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**European Society of Cardiology Working Group 18**

Kurt Huber, MD, FESC, chair of the European Society of Cardiology Working Group on Thrombosis, explains how collaboration between scientists and clinicians and across continents provides the key to better patient management.

**The Lithuanian Heart Association**

The Lithuanian Heart Association raises funds for the postgraduate education of cardiologists as well as for the prevention and management of heart disease. Pranas Šerpytis, PhD, MD, and colleagues explain how it works.

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**Circulation: European Perspectives in Cardiology**

**Spotlight: John Morgan, MA, FRCP, MD, FESC**

**From Army Tanks to Arrhythmias and Research: A Career Full of Variety**

Dr John Morgan, professor and consultant cardiologist and electrophysiologist, Wessex Cardiothoracic Centre, Southampton, United Kingdom, has investigated novel therapy approaches for cardiac arrhythmia for many years. He conceived the use of the middle cardiac vein for internal ventricular defibrillation and the “sliding electrode” for linear lesion ablation, and he has remained active in research throughout his career. He talks to James Butcher, PhD, about his career so far and his plans to develop research activity in Southampton.

When Dr John Morgan left school in 1975, students did not typically have gap years. So, he spent a year with the Royal Tank Regiment as a commissioned officer before doing his medical degree at Cambridge University. “I spent most of my time in Germany driving around in Chieftain tanks and had a great time,” says Dr Morgan. “But career progression in medicine in the army was not good, because you were obliged to spend some years in a military camp, basically as a general practitioner, and I was advised that this was potentially a boring thing to do. I didn’t go into the Royal Army Medical Corps because, as things were then, it would also have limited my career choices later on.”

Dr Morgan comes from a medical family, and so a career in medicine seemed the natural choice. His father worked as a general practitioner in South Glamorgan, Wales, and initially the young John Morgan thought that he would follow in his father’s footsteps. “I was exposed to medicine from the earliest years that I can remember,” he says. “In those days, my father would be on call and in my early teens I would be the one who would man the phone, take messages, and send my father out on calls. And once you get into that sort of thing and understand the relationships involved with medicine, it really catches you,” he explains.

In his first year at Cambridge, Dr Morgan attended a lecture by Sir Alan Lloyd Hodgkin, OM, KBE, FRS, who won the 1963 Nobel Prize in Physiology or Medicine for his work with Sir Andrew Fielding Huxley, OM, FRS, on the ionic basis for nerve action potentials. “It was such a fabulous lecture on the Nernst equation. It sounds really geeky, but some of these things are landmark moments in your life, and I thought, ‘I am really interested in this,’ and I was thereafter interested in cardiac electrophysiology and things to do with cell physiology,” enthuses Dr Morgan.

After obtaining first-class honours in Natural Sciences from Cambridge University, Dr Morgan went to Westminster Medical School, London, United Kingdom, where some of his family had also trained. While there, Dr Morgan worked as house surgeon to Harold Ellis, FRCS, CBE, emeritus professor of surgery, University of London. “He was a great guy to work for. He used to do ward rounds at 7:30 every morning except on Sundays, and he was always there at 7:30, absolutely punctual, and woe betide you if you weren’t there as well, regardless of how busy you had been during the night.”

At the beginning of 1984, Dr Morgan worked as a senior house office in cardiology with consultant cardiologists
Richard Sutton, DScMed, FRCP, and Peter Fleming, FRCP.

“Richard has been one of my mentors over the years,” says Dr. Morgan. “He was instrumental in developing pacemakers, not their original invention, but their use as a mainstream therapy in the United Kingdom, and he has been a leading light in pacemaker developments since their very early years; he did some of the groundbreaking work on the value of dual-chamber and multichamber pacing in optimising patient well-being.”

From Westminster Hospital, Dr. Morgan went to the Brompton Hospital, London, where he stayed for 9 months before moving to the Mayday Hospital in Croydon, south of London. “I had a fantastic year down there,” he says. He recalls a former colleague, Simon Joseph, FRCP, FESC: “I worked with Simon, who is very knowledgeable about pacemakers, for a while. He was implanting pacemakers in district general hospitals years before anyone else even thought of that. I learnt how to do pacemakers and other cardiac investigations as a very junior registrar.” A year later, he returned to the Brompton, where he worked as a research fellow under the supervision of Edward Rowland, FRCP, and received his MD in 1991.

A year later, Dr. Morgan accepted an appointment as consultant cardiologist and electrophysiologist to the Wessex Cardiothoracic Centre in Southampton, where he has worked ever since. He set up the cardiac rhythm management unit there at a time when catheter ablation and implantable defibrillators represented new, cutting-edge techniques. “It’s a very nice experience to be the first on the ground with any kind of new service delivery, because you can configure things how you want them and you get the opportunity to do an enormous amount of work—a lot of stuff comes your way,” he says.

“I had always felt that research was very important in my career because I came from clinical training where it was natural to always be involved in research and writing papers. That was seen as the currency of success, if you like to put it that way,” says Dr. Morgan. “And so, I maintained my research activity after I was appointed as a consultant, and in 3 or 4 years I was able to establish a fairly active research programme, particularly looking at novel mechanisms of cardiac defibrillation and developing some new ablation technologies.” Dr. Morgan says that he plans to continue to develop his research programme and to develop the academic drive, particularly in cardiac rhythm management, within the new Wessex Cardiac Unit (see Figure).

However, he has had difficulty securing funding for his research up until now. “It’s been very hard. Over the time that I’ve been a consultant, the whole focus of research councils has very much been on molecular biology rather than translational clinical research, and I think that’s not good for research in the United Kingdom,” he says. “It’s also a bit of a disadvantage for us in that we don’t have a formally developed academic unit, although we are planning to change that now.” As a result, Dr. Morgan has collaborated extensively with industry and has secured unrestricted grants to pay for research fellows and consumables. “I have to say that I have uniformly found industry colleagues to be excellent partners in research,” says Dr. Morgan. “The funds come without ties, without expectations of them selling product. They like to use your influence to promote the value of their therapies, but whilst one is always conscious that there are shareholders behind companies and that they are there to make money, in general terms I have always felt very comfortable that they operate to the highest ethical and patient-care standards.”

Dr. Morgan sees research and clinical practice as so closely intertwined that one cannot unravel them. “I do feel that clinicians should be involved in high-quality research, and that clinical research is fundamental to being a good clinician. If you’re not doing research, then you’re not going to be at the top of your tree,” says Dr. Morgan. “I feel that almost everything we do should be part of a process of making things better and doing things better. That’s what makes life interesting—and challenging, too.”

James Butcher is a freelance medical journalist.
European Society of Cardiology Working Groups

Working Group 18: Thrombosis

Kurt Huber, MD, FESC, chair of the European Society of Cardiology Working Group on Thrombosis and professor at the department of cardiology and emergency medicine, Wilhelminenhospital, Vienna, Austria, tells Emma Wilkinson, BSc, MA, how collaboration between scientists and clinicians and across continents provides the key to better patient management.

When Dr Kurt Huber became chair of the European Society of Cardiology Working Group on Thrombosis in 2006, he set himself the goal of improving the link between basic science and the bedside—not a surprising aim, when you look at his background.

He began his career at medical school in Vienna, and after his studies he worked for 2 years in a basic research laboratory in the city. After this introduction into the world of vascular biology research, he went to Innsbruck University, Innsbruck, Austria, to train in internal medicine before returning to Vienna in 1982 to continue his education. In 1986, Dr Huber began to specialise in cardiology, which he considers a natural step after his thrombosis research. He later became associate professor in the cardiology department at the University of Vienna.

After his first stint working in the laboratory, Dr Huber maintained close contact with the basic science team at the division for vascular biology and thrombosis research, led by Bernd Binder, MD, PhD. With the underlying aim of using basic science to answer clinical questions, the team collaborated on studies such as investigating the pathogenetic role of plasminogen activator inhibitor-I in young patients with acute myocardial infarction. Then, a move into a new general hospital with brand new research facilities enabled the cardiology department to carry out its own experiments.

However, at this point Dr Huber believed he had spread himself too thinly. “After several years, it became clear that I had to decide whether to be more focused on basic research or the clinical side, so I chose to work mainly as an interventional cardiologist.” In 2002, Dr Huber took up his current role as director of the department of cardiology and emergency medicine, at Wilhelminenhospital—the second biggest hospital in the city—but the cooperation with his former department remained. And his dual education has certainly benefited the team.

“We are doing a lot of clinical trials at my new department, and the honoraria are in part put back into clinical research,” says Dr Huber. “I’m no longer very experienced in the new research technologies, but I can find a basic science link to a clinical question. Sometimes it’s difficult to find such a link.” He continues, “Our basic research attempts come from questions from the bedside—I think this is the main advantage, and I think we have been relatively successful in the past.”

Dr Bernd Binder was director of the centre of biomolecular medicine and pharmacology at the department of vascular biology and thrombosis research, University of Vienna, and impressed on a young Dr Huber the importance of basic science research. As one example of this translational medicine approach, they conducted research examining the effect of high-dose statins in cell cultures of endothelial and smooth muscle cells gathered from explanted hearts.

Dr Huber says, “We found that many atherosclerotic mechanisms can be regulated by high-dose statins; for example, plasminogen activator inhibitor-I is down-regulated and tissue plasminogen activator is upregulated, whereby atorvastatin had the strongest effects in these cell cultures.” He explains, “We believe and currently try to prove that high-dose, highly effective statins in the acute coronary situation help to make coronary plaques less vulnerable, therefore reducing future clinical events.”

Fairly recently, his focus has moved away from the laboratory and into setting up better networks for acute myocardial infarction. In Vienna, 70% of all patients receive treatment with primary percutaneous coronary intervention—the majority within 90 minutes of first medical contact. “Since we have started this network, in-hospital mortality has fallen from 16% to less than 8%, and this includes very old and high-risk patients. It was difficult in the beginning to organise such a network—we had to think about who was doing the triage, and we decided that the Viennese ambulance physicians, who are not cardiologists, should be specially trained to do it.”

The objectives Dr Huber set when he became chair of the Working Group on Thrombosis resembled those he has tried to put in place in Vienna—to enhance knowledge of thrombosis, stimulate education, promote clinical research, and support young investigators. The working group has recently produced position papers about prehospital treatment strategies in patients with myocardial infarction and about antithrombotic strategies in cardiovascular diseases. The group is currently working on a position paper on bleeding...
complications in patients with acute coronary syndromes, and they also aim to focus their activities on other areas that still lack guidance.

An upcoming project of the working group, together with other groups, involves the establishment of a consensus on perioperative management of patients treated with combined antiplatelet therapy—an issue complicated by a lack of studies. “At the moment, it’s all about experience,” Dr Huber explains. One problem he perceives with the current guidelines relates to the different positions of US and European doctors, which can lead to different sets of advice. This difference has occurred not because one side is right or wrong, but because of different working practices—simply differences in culture—or because of which trials took place in which parts of the world.

“There’s not much difference if you look at outcome data, but different guidelines make things a bit more difficult to accept. I think in the end we should cooperate to deliver one common guideline or, at least, produce guidelines on both sides of the Atlantic with essentially the same content; otherwise, things get a bit complicated for the users.”

Dr Huber believes that guideline groups, including the European Society of Cardiology, should move to a more international perspective. One way of making this a reality, he postulates, would involve bringing American experts into European guidelines in a more leading position, and vice versa.

Dr Huber’s experience in working across different disciplines and different fields certainly makes this approach feasible. His work with cardiac networks in Vienna has helped to forge strong links between the Austrian Cardiology Society and the Ministries of Health. Perhaps he can have the same success across the Atlantic.

Emma Wilkinson is a freelance medical writer.
Foundation Staff and Organisation

Dr Šerpytis has been president of the Lithuanian Heart Association (LHA) for 2 years. His particular interests include acute coronary syndromes, resuscitation, “the golden hour,” the national acute coronary syndromes register, prevention of cardiovascular diseases, and the promotion of healthy lifestyles.

Dr Sigita Glaveckaite, also a cardiologist at Vilnius University Hospital, serves as secretary of the association. Her research interests include cardiovascular magnetic resonance imaging, heart tissue viability, and acquired valvular diseases. Ms Julita Gladynaite-Velderbeek serves as executive director of the association and participates actively in the organisation of events such as World Heart Day. Like the 2 doctors, she works part time with the organisation. At her main job, she sells advertising space for a popular newspaper.

The LHA has a main office in Lithuania’s capital city of Vilnius, with 5 branches in other towns: Kaunas, Klaipeda, Šiauliai, Panevezys, and Alytus. From these bases, the association organises seminars for local doctors, and communicates with the local population to promote the habits of healthy living (Figure 1). Rimvydas Šlapikas, PhD, MD, heads the largest and most active centre, the Kaunas LHA branch. Zaneta Petrušioniene, PhD, MD, serves as chair of the Vilnius branch, and Dalia Jarašiuniene, PhD, MD, fills the role of chair for the Klaipeda branch.

Main Goals

Dr Šerpytis sees the main goal of his presidency as the promotion of healthy living to the population of Lithuania. The association targets both adults and children. He says it has strong alliances with other organisations that have an interest in promoting healthy lifestyles in schoolchildren. The LHA works closely with the Lithuanian Society of Cardiologists.

Ms Julita Gladynaite-Velderbeek expands on the LHA role in educating society. She says, “We believe that prevention is the most effective strategy to reduce cardiovascular disease. Our activities include the preparation and publication of information to promote healthy living. We also organise special TV programs and publish articles in popular newspapers, journals, and Web sites—for example, Business News and Hello, and a health Web site, http://www.sveikas.lt. These are outlets that reach huge audiences.” Ms Gladynaite-Velderbeek adds, “At the moment, we are busy making our year plan for the mobile bus.” This is a special bus (Figure 2) that will be working in the field of prevention and will go to towns and villages throughout Lithuania. “It will enable the measurement of blood pressure, weight, cholesterol, and glucose. This mobile cardiology campaign will continue for 2 years,” she says.

Support of Postgraduate Education

The postgraduate education of doctors represents one of the most important tasks of the LHA. Indeed, according to
Ms Gladynaite-Velderbeek, the association puts more resources into this area than the government does. Since 1995, they have held seminars several times a year for doctors—cardiologists, internists, general practitioners, and nurses. The LHA organises summer meetings of Lithuanian cardiologists, acute coronary syndromes conferences, and seminars entitled News in Cardiology every year. Some of the presentations appear in the periodical Seminars in Cardiovascular Medicine, the official publication of the LHA. The association also sometimes publishes this periodical in English (available at http://www.heart.lt/seminars) on their Web site (Figure 3). The LHA organises a biannual international symposium, Arrhythmia—Lithuania, and also the annual meeting of the Lithuanian Cardiology Society. The association financially supports attendance by Lithuanian doctors at international congresses, conferences, and educational courses.

Advancing the Science of Cardiology

The LHA participates in the nationwide program started by the Ministry of Health Care by contributing to both the development of and implementation of advances in clinical cardiology. Dr Glaveckaite says, “The association is responsible for the Register of Cardiovascular Diseases in Lithuania. We have been collecting information on myocardial infarction since 1995. This helps to prepare standards for treating heart attack and to influence the death rate from it in Lithuania.” She adds that the association has recently started a register of acute coronary events in Lithuania. The LHA funds some of the scientific projects in Lithuania, such as the European Action on Secondary and Primary Prevention Through Intervention to Reduce Events (EUROASPIRE) III study, a survey of the practice of preventive cardiology in 22 European countries. Dr Šerpytis explains, “We took part in EUROASPIRE III so that we can directly compare statistics on Lithuanian patients with patients from other European countries.” The LHA also funds and promotes various scientific projects to the public and government, especially those related to the prevention of cardiovascular diseases.

Funds

The association exists independently of the government. It raises its funds mainly from pharmaceutical companies and has an income of approximately €100 000 per year. Although much spending goes toward the education of doctors, Dr Šerpytis stresses the importance of educating the population. “The other main spending of funds goes into publishing prevention and educational materials for the public. We also promote physical activity—for instance, by holding cycling events. We use such projects as an educational opportunity.”

Robert Short is a freelance medical journalist.

References
