Profile

John Teerlink: Renaissance man and leader in heart failure research

"Take. Bussofthishe, mememormee! Till thous-ends-hee. Lps. The keys to. Given! A way a lone a last a loved a long the‘. So ends the final page of James Joyce’s notoriously impenetrable Finnegans Wake. Not exactly an ending that needs a spoiler alert, and until a recent conversation with John Teerlink this writer had never spoken to anyone who had made it through the preceding 627 pages (although he modestly concedes that he “didn’t get it”). Teerlink is, according to his friend and colleague at the University of California at San Francisco (UCSF) Barry Massie, “somewhat of a Renaissance man”, with a wealth of knowledge that extends to politics, philosophy, and literature. It should probably be mentioned at this point that Teerlink can also, in the opinion of Marc Pfeffer, Professor of Medicine at Harvard Medical School, be “rightfully considered to be in the elite category of international leaders of the current field of acute heart failure”.

Cardiology has the philosopher Paul Tillich to thank for steering Teerlink in its direction. After graduating from high school in the suburbs of Chicago, the young Teerlink headed to Swarthmore College near Philadelphia with the slightly unusual aim of writing a systematic theology. “The hubris of youth”, Teerlink laughs. In his first semester Teerlink discovered that Tillich had beaten him to the punch with his three-volume Systematic Theology “that said most of the same things I was interested in saying, but obviously much more brilliantly than I could ever say it. But all the time I was also still interested in medicine”, Teerlink explains. And medicine would prove to be his abiding passion.

After graduating from Swarthmore in 1983 with a major in comparative religious studies and a minor in cell biology, Teerlink headed to Harvard Medical School, where he “bounced between surgery and neuroscience and all sorts of other things” before finally settling on cardiovascular medicine. It was there that he was impressed by the work that Janice and Marc Pfeffer were doing in their lab, and their “reminding of everyone who would listen that heart failure is a process. And that’s good news because if it’s a process that means you can try to interrupt it”. Teerlink spent a year with the Pfefers helping to develop models of cardiovascular disease, and fondly recalls the husband and wife team as being “incredibly supportive, incredibly helpful, and just dear, dear people and great friends”.

A 3-year internal medicine residency at UCSF followed, at which point Teerlink’s wife, an award-winning graphic designer, was offered an opportunity to do graduate training in Basel, Switzerland. “I had no idea at that time that Basel was a pharmaceutical capital of the world”, Teerlink recalls, “I just knew it as some dot on a map in Switzerland and I was thinking that’ll be fun because I’ll be able to have a lot of beer and take some time off”. But before he left UCSF, another mentor, Joel Karliner, mentioned a former postdoctoral fellow, Jean-Paul Clozel, who at that time was heading a drug-discovery group for Hoffmann-La Roche in Basel. Karliner suggested Teerlink contact Clozel about a job and, armed with a letter of recommendation from the Pfeffers, he did exactly that. It proved to be pivotal.

Teerlink’s arrival in Basel in 1991 coincided with Martine Clozel’s discovery of bosentan, the first oral endothelin receptor antagonist, and Teerlink became the first person to assess whether the drug could be useful for congestive heart failure. At the same time, he worked 18-hour shifts doing groundbreaking basic work on endothelin receptors. “As soon as I met John, I realised he was an exceptional scientist”, says Clozel, who is now the co-founder and CEO of Actelion in Switzerland. His work with Clozel exploded what Teerlink describes as his “not unusual” prejudice: “you know I thought the research done at pharmaceutical companies was not the highest quality, and was so directed towards the development of drugs that they weren’t doing kind of ‘real science’. But, Teerlink recalls, the 2 years he spent in Basel “were just a phenomenal, amazing, great experience”.

After returning to the USA in 1993 Teerlink completed his cardiology fellowship at UCSF and took up his current post as Director of the San Francisco Veterans Affairs Medical Center Heart Failure Clinic and Clinical Echocardiography Laboratory in 1998, but not before diving in at the deep end as the principal investigator for the international RITZ-1 trial and co-principal investigator of the VERITAS trial investigating the effects of the endothelin antagonist tezosentan. Since then he has continued to be extremely active designing heart failure clinical trials. Most recently, Teerlink led the phase I trial of the inotropic selective cardiac myosin activator omecamtiv mecarbil, and the results—published in The Lancet—have Teerlink excited. “Through a completely novel mechanism of action, omecamtiv mecarbil has the potential to finally address a true unmet need—a safe agent that can improve cardiac performance for both acute and chronic heart failure”, Teerlink explains.

Nelson Schiller, who co-authored the Lancet paper, lauds Teerlink as a “uniquely gifted individual and dear friend”, and talking to Teerlink it quickly becomes clear that the many genuine friendships he has forged with colleagues matter to him deeply. “In fact”, says Schiller, “it is one of John’s favourite expressions of affection and appreciation to give books to his friends. I cherish the many inscribed books I have received from him—especially and most recently Joseph Campbell’s exegesis on Finnegans Wake.”

David Holmes