Spotlight: Christian Spaulding, MD, FESC, FACC

“I Wanted to Look at Myself in the Mirror Every Evening and Say ‘I’ve Done Something Useful Today’”

Christian Spaulding, director of the Cardiac Catheterisation Laboratory at Cochin Hospital, Paris, France, and professor of medicine at René Descartes University, Paris, talks to Judy Ozkan, BA.

Christian Spaulding, MD, FESC, FACC, is director of the Cardiac Catheterisation Laboratory at Cochin Hospital in Paris, France, and professor of medicine at René Descartes University in Paris. A dual French–American national, his life and career span the Atlantic. His main research areas are cardiac arrest, acute coronary syndromes, and, in interventional cardiology, the radial approach and drug-eluting stents.

With a mother from Maryland, United States, and a father from Marseille, France, Professor Spaulding was born in Kansas, United States, in 1956, and the family had a well-established pattern of criss-crossing the Atlantic. After a divorce, Spaulding’s French grandmother married an American soldier who arrived in France after the Liberation in 1944.

After the end of World War II, the family moved back to the United States, and Professor Spaulding’s father was adopted by his American stepfather. He was soon assimilated into American life, going on to serve with the US Army in Korea and enrolling at the University of Kansas where he met his future wife. Here the French connection could have ended with complete assimilation in the United States, but Professor Spaulding’s father had other ideas. When the opportunity of a job in Paris with Dun and Bradstreet arose, he decided to return to his French roots.

For the young Christian, then aged 9 and fluent in English and Spanish but not in French, 1960s France was a complete culture shock. He describes the early years as “very difficult” in terms of adapting to the education system. He started at a bilingual school and then transferred to the French system where he excelled in languages and history.

After secondary school, Spaulding was set to follow his father in running the family business he established after leaving Dun and Bradstreet, but he had a change of heart. He says, “I wanted to look at myself in the mirror every evening and say ‘I’ve done something useful today’.” He therefore enrolled as a medical student at René Descartes University in Paris. During these early years, Spaulding was interested in pulmonary diseases, lung cancer in particular, but a 6-month rotation in cardiology proved to be a turning point. “When my patients left the hospital, I had cured them or helped them and it was a revelation for me to do something so useful.” The head of cardiology at René Descartes at that time was François Guérin, MD, who encouraged Spaulding to stick with the specialty. Its appeal was its simplicity. “It was a very straightforward specialty, with a logical decision-making process, a lot of therapeutic options, and emergency situations. The head of the coronary care unit, Simon Weber, MD, PhD, who is currently the head of cardiology, personified this way of thinking and became my early mentor.”
Becoming an interventional cardiologist was partly a twist of fate driven by the requirement to train in coronary angiography and intervention at René Descartes. This occasion opened up the possibility of taking time off as a visiting fellow. Although the obvious choice might have been the United States, Professor Spaulding chose the Montreal Heart Institute in Quebec, Canada—a choice that has had a profound and lasting influence on his career and outlook as a senior clinician and academic.

Montreal was a “fantastic” experience, and French-speaking Quebec was a home from home after Paris, but the academic way of doing things came as a complete revelation. In France, the head of the department spoke and everyone listened, but in Montreal, for the first time, Professor Spaulding was encouraged to question and interact. He says, “It was mind boggling for me to be encouraged to interact with internationally renowned interventional cardiologists such as Lucien Campeau, MD, PhD, Raoul Bonan, MD, PhD, and Gilles Cote, MD, PhD.” Professor Spaulding and his French colleagues were so impressed that they vowed to recreate the learning atmosphere and teaching culture when they returned home.

The “Montreal spirit” is now alive and well at René Descartes and the Cochin Hospital, although Professor Spaulding concedes that changing the formalised French system will be a long struggle. “There is still a formality between me and my fellows that is difficult to dissipate.” To create an atmosphere more conducive to interactive learning, senior fellows are invited to use the French informally “tu” as opposed to “vous” in the department and to enjoy and make the most of their 6-month rotation.

Another revelation at the Montreal Heart Institute was clinical research, which until then had been “almost nonexistent” in Professor Spaulding’s career. Not only did the Institute have dedicated nurses and physicians, but residents were also allotted ring-fenced time for scheduled research. This working practice, radical in Europe, was later introduced by Professor Spaulding in Paris.

The period in Montreal was not just memorable on a professional level, Professor Spaulding was also impressed by the way the family-oriented Quebecers addressed the work–life balance. “They work like Americans and have fun like Frenchmen.”

“I Sometimes Feel That the System Is Designed to Prevent Progress”

After Montreal, Spaulding sought a suitable senior residency post to put what he had learned into practice. He identified the Clinique Pasteur in Toulouse, France, under the auspices of renowned interventionists Jean Marco, MD, and Jean Fajadet, MD. The only problem was that, as a private institution, Clinique Pasteur had no previous history of training and no funding for residents. But the 2 doctors were supportive and offered Professor Spaulding a place on the condition that he could arrange his own funding. The gamble paid off. Professor Spaulding’s single-mindedness would benefit dozens of future residents because his post was split 3 ways and became permanently funded. The period in Toulouse was a fruitful time and memorable for the hands-on approach favoured by the Clinique Pasteur. “They take a device, test it, put it through a clinical trial, and then get the result.” After Toulouse, Professor Spaulding gained a permanent position at Cochin Hospital in 1991 and became a professor in 2000. He looks back on his early days as a resident and fellow fondly. “These are periods when you are constantly learning, you are young and you are never too tired when you are on call.”

In contrast to the go-ahead, enabling atmosphere in Montreal, Professor Spaulding finds the French university and public health administration system, with its lengthy, complicated processes and inadequate funding for research a continual source of frustration. He says, “I sometimes feel that the system is designed to prevent progress and by the time you get approval for a particular project, things have moved on.” The more practical side of his work into angioplasty and stents attracts private funding, which moves things along more quickly.

Although Professor Spaulding carried on with many of the practices started in Montreal, the particular strand of research he began with Dr Bonan into percutaneous mitral valvuloplasty, did not continue. But this exposure gave him an invaluable grounding in using the tools of research and employing important principles. He subsequently went on to focus on cardiac arrest, its therapeutic options, and improving prognosis. This particular area has allowed him to work with emergency physicians, getting out of his specialty and seeing things in a different way. An example of this sort of collaboration is a project started in the 1990s with intensive care doctors to determine rates of coronary occlusion after cardiac arrest. This continued for 4 years and grew into a substantial body of work on the genesis of cardiac arrest.
The second major area of research in interventional cardiology involves stents and the radial approach. Professor Spaulding and his team are currently working on a number of ongoing research projects on acute myocardial infarction and drug-eluting stents. He finds the pace of working with the pharmaceutical industry gratifying but demanding. Compared with the public sector, it is fast moving and brings results. It also brings opportunities for interaction with international colleagues. He relishes the role of being a principal investigator and the challenges of organising and pushing through the protocols on time.

Although much work is behind him, for the future, Professor Spaulding believes a substantial amount of work needs to be done, particularly on the genesis of cardiac arrest. His team is working on a number of projects in this area and he predicts that in a decade or so, it will be possible to recognise at-risk patients and implement preventive measures. Meanwhile, work on improving the prognosis of patients who have undergone cardiac arrest continues, as does campaigning for improved public awareness of how to perform resuscitation. In interventional cardiology, Professor Spaulding’s view is that things have reached a plateau. He says, “There will probably be some changes in stents owing to the debate at the moment about biodegradable polymers and bioresorbable stents, but in terms of percutaneous coronary intervention, I believe the past 20 years have created definitive techniques in this area.”

“IT IS INTERESTING AND STIMULATING TO STOP AND USE YOUR BRAIN FOR A YEAR”

Professor Spaulding believes his bicultural background has been an advantage in his career, giving him the opportunity to participate more fully on an international platform. On a personal level, it has sometimes been a battle for cultural supremacy. He describes himself as “half French and half American.” Although the United States has beckoned on occasions, he has resisted the pull. His French wife—a gastroenterologist—has also kept him anchored in Europe.

Working with colleagues in an international arena has also proved rewarding. One such colleague who went on to become a great mentor is Patrick W. Serruys, MD, PhD, of the Thoraxcentre, Erasmus University, Rotterdam, the Netherlands. The pair conducted investigations after a controversy over the efficacy of drug-eluting stents. Professor Spaulding describes him as “science personified.” He says, “Although we met later on, he is the number 1 person who I respect from an intellectual and scientific standpoint for the way he can design a trial, analyse the work, and deliver the facts.” In turn Professor Spaulding has acted as a mentor to many up-and-coming interventional cardiologists and has the following advice for them: “Interact as much as you can with your senior physicians, and try to understand what you want to do and how they can help you.” He also believes that travel broadens the mind and opens up opportunities and he urges his fellows to take time to mull over their choice of specialty. He believes that postgraduates should not be afraid to take time out for research. He says, “Even if you are not going into an academic career later, it is interesting and stimulating to stop and use your brain for a year. A lot of residents training in interventional cardiology are afraid they are going to lose the techniques. It is difficult to convince them, but the world is not going to stop if they do not put a catheter in a patient for a year.”

Professor Spaulding’s wish to look in the mirror and feel good about his work has been realised in his choice of career. In interventional cardiology, he says, “I am dealing with very sick people. In cardiac arrest there is only a 30% survival rate and it is very gratifying to find different methods to improve their prognosis and understand the mechanics of arrest.”

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“The Aim Is to Keep the Momentum and Work as a Team, Gain From Each Other’s Strengths, and Help Team Mates When Things Go Bad”

Christian Spaulding, MD, FESC, FACC, director of the Cardiac Catheterisation Laboratory at Cochin Hospital in Paris, France, and professor of medicine at René Descartes University, Paris, describes the clinical and research teams to Judy Ozkan, BA.

As the leader of a team that focuses on cardiac arrest and interventional cardiology, Christian Spaulding, MD, FESC, FACC, professor of medicine at René Descartes University, Paris, France, and director of the Cardiac Catheterisation Laboratory at Cochin Hospital, Paris, likens the team to a submarine crew. He explains, “There is limited space, so we have to get along, there has to be a captain, and you have to be ready to dive when he tells you.” He shares his philosophy with new team members and adds that they should also be prepared to relax and enjoy time spent together.

“We Gain More by Sharing Our Mistakes Than by Bragging About Our Successes”

The inspiration for an “ideal team” came from Professor Spaulding’s days in the late 1980s as a visiting fellow at the Montreal Heart Institute in Quebec, Canada. While there, he came across dedicated research staff with a schedule to ensure that all junior academics had time to concentrate on research. All team members were encouraged to interact and share their views. He has tried to recreate this set-up in Paris, and he has used the “Montreal spirit” to inform and guide the team. All cases are reviewed during the day by the interventional cardiology team and discussed the next morning in depth by the staff of the cardiology department. Every member of the team, including the younger fellows, is encouraged to give his or her opinion. Complications are discussed with an open mind. “On Monday morning, after being on call during the weekend, I always start by showing the cases where I had a hard time making a decision or where I think I could have done better. I believe we gain more by sharing our mistakes than by bragging about our successes.”

Teaching the techniques is a major goal in the catheterisation laboratory. “We allow fellows to get their hands on the catheters and guidewires as fast as possible. In addition, I encourage all my fellows to train in other catheterisation laboratories during their fellowship period. When they return to my laboratory, I love interacting with them. Armed with new knowledge, they often challenge my opinion, and this allows me to keep an open mind on the world of interventional cardiology techniques and indications.”

Professor Spaulding’s close collaborator is Olivier Varenne, MD, PhD. He says, “When Olivier Varenne joined our department, my life changed. He is an outstanding interventional cardiologist with great hands, fantastic clinical judgment and an extensive scientific background. I have complete trust in him.” In addition 3 interventional
cardiologists who trained with Professor Spaulding (Philippe Allouch, MD, Emmanuel Salengro, MD, and Arnaud Jegou, MD) hold part-time positions at Cochin. He says that working with the 3 former colleagues is “a joy,” and their contribution to teaching techniques to the next generation is immense.

Chief technician, Olivier Margot has been working with Professor Spaulding for more than 15 years. “Without Olivier’s skills in organisation and communication we never would have been able to keep the team alive in the jungle of the French public hospital system.”

“Research on Topics Such as Cardiac Arrest or Interventional Cardiology Is Similar to Cycling in a Group”

Research starts in the catheterisation laboratory with each fellow and nurse in charge of protocol. Professor Spaulding describes the current team as “outstanding and enthusiastic about research.” He says, “They keep their eyes open for inclusions and are even better than me in remembering exclusion criteria and protocol exclusions.”

Most of the research into cardiac arrest is publicly funded and performed in collaboration with other teams. “Since 1994, I have been working with intensive care physicians of Cochin Hospital on this topic. Most of my interaction is currently with Alain Cariou, MD, who is a cardiologist by training and went on to specialise in intensive care medicine, and Florence Dumas, MD, who is an emergency physician.” Current senior fellow Stephane Manzo-Silberman, MD, has contributed significantly to ongoing projects.

A groundbreaking development for the team is a collaboration with the new Cardiac Arrest Statistical and Epidemiology Research Department of René Descartes University (INSERM U 970). The partnership has brought a new dimension to the research by allowing high-quality data analysis. This department is headed by Professor Xavier Jouven, MD, PhD, a cardiologist by training who has extensively studied different aspects of cardiac arrest, such as the relationship with heart rate. The same generosity of spirit prevails in this department: share your views and work as a team with pleasure. Professor Spaulding says that the skills spread gives individual team members a chance to interact and see things from a different perspective. For Professor Spaulding, a relaxed, enjoyable atmosphere is the key to a successful, productive team. He says, “The main idea is that research should be fun. I want individuals to come and enjoy what they are doing because clinical research can be difficult and sometimes boring. For the nurses in particular, it is important for them to know that they are not just there to do the routine, support work, but they are part of the research project.”

The team’s greatest achievement remains the landmark work on the management of cardiac arrest by prehospital emergency medical teams, the interventional cardiologists, and the intensive care unit. The main focus remains cardiac arrest, with a project on coronary thrombus and inflammation in cardiac arrest that aims to understand why a coronary artery occlusion causes cardiac arrest in some patients and “minor” chest pain in others.

Other areas of interest are genetic causes of cardiac arrest, cardiac support, and evaluation of drug-eluting stents with new polymers. With the Cardiac Arrest Statistical and Epidemiology Research Department, Professor Spaulding is working on a recently created interventional cardiology registry database from the Greater Paris area hospitals.

Using a cycling analogy, Professor Spaulding sums up their work as follows: “Research on topics such as cardiac arrest or interventional cardiology is similar to cycling in a group. The aim is to keep the momentum and work as a team, gain from each other’s strengths, and help your team mates when things go bad. It often seems like a long and difficult journey, but the rewards are there when the goals are achieved.”

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Leading by Example: Christian Spaulding, MD, FESC, FACC

Regularly Cycling 26 km To and From Work and Jogging, and Mediterranean-Style Evening Meals

Christian Spaulding, director of the Cardiac Catheterisation Laboratory at Cochin Hospital in Paris, France, and professor of medicine at René Descartes University, Paris, describes his heart-healthy lifestyle to Lindy van den Berghe, BMedSci, BM, BS.

Family dinners every night” with his wife, who is a gastroenterologist, and their 1 child who is still at home, are key to maintaining a heart-healthy lifestyle for Christian Spaulding, director of the Cardiac Catheterisation Laboratory at Cochin Hospital in Paris, France, and professor of medicine at René Descartes University, Paris.

He explains, “It is difficult keeping a balance between work and the associated stress and family when you work 60 to 70 hours a week, but it is important to maintain it.” He comments that his daughter, who recently started studying at university in New York, United States, finds it difficult to maintain the balance because “no-one sits down for dinner altogether.”

“I Prefer Jogging to Cycling Because I Can Disconnect From Everything”

Professor Spaulding exercises intensively 4 to 5 times a week, either by cycling to and from work or jogging for 45 minutes to 1 hour in a wood near his home.

The cycle ride to and from work is 13-km (8 miles) each way and involves a scenic 15 minutes through a wood, plus another scenic route along the Seine to the Latin quarter of Paris, but there are also busier cycle path sections with traffic lights, which means Professor Spaulding has to concentrate and is unable to switch off completely. The journey takes 40 minutes and he travels light, carrying his work on a portable hard disc that he can link up to his computers at work and at home.

At weekends and sometimes during the week if he has used the car to travel to work Professor Spaulding jogs 10–12 km through the woods near his home while listening to his favourite music on headphones. He has run 6 or 7 Paris marathons in the past, usually in around 3½ hours, but now he settles for half marathons because he has a “nagging tendonitis” in his knee. He says, “I prefer jogging to cycling because I can disconnect from everything and because it is more strenuous.” He explains that he finds jogging in the woods mentally relaxing because he does not have to concentrate on anything and can immerse himself in his music.

As a French–American living in France, Professor Spaulding enjoys a Mediterranean diet of fruit, vegetables, and pasta, accompanied by a glass or 2 of red wine (he particularly enjoys Bordeaux varieties). He says, “Frenchmen love all their food. The fruit and vegetables are the best in the world, there is no emphasis on red meat, and fast food chains only have a marginal share of the market. Because I live in France, I have a healthy diet without having to think about it.” He explains, “I have a light breakfast (muffin, fruit, yoghurt, and coffee), and dinner is usually some kind of pasta with chicken, fish (once or twice a week), or red meat (once or twice a week). However, lunch is a disaster because I am working and is basically a sandwich or salad, fruit, and yoghurt.” If Professor Spaulding goes out for a meal he always chooses fish; sole is his favourite, and he eats salmon once a week. Overall, Professor Spaulding therefore describes his diet as “relatively healthy.” In terms of salt, he says, “I do not minimise salt intake because basically there is not much salt in the food I eat.”

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Photographs courtesy of Professor Spaulding.
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