

Davidson Fellow Laureate

Kyle Loh

\$50,000 Scholarship Recipient



Personal Info

Age: 16

Mendham/Piscataway, New Jersey

School, College and Career Plans

A recent graduate of Rutgers University, Kyle is entering the Ph.D. program at Stanford University School of Medicine, Department of Developmental Biology and is a research officer at the Genome Institute of Singapore. He hopes to continue studying regenerative medicine and stem cell research.

Davidson Fellows Submission (Science)

In his project, "*Chemical Reprogramming Of Murine and Human Cells Into Pluripotent Stem Cells*," Kyle screened chemical libraries and identified compounds that can help convert human and mouse skin cells into pluripotent stem cells. Pluripotent stem cells have many applications for regenerative medicine, such as cell replacement therapies and disease modeling. The chemical compounds he identified obviate the need to destroy embryos. Kyle's studies provide insights into the molecular mechanisms that underlie the conversion of skin cells into pluripotent stem cells.

Biography

Kyle enrolled at County College of Morris at age 12, was accepted to Rutgers University at 13, and received his Bachelor of Arts in cell biology and neuroscience and graduated summa cum laude at 16. Since then, he has been accepted as a Ph.D. student by Stanford University School of Medicine. Currently, Kyle is at the Genome Institute of Singapore, where he is leading a team research project for one year before going to Stanford for graduate school.

In his undergraduate education, Kyle has done research in four stem cell laboratories; two at the Harvard Stem Cell Institute and two at the University of Medicine and Dentistry of New Jersey (UMDNJ). At the age of 12, he initially approached a UMDNJ professor with a research proposal related to pluripotent stem cells. After beginning his stem cell research at UMDNJ, Kyle was accepted to do research at the Harvard Stem Cell Institute, where he conducted the research work that was the basis for his Fellows project. Kyle is thankful for the many dedicated mentors who have passionately supported him throughout his research pursuits.

Outside of his focus on stem cell research, Kyle enjoys writing novels, spending time with friends, and organizing lab outings. An avid reader, Kyle has many diverse interests, ranging from global warming to mythology. He has played the piano and violin for 10 years, winning statewide awards in New Jersey piano competitions. Kyle also has played several sports, including soccer, baseball, lacrosse, and track-and-field.

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cont.

Honors/Awards

- 2010 Davidson Fellow Laureate
- 2010 First author publication in *Cell Stem Cell*, <http://www.cell.com/cell-stem-cell/fulltext/S1934-5909%2810%2900339-5?switch=standard>
- 2010 National Judge for L'Oreal-UNESCO National Fellowship for Women in Science (Singapore)
- 2010 First of "Top 10 of the Class of 2010 Graduates" Rutgers University
- 2010 Singapore International Pre-Graduate Award A*STAR
- 2010, 2009 Rutgers University School of Arts and Sciences Excellence Award
- 2009 Co-author publication in *Cell Stem Cell*
- 2008 Harvard Stem Cell Institute Internship Program
- 2007 Research & Development Council of New Jersey Scholarship
- 2007 New Jersey Science Olympiad First Place
- 2006-Present Davidson Young Scholar

Community Activities

Kyle organized a team of peers to fundraise \$1,300 for the orphans devastated by the Southeast Asia Tsunami. He also raised \$3,060 for the victims of Hurricane Katrina which he and his friends donated to the Red Cross. In college, he again organized a team of friends to tutor at-risk students at the Salvation Army. Now, he aims to leverage his experience with stem cell biology to enable new treatments for human patients through regenerative medicine.

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