



**Samuel Itskanov, The 2017-2018
Carl and Betty Helmholtz Gateway Fellow
at International House, UC Berkeley**



Samuel Itskanov was born in Estonia, grew up in Israel, and immigrated to Los Angeles in 2007. Upon his arrival, he completed 2 years of high school in a Los Angeles public school and began his post-secondary studies in Santa Monica Community College. From there, he transferred to the University of California, Los Angeles (UCLA) where he obtained a Bachelor of Science summa cum laude in Biochemistry.

As an undergraduate, Samuel developed a penchant for the pursuit of knowledge and has been conducting research in cell biology since his senior year in college. His interests lie in molecular and cellular dynamics, and he strives to understand various dynamic processes in the context of disease pathogenesis. Samuel's current research

explores the dynamic regulation of fusion and division of mitochondria, which is implicated in a plethora of neurodegenerative diseases such as Alzheimer's and Parkinson's disease.

Samuel received classical piano training and enjoys playing and composing music. He also enjoys various sports, such as soccer and basketball. He prefers to stay active in general, for which the bay area provides a perfect opportunity for the exploration of nature with numerous scenic locations within reach.

Samuel looks forward to beginning his journey to earn a Ph.D. in Biophysics from UC Berkeley. "Great ideas can be fostered anywhere and emerge from anyone, and being around people who have vastly different experiences from my own can be both fascinating and enlightening. Therefore, being able to partake in an active environment such as I-House with a collection of diverse and dynamic students is an opportunity I could not dismiss."

From his Nomination:

Sam's family emigrated first from Estonia to Israel and then to the US. They faced discrimination in Estonia for being Jewish, and hardships as the Soviet Union fell apart. In Israel, his parents did not speak the language and were not skilled workers. As a result they lived in a poorer area that was a target for terrorism. They entered the green card lottery to move to the US, and all (mother and 3 children) but his father were successful. Unfortunately, even after 9 years and great expense (lawyers) trying to get his father to the US, the family has not been reunited. This has placed a significant financial burden on his mother. Sam did complete his bachelor's degree and went to work afterwards to help support his family. It was a hard decision to enter grad school, knowing he cannot continue that support. But this fellowship would help alleviate that hardship.

"My experience with my family has taught me the importance of cultural diversity and socioeconomic status. Therefore, having a school that acknowledges and promotes uniqueness, is something I desire. A collection of diverse students with a shared mission of improving their communities is a place to which I aspire to be a contributing member."



The Carl and Betty Helmholtz Gateway Fellowship was initiated by Professor of Biophysics, Emeritus, Howard Mel. After Carl Helmholtz passed away in 2004, this endowed fund began accepting donations from various friends of the family to honor Carl and Betty for their many contributions, and was later established as a fellowship in 2007. Carl served as Chair of the Physics Department and Betty, who recently passed away, served on the International House Board of Directors for nine years.