## **Profile** Georgios Tsivgoulis: in top gear

"Many colleagues say I am very swift; they joke about my initials and call me GT sports car", says Georgios Tsivgoulis, professor and chairperson of the Second Department of Neurology at the National and Kapodistrian University of Athens in Greece. While I am quite sure Georgios' colleagues know their neurology, I am rather less certain they know their cars. It is a common mistake to think of a GT (or Grand Tourer) as a fast sports car when it is, in fact, quite a different beast, and I wonder if they have fallen terminologically foul in their accolade? Had they read Sam Dawson's GT: *The World's Best GT Cars* 1953 to 1973 they would, of course, never make that kind of mistake. But they may never have even heard of Sam Dawson, so there is only one way to find out if they have nicknamed their peer appropriately. We will have to take Georgios for a spin.

The GT engine should be able to "cope with cruising comfortably at the upper limit on all continental roads, without drawbacks or loss of usable power", Dawson writes. Georgios ponders: "Well, let's see. I do work long hours teaching and seeing patients, and I spare no effort in the emergency room, day or night, 365 days a year if required, and I am always available and ready to assist whenever I'm needed. In fact, I often get teased about whether I sleep." It's a good start; a GT should be able to go all day without tiring. As director not only of the neurosonology laboratory at his institution but also of resident training and of the cerebrovascular fellowship programme in his department, Georgios clearly has an engine that does not overheat. Moreover, as vice president of the European Stroke Organisation (ESO), travelling the continent seems no problem for him either. Georgios' road trips even cross continents in his role as visiting professor and director of stroke research at the University of Tennessee Health Science Center (Memphis, TN, USA). But of course, a GT should be able to go all day-and fast. No problem there either, as Georgios recounts. "At 33, I was appointed lecturer in neurology at Democritus University of Thrace, by 37 I was assistant professor of neurology at my present university, became full professor at 42, and chairperson of my department at 44." Yes, that is very fast!

So far so good, but was Georgios "devised as a Grand Tourer by his progenitors", as Dawson insists a GT must be? Well, his parents were both high school teachers, and it does seem they had a plan. "I was always the top student in high school, if that counts", laughs Georgios, "and as a 17-yearold I represented Greece in the 1993 Chemistry Olympiad". He continues, "I was very fond of mathematics and physics too, and I tried to apply my physics background during my training in neurovascular ultrasound, trying to investigate its additive efficacy on intravenous thrombolysis in patients with acute ischaemic stroke. In fact, mathematics is why I became a neurologist. Differential diagnosis in neurology requires a mathematical approach, and I did invest lots of time trying to understand biostatistics."

Dawson's list cites another feature of the GT, which "must be able to transport at least two in comfort with their luggage and have room to spare". Can Georgios meet that requirement? "Well, I am married (actually to another neurologist) and have a daughter", he offers. "I am also very passionate about teaching and passing the torch to younger colleagues and have invested substantial time and effort building a collaborative team of vascular neurologists in Greece to improve the standard of healthcare in clinical neurology." I wonder if Georgios's zeal for teaching and teambuilding also ticks the box for "the design of the car, inside and out, should be geared towards its complete control by the driver"? Certainly, he does seem have many things under control, so the design looks right.

But a GT is a tourer, so the car must be practical, not just fast and able to do the miles. "Would my research count for that?" Georgios asks. "Mine has focused on reperfusion therapies in acute ischaemic stroke, the application of neurosonology in cerebrovascular diseases, secondary stroke prevention, clinical trials, and the application of meta-analysis in stroke therapeutics. I have served as national coordinator and international steering committee member in multiple phase 2 and 3 randomised controlled trials in acute stroke and in secondary stroke prevention, and I am currently data safety and monitoring board chair of two phase 2 trials. Oh, and I have about 550 papers published." I was already convinced before Georgios continued, "and I always try to quantify the effect of our treatment efforts. I strongly believe that the maximum output for a neurologist in terms of saving lives and reducing disability can be achieved in the field of cerebrovascular diseases".

But what about looks? Dawson's book implies that a GT should stand out from other cars, be noticeable, turn heads. Well, Georgios received the 2021 ESO Scientific Excellence award (as well as a bunch of others over the years). I'd say that counts.

It does all rather look like Georgios' colleagues really do know their cars. But I have a final question up my sleeve. Dawson's list also notes that a GT's "chassis and suspension should provide suitable handling and roadholding on all routes that might be encountered in one's travels". Now, can Georgios do that? "Why not come back in 20 years and ask me again", he suggests. "Who knows, I might be a classic by then!"

Adrian Burton



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