

## Volume 3 - Issue 1, 2009 - Cardiology Leaders

Interview with Prof. P. Brugada



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Prof. Pedro Brugada tells Cardiology Management about the public and private achievements that have shaped his career in cardiology. We also learn about the scientific legacy left by himself and his brothers, as the first to describe 'Brugada syndrome', a hereditary disease characterised by sudden cardiac death caused by severe disturbances of the rhythm of the heart.

There is no standard typical working day for me at the Heart Rhythm Management Centre.

Our day at the electrophysiology laboratory typically starts around 8:30 a.m. I am constantly moving from one intense and fascinating activity to another. I begin by meeting with Dr. Andrea Sarkozy, Director of the Clinical Electrophysiology Programme and Dr. Gian Batista Chierchia, Director of the Atrial Fibrillation Programme. We discuss the patients' characteristics and problems on location and start procedures with a clear diagnostic and potential therapeutic plan. After checking the arrhythmia programme and setting goals for the day, I move to my office with Kristien Van Caelenberg, my PR, administrative coordinator, and also my wife. We go through meetings with contractors, supporters, officers and companies before starting consultations.

One of Kristien's major tasks is the fellowship programme. We have a permanent squad of six electrophysiology and pacing fellows from all over the world. Some relocate alone, others with large families. Managing the different needs of these fellows is not easy, and Kristien's role as "mama duck" means that she is frequently trailed around the department by a train of different fellows, who rely on her support.

We have great fun at the electrophysiology laboratory, playing with our cuttingedge equipment: three electrophysiology stimulators, high-tech recorders, three 3D mapping systems for electro-anatomical reconstruction and mapping of the heart and magnetic navigation. Our surgeon Prof. Francis Wellens and his team take care of the burning, freezing, and cutting involved in curing our patients. Dr. Carlo de Asmundi leads the technology section in cooperation with Head Nurse Marc De Zutter.

Investigating each individual patient requires more than just assessing their medical data.

My consultation is exactly the same. I personally see between 2,000 and 2,500 patients per year at the outpatient cardiology clinic and an additional variable number of children at the paediatric rhythmology centre together with Prof. Abraham Benatar. The large majority of patients come for a third, fourth or even tenth opinion. They carry massive data on maps, USB drives, CDs and printed pages with all previous visits, results of investigations in other hospitals and data collected from the internet.

My first job is to put this aside, however, and ask the patient: "Tell me, what brings you to me?" and "What brought you initially to a doctor?" Many patients have straightforward problems that are quite simply solved. Frequently, however, I deal with patients diagnosed or suspected of suffering from Brugada syndrome or other inherited arrhythmias. As well as daily emails, patients come from all over the world to obtain answers to the hundreds of questions produced by an inheritable disorder. We have a close cooperation with the genetic department and our research nurse, Stefan Henkens, coordinates all necessary aspects for this very delicate population, including the social and the psychological ones with Marina, our psychologist.

Kristien and I are the last to leave the department every evening except Tuesday, when consultants have late evening consultations. Once out of the hospital, other planned "surprises" await us: The plane for a meeting in Japan or a local meeting with GPs for teaching purposes. From January to June and from September to December, meetings are scheduled typically every second weekend. There is not much time for a social life, but I do my best to make time for golf and to join friends and family.

Public honours throughout my career have meant a lot to me: but one private honour has transcended scientific achievement.

The public honours I have received during my career are very important. As a Catalan, my greatest honour was receiving the Josep Trueta Medal for Medicine from the Catalonian government, and receiving the gold medal from the Catalan Society of Cardiology. On a private level, the lecture that touched me the most was the one I gave at the cemetery of my village, Banyoles, when my father died in 1999. Before he died, we had the incredible opportunity to show him the first monograph on Brugada syndrome. We buried him with that monograph. The speech I delivered and the feelings of the very limited family audience at that time, I leave to your imagination.

## The description of Brugada syndrome had an enormous impact on my career and that of my brothers.

The syndrome has had an enormous impact on my career and those of my brothers Josep and Ramon. We know that we have been lucky to create a scientific legacy. We also described Short QT syndrome and its genetic mechanisms and a familial form of pre-excitation. We can now clearly state that Brugada syndrome went from a scientific curiosity with only eight patients to the reference point for the understanding of inherited disorders of the electrical activity of the heart. Without electricity, there is no muscular cardiac contraction, thus, no blood perfusion, and no life

## I had to fight to gain my first place in the cardiology department.

After finishing my medical studies at 22, and after one year as general practitioner in the Catalan Pyrenees and Tarragona, I went to the Chief of Medicine of the University of Barcelona Hospital Clinic, haematologist Prof. Cirilo Rozman to ask for a job as a trainee in haematology. He said I was too young and that I had to wait for one more year.

However, the imminent arrival of my first daughter Isabel, meant that such a wait was a luxury I could not afford. Paco (Francisco) Navarro-Lopez had just become the new Chief of Cardiology and teamed up with Amadeo Betriu and Gines Sanz to create the first real cardiology centre in Spain. Thus it was that I made my case for an available position as a resident in cardiology with Paco. Working with these three luminaries was a daily thrill. They were light-years ahead of the rest. The hospital clinic has maintained this modern-facing reputation ever since. My brothers Josep and Ramon still work there.

## When I look back on my days as a medical resident, certain memories stand out.

I was a resident in cardiology at the department of cardiology from 1976 to 1979. There are many favourite memories that spring to mind during this unique period in the cardiology department. As a resident I was paid well enough, and as a man alone I could have afforded to rent a small apartment, buy one or two daily sandwiches and drive an old motorcycle. However, as a married man with a daughter, every single peseta was important. Paco, who knew that a single sandwich was too expensive for me, initiated a type of medical game so I could 'earn' my lunch. His real hobby was congenital heart diseases. On Thursday I would do cardiac catheterisations with him on children with congenital heart disease in the pre- echocardiography era. Our only clues were the clinical history, physical exam, ECG, and the thorax RX. He would then show me the ECG, RX and tell me the clinical history and physical findings. If I made the correct the diagnosis, he would pay for my lunch. I can tell you that no resident in cardiology ever learned so fast as I did!

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