

UBC's labs

By Koby Michaels · Aug. 31, 2016, 8:52 p.m.



Lasya Vankayala was not your average high school student. *Photo courtesy Lasya Vankayala*

Most high school students don't go out of their way to create more work for themselves. Lasya Vankayala was not your average high school student. Vankayala, who will be starting at UBC in September, is one of two incoming students to win a Schulich Leader Scholarship — Canada's largest STEM scholarship.

[Schulich Leader Scholarships](#) are awarded to high school graduates enrolling in STEM undergraduate programs in a variety of universities in Canada and Israel. According to their website, the program funds 50 scholarships each year so that "our most promising students can pursue their dreams and become the next global pioneers in science, technology, engineering and mathematics."

Vankayala said her application was largely based around her work with the [Canucks Autism Network](#) which provides athletic and arts programs for kids living with autism. Vankayala got involved in the network two years ago when a close family friend, who has a child with autism, brought her to an event. Since then Vankayala has volunteered with their summer bike and multisports camps and has helped out with their music camp and weekly programs during the school year.

"They're short on volunteers," Vankayala is sure to mention. "I had to make sure I got that plug in."

But Vankayala involvement goes far beyond the Autism network. She works in a biomedical research lab at Simon Fraser University (SFU), founded and runs a nonprofit called LifeOverLabels, is writing a novel and teaches Carnatic singing, an ancient singing tradition from Southern India.

Vankayala, who will be starting UBC as a first year in a few weeks, hopes to study Biochemistry in UBC's faculty of Science, wants to do research on campus and is thinking about joining [UBC Improv](#).

The high school grad got her start in research in the ninth grade.

"I had this science project and I got it into my head that I would stand a better chance if I had a mentor," she said. "I literally went down the hallway of professors offices knocking on doors and Dr. [Gordon] Rintoul was the one who didn't slam it in my face."



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Rintoul, who is an associate professor of cellular neurophysiology at SFU, welcomed Vankayala into his lab. She started at a microscope, looking at slides under a fluorescence microscope and has since moved on to study how UV rays affect the speed at which wounds heal, how to improve Parkinson's disease treatment with antioxidants and attempted to use the CRISPR/CAS9 gene editing system — a tool to manipulate the genetics of a cell — to turn skin cells into neurons.

"I was following a technique developed in China. When I tried to do it it didn't work as well because I realized they were using a lot of very expensive neural growth factors that I didn't have access to," she explained. "You can't do it without the growth factors."

Vankayala has yet to publish research in a peer-reviewed journal but has submitted papers for school projects and science fairs, earning a gold medal at the Greater Vancouver Regional Science Fair and a third place prize at the Sanofi Biogenius Challenge BC, a youth science competition run by the pharmaceutical company.

"That lab has become home."

Vankayala hasn't limited herself to science and research though. While attending the Shad Valley program at the University of Waterloo — a summer program for science, math and entrepreneurship — Vankayala got talking to Varoon Pornsinsiriruk, who is currently a second year student at UBC and Thomas Micheal a current second year at the University of Toronto. "I think it was like 1 am in the morning, and we realized all of us had the same impressions that by pursuing science people seemed to think you can't like art or be an artistic person or that it makes you a brainiac."

[LifeOverLabels](#), a blog about ignoring the labels society gives you and living your life the way you want to was born.

Now Vankayala runs the nonprofit site, editing pieces and writing her own stories. She recently published a blog post about the bullying she faced in high school.

"Even the positive labels — like being so-called gifted or intelligent — prevents you from being able to act or feel a certain way because you are always expected to be a perfect student. We wanted to find a way to combat that and let people live the way they

wanted," she said. Vankayala hopes to expand the program, which currently has 15 writers, onto UBC's campus and do community outreach.

In her free time, Vankayala enjoys Carnatic singing and is writing a novel. She has been singing for 15 years and recently completed her three hour "graduation" concert in August of last year. Now she teaches four students and wants to take on more.

Her novel is a fantasy story that began as a playground game when Vankayala was younger.

"It stemmed from a game that my friends and I used to play when we were ten because our playground in our elementary school were very boring," she said. "We came up with a fantasy that we'd play and we'd keep running out of ideas so I'd come up with these stories to keep everyone entertained. In tenth grade I started to put them down on paper pretty seriously."

She's about two thirds of the way through the book and is looking into if, and how, she could publish it.

With her \$60,000 dollars from the Schulich scholarship, she plans to help pay for her undergraduate degree and put money away for grad school. She might buy herself a congratulatory *Lord of the Rings* Collectors Set though she'll likely pay with it with her teaching fees.

"I've been looking forward to starting university for a long time," said Vankayala. She has no plans for slowing down now that she is in university and has already lined up a lab to do research in, though she wouldn't say which because it wasn't finalized yet.

Vankayala will join the rest of the class of 2020 at Imagine Day on September 6.



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