

Profile

Richard Rudick: multiple sclerosis missionary



Richard Rudick, director of the Mellen Center for Multiple Sclerosis in Cleveland, OH, USA, has a steady, precise, and unhurried manner. It might be surprising to learn, then, that there was nothing unhurried about his education—he sped through.

To be fair, Rudick got a head start by enrolling in kindergarten a year early. From then on, he stayed ahead of the pack and only increased his lead. He completed college in 3 instead of 4 years, he finished his internal medicine training in 2 instead of 3 years, and he used his final year of neurology training to get started on a research fellowship.

Why the rush? As far as kindergarten was concerned: “My mother put me in school a year early”, he says. “I don’t know why.” As for his various fast-tracking feats thereafter, the simple answer is, because he could.

Capability was not the only explanation where college was concerned. There was another more poignant and practical reason. “While I was in college my father was diagnosed with a brain tumour”, Rudick says. Attending college in Southern Ohio, Rudick would drive the 200 miles home every weekend to help his mother care for his dying father. The medical school that Rudick planned to attend was much closer to home. “Instead of a 4 hour drive to get home to help my mother, I only had a 1 hour drive”, Rudick explains. He approached the Dean of the medical school and explained his situation. Seeing that Rudick was academically ready to join the ranks, the Dean agreed to his early arrival.

Sadly, within a matter of months of starting medical school, Rudick’s father died. “It was a very difficult period”, he says. From Rudick—a somewhat guarded, stoic man—this must be an enormous understatement.

It was at that point that Rudick decided he would specialise in neurology. “You see there was nothing that could be done for my father”, he says. “I was thinking that I would go into the field of neurology and try to improve the treatments for people with diseases like that.”

After medical school, Rudick trained in internal medicine—“because I thought this would make me a better neurologist”—before taking up his neurology training and research fellowship at Rochester University (NY, USA). Rudick’s research supervisor was Robert Herndon, a multiple sclerosis specialist, who took Rudick along to his clinics. “I remember one day saying to my mentor, ‘It’s pretty frustrating that we don’t have any treatments for these patients’, and he said, ‘Well, that’s why we have to do research.’”

Rudick got the research bug. He joined the faculty at Rochester and stayed for 5 years before moving to his present home in Cleveland in 1987. The Cleveland Clinic had just received a philanthropic donation to start a multiple sclerosis centre. “I thought that I would have the

opportunity to develop a programme that would be a way to significantly expand what I was able to accomplish.”

And accomplishments have been aplenty in Rudick’s 23 years as director. Jeffrey Cohen, a colleague of Rudick’s at the Mellen Center, puts those accomplishments down to Rudick’s leadership: “He is a dynamic leader who stimulates his colleagues and the other members of his staff.”

Soon after Rudick moved to the Mellen Center, he and his colleagues at collaborating institutions landed a US\$5 million National Institutes of Health grant to do clinical trials of recombinant interferon beta 1a. This trial, together with similar trials using other types of interferon, gave positive results. “Everyone in the field was thrilled that we had a drug that did something”, Rudick recalls.

Interferon beta remained the only disease-slowing treatment for multiple sclerosis for some time. It was a promising start, but there was, and still is, a long way to go. In the early 2000s, Rudick helped develop trials of another multiple sclerosis drug, natalizumab. “Natalizumab was highly effective”, says Rudick. So much so that the US Food and Drug Administration approved the drug on an expedited basis. After just 1 year of trials it was on the market, and some 5000 patients signed up for treatment.

Then disaster struck. Two patients on natalizumab died from progressive multifocal leukoencephalopathy (PML)—an opportunistic viral infection of the brain (which developed as a complication of natalizumab treatment). Rudick remembers the conference call with the other investigators, the FDA, and the drug company: “There was a mutual decision to voluntarily suspend dosing. We went from euphoria, and the joy of having a treatment that really looked like a major advance, to being completely devastated”, laments Rudick. He describes that part of his career as “one of the most intense things that’s happened”.

Because of natalizumab’s efficacy against multiple sclerosis, it was brought back on the market, but now carries a strong warning. Rudick and others are working intensively to figure out ways to minimise the risk of developing PML. Rudick also works on improving methods for assessing disease progression, such as brain imaging techniques and clinical outcome measures, and he regularly sees patients.

“I have always been impressed by the numerous areas in the multiple sclerosis field to which Rudick has contributed”, says Cohen. Indeed, staff at the Mellen Center investigate all areas of multiple sclerosis, from quality of life issues to molecular pathology. Rudick puts it simply: “We’re all working together on the mission, which is to do something about multiple sclerosis.”

Ruth Williams

For more on
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