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Citation: EMJ Hematol. 2025;13[Suppl 2]:24-29. https://doi.org/10.3390/emjhematol/BAYH3619

Q1 Firstly, congratulations on stepping into the leadership roles as the new Co-Chairs of the European Society for Blood and Marrow Transplantation (EBMT) Trainee Committee. To begin, could you share with us your roles within the committee so far, and reflect on the work Nico Gagelmann and Claire Horgan have done as Co-Chairs?

Gülderen: Thank you. We are both truly honoured to step into these leadership roles and continue the great work initiated by Nico, Claire, and other members, who established the EBMT Trainee Committee in 2021. A fun fact is that Alex and I joined the team at the same time, in June 2022, without knowing each other beforehand. Our first in-person meeting was during the International Transplant Course, in Barcelona, and since then, we have worked closely together on multiple projects. For example, from the start, we have actively joined several initiatives, such as Chimera, a trainee-led educational lecture series covering essential topics in transplantation and cellular therapy. We are also leading some projects stemming from our own committee. Recently, our focus has been on the educational needs in palliative care for transplant and cellular therapy trainees. We conducted a survey to assess the gaps in training and based on the results, are now planning a series of expert-led lectures. We also aim to share our findings as a publication to contribute to the broader discussion on improving palliative care education in haematology, transplantation, and cellular therapy.

We deeply appreciate the outstanding leadership and vision of Nico and Claire, who played a pivotal role in shaping this committee into a dynamic and impactful platform for trainees. Their dedication to fostering education, collaboration, and trainee engagement has set a strong foundation, and we look forward to building upon it in our new roles.

Rampotas: I completely agree with Esra. Nico and Claire started this a few years ago, and it was incredibly important for putting EBMT on the map, especially among young haematologists and trainees. The main focus has been on education and creating connections across the world, which has helped improve transplant and cellular therapy services in many countries, while also training young haematologists in this area. It's been a great opportunity for us to be involved in multiple projects. As Esra mentioned, the Chimera modules were among them. Additionally, we've been heavily involved in meetings like the International Transplant Course, which is a fantastic event where junior haematologists come to learn about the latest advancements in CAR-T cells and transplant. This course is a major educational platform. It's been great to be part of this community, and now, as we take on the chair, we hope to continue the excellent work and solid foundations that Nico, Claire, and the team have built.

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Q2 What initially drew you to haematology, and how has your career in this field developed over the years?

Rampotas: I've always had an interest in immunology. I graduated in 2014, around the time when CAR-T cell therapies were making headlines in journals as this groundbreaking new approach. The idea of using T cells to specifically target malignant cells really fascinated me. Given my interest in immunology, I realised that haematology was the field where I could apply this knowledge to develop therapeutics and actually treat patients with incredible therapies. The use of monoclonal antibodies and bispecifics was another amazing advancement. I believe we are part of a generation that may soon see even more novel therapies, such as chemotherapy-free regimens, that could cure cancers, especially in haematological malignancies that have relapsed multiple times. This is incredibly exciting. In fact, we may be the only specialty that can claim to use immunotherapy to cure cancer, which I find truly fascinating.

Gülderen: For me, haematology is deeply personal. As a child, I lost my grandfather to cancer, and even at a young age, I felt a strong desire to help people facing similar battles. I always dreamed of becoming a physician–scientist, not only helping my patients in the clinic but also contributing to the field through my research. I pursued my medical education in Ankara, Türkiye, my first summer research internship in a haematopoietic stem cell lab left a strong impression on me. After several electives in the haematology department, I decided this was the path I wanted to pursue. I am the first medical doctor in my family, but I grew up hearing stories about pioneering women in science from my mother, which further inspired me to pursue research and science to improve patient outcomes, particularly in haematology. What fascinates me even more is the way clinical care, basic science, and cutting-edge therapies all come together. I've always dreamed of bridging translational research with clinical practice.

Q3 Haematology has seen significant advancements in recent years. Are there any developments or innovations that you find particularly exciting?

Rampotas: I think haematology has seen so many new trials with incredibly positive results. The more we learn about the molecular mechanisms driving these malignant diseases, the better treatments we can develop. Recently, we've seen that with immunotherapies and tyrosine kinase inhibitors, targeting specific pathways makes tumours and malignancies vulnerable. This has led to those amazing long survival curves that we all strive for.

An additional benefit is that these targeted therapies reduce the morbidity burden caused by the side effects of chemotherapy and transplants because they are more precisely directed at the cancer cells, making them more susceptible to treatment. Ultimately, what we care about is patients living longer and living better. If we use these treatments, especially in the upfront setting with chemotherapy-free

regimens, we can target the molecular mechanisms driving the malignancy, specifically attacking the malignant clones. Even in the relapse setting, these therapies offer a chance for a cure after multiple relapses, which have traditionally been extremely hard to treat.

We used to say that if cancer returns after multiple lines of therapy, it becomes much harder to treat. But now, because we can use these therapies later in treatment, we're offering patients a chance for long-term remission even in later stages. This makes discussions with patients incredibly meaningful. While telling a patient they have cancer is undoubtedly difficult and distressing, it's one of the hardest things anyone can hear, the next part of the conversation is even more hopeful: we have treatments that don't just delay the disease or gain a few months, but actually have the potential to cure them.

Being part of this revolution is fascinating. The availability of these new regimens in recent years for many haematological cancers has been a fantastic development. If I had to pick one breakthrough, it would be CAR-T cell therapies, though I admit I'm biased as this is the field I work in most closely. I find CAR-T cell therapies particularly exciting because they combine targeted treatment with personalised medicine. Essentially, we take the patient's T cells, reprogram them, and direct them to kill the cancer cells.

Gülderen: I completely agree with Alex. I think CAR-T cell therapy is a complete game changer in some haematological malignancies. I would also like to mention about gene editing therapies, they are also offering some creative options for inherited blood disorders, such as sickle cell disease.

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Q4 As the new Co-Chairs of the EBMT Trainee Committee, how do you plan to continue the work Gagelmann and Horgan have done so far? Are there any specific initiatives you're looking to build on or take forward?

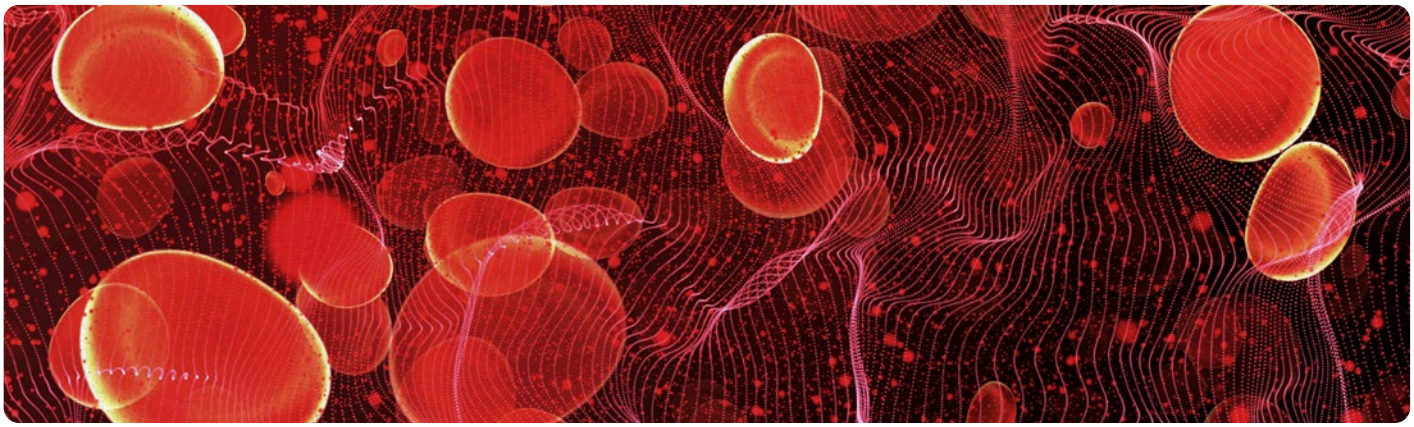
Rampotas: There are big shoes to fill with Nico and Claire are stepping down. We will obviously continue the education purpose of the EBMT Training Committee, and we'll try to get as many as a possible haematology trainees involved in those education aspects of our role. The next thing we are planning to do is to try to blend in the EBMT Training Committee into the various EBMT Working Parties so that they we work more seamlessly with the senior EBMT members.

Additionally, EBMT is expanding internationally, and we want to be part of that growth. We aim to connect with trainees around the world to understand their educational needs and explore how we can meet those needs through EBMT, while also gaining valuable perspectives and experiences from them.

Furthermore, much of EBMT's work is focused on clinical research, clinical guidelines, and best practices. We want to attract molecular biologists, PhD students, and other scientific professionals to help develop a stronger focus on translational research. Hopefully, in collaboration with EBMT, we can build on this and attract more people to the field. EBMT is a great community, and being involved in such an organisation offers valuable opportunities for growth and learning.

Lastly, the EBMT exam is an important certification that EBMT offers, and we believe it's an underutilised resource. It provides a valuable qualification for junior haematologists interested in transplant and cellular therapies, and it also serves as a great training opportunity. I've found that every time I revise for an exam, my understanding of a specific field improves significantly.

Gülderen: Our primary goal is to further strengthen the international and inclusive environment of the EBMT Trainee Committee, ensuring it remains a valuable platform for every trainee, regardless of background or location. We want to encourage and support those who share the same passion for haematology, cellular therapy, and transplantation by providing educational opportunities, enhancing clinical practice, fostering networking, and expanding research collaborations. Building on the strong foundation set by Nico and Claire, we aim to increase trainee involvement in the EBMT and advocate for better access to training opportunities across Europe and beyond, especially for underrepresented groups in our community. Our key priorities include promoting Diversity, Equity, and Inclusion within our trainee network and EBMT as a whole, while continuing to create and expand opportunities for trainees in all aspects of their professional development.



Q5 With the rise of CAR-T therapies in treating haematologic cancers, how do you assess its impact so far, and what do you think the future holds for this treatment in haematology?

Rampotas: The first thing to say is that CAR-T cells are already an established treatment for a few haematological malignancies. It is interesting that in the lab, when we see CAR-T cells, when we culture CAR-T cells, there is nothing in principle that would stop them from being effective against any malignancy; haematological or otherwise.

There are certainly challenges, but CAR-T cell therapy is not just a fixed treatment; it's a cell that can be engineered not only to target cancer cells but also to perform other functions. CAR-T cells have already been established as a treatment for a few haematological malignancies, but in principle, there's no reason they couldn't be effective for other haematological cancers or even solid tumours. In the lab, we know they work amazingly well against a range of different tumours.

Another exciting aspect is that CAR-T cells aren't a one-size-fits-all treatment. They can be engineered to target cancer cells, but they can also be 'armoured' to express other things, such as protection against the immunosuppressive environment or the ability to deliver a therapeutic payload directly to the tumour site. The possibilities here are endless. I believe we'll see CAR-T cell therapies expand to treat myeloproliferative neoplasms, acute myelogenous leukaemia (AML), and even solid tumours. We've already seen successful Phase I trials for CAR-T cells in glioblastoma. In the lab, there's nothing to suggest that CAR-T cells couldn't work against solid tumours.

We're just beginning to explore the full potential of this therapy. We're also seeing trials for autoimmune diseases, which is an unexpected but promising indication for CAR-T cells. People have used them successfully in these cases, and we anticipate that CAR-T cells could eventually become a standardised treatment for many autoimmune diseases. By resetting the immune system, attacking and eliminating the B cells responsible for the autoimmune reaction, patients could recover without the autoimmune tendencies that caused the disease.

It's a fascinating era, and I believe CAR-T cells will be used more frequently in the future. However, there are challenges that remain, particularly around cost and availability. That's why organisations like EBMT can play a critical role in accrediting sites for CAR-T cell therapy, educating healthcare professionals on its use, and fostering collaborations to ensure these therapies are used as effectively as possible.

Gülderen: I think Alex covered everything, but he also mentioned the challenges around access and manufacturing complexities. Additionally, we need to broaden the applications of CAR-T cells, especially in AML, which remains very challenging.

Q6 As you look toward the future of haematology, what emerging trends or breakthroughs are you most excited to see unfold in the next decade?

Gülderen: Several years ago, I attended a talk given by a pioneering physician who shared how, during his early training, the prognosis for multiple myeloma was extremely poor. Yet, with groundbreaking innovations such as targeted therapies, CAR-T therapy and others, patient outcomes have improved dramatically. I hope and strive to contribute to a similar transformation for myeloid malignancies in the years ahead. The next decade in haematology will likely be defined by precision medicine, the deeper integration

of artificial intelligence in diagnostics, and continued breakthroughs in immunotherapy and targeted treatments. Advances will come through an interdisciplinary approach, bridging clinical expertise with cutting-edge research in genomics, immunology, data science, and biotechnology. I believe these developments will not only refine how we diagnose and treat haematologic diseases, but also bring us closer to curative strategies for conditions that remain challenging today.

Rampotas: I think it's fascinating looking back to see how much transplant, for example, is now utilised across many parts of the world. I expect to see that, with protocols becoming more straightforward, and with more collaboration across haematologists across the world, that people in other places in the world will have access to allogeneic stem cell transplant or even CAR-T cell therapy. To be honest, that would have the biggest effect, because if we're missing out places like India, for example, or Pakistan, or places in Africa or South America, then whatever effect you have, even with the curative treatment, is much more limited. So, in the next 10 years, I would expect to see more collaboration. I'm very excited about that, and then I expect to see these places doing those therapies more often, and hopefully with some academic support, they should be able to afford, sometimes the very high prices of these therapies.

In terms of the scientific advancements, I think clonal haematopoiesis is something that's very, very interesting, and this is because haematology may be able to crack another problem after cracking targeting cancer, with immunotherapy, which will be ageing. We consider that ageing is an irreversible process. It's something that just happens. We don't consider it the disease. But if you look at the bone marrow, you can see the signs of ageing on the mutations that stem cells acquire. Hopefully, in the next few years, we'll be able to intervene once we understand this phenomenon a bit better. I also believe that blood and marrow are full of riddles, but they also hold the potential to provide answers to conditions that may currently seem completely untreatable.

Q7 How do you see the role of personalised medicine evolving in the treatment of haematologic conditions?

Rampotas: Autologous CAR-T cell therapy is probably the cradle of personalised medicine, as we're essentially using the patient's own T cells to fight their disease. Now, the limitation of personalised medicine is the cost. Most of the healthcare systems across the world are, to a degree, public/state funded, and hence using such expensive treatments can be extremely challenging to implement. For example, anyone can now check for various diseases in their DNA, but it's still quite an expensive test; or they can monitor other conditions through things like prophylactic MRIs. I think the biggest advancement in personalised medicine will come when the costs of these approaches decrease, and they become accessible to a larger population. The cost of DNA sequencing, for instance, has dropped significantly, which is a step forward. Although it's still prohibitively expensive for many nations, you can now potentially screen all of your DNA for about

1,000 USD or equivalent in other currencies. As the cost continues to decrease, it could become feasible for countries with an average GDP, and that could really change things. So, reducing the cost is the biggest hurdle to applying personalised medicine more broadly.

Gülderen: In the next 10–20 years, personalised medicine will likely become more sophisticated, with greater use of multi-omics data, AI in diagnostics, and real-time monitoring to further refine patient-specific treatment strategies. Treatments will become more personalised and precise, with less toxicity and greater target specificity.

Q8 What's your one can't-miss presentation or event at the EBMT Annual Meeting?

Gülderen: That's a tough question, because the entire program is exceptionally well-designed and filled with fascinating topics. Of course, Trainee Day on Sunday is a must-attend event for all trainees. Beyond that, I'm particularly excited about sessions on relapse in acute leukaemia, the graft manipulation, Chronic Malignancy Working Party session, and optimising transplant in high-risk MDS.

Rampotas: I agree with Esra, and people should definitely attend the EBMT training day. That will be an extremely nice opportunity to interact and meet with the new generation. There would also be opportunities for them to get involved, and we will announce some amazing developments about how they can get involved in the future.

I wouldn't like to pick a particular session. Obviously, my interest is in CAR-T cell therapy, and I know that there are many compelling oral presentations presented at EBMT. This makes me happy, because that means that good CAR-T research will be presented at the EBMT conference. I like that EBMT is expanding into that phase of cellular therapies, because transplant is obviously extremely interesting, and it's probably the most historic cellular therapy, but I like the fact that we will have so many nice presentations on CAR-T.

I would say, just come to the meeting. Enjoy the EBMT trainee day. Interact, and there will be opportunities to discuss and get involved. It's a very nice meeting, so I'll be pleased to interact with everyone and connect.

Q9 What will be participants main takeaways of the Trainee Day that takes place on Sunday?

Rampotas: From my side, I think there are some excellent presentations. I'm particularly looking forward to the presentation on the bone marrow microenvironment and how it creates barriers, but also opens up new opportunities to intervene and improve outcomes, presented by Zoe Wong from Oxford. There are also some great presentations from EBMT trainee members. One of the key takeaways is how this group of people can produce outstanding work, and I think some of this work will be presented there. Of course, another important takeaway is the opportunity to connect with the new generation of EBMT members so that we can continue building on the incredible success that Nico and Claire have achieved and hopefully shape the EBMT Training Committee for the future.

Gülderen: Nothing to add. Enjoy the Trainee Day plus, it's always a great chance for networking with other trainees from around the world, which is an essential part of the experience. Also feel free to reach out to us for future projects!