

## CWSF 2010 - Peterborough, Ontario



### Victor Lam

#### Revealing the Musical Patterns of the Genome

**Division:** Life Sciences

**Category:** Senior

**Region:** Toronto

**City:** Markham, ON

**School:** Marc Garneau Collegiate

**Abstract:** Music depends on rhythm and so does human life - heart rate, breathing and more. Since life is regulated by genome, gene sequences are hypothesized to be rhythmic in musical terms. By assigning musical notes to the four DNA nucleotides, connections can be revealed and used for further biomedical research. Selected gene sequences for p53, Cx26, and INS are used to demonstrate this novel approach.

#### Biography

Victor Lam is a Grade 11 student in the TOPS Program at Marc Garneau Collegiate Institute. Besides his great enthusiasm in math and science, he is also into business and music. Victor has been learning piano for years and is currently completing the Royal Conservatory Music ARCT Performer's level. Victor actively participates in community work and extracurricular activities involving science fair, music festivals, and entrepreneurial start-up. He tutored math and music at local community center and music studio. Victor also assisted in deploying the Smart Board technology for his school and helped facilitate a science education conference for all science teachers across the GTA. Some of Victor's accomplishments to-date include: CWSF Gold and Silver Medal winner at TSTF 2010 and 2008 respectively, In-School Entrepreneur-of-the-Year Award for his successful launch of a summer business and Music-Idol-of-the-Year Award in 2009, and several Piano Solo Gold and Silver Awards won at both the Davenport and Kiwanis Music Festivals from 2003 to 2006. Victor intends to study life science and medicine in university. His career plan is to be able to contribute to the well-being of the community by helping the people who are in need through his skills in science, business, and music.

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