What drew you into cardiology?
At the University of Utrecht, The Netherlands, medical students were asked to assist in the physiology department, and I became involved in the exercise testing of athletes. However, I was more interested in testing patients. We did bring patients from the hospital to the department, but it became clear that a hospital setting would be a better environment for exercise testing, so I eventually moved to the Thoraxcenter in Rotterdam.

Computer-assisted interpretation of exercise ECGs became the subject of my PhD thesis. These were early days in the field of computer applications in medicine. Paul G. Hugenholtz, MD, then the head of the Department of Cardiology at the Thoraxcenter, organised one of the first meetings on computer applications in cardiology.

Was Paul Hugenholtz the person who most inspired you?
Yes. I obtained my MD in 1970, and I joined him in Rotterdam in about 1972. His most inspiring concept to me was that you should not work in a single specialised medical field, but in close collaboration with others. He had the vision that the Thoraxcenter, the “cardiac hospital,” should combine cardiology, cardiac surgery, experimental cardiology, biomedical engineering, and informatics in one unit. Indeed, these groups do work closely together, and this has been a major reason for our success in both basic and clinical research. In fact, I have about the same number of engineers as doctors in my department. I was also inspired by Dr Hugenholtz’ presidency of the European Society of Cardiology (ESC) from 1984 to 1988. While the ESC was founded in 1950, it is fair to say that it was he who turned it into a highly successful organisation. I was honoured to follow in his footsteps as president in 2000.

What are you particularly proud of achieving during your presidency of the ESC?
I was a member of the board for 13 years, and president from 2000 until 2002. I am particularly proud of the Euro Heart Survey programme. That is a programme across Europe to assess whether clinical practice follows the guidelines provided by the ESC. It involves a continuous cycle of audit, refinement of the guidelines, and education.

What was the major turning point in your career?
One was meeting Peter Rentrop, MD. He had just done the first intracoronary lysis of a patient with myocardial infarction, and I was responsible for the Thoraxcenter coronary care unit. Several cardiologists in The Netherlands immediately wanted to try this new approach, and we set out to prove that this concept worked. Our first large clinical study was the study on intracoronary streptokinase in 1980.¹ This study constituted one of the major breakthroughs that helped bring thrombolysis to clinical practice. Intracoronary streptokinase brought down hospital mortality from around 10% to 6%. The results from this, and other studies, were rapidly accepted by the profession and put into practice throughout the world.

The study was developed at the same time that the world was learning how to run a clinical trial. We were part of an evolving science. From that first study, we went on to the tissue plasminogen activator studies by the European Cooperative Study Group, and later joined with others in the Global Utilisation of Streptokinase (GUSTO) series of studies.

Of course, with the thrombolytic drugs we noticed recurrent infarction months after treatment. Direct percutaneous coronary intervention helped to improve on that. Indeed, thrombolysis has, in most Western European centers and in North America, been replaced by direct coronary intervention. Our regional prehospital thrombolysis programme started in 1986, and was replaced over a period of 2 years, starting in 2003, by a regional service to bring infarct patients rapidly to the intervention suite to undergo angioplasty and stent implantation.

What scientific challenge are you working on now?
The department has a broad research program, including studies of biomarkers for vascular inflammation and thrombosis,
the vulnerable plaque (with Ton van der Steen, PhD), and interventional cardiology (with Patrick Serruys, MD). We are also working on the development of noninvasive angiography. We are among the leaders in developing multislice–CT coronary angiography (see Figure), through one of my colleagues, Pim de Feyter, MD, who has a joint appointment as a professor of cardiology and radiology.

I believe that noninvasive angiography will completely change our practice in the next few years. If the gold standard becomes noninvasive–CT angiography, the day that the patient comes in with chest pain is the day they will have the scan. Much of the step-by-step function testing that we do nowadays will simply disappear. Use of noninvasive angiography will enable tailoring of preventive therapy to the individual patient. It might be possible to identify those patients with risk factors like diabetes but with no problems in the vessels, and who might therefore not need intensive therapy. On the other hand, the technique will disclose patients who are asymptomatic but have major vessel problems, and who would benefit from intensive therapy. This is a challenge we will address in the next few years. As a doctor, I would much rather give a tailored therapy to a specific patient than treat them all with multiple drugs.

Robert Short is a freelance medical journalist.

References

The British Cardiac Society: What’s in a Name?

The British Cardiac Society has changed its name, although not to universal agreement. Its president, Nicholas Brooks, MD, FRCP, FESC, outlined to Barry Shurlock, MA, PhD, the reasons and its implications for the future.

William Harvey must be chuckling in his grave, for that pillar of the cardiology establishment, the British Cardiac Society (BCS), has just acknowledged the inseparable nature of the heart and circulation by changing its name to the British Cardiovascular Society — conveniently also abbreviated BCS. This followed an extensive reexamination of the constitution and activities of the BCS by former president Huon Gray, MD, FRCP, FESC, FACC, consultant cardiologist at the Wessex Cardiac Centre, Southampton University Hospital, United Kingdom. In addition to changing its name, the society has tuned up its whole organisation by forming specialist divisions for training, education and research, and by establishing clinical standards, among other means. It has also articulated its desire to forge closer links with the European Society of Cardiology and the American College of Cardiology.

According to the current president, Dr Nicholas Brooks, consultant cardiologist, Wythenshawe Hospital, Manchester, United Kingdom, who has implemented the changes, they were in large measure due to the increasing numbers of medical and nonmedical specialist associations which have developed in areas such as interventional cardiology, echocardiography, nuclear medicine, cardiac nursing, and elsewhere. In 1992, the society decided to grant affiliate status to such groups, which currently number no less than 13.

Dr Brooks commented, “Few people objected to the change of name. It was much less controversial than we’d expected. We’d been undertaking a major governance review, a strategic review of what we are there for. Our members are not only cardiologists and surgeons, but also basic scientists, and we have expanded over the past 10 years, with nurses, cardiac care professionals, and others as associate members,” he explained.

“The whole nature of work in cardiology has of course changed. It started mainly with congenital heart disease and rheumatic heart disease, which we are still interested in, but much of the work of cardiologists is now that of a cardiovascular physician. For example, much of the research funded by our sister organisation, the British Heart Foundation [based in London], is more concerned with vascular than cardiac problems, though of course the two are inextricably linked.”

Among the reasons advanced against the name change by some BCS members were that it is inaccurate, that most vascular disease is the province of other specialities, that it reeks of “empire building,” and that the lay public will be confused. These are the views of Michael James, MD, FRCP, consultant cardiologist, Taunton and Somerset Hospital, Taunton, United Kingdom, who believes that there should have been a ballot on the issue. He commented, “It is a society for cardiologists, and, apart from cardiac surgeons, 90% of members consider themselves to be cardiologists. We don’t want to be isolationist and ignore important aspects of cardiovascular disease, and
recognise that our practice overlaps that of chest physicians, diabetologists, and neurologists, but none of us would consider ourselves to be practitioners in any of these fields. We are cardiologists; our principal interest is in heart disease. The name of our society should reflect these simple facts.”

Another major change for the society has been a renegotiation of its relationship with the 3 UK medical Royal Colleges of Physicians in London, Edinburgh, and Glasgow. Virtually all British cardiologists study for the membership of one of the Royal Colleges and almost all became Fellows, but the BCS represents the cardiology community. Dr Brooks explained, “We now have much closer cooperation and collaboration with the Royal Colleges of Physicians, who in matters of training are advised by the Specialist Advisory Committee in cardiology. Previously, the BCS was peripherally involved in the appointments to the committee and would often first hear of decisions after they had been made. This led to some major areas of disagreement.

“We have been negotiating with the Royal Colleges of Physicians for 3 years — as have all the main specialties,” said Dr Brooks. The president of the Royal College of Physicians of London, Dame Carol Black, MD, FRCP, a consultant rheumatologist at the Royal Free Hospital, London, had the vision to appreciate that the specialties are the key to the future of the Colleges. The president of the BCS now automatically serves on the council of the Royal Colleges of Physicians, and other processes will become more open and transparent.”

It is 60 years since the BCS adopted its erstwhile name.

Spotlight: Martin Rothman, FRCP, FESC

Dr Martin Rothman is professor of cardiology at Queen Mary University of London and director of the London Chest Hospital’s Heart Attack Centre. He spoke to Emma Wilkinson, BSc, MA, about his career.

Brought up in Brixton, London, Dr Martin Rothman studied medicine at the University of Manchester in the North of England, where a mix of personal circumstances and motivation from his teachers led him into choosing cardiology as his specialty.

“My father had a heart attack at a fairly young age — in his early 60s — when I was an undergraduate, and that was one driver,” said Dr Rothman, “although I tend to play it down. The second driver was that I had my first really inspirational mentor, Derek Rowlands, MRCP, a consultant cardiologist at my teaching hospital. He made cardiology so simple and easy to understand. I then went to work with Douglas Chamberlain, MD, FRCP, at the Royal Sussex County Hospital in Brighton, who was the second inspirational person I worked with. He was a phenomenal teacher and magical character.”

Earlier it was called the Cardiac Society of Great Britain and Northern Ireland (1937), and when it was first formed in 1922 it was called Cardiac Club. About 200 of its 1426 members are Fellows of the European Society of Cardiology. It has close links with other European countries, with many overseas members who have worked and/or trained in the United Kingdom. Dr Brooks said, “We are very happy to encourage overseas members who have worked or trained here, or made some contribution to cardiology in the UK. But we are not happy to have members who merely want to ‘buff up’ their CVs.”

Perhaps the BCS name change will be the first of many changes. Other societies may feel obliged to follow the guardians of the English language. However, the European Society of Cardiology (ESC) is not one of them. Its immediate past president, Michal Tendera, MD, FESC, FACC, of the Silesian School of Medicine, Katowice, Poland, commented, “We have definitely considered a name change, but decided not to. It doesn’t make much difference what you call yourself, it’s what you are. Everybody knows what the ESC is.” He did emphasise that it is important to keep the subspecialties, such as interventional cardiology and the various imaging modalities, within the ESC umbrella.

In 1980, Dr Rothman went to work as a fellow at Stanford Medical School in California, where he learned to mix his love of gadgets and gizmos with his work in cardiology. “I was working alongside John Simpson, MD, PhD, the professor of medicine at Stanford, who was doing some of the first angioplasties in the world, and this brought me a new perspective. In 1980, some physicians — including me — thought that angioplasty was bonkers,” he explained. “But he was an entrepreneur, he saw an idea when it was at its earliest stage and decided the technique then being used was not the best way to proceed. He made the stuff in his garage — he was learning and inventing as he went along.”

Three years later, back in the United Kingdom, Dr Rothman found his own entrepreneurial streak and set up his first company developing devices for intravascular ultrasound. “I’ve always been at the leading edge of technology. I would say that’s what I do,” said Dr Rothman. “I now have as many as 15 patents in my name. My company, Intravascular Research Ltd, based in London, at one point had 72 staff. Phased array ultrasound, using high frequency sound waves, which we developed, has become 1 of 2 methods for real-time imaging within coronary arteries.”

The advances made in cardiac technologies are a testament to the forward-thinking nature of cardiologists, said Dr Rothman. In addition to juggling product design and development, business interests, and work as a cardiologist in the UK’s National Health Service (NHS), Dr Rothman is also involved in research, having been appointed in the 1990s to lead
cardiac research and development programmes for the NHS.

It was at this time that Queen Mary University of London recognised his academic research work and presented him with a professorship. Dr Rothman said, “Cardiologists have always participated in research and teaching, so it’s quite a blurred line. But becoming a professor 6 or 7 years ago is something I am proud of because it meant that people had recognised that I had given a lot to education and training. We don’t tell our colleagues that we think they are doing a good job, so it’s good to have that recognition.”

Dr Rothman’s list of achievements is certainly impressive, but when you add in his severe dyslexia — a diagnosis that wasn’t made until his son was diagnosed with the condition — his sheer determination becomes apparent. “I was never academic as a youth or an undergraduate, and everyone just decided I was lazy. Despite poor GCSE and A-level results, I got into Manchester University on the basis of an insightful dean who must have seen a spark,” he admitted. “It wasn’t until I started to work with human beings as a clinician that my life really started.”

His strong interest in technology and working with his hands made sense once he realised why he had so much trouble with the written word. “I couldn’t write a paper until I was 30 years old; computers saved me, because it meant I could do many drafts. But I was very good at hand-eye coordination.” He continued, “I work in 3D space while looking at a 2D screen, which doesn’t come naturally to a lot of people. I can think a process through, but if I had to write it down like a lawyer I wouldn’t be able to do it.”

Dr Rothman is the director of the London Chest Hospital’s Heart Attack Centre, which serves one of the most deprived populations in Europe, whose staff work around the clock to provide 50 primary angioplasty procedures a month. He believes that primary angioplasty is set to replace thrombolysis as the future of heart attack care. But the logistics of providing a full-time emergency angioplasty service often means thrombolysis is the only option when patients are rushed to hospital. However, the London Chest Hospital’s Heart Attack Centre is setting the standard. Dr Rothman fought for the service right from the initial pilot stage, when they were unsure whether the concept would work, joined the battle to obtain financing, and saw the project through to the opening of the unit in April 2006. He will also be involved in overseeing the implementation of the £1 billion private finance initiative to build new hospitals within St Bartholomew’s and the London Hospital carries on. “The first issue for me is to ensure succession. We’re trying to plan the services for the next 5 to 10 years, to have a strategy. It’s the difference between getting hit by a bus or looking to see when the bus will come along and standing in the right place. We want to be one step ahead.”

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Dr Rothman manages to make time for his family, although they are all as busy as he is — his son is a young doctor and an aspiring modern pentathlete who is considering whether to become an Olympic athlete. His daughter is a trainee opera singer, and his wife is just completing a masters degree in using the arts in counselling. “We’ve always said if you want something done, ask a busy person,” he says, laughing.

Emma Wilkinson is a freelance medical writer.

Book Review: ESC Textbook of Cardiovascular Medicine

In this issue of Circulation (pages e492 - e494) is a book review that will be of particular interest to those wishing to be accredited by the European Board for Accreditation in Cardiology. The book is edited by John Camm, MD, FRCP; Thomas F. Lüscher, MD, FRCP, FACC; and Patrick W. Serruys, MD, and is published under the auspices of the European Society of Cardiology (ESC) by Blackwell Publishing Ltd. The book has been reviewed by a panel of 3 distinguished senior cardiologists, each of whom is internationally recognised for their expertise in the broad field of general cardiology. They are Gottlieb Friesinger, MD, Desmond Julian, MD, FRCP, and Elliot Rapaport, MD.

The intention is that the reviewers will provide an insightful, balanced, and constructively critical review of this important new first edition, which contains 36 chapters within 1092 pages, each authored by multinational collaborating members of the ESC.

The opinions expressed in Circulation: European Perspectives in Cardiology are not necessarily those of the editors or of the American Heart Association.

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Numerous multicentre studies have shown that primary angioplasty is better than thrombolysis,” he said. “Our work also showed that lives were saved, and importantly, that it was much more cost-efficient and bed-efficient. What we’re offering is a 24-7 service to a catchment area of 2 million people. It’s unique and probably the largest in Europe, if not the world.”

Dr Rothman is meticulously planning his retirement. Although he wants to continue, health permitting, with his business enterprises, his goal is to make sure the work he has done at St Bartholomew’s and the London Hospital carries on. “The first issue for me is to ensure succession. We’re trying to plan the services for the next 5 to 10 years, to have a strategy. It’s the difference between getting hit by a bus or looking to see when the bus will come along and standing in the right place. We want to be one step ahead.”

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