Western Faculty Profile: Dr. David Cechetto

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No conflicts of interest declared.

Abstract

Dr. David Cechetto is a professor in the Anatomy and Cell Biology department at Western University. Through his research he is investigating the relationship between Alzheimer's and vascular impairments that lead to enhanced neurodegeneration and neuroinflammation. His research has let him work in areas and with scientists from around the world. Dr. Cechetto was interviewed for his insight on research by Neetin Prabhu, the Outreach Coordinator for WURJHNS.

Dr. Cechetto

From a young age, Dr. David Cechetto enjoyed figuring out how things ticked. As a child he spent much of his time working with clocks in his family home, taking them apart to understand their inner workings and then piecing them back together. An eloquent foreshadow to his neurology research of today, Dr. Cechetto is a Neuroanatomist in the department of Anatomy and Cell Biology at Western

University. He teaches undergraduate and medical school courses while also heading his own research in vascular neurocognitive diseases.

Having had the opportunity to teach medicine in Nigeria, Dr. Cechetto brought a worldview to Western from the very beginning. His awareness of issues facing society and more specifically the human brain drove him to study neuronal signalling pathways. His research first started with looking at the neurochemical pathways of the brain, and over time and help of colleagues evolved into looking at the linkage between hemispheric strokes and neurodegenerative diseases such as Alzheimer's.

Through a partnership between Dr. Cechetto's team and a lab from Finland, the focus of his research has begun to shift from looking at the synergistic relationship of neurodegenerative diseases in a vascular compromised system to looking at brain specific anti-inflammatories. A realistic individual, Dr. Cechetto understands the complexity involved in

outright preventing and curing Alzheimer's and emphasizes that right now it's just as important to find ways to slow the progression of the cognitive deficits and reduce the frequency of conversion into the diseased state once diagnosed with the disease.

As well as research, Dr. Cechetto is heavily involved in humanitarian work. In 1999, 5 years after the Rwandan genocide, the Rector for the National University of Rwanda (NUR) asked Western University to partner in rebuilding the Medical School in Rwanda. This prompted the Western International office to ask Dr. Cechetto to be a major component of this endeavour. After working in Nigeria in the past, Dr. Cechetto was well aware of the impact that he could make. Over the past 16 years, Dr. Cechetto would play a vital role in reviving the NUR medical school by returning 4-5 times a year for 2-week stints each time. His work in Rwanda garnered incredible recognition as his program with NUR has been funded by Global Affairs Canada through a grant of \$8.9 million dollars for the Training, Support and Access Model for Maternal Newborn and Child Health in Rwanda and Burundi (TSAM).

When questioned about a turning point in his career, Dr. Cechetto speaks about his time in high school where he pondered the idea of going into academia, potentially becoming a professor. He speaks with conviction when recounting his time in Nigeria as what validated his initial aspirations. He describes waking up in the morning to seeing the working people in the streets of Nigeria and how he felt content with his path in life and where it had taken him. It's rare to find someone who has a passion for what they do as much as David Cechetto. During the conversation, there was always a sense of wonder in his voice when he talked about his work at Western and in Rwanda, it was clear that he is someone whom exudes character.

Life only moves forward, so when talking about the future Dr. Cechetto realizes that he needs to make the push to find the solutions to some of his unanswered research questions and to tie the knots on his loose ends. Currently he is a supervisor of a couple of PhD students and is still coordinating projects in Rwanda until they are set to finish in 2020. In his eventual retirement, Dr. Cechetto's passion for academics compels him to stay involved and he spoke about potentially doing consultant work to continue to give back to the research and development community that opened their arms to him all those years ago.

When asked about one piece of advice he would give to students beginning their research, either in undergrad or masters/PhD, he noted that it's all about passion. Research has not and will never be an easy career choice, the road at times is very bumpy and the horizon seems endless, but it's the little discoveries along the way that keep your fire going. He notes that sometimes it's about finding an assay that to anyone else is meaningless, but for you is the piece that makes sense of your work, for Dr. Cechetto's, it was recording specific neurons in the amygdala of the brain. Research isn't a black and white field where you're guaranteed results every time, but it's the love for what you're doing that makes it worthwhile, and this is the philosophy that Dr. Cechetto has lived by all these years.