of sperm count and morphology) among shift workers compared with men who have standard schedules. Moreover, there is evidence indicating a higher prevalence of decreased testosterone levels among shift workers, especially among those dissatisfied with their schedules.<sup>6</sup> This difference could potentially be part of a mechanism of struggling to adapt to the demands of this particular lifestyle.

In conclusion, the intricate relationship between sleep patterns and testicular function emphasises, once again, the crucial role of maintaining healthy habits, particularly in sleep, for overall male reproductive health and well-being.

**Raffaele Scafa and Alberto Ferlin**  
Italy

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# Sleep deprivation and hunger

The correct synchronisation of the circadian rhythms (the 24-h cycle of day/night) is crucial for whole body homeostasis.<sup>1</sup> In this regard, sleep deprivation critically affects the correct synchronisation of different biological cycles, promoting a generalised chronodisruption.<sup>2</sup>

In recent years, it has been suggested that sleep deprivation and chronodisruptions may be associated with obesity and other metabolic complications.<sup>3,4</sup> In this context, melatonin, which is secreted in response to darkness, may play a key role, not only in the regulation of sleep, but also in the regulation of the 'hunger' hormones.<sup>5-7</sup>

## The role of melatonin

It has been shown that sleep deprivation results in a decrease in plasma levels of leptin, the satiety hormone.<sup>8</sup> Interestingly, different studies revealed a potential regulatory effect of melatonin on plasma leptin levels. Specifically, C57BL/6 mice treated with a daily injection of melatonin showed higher leptin levels, compared with untreated control mice.<sup>9</sup> On the other hand, treating obese mice with melatonin promoted the reduction of established hyperleptinaemia,<sup>10</sup> and decreased expression

of leptin mRNA in white adipose tissue.<sup>11</sup> Additionally, it has been suggested that a lack of melatonin could lead to long term leptin resistance in overweight rats.<sup>6</sup> These results may suggest that alteration of the normal patterns of melatonin secretion could have an important effect on the plasma profile of leptin, and on its actions.

With an effect contrary to that of leptin, ghrelin – also known as the 'hunger' hormone – exhibits the opposite behaviour in sleep deprivation status. Specifically, it has been shown that sleep deprivation (in humans) promotes an increase in plasma ghrelin levels.<sup>8</sup> In contrast (in rats) the administration of melatonin promoted the reduction of ghrelin levels.<sup>12</sup>

## Impact on eating behaviours

Thus, in the context of sleep deprivation, the reduction in plasma leptin and the increased ghrelin levels could have a big impact on eating behaviours. Interestingly, a study in humans revealed that sleep deprivation significantly increased the desire for high-calorie foods.<sup>13</sup> Finally, it has also been suggested that melatonin administration reduces hunger and the desire to eat when compared with subjects without melatonin supplementation.<sup>14</sup>

Despite the current rising interest in research on the whole-body effects of sleep deprivation, the results obtained in animal models and their translational potential to humans must be considered carefully. Most of the studies are

performed in mice or rats, which have a reversed sleeping pattern compared with humans, as they are nocturnal animals. Moreover, most of the mouse models used in research do not produce melatonin,<sup>15</sup> but respond to exogenous hormone. In this sense, the selection of the animal model is crucial in studying sleep deprivation and hormonal alterations.

**André M Sarmiento B Cabral**  
Spain

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# GH secretion and lack of sleep

Growth hormone (GH) plays a key role in regulating physiological processes such as growth, glucose metabolism, bone mineral density, lean body mass, cardiovascular health and much more, making it particularly crucial during childhood.<sup>1</sup>



GH secretion follows a specific pattern, with a significant pulse occurring after sleep onset, coinciding with the first slow wave sleep (SWS) episode. Historically, clinicians and researchers who are experts in this field have postulated that sleep deprivation can have a negative impact on GH release. Consistent with this, an attenuation of the GH pulse has been found in prepubertal children when sleep was altered.<sup>2</sup> Moreover, treatment with ritanserin (a selective 5-HT<sub>2</sub> receptor antagonist that results in an increase in SWS and a reduction in sleep onset latency) has been shown to increase GH release.<sup>3</sup>

On the other hand, many other studies that have been designed to demonstrate a functional relationship between SWS and GH secretion have produced mixed results. Specifically, sleep deprivation did not consistently produce a decrease in GH secretion compared with baseline in several small-scale studies involving adult men.<sup>4-6</sup> In any case, extrapolating findings from adults to children is challenging due to age-related variations in GH secretion. However, a more recent study showed that substantial SWS disruption for one night does not diminish GH secretion in pubertal children, yet these results should be taken with caution, given the relatively small sample size (seven pubertal girls and seven pubertal boys) and the exploratory nature of the study.<sup>7</sup>

Another potential explanation for these inconsistencies could be that the effects of acute

sleep deprivation on GH secretion may differ from those of chronic sleep disorders. In this sense, some studies have revealed flattened GH secretion patterns in conditions like fatal familial insomnia,<sup>8</sup> chronic insomnia<sup>9</sup> or Whipple's disease.<sup>10</sup>

It appears clear that further research involving larger populations is warranted to elucidate the complex relationship between sleep deprivation and GH secretion, particularly in children and other vulnerable populations. Understanding these dynamics is crucial for optimising interventions and addressing potential health implications associated with disrupted sleep patterns.

**Juan M Jiménez Vacas**  
UK

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# The interplay between sleep and diabetes

Sleep disturbance and sleep problems impact the risk and outcomes of diabetes mellitus, and sleep health is an important aspect of diabetes treatment.

Sleep is a vital component of overall health, affecting numerous physiological processes. Optimal sleep encompasses adequate duration, high quality and a consistent rhythm. Disruptions in these aspects of sleep can significantly affect health outcomes, particularly in the context of diabetes.

Adequate sleep duration, which is typically 7–9 hours for adults, is essential for maintaining metabolic health. Sleep quality, including uninterrupted sleep and the right balance of sleep stages, ensures restorative rest. An optimal sleep rhythm, which is regulated by the circadian clock, aligns sleep–wakefulness cycles with the external environment.

## Sleep disturbance in diabetes

Chronic sleep disturbances include insomnia (characterised by difficulty falling or staying asleep), sleep-related breathing disorders (such as obstructive sleep apnoea; OSA), central disorders of hypersomnolence (e.g. narcolepsy and idiopathic hypersomnia), circadian rhythm sleep–wakefulness disorders (CRSWDs; including shiftwork and jet-lag disorders), parasomnias, and sleep-related movement disorders.<sup>1,2</sup>

On average, people with diabetes more often have sleep disturbances:

- Insomnia affects approximately 39% of individuals with type 2 diabetes.
- OSA is even more prevalent, affecting 55–86% of people with type 2 diabetes.
- Restless legs syndrome affects 8–45% of the diabetic population.<sup>1</sup>

**‘Diabetes itself can exacerbate sleep problems, creating a vicious circle.’**



Consequently, people with diabetes tend to sleep worse, for shorter periods, and more irregularly than those without the condition.

## Affects of disturbed sleep

Sleep disturbances, such as insufficient sleep duration, poor sleep quality and irregular sleep rhythms, have been linked to a higher risk of developing diabetes and exacerbating its complications, including poor glycaemic control, increased glycated haemoglobin levels, depression, mortality, reduced quality of life and greater incidence of microvascular and macrovascular complications such as diabetic retinopathy.<sup>1</sup> Additionally, sleep disturbances can affect hormone regulation and self-care behaviours, such as consistent medication adherence and dietary choices, further complicating diabetes management.<sup>2</sup>

## A vicious circle

Diabetes itself can exacerbate sleep problems, creating a vicious circle. Symptoms such as nocturia (frequent urination at night) and nocturnal hypoglycaemia (low blood sugar during the night) can disrupt sleep, leading to further deterioration in diabetes control.<sup>2</sup> This bidirectional relationship underscores the importance of addressing sleep issues as part of comprehensive diabetes care.

## In conclusion

Given the significant impact of sleep on diabetes, it is crucial to incorporate sleep assessments and treatments into routine diabetes care. Screening for sleep disorders should become standard practice for individuals with diabetes. Effective management strategies include weight loss, sleep education, cognitive behavioural therapy and treatments specific to conditions such as OSA (e.g. continuous positive airway pressure therapy). Addressing sleep issues can improve glycaemic control, reduce complications and enhance quality of life for people with diabetes.

Integrating sleep management into diabetes care is essential for improving overall health and quality of life. Targeted diagnosis of sleep disorders is crucial, as it allows healthcare providers to identify specific sleep issues and tailor treatments accordingly. By treating sleep disorders, healthcare providers can help mitigate the adverse effects of sleep disturbances and promote better diabetes outcomes.

**Sama Moghaddam and Femke Rutters**  
The Netherlands

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# Be influenced by EYES

Our social media channels are the best place to be, if you want to stay up to date with the most recent developments and news!

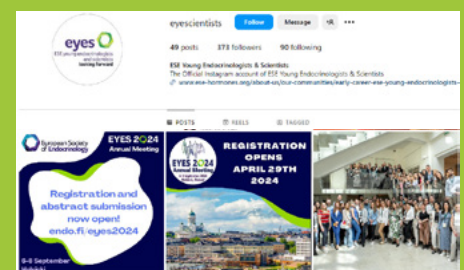
From the start on Twitter (X) and Facebook, to our recent expansion onto Instagram and LinkedIn, the EYES community has transformed into a vibrant digital hub for early career investigators. Our social media platforms are gateways to a world of opportunities, offering insights that shape our field.

With each passing day, the EYES family grows stronger, with over 1400 followers on Facebook,

more than 1900 on X, and a rapidly expanding presence on the other platforms. Whether you're seeking career development opportunities, eager to engage in discussions with peers, or simply looking to stay informed about advancements in endocrinology, EYES social media channels provide the perfect platform to connect, learn and grow.

As we continue to expand and welcome new members, we invite you to join us on this exciting journey of growth and collaboration.

**Kristina Saravinovska**  
Serbia



## Follow us today:

EYEScientists

eyescientists

fb.com/groups/eyes.endo

ESE Young Endocrinologists and Scientists



# Research insights into... Hormones and sleep

We bring you some topical highlights from the world of research, selected from *European Journal of Endocrinology*, *Endocrine Connections* and *Endocrinology, Diabetes & Metabolism Case Reports* by Settimio D'Andrea.

## Hormonal and metabolic responses to single light exposure

Albreiki *et al.* examined the effect of light on plasma hormones and metabolites in healthy participants before and after an evening meal. Participants were randomly assigned to sessions of dim light (<5 lux) or bright light (>500 lux). Bright light at night led to increased plasma glucose and insulin, indicating glucose intolerance and insulin insensitivity. This may be due to changes in insulin sensitivity or the presence of melatonin or light at night. Plasma triglyceride levels remained unchanged. These findings may explain health issues in shift workers and require further study to determine the cause of metabolic changes.

See *Endocrine Connections* 2017  
<https://doi.org/10.1530/EC-16-0097>

## Monitoring AI through salivary steroids

Various glucocorticoid replacement therapies (GRTs) are available for adrenal insufficiency (AI). By studying control subjects and patients with AI who were receiving different GRTs, Tucci *et al.* examined the impact of GRTs on diurnal salivary cortisol and cortisone rhythm, and their association with quality of life.

The authors found that none of the GRTs mimic normal glucocorticoid rhythmicity and exposure, and suggested that salivary cortisol and cortisone levels could be useful markers for monitoring and comparing different GRTs. Additionally, excess glucocorticoid in the early afternoon was associated with depressive symptoms and worse life and sleep quality.

See *European Journal of Endocrinology* 2024  
<https://doi.org/10.1093/ejendo/lvae037>

## PCOS and obstructive sleep apnoea

Polycystic ovary syndrome (PCOS) is associated with the development of obstructive sleep apnoea (OSA). This meta-analysis by Helvacı and colleagues showed that the risk of OSA is higher in adults with PCOS than in adolescents. There was a significantly increased risk of OSA in adult patients with PCOS (OR 9.74). It is important to diagnose and treat OSA in patients with PCOS to avoid long term cardiometabolic disorders.

See *Endocrine Connections* 2017  
<https://doi.org/10.1530/EC-17-0129>

## Impact of sleep hours and quality on male sex hormones

A cross-sectional study of 2095 men by Ruge and co-workers investigated the association between sleep and serum levels of male reproductive hormones. Excessive sleep (>9h) was found to be significantly associated with lower levels of testosterone, without affecting sex hormone-binding globulin or dehydroepiandrosterone sulfate. Longitudinal studies are needed to determine the causal direction of the observed association.

See *Endocrine Connections* 2019  
<https://doi.org/10.1530/EC-18-0548>

## Obstructive sleep apnoea and pseudo-phaeochromocytoma

This case, described by Jazdarehee *et al.*, describes how obstructive sleep apnoea (OSA) can sometimes present as pseudo-phaeochromocytoma, with symptoms similar to those of an actual phaeochromocytoma.

It is therefore important to consider OSA in the evaluation of elevated urine catecholamines and metanephrines, especially in patients with negative MIBG (metaiodobenzylguanidine) scan results.

See *Endocrinology, Diabetes & Metabolism Case Reports* 2022  
<https://doi.org/10.1530/EDM-21-0100>

## Effect of progesterone on sleep in transgender individuals

Nolan *et al.* investigated the effect of oral micronised progesterone on sleep quality, psychological distress and breast development in transgender individuals undergoing feminising hormone therapy. The results showed that low dose progesterone did not affect any of these three parameters over three months of follow-up. However, larger, placebo-controlled trials are needed to further evaluate different doses of progesterone in feminising hormone therapy regimens.

See *Endocrine Connections* 2022  
<https://doi.org/10.1530/EC-22-0170>



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# Advanced support for science

The new **EYES Advanced Research Observership Programme (ROP)** [↗](#) was launched to build on the incredible success of the original **EYES Research and Clinical Observership Programmes (ROP and COP)** [↗](#). Advanced ROP is aimed at experienced basic and translational scientists, as well as clinicians with advanced experience working in basic or translational projects. Awardees conduct scientific projects at a European endocrine centre of special interest for up to three months, each receiving a grant of up to €3000.

Now, here's the exciting part – it's super easy to apply! You need to be an **ESE member** [↗](#) and to submit a pitch describing your previous basic/translational experience and outlining your research interests. Then you only need a motivation letter, letters of recommendation from each of your mentor and your head of department, and your one-page CV. Why wait? The chance to get stuck into ground-breaking projects in a European endocrine centre could be yours.

Apply for the 2025 call when it opens in December 2024, and let your curiosity lead the way! Meanwhile, join us in congratulating the first Advanced ROP and other recipients (see right). Including this year's COP, ROP and Advanced ROP recipients, ESE has now awarded €30,000 to 90 people from 25 countries.

Juan Manuel Jiménez Vacas, UK

## Congratulations

ESE is delighted to fund EYES Observership places for the following recipients.

### Advanced ROP (L–R):

**Krisztian Bacsi**  
(UK)

**Lucas Bouys**  
(France)

**Mario Detomas**  
(Germany)

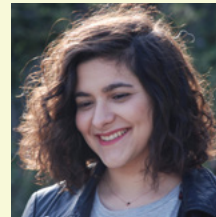


### COP (L–R):

**Aspasia Manta**  
(Greece)

**Olga Papalou**  
(Greece)

**Víctor José Simón Frapolli**  
(Spain)

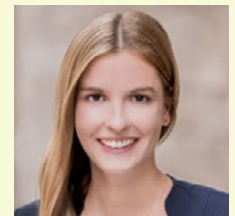
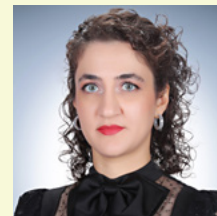


### ROP (L–R):

**Adnan Batman**  
(Turkey)

**Arzu Or Koca**  
(Turkey)

**Maria Riedmeier**  
(Germany)



Read the full list of funded and self-funding **Observership participants** [↗](#).

# Why you should apply for EYES COP

Ilaria Bonaventura was recently awarded a place on the EYES Clinical Observership Programme (COP). Here, she shares the value of this experience.

My month-long stay at the LMU Klinikum Innenstadt in Munich, Germany, was an enlightening and transformative experience, which has significantly enriched my professional development and cultural understanding.

From the moment I set foot in the hospital, I was greeted with a warmth and inclusiveness that set me on an extraordinary journey. First, the level of professionalism of the medical staff was truly exceptional. During my stay, I was able to work alongside experienced doctors and nurses, and witness firsthand their dedication to providing high quality patient care. The diversity of patients seen at this centre exposed me to a wide range of endocrinological conditions and treatment approaches, facilitating a continuous exchange of ideas and comparisons. I was fortunate to be able to visit all the endocrinology clinics, focusing on studying adrenal pathologies such as adrenocortical carcinoma, Cushing's syndrome, and primary aldosteronism, due to the high level of expertise. Despite not being fluent in German, which was spoken by the majority of patients, the team of professionals I worked with kindly discussed each case with me in English before and after the patient entered the room, ensuring effective communication and collaboration.



With the team in Munich

It was an honour and a privilege to meet with Professors Martin Reincke and Matthias Kroiss in person. I was impressed by their openness during our discussion, as they gave me the opportunity to express my ideas and listened to me with genuine interest. Being able to interact directly with professionals of their calibre was a truly valuable experience. The Observership has facilitated collaboration between my research centre in Rome and the one in Munich. We have already started writing a narrative review and formulating a clinical research protocol to be carried out. I have also been able to identify my professional aspirations, gain clarity on what I

want to become, and learn the right way to get there.

This experience has been an unforgettable opportunity for growth that has given me invaluable skills and perspectives. I sincerely thank Professors Reincke and Kroiss for their hospitality and the EYES COP team for providing this enriching experience. I encourage aspiring endocrinologists to step out of their comfort zones and seek similar opportunities for their personal and professional development!

**Ilaria Bonaventura**  
Italy





# Don't miss the EYES Meeting!

The registration deadline for the 11th Annual EYES Meeting is fast-approaching. Reserve your place by 5 August.

**EYES 2024**  
ESE Young Endocrinologists & Scientists  
11th Annual Meeting

This year's meeting is on 6–8 September in Helsinki, Finland. You can look forward to talks by experts and other participants on areas across the breadth of endocrinology. You will also get to know fellow clinicians and researchers from across Europe, and two exciting evening programmes will give you extra opportunities to network.

Registration for the meeting, including accommodation, meals and the social programme, is just €150.

Find out more and register by 5 August [↗](#)

Apply for a Meeting Grant by 25 July [↗](#)

Follow the EYES Annual Meeting...

EYESHelsinki2024

EYESFinland2024

## Inspiration in Belgrade

Three days, 11 countries, endless inspiration. These words capture the spirit of the 4th Regional Symposium of Young Endocrinologists on 12–14 April 2024 in Belgrade, Serbia. A Local Organising Committee of more than 40 early career investigators (ECIs) led the event, which was endorsed by ESE, the European Network for the Study of Adrenal Tumors, COST Action Harmonis@tion and national societies in the region.

We were joined in Belgrade by 185 participants from countries across Europe. The event was a vibrant hub of remarkable ECIs. Among the engaging, interactive sessions, there were debates, and oral and rapid presentations. The EYES session included an overview of EYES activities by Antoan Stefan Šojat and myself, while Barbara Altieri talked about her research journey, and Victoria Withy gave an insight into opportunities within ESE. In the COST Action Harmonis@tion session, Anja Barać Nekić, Antoan Stefan Šojat and Bogdan Dugić provided a valuable update, promoting collaboration in the field.



Attendees at the Symposium

The discussions continued even after the official programme concluded, fostering connections and friendships that will last a lifetime. Look out for details of the 2025 event in Mostar, Bosnia and Herzegovina.

Kristina Saravinovska, Serbia

**'The event was a vibrant hub of remarkable early career investigators.'**





# EYES success in Stockholm

The EYES community was very active as always, participating with great enthusiasm throughout the 26th European Congress of Endocrinology in Stockholm, Sweden, in May.

Right from the Opening Ceremony, early career investigators demonstrated their value and qualities, as retiring EYES Committee Co-Chair Antoan Stefan Šojat was recognised for his dedication at the end of his term of office, and emotionally recalled good memories and the milestones that have been achieved together.

Sunday morning saw the EYES Symposium, focusing on advancements in the management of neuroendocrine tumours (NETs). Our high-achieving young speakers presented the results of their research exceptionally well. First, **Alessandro Brunetti** (Italy), winner of the best presentation award at the 10th EYES Annual Meeting in 2023, delivered his research results on skeletal fragility in patients with pancreatic NETs. Next, **Magdalena Mileva** (Belgium) dazzled the audience with the special effects of nuclear medicine, showcasing significant advancements in nuclear imaging for diagnosing and staging previously hard-to-identify tumours. Lastly, **Arnaud Jannin** (France) provided a glimpse into the future of research in this field by presenting the 'omics' landscape in the management of pancreatic NETs. Their tremendous success, the result of extensive teamwork, took place before

a packed and engaged audience, representing a great source of satisfaction for our entire committee.

Equally important was the EYES social event on Monday evening. It took place in the romantic atmosphere of Lumafabriken, an old light bulb factory, now converted into an evening venue, where we were accompanied by the lingering twilight of the Stockholm sky. In this wonderful setting, over 200 early career investigators spent the evening together, enjoying food, drinks and conversation.

Looking back, ECE 2024 in Stockholm was a true success, both scientifically and personally for those of us who were members of the Programme Organising Committee and the EYES Committee. It was a joy to see how our young community, born only a few years ago, continues to grow and achieve great results through constant commitment and persistence towards reaching common goals. We look forward to many more to come. I encourage others to join us in this wonderful group, and to help us keep improving every day.

Walter Vena, Italy

## ECE 2024

11–14 May 2024  
Stockholm, Sweden



Alessandro Brunetti speaking at the EYES Symposium



A packed audience for the EYES Symposium



Reflections in Stockholm



Mingling with peers



A networking opportunity for the EYES community



## From the ESE AGM

ESE's Annual General Meeting at ECE 2024 saw some changes to the Executive Committee.



Gregory Kaltsas



Elena Valassi

Two new members, Gregory Kaltsas (Greece) and Elena Valassi (Spain), pictured, will chair the Education and Rare Disease Committees respectively. Sebastian Neggers (The Netherlands) is the new ESE Treasurer.

EYES Committee Co-Chair Walter Vena (Italy), Nurse Committee Chair Kirsten Davidse (The Netherlands) and ECAS Representative Charlotte Höybye (Sweden) all take ex-officio positions.

Djuro Macut, Mirjam Christ-Crain, Antoan Stefan Šojat, Sherwin Criseno and Anton Luger stepped down from their roles and were thanked for the huge contributions they had made.

Find out about all the [ESE committees](#) on the website.

## Because Hormones Matter

The third [European Hormone Day](#) on 24 April 2024 saw national societies, patient advisory groups, specialist societies and others promote the steps everyone can take towards better hormone health.

Over 100 organisations got involved, across 28 countries and in 19 languages, and there were two new endorsements of the [Milano Declaration](#) by Members of the European Parliament.

Our wonderful endocrine community supported the day with live events, webinars and other activities. The campaign reached about 43 million people through press articles, appearances by ESE members on podcasts, radio and television, and hundreds of social media posts.

Please help throughout the year by sharing the [10 Recommendations for Good Hormone Health](#). You can access the materials in 15 different languages in our [European Hormone Day toolkit](#).

Also remember to follow the new [@BecauseHormonesMatter Instagram account](#) and use the #BecauseHormonesMatter hashtag, to continue raising awareness of the importance of hormones in health and disease.

Thanks for your support!



**European Hormone Day**  
Because Hormones Matter  
24 April 2024

## Celebrating endocrinology in Stockholm

### ECE 2024

Total delegates **3484**



**2835** in person **649** virtually

**2150** abstracts received

**1225** ePosters



**607** physical posters

**13** Rapid communication sessions

**13** Oral communication sessions

### ECE 2024 app



**3400** impressions  
**1400** downloads

- All abstracts are available in [Endocrine Abstracts](#)
- Delegates can access all digital content via [ESE On Demand](#)

Read more about EYES activities at ECE 2024 on page 13.

- Reproductive and Developmental Endocrinology
  - Thyroid Endocrinology
- The nine corresponding workgroups are integrating the insights of seasoned experts and early career researchers, including members of the EYES community, who have a unique opportunity to engage with leading figures in their fields.

The main project deliverable – the research roadmap paper – is being written and a draft will be available in the autumn. There will then be a call for comments. It is at this point that you, the early career members of this community, will again have a pivotal role – your feedback will potentially shape the future research landscape that you will be working in.

If you already have questions or comments about the project, feel free to contact the EndoCompass Project Manager, Srđan Pandurević ([srdan.pandurevic@ese-hormones.org](mailto:srdan.pandurevic@ese-hormones.org)).

## EndoCompass

A beacon for young endocrinologists in European research

This ambitious joint initiative for ESE and ESPE (the European Society for Paediatric Endocrinology) is mapping the future of endocrinology research in Europe. It aims to identify the field's most pressing research needs and opportunities, so that these are reflected in funding programmes and policies, guiding the next 10–25 years of endocrine research.



**EndoCompass**  
Research roadmap for better hormone health

The main anticipated outcomes of the [EndoCompass project](#) are:

- Aligning the endocrine community around a common vision on research priorities
- Identifying clinical priorities
- Influencing the funding landscape towards areas of high impact in endocrinology
- Demonstrating the research attractiveness of endocrinology to young researchers
- Projecting a clear vision to other stakeholders (e.g. industry) around areas of high medical need and development opportunities.

To accomplish this, more than 180 endocrine researchers have joined forces to cover endocrinology across nine topic areas:

- Adrenal and Cardiovascular
- Bone and Calcium
- Diabetes, Obesity, Metabolism and Nutrition
- Endocrinology and Cancer
- Environmental Endocrinology
- Growth
- Pituitary and Neuroendocrinology





# Time to meet... the YDEF

The Young Diabetologists and Endocrinologists Forum (YDEF) is a group of trainees and young consultants based in the UK who educate, advocate for and support doctors who are either training in or interested in diabetes and endocrinology.

We are a wing of **Diabetes UK** (the leading charity for people living with diabetes in the UK) and are supported by the Society for Endocrinology and the Association of British Clinical Diabetologists. Ultimately, we aim to provide high quality care for patients living with diabetes and endocrinological disease, through education and provision of an effective voice for our trainees. Anybody can become a member of the YDEF, as long as they are a member of Diabetes UK.

## What does the YDEF do?

### We educate

- We organise many educational programmes in line with the national curriculum in diabetes and endocrinology. We attract world-renowned speakers in the field and our courses are held in high regard. They are free to all attendees and funded by sponsorship from pharmaceutical companies. We prioritise doctors with the greatest need, and maximise places to ensure all trainees have the opportunity to attend at least once within their training period.
- We provide up-to-date educational materials and guidelines for any medical professional to access.
- We host conference/meeting days for national and international health professionals to present their work in a relaxed and non-judgemental environment, such as YDEF Day (events for UK, Wales and Northern Ireland) and YDEF Northern Europe Young Diabetologists.

### We advocate

- We represent trainees in the field by sitting on several committees and meeting boards, including involvement in the Specialty Advisory Committee for Diabetes and Endocrinology at the Royal Colleges of Physicians, Diabetes UK, the Diabetes UK Professional Conference Organising Committee, the Society for Endocrinology, the British Medical Association and the Association of British Clinical Diabetologists.

### We support

- We fund trainees wanting to attend conferences, such as the European Association for the Study of Diabetes (EASD) meeting, with 20 trainees supported by the EASD-Lilly scholarship.
- We provide opportunities for trainees to present work and win a national prize, along with free attendance at the Diabetes UK national conference, by means of our Marjorie Prize, presented at the YDEF Day.
- We provide financial support to trainees with financial need who want to sit the compulsory Specialty Certificate Examination in Endocrinology and Diabetes, which is required for completion of training.
- We circulate a monthly newsletter providing members with course information and details of other educational opportunities provided by partner organisations.
- We support young doctors who are interested in the field but not yet on the programme, by providing pre-specialty training talks on common conditions in diabetes and endocrinology. We also have pre-specialty representatives within the committee, who support doctors who want to specialise.



A recent 'ABC of D&E' course for new trainees



YDEF committee members at the Society for Endocrinology BES conference

## Why say 'YDEF'?

We are a passionate, dedicated group of doctors trying to ensure that excellent education and support are provided to all trainees equally, no matter where you train in the UK. We work within our own time and voluntarily, and we love what we do: 99.7% of our members would recommend the YDEF to a friend!

## What educational programmes do you develop?

We provide the following courses for early career endocrinologists:

- 'ABC of D&E': a two-day residential course designed for first and second year trainees to provide an expert grounding in core topics in diabetes and endocrinology.
- Diabetes technology course: a three-day residential course held biannually on everything tech. This is extremely popular and we are always oversubscribed!
- Obesity course: a brand new two-day residential course covering this rapidly developing, important topic.
- Diabetic foot course: a one-day course held for the first time this year, to provide trainees with invaluable knowledge on this topic.
- Maternal diabetes and endocrinology: new this year, this explores the management of diabetes and endocrine conditions in pregnancy.

We have other new innovative ideas for educational courses in the pipeline. Watch this space!

## What advice do you have for early career endocrinologists?

In the UK, the number of training places available in diabetes and endocrinology is declining, with increased competition for those spots (from national and international trainees). When trainees are lucky enough to get onto the training programme, they now have a reduced time to learn the curriculum before becoming a consultant (recently reduced from five years to four years). Our advice is not to panic! Instead, it is best to plan your time early, by knowing what you need to do to get through training, and when you are going to do it. Utilise the support that is there (such as us!). And always remember to maintain a healthy work-life balance.

**Amy Coulden**  
UK

You can find out more about the YDEF at [www.youngdiabetologists.org.uk](http://www.youngdiabetologists.org.uk)



# Welcome Clara, Dorota and Shamini!

We are excited to introduce three new faces to the EYES Committee and EYES News Editorial Board.



## CLARA LAZZARETTI

Assistant Professor and basic researcher, Department of Endocrinology, University of Modena and Reggio Emilia, Italy

I have long been fascinated by the molecular mechanisms that regulate ovarian pathophysiology and human reproduction, leading to my PhD on the functioning of gonadotrophins.

Last year, I attended my first EYES Annual Meeting, where I was overwhelmed by the stimulating atmosphere among other young researchers. I discovered how important it is to be part of a scientific society that supports young endocrinologists in fostering collaboration and facilitating knowledge exchange. I had the opportunity to present my projects, and to meet world-leading experts. Afterwards, I returned to my lab with new ideas and relationships, and greater awareness of the importance of EYES.

This is why I decided to apply to join the EYES Committee, to support EYES initiatives and consolidate translational research among young scientists with a clinical or basic science background.



## DOROTA FILIPOWICZ

Endocrinologist, PhD, clinical scientist at Department of Endocrinology, Metabolism and Internal Medicine, Poznań, Poland

I first encountered EYES in 2018, at the 6th EYES Annual Meeting, in my hometown of Poznań. This showed me an amazing international community, to which I could aspire and belong. I have since attended many other ESE and EYES events, experiencing the same brilliant scientific atmosphere, forging collaborations, and creating memories.

Three years ago, I became Vice-President of Club30, supporting Polish young endocrinologists. Early in 2024, I defended my PhD thesis and became a specialist doctor in endocrinology. This could be the perfect time to enter a comfort zone, but (as my mentor, Professor Marek Ruchała, says) one should leverage the drive of success to transition into another challenge.

So, I channelled my energy into a new area: EYES News. I truly believe in sharing knowledge to foster collaboration and shape the future of endocrinology!



## SHAMINI RAMKUMAR THIRUMALASETTY

Third-year doctoral student in molecular endocrinology, Dresden, Germany

With a fascination for the complex interplay of hormones that regulate our body's balance, my doctoral thesis focuses on novel therapeutic approaches for management of congenital adrenal hyperplasia.

A year ago, I was introduced to EYES at ECE 2023 in Istanbul. Since then, I have followed EYES News and been impressed by its concept, design and writing style. It keeps me updated on what is going on in endocrine research. Motivated by genuine curiosity for the field and a desire to contribute, I am keen to work with like-minded peers and young researchers in the EYES News team. I hope to help develop the magazine as an inclusive environment for new researchers to highlight their work and engage in meaningful discussions.

Joining the EYES News Editorial Board feels like a natural progression for me, and I am honoured and excited to be promoted from reader to contributor.

## Farewell Antoan

As new faces become involved with EYES, we say goodbye and wish the best to a friend who has contributed significantly to our team and to our community.

Working alongside Antoan Stefan Šojat has been amazing. He has been instrumental in supporting and shaping EYES activities and events, as a committee member since 2020 and as Co-Chair since 2022. A true leader by example, Antoan represents the values of hard work and commitment within the European endocrinology community, having taken on important roles, such as EYES representative on the ESE Clinical Committee and ESE Executive Committee, and Editor of EYES News, and contributing to many European projects, such as Harmonis@tion.

Recently, he was awarded the Special Award for Regional Scientific Contribution at the 4th Regional Symposium of Young Endocrinologists in Serbia. Antoan has relentlessly tried his best to elevate the EYES community and provide more opportunities for early career investigators within our Society.

Though Antoan is stepping down from his official role as EYES Committee Co-Chair, we are confident that he will continue to offer invaluable guidance, as we move forward and embark on new chapters. As we bid him farewell, we emphasise our gratitude for his contributions to our community and wish him all the best in his future endeavours. You'll be missed, but we'll keep bothering you!

Juan M Jiménez Vacas (UK) and Walter Vena (Italy)



A gift for Antoan at ECE 2024