## IN PROFILE: NEW FACULTY

## Creating circuits for the human body

BY ROBERT ALDRED

Like any five-year-old, Allen Sobot wants to know why.

"Why?" is a question his father Robert loves to hear, at home and on campus.

"In the first lectures I usually say my policy is this: why, why, why? I want to wake up that forgotten curiosity in my students."

Robert Sobot, assistant professor in the Department of Electrical and Computer Engineering, is determined to excel as a teacher. He is also working to build a team that will make Western a leader in the field of integrated circuit (computer chip) design. His goal is to build electronic microsystems small enough to be implanted into a human body.

For example, to assist with eyesight, hearing or prosthetic limbs, a 'chip' might be implanted to direct signals from the brain to the affected area, allowing a person to function more normally.

"I came here to accomplish something and I'm putting all my heart into it. The possibilities are endless."

Sobot is no stranger to hard work. Born in Yugoslavia in 1961, he grew up in the town of Pancevo, near Belgrade. School, even in the early grades, was rigorous and designed to meet the needs of industrial and factory work.

"We start taking chemistry and physics in Grade 5," he said. "By Grade 12 your destiny is decided."

Sobot began post-secondary studies at the prestigious School of Electrical Engineering at the University of Belgrade. Although world-renowned, the school suffered during Yugoslavia's civil war. Academic appointments became political appointments, and the school lost educational independence.

"Lots of my former professors were literally kicked out of the

## Robert Sobot

Position: assistant professor, Department of Electrical and Computer Engineering

Research: mixed-signal integrated circuitry (electronic microsystems small enough to be implanted into a human body)

Favourite question: why?

Key dates: 1961, born in Yugoslavia; 1989, in the space of one week receives B.c. in engineering physics from University of Belgrade, marries wife Anna and moves to Britain; 1992, immigrates to Canada; 1996-2001: employed with PMC-Sierra Inc. in Vancouver; 2001, son Allen born; 2005, completes PhD, Simon Fraser University; January 2006, joins Western's Faculty of Engineering

school," he said.

Despite the upheaval, he began what was supposed to be a four-month work term at the school in 1986. The cutting-edge research into semi-conductors consumed him, and four months turned into three years.

three years.
"I forgot I had to graduate," he says with a chuckle.

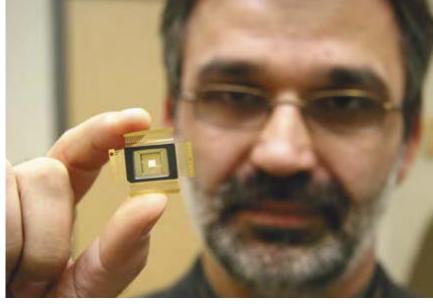
Sobot graduated in 1989. In the same week he defended his B.Sc. in engineering physics, he also married his wife Anna and moved to Britain.

They left with little more than some books, music and clothing.

Shortly after they arrived Britain's economy fell into a tailspin. Growing up in Yugoslavia, Sobot admits he had no concept of business cycles. Then the government stopped issuing work permits to immigrant engineers.

"Now I know what 'recession' means!" he said with a laugh. Robert and Anna decided to seek their fortunes elsewhere.

Sobot did not know much about Canada when he moved here in June 1992. After an immigration official suggested Vancouver, he and Anna "pretty much decided



Paul Mayne, Western News

Robert Sobot works on implantable mixed signal integrated circuits that will eventually help persons with disabilities recover abilities such as sight and hearing.

in five minutes" to settle in British Columbia.

He and his wife soon fell in love with their new homeland.

"One of the reasons I love Canada is that it's so multicultural," said Sobot. "There is lots of space for all of us coming from different places and not feeling unwelcome."

Wanting to spend some time outside of academia "doing the real thing, whatever the real thing meant," Sobot began working for PMC-Sierra, a small start-up firm developing integrated circuits for digital communication equipment, putting in gruelling 80-hour

weeks. The experience in such a competitive and hyper-paced industry taught him a valuable lesson.

"We want to make perfect things," he says of engineers. "But one thing we all have to learn is - 'make it good for today.' People are interested in what works today."

With five years of practical experience in the industry, Sobot felt equipped to return to academics. He received his M.Sc. in electrical engineering from Simon Fraser University in 1996. He completed his PhD in 2005.

In January 2006 his search for

an academic post brought him to Western.

It seemed an unlikely choice.
"I never heard of Western before
– in my field Western doesn't and
didn't exist," he said.

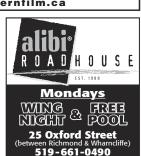
"But I met a number of wonderful people here," Sobot said. He also saw an opportunity to design and manufacture an integrated circuit small enough and sophisticated enough to be implanted in the human body.

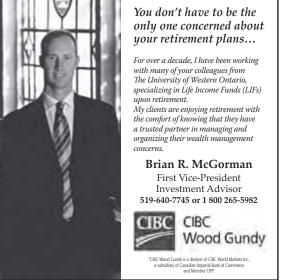
Here, he feels he could build things from scratch. He could ask why.

The writer is a graduate student in Journalism.











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