Profile
Xavier Montalban: a pioneer in understanding multiple sclerosis

Xavier Montalban is an optimistic person. He has good reason to be because in September, 2012, the new headquarters of Catalonia’s Multiple Sclerosis Centre turned the lights on. “It is the culmination of more than 20 years of work”, he explained to The Lancet Neurology on a sunny afternoon in June at Vall d’Hebron Hospital in Barcelona, Spain.

“He and his team have made major contributions to almost every aspect of our current understanding of multiple sclerosis”, says friend and colleague Alan Thompson, Dean of the Faculty of Brain Sciences, University College London, UK. Montalban is currently a world leader in multiple sclerosis (MS), but as a child he wanted to be a biologist. “It was my elder brother who convinced me to study medicine. I do not regret making that decision at all. As a neurologist I have had the chance to develop both as a medical doctor and as a scientist with a strong basis in biology. I picked neurology because it was challenging field”, explains Montalban.

Montalban gained his MD in 1983 at the Autonomous University of Barcelona, Spain, and was awarded a PhD at the same centre in 1988, after completing his training in neurology. In 1989, he undertook a postdoctoral research fellowship with the Lupus Research Unit at St Thomas’ Hospital, London, UK. While studying stroke and antienothelial cell antibodies, “I saw a patient with very high levels of antibodies. I became interested in what she had and it was not stroke but rather an attack of MS.”

That was his first encounter with the disease. When, in late 1990, he returned to Vall d’Hebron University Hospital in Barcelona, Montalban developed some of the first solid research projects in MS in Spain. “Almost no-one knew about MS and even the treatment was interferon was being tested in a clinical trial. In the past 20 years there has been a revolution in understanding and treating MS.”

Montalban is currently a professor of neurology at the Autonomous University of Barcelona, the chairman of the Neurology-Neuroimmunology Department at Vall d’Hebron University Hospital, and the director of the Multiple Sclerosis Centre of Catalonia. This centre combines clinical care, clinical trials, and research as well as teaching and it has more than 4500 patients registered on its database. “There is no trick, just hard work, endurance, and perseverance”, says Montalban. This includes not sleeping much, although his appearance, relaxed and friendly, does not betray it. “I get up at 5 am. At first I used to go straight to the hospital but the security staff thought I had no family”, he laughs. “Now I have coffee at home, check some emails, read the main news on my iPad, and get to the hospital by 7–7:30 am.”

In 1995, Montalban’s team identified two important patient populations that would transform our knowledge of MS and approaches to treatment: those with first episodes suggestive of the disease and patients who had started treatment with the first drugs available. “His and his group’s work was fundamental. They identified features that became part of the diagnostic criteria of MS, elucidated the nature and course of progressive MS, and pioneered studies on biomarkers for early detection of the disease and to determine which patients will respond well to therapy”, says Hans-Peter Hartung, professor and chairman of neurology at Heinrich-Heine-University in Düsseldorf, Germany.

Since then, Montalban has designed and executed several phase 2 and 3 clinical trials and nowadays devotes much research effort to genetic characterisation of the disease with the aim of developing new intervention strategies.

“MS has two components: inflammation and degeneration. We have very powerful weapons to control the former but still do not know how to avoid the neurodegenerative processes that ultimately will cause severe disability to most patients. We do not know what the underlying mechanism is and how to avoid its effects with neuroregenerative and neuroprotective drugs. Solving this problem is our main challenge ahead”, says Montalban.

Montalban enjoys hiking in his hometown in Catalonia and skiing but, above all, he describes himself as an avid reader. “I cannot leave even the books I dislike. I continue until the last five pages and then I stop reading. It is a sort of punishment to the author.” The Picture of Dorian Gray is his favourite novel, but according to Thompson and Hartung, Montalban is quite unlike the narcissistic main character of Oscar Wilde’s writing. “He is an inspirational person, always aspires to excellence”, says the Thompson. “He is a gentleman, with a delicate sense of humour, always a pleasure to work with”, adds Hartung.

He is quick to acknowledge those who have inspired him or played a direct part in his success as a neurologist and a researcher. “My career would not have been what it is without neurologists Mar Tintoré, Manolo Comabella, Jordi Rio, Carlos Nos, and Jaume Sastre-Garriga [once his residents and now his colleagues at the Vall d’Hebron University Hospital] as well as radiologist Alex Rovira.” According to Montalban, the most important day in his life was when he passed the MIR exam, the Spanish competitive exam for medical graduates to opt for specialised medical training, with a score good enough to pick the hospital and the specialty he preferred. “That day I knew what I would do for the rest of my life.” Considering what he has achieved since then, the years to come look very promising indeed.

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