Asked how he views Hans Krebs' legacy, he remarked that 'everybody who learns biology at school learned about the Krebs cycle' and also recalls his father's style as a scientist as being 'absolutely persistent' with a 'relentless focus'.

'I think that is what enabled him to make such an important discovery', he added.

John Krebs was instrumental in establishing the Sir Hans Krebs Trust with proceeds from the sale of his father's Nobel medal at auction for £225 000.

His father had received donations—primarily from the Rockefeller Foundation—to re-establish himself in England as a researcher after leaving Germany. The trust, which he chairs, works with CARA (Council for At-Risk Academics) to fund places at UK universities for young scientists forced to flee their homeland.

'I hope my father would have approved of it', concluded John. 'It is a way of recognising what happened to him and reflecting that in the use of the money from his Nobel Prize medal'.

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The expert guide to becoming a cardiovascular clinical trialist

Judith Ozkan BA Hons*

Faiez Zannad MD, PhD, of the Université de Lorraine, France, has led numerous game-changing clinical trials into heart failure (HF). He talks to CardioPulse about why there's never been a better time to become a trialist and how to find support and training

What route did you take to becoming a clinical trialist?

In the 1990s, I came up with the idea of developing a specific medication for HF and it happened that a senior trialist Bertram Pitt, MD, at the University of Michigan, in the USA had had the same idea. After we talked, he was kind enough to invite me to join his steering committee, which gave me experience and exposure and helped me progress. Some people were lucky to have a mentor who was a major trialist and who got them involved in secondary papers until they became visible and made their way up the ladder. There is no real identified way of getting involved in clinical trials, it is often just serendipitous and needs some persistence. Some fellows work at sites that do lots of trials and they become involved in publishing secondary papers and become visible. However, you can also be a great physician and enrol lots of patients in trials, and never end up on a steering committee. For many, clinical trials are a closed world and we really need to open things up and get senior trialists helping young fellows.

What does the Global Cardio Vascular Clinical Trials Forum (CVCT) do to support aspiring trialists?

We started over 20 years ago with the main objective of organizing an annual meeting. I am one of five directors. CVCT has grown into a real community providing information, forums and contributions from regulators, academics, industry, and others involved in clinical trials. It is now based in Washington, DC, USA, and has a good relationship with the Food and Drug Administration (FDA). CVCT has found that most training programmes are orientated to areas such as interventional cardiology, clinical practice, and imaging, and there is much less opportunity to find similar courses in clinical research and clinical trials. We need to get young people interested in evidence generation and clinical trials science, interpretation, and operational aspects. We need to go beyond courses and programmes that are orientated to methodology, design, and statistics, to offer practical guidance and training that is not covered elsewhere, so we came up with our own Young CVCT initiatives, including a new internship and fellowship.

What are the new initiatives?

We have developed the 'career escalator' that takes place during our annual meeting and involves matching young fellows interested in developing a career in clinical trials with major clinical trialists from academia and industry or from a regulatory background such as the FDA. They typically spend half an hour chatting one-to-one about what they should do in order to get into this area of science and this works well even when we had a virtual meeting in 2020. Another thing is to allow every speaker to nominate a fellow to attend the meeting for free. This has benefitted around 50 fellows so far every year and all of them value attending the meeting because it gives them a unique exposure to stakeholders from various fields including industry, regulators, major journal editors, academics, and investigators. We also have specific courses at the meeting and practical master classes covering topics such as interpreting trials, how to get your manuscript accepted by

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Faiez Zannad MD, PhD


Roxanna Mehran MD at CVCT 2018, © CVCT.


Abinav Sharma MD CVCT 2016, © David Betts


Three female delegates CVCT 2017 © Jason Dixon


Two delegates CVCT 2016 © David Betts

major journals, and how to apply for a National Institutes of Health (NIH) grant. Medical writing training is also offered to fellows who attend the scientific sessions. They are encouraged to talk to the chair of each session and to write a position paper as first author if they discover something new in the course of the discussion. These papers have been published in high profile journals. Leading as first author on papers co-authored with big name trialists is a unique learning experience and hopefully an extraordinary opportunity for anyone with ambitions to become a trialist.

What about the YCVCT fellowship and internship?

YCVCT stands for Young CardioVascular Clinical Trialist. We talked to our industry partners who have seen the value of the work we do, and we decided we needed to provide hands-on experience, which was different to the sort of MSc programmes and courses you can find at universities. We have a full-time, 1-year internship that is currently funded by AstraZeneca and can be done in the UK, the USA, or in Sweden. This is suited to a young fellow or someone at mid-career level who wants to learn the technicalities of running a trial from concept and design, right up to the final stage of data analysis, interpreting and disseminating the results of the trial. For the YCVCT fellowship, candidates do not need to leave their institution or job. They are embedded as a junior member in one of the steering committees of a major ongoing trial and will attend all the meetings. They may have voting rights either as a full steering committee member or will be participating in all the deliberations and the final publication as a mentee. The fellowship is based on merit but anyone less advanced in their career would still be eligible for other programmes which offer a chance to work on major trial databases. They can then produce secondary manuscripts from trials, and this will help them understand how a database is structured, how to do sophisticated analyses, and then how to publish as a first author. The YCVCT fellowship is supported by Bayer, Boehringer Ingelheim, and Cytokinetics. Full application details are available on our website, www.globalcvctforum.com.

Why is it important to attract new and diverse talent into clinical trials?

We know that most principal investigators and academics who are involved in trials are ageing, white, and they are men. At our meetings, we hear on a regular basis that the results of clinical trials can hardly be implemented or applicable to all populations because few ethnic minority groups or women are involved in the trials as either patients or investigators. Over the last 2 years, we have been promoting the diversity approach and we strongly encourage applications from diverse ethnic groups as well as women. We are partnering with the FDA, which believes that the best way to promote clinical trials that are applicable to all sections of the population is to be positive about diversity and recruit ethnic minority and female participants as patients and trialists. We also support the Women-as-One network which enables women in cardiology to promote themselves.

What are the benefits of YCVCT initiatives and how can the cardiology community support them?

Although some of the initiatives, such as the CVCT fellowship and internship, are still very new, we have seen that the first two fellows are doing an excellent job and their publication record has improved substantially. We still have a long way to go, but we know there is a real unmet need and large expectations. There are lots of possibilities for development and future potential support not only from industry but also hopefully from the NIH and the FDA who have an interest in ensuring cardiologists know about conducting trials as well as the regulatory process. We are only on the first page of a very ambitious programme, and we need to get young fellows to apply and senior colleagues to nominate and support them. We find that successful candidates love the initiatives and bring their colleagues to meetings year on year. We are a small-scale organization, but the YCVCT programme enjoys support from the European Society of Cardiology (ESC), American Heart Association (AHA), and American College of Cardiology (ACC). Industry is also helping and what we need to do now is to spread the word about the opportunities available.

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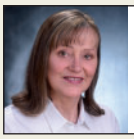

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Events and Meetings

ESC CONGRESS 2020—the digital experience: expanding the reach of the society

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In 2020, due to the COVID-19 pandemic, the annual congress of the European Society of Cardiology (ESC)could not take place as an in-person event. *The Digital Experience* faced high expectations following the 2019 ESC Congress in Paris, which was a record edition in terms of attendance with 33 510 registrations. As a digital annual congress was unchartered territory for the ESC, it was decided that free registration would be granted to all participants. Compared with the 2019 ESC Congress, *The Digital Experience* recorded a dramatic increase in registrations, approaching four-fold (*Figure*). Equally impressive was the approximately three-fold increase in the delegates who logged in during the congress as compared with the attendees in Paris. Country representation of registered individuals increased by 41%. Of particular note, the proportion of delegates from South America rose from 7% in 2019 to 19% in 2020 (*Figure*). The average age of delegates decreased from 49 years in 2019 to 41 years in 2020, while the proportion of delegates younger than 40 years of age went from 36% in 2019 to 53% in 2020. The proportion of female delegates increased from 33% in 2019 to 44% in 2020. *The Digital Experience* was able to attract new audiences, with 62 007 of the registrants (50% of the total) being 'new' to the ESC. Overall, 'new contacts' originated from 195 countries/regions, the majority (56%) came from Central and South America and 2/3 were under the age of 40 years. The proportion of congress registrants in training or students more than doubled compared with the previous year (31% in 2020 vs. 12% in 2019).

Despite the constraints, *The Digital Experience* was able of offer over 85% of the total number of sessions available at ESC Congress 2019. In addition, 3851 abstracts were presented, corresponding to over 90% of previous year's offer. A total of 77 350 delegates logged in during

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