Profile

Ernesto Schiffrin: essential player in hypertension

The interest in hypertension that culminated in Ernesto Schiffrin's international reputation in the field took root early in his career. During the latter part of his medical training at the University of Buenos Aires, he was careful to attach himself to what he saw as the right department. "I picked one that was science based", he recalls. "One where everyone had spent a few years outside the country, generally in the US. They were all physician scientists." This was not an easy path to follow in a country like Argentina without a great deal of money for research. But a core of physician scientists based in Buenos Aires was managing to do work that commanded international attention. "I became an instructor in physiology in the department of Dr Alberto Taquini, one of the discoverers of angiotensin", he says. Schiffrin had taken a step on the route that would soon take him out of Argentina and off to North America.

Born in Buenos Aires, Schiffrin's family had its Argentinian origins in grandparents who had emigrated from Russia and eastern Europe during the 19th century. Schiffrin's father was a pulmonary physician and chair of the department of medicine in one of the city's municipal hospitals. His mother taught English literature and American history at the university's teacher training college. Schiffrin himself went to an English school: an experience that was to serve him well when he later moved north.

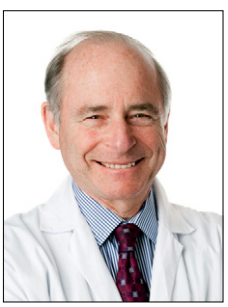
The attraction of working in a country where the resources available for research were greater than anything that Argentina could offer were self-evident. Schiffrin graduated in 1969, held a couple of jobs in Buenos Aires, including a fellowship in hypertension research, and then had the offer of a fellowship in the hypertension group of the Clinical Research Institute of Montreal. He took it up in 1976 and, aside from visits home, never returned. The chance of continuing to work in a research-intensive environment had proved irresistible. "At the time I missed my family, and we had had a good life in Buenos Aires", he says. But he adds, quite firmly, that he has no regrets over having stayed in Canada. Indeed, he took Canadian nationality many years ago and has built a thriving career in Montreal. Schiffrin became a professor of medicine at the University of Montreal in 1991, and now holds a Canada Research Chair in Hypertension and Vascular Research at Lady Davis Institute for Medical Research and is professor at McGill University's Department of Medicine. On the clinical front, he is chief physician at the city's Jewish General Hospital.

The thread running continuously throughout his 35 or so years in Canada is, of course, hypertension. "Even though I practise internal medicine I started my research around aldosterone in animal models of the condition. Over the years I've tried to translate my research into humans. So my work has moved from molecules and cells through rodents all the way to clinical research." He's taken part in only a few drug trials. "I've been more interested in mechanistic research in humans, generally around blood vessels." Two people who know Schiffrin well are Anna Dominiczak, Regius Professor of Medicine at the University of Glasgow, and Rhian Touyz of the same university's Institute of Cardiovascular and Medical Sciences. When asked to identify Schiffrin's major contributions, both picked out his work on vascular remodelling in small arteries. And Schiffrin concurs with that assessment. "The effect of antihypertensive treatments on vascular remodelling would be one of the contributions I'm most proud of because it was very hard work, and we were able to drive it forward despite the difficulties of doing this kind of invasive mechanistic research in humans. And also because it touches on all the other areas I've worked on." As Touyz comments, "The remodelling process is extremely complicated, and there's a tremendous amount of work going on internationally to understand the mechanisms that contribute to it. It's a field that's growing, and the reason for this is that if we can understand the mechanisms we may be better able to target therapy." In more recent years Schiffrin has also become known for his work on endothelin and on the role of the immune system in hypertension.

Dominiczak knows Schiffrin through, among other links, the editorial board of the journal *Hypertension*. "In any job he does he aims for perfection. He's someone who pays attention to detail, but can also be a big picture person." Touyz, once a postdoctoral student of Schiffrin's, agrees. "He's very demanding because he accepts only excellence. And he's passionate about discovery and science in his field."

Research is not quite all consuming in Schiffrin's life, and he likes to keep physically fit. "I'm an addicted downhill skier. I have a country home an hour north of Montreal, and about half an hour beyond that we have skiing. When it's minus 30 it's wonderful because there's nobody on the hill or waiting for the chair lift." There may well come a time when Schiffrin relinquishes the ski slopes. But it's difficult to see him ever abandoning his research. "Like all chronic diseases hypertension is extremely complex", Schiffrin says. "There is a strong genetic background that contributes to elevated blood pressure. It's slowly being deciphered. But with each gene contributing just a couple of millimetres of mercury, it's a big task." And then there are environmental effects and epigenetic factors too. So long as there are questions to be asked about hypertension, Schiffrin will be responding to the essential challenge.

Geoff Watts



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