

2017 NYC Intel International Science & Engineering Fair Finalists

Nearly 1800 high school scientists, innovators and mathematicians representing more than 78 countries, regions and territories participated in this year’s Intel International Science and Engineering Fair (ISEF) in Los Angeles, California from May 14 – 19, 2017. Team NYC – comprised of 14 NYC high school students chosen from this year’s NYCSEF competitions - proudly represented our city and received specialty awards from the Air Force Research Laboratory on behalf of the United States Air Force and the American Geosciences Institute. Five projects also received grand awards in their respective categories – one Second Place, two Third Place and two Fourth Place Awards. A complete list of NYC ISEF Finalists are listed below.



Back Row, L-R: Ajmain Yamin, Neeraj Sakhrani, Benjamin Firester, Dylan Li, Mahmoud Abouelkeir

Front Row, L-R: Sharon Lin, Ryan Foo, Jessica Frank, Gregory Gueorguiev, Karen Jiang, Thomas Lee, Stephanie Li, Vera Zarubin, Georja Fotiou

Mahmoud Abouelkheir – Senior (Microbiology)

Project Title – Intra-microcolony spatial positioning affects antibiotic susceptibility in *Neisseria gonorrhoeae*
High School - Midwood High School @ Brooklyn College

Mentor – Kelly Eckenrode

Teacher – Glenn Elert

Benjamin Firester - Junior (Plant Sciences)

Project Title – Modeling the Spatio-Temporal Spread of Potato Late Blight: Optimization, Validation, and Applications

High School - Hunter College High School

Mentor – Lior Blank

Teacher – Gilana Reiss

ISEF Award - Third Place Category Award - \$1000

Ryan Foo - Senior (Behavioral & Social Sciences)

Project Title – Effects of Maternal Interactions on Infants' Transition from Crawling to Walking

High School - Bronx High School of Science

Mentor – Lana Karasik

Teacher – Richard Lee

Georja Fotiou - Senior (Behavioral & Social Sciences)

Project Title – Social Segregation in NYC public high schools

High School - Townsend Harris High School

Teacher – Franco Scardino

Jessica Frank - Junior (Computational Biology and Bioinformatics)

Project Title – Towards Accurate Copy Number Calling in High Ploidy Tumors

High School - Riverdale Country School

Mentor – Cyriac Kandath

Teacher – Rachel Cox

ISEF Awards - Air Force Research Laboratory - First Award of \$750, Fourth Place Category Award - \$500

Karen Jiang - Senior (Cellular & Molecular Biology)

Project Title – Elucidating the Roles of the REST C-Terminus and CoREST1 in Zebrafish Neural Development and Behavior

High School - Horace Mann High School

Mentor – Howard Sirotkin

Teacher – Christine Leo

Thomas Lee – Sophomore (Mathematical Science)

Project Title – A 6-Chromatic Unit Distance Graph in Space

High School - Stuyvesant High School

Mentor – Dan Ismailescu

Teacher – Christine Leo

ISEF Award – Fourth Place Category Award - \$500

Stephanie Li – Junior (Mathematical Science)

Project Title – A 6-Chromatic Unit Distance Graph in Space

High School - Horace Mann High School

Mentor – Dan Ismailescu

Teacher – Christine Leo

ISEF Award – Fourth Place Category Award - \$500

Dylan Li – Senior (Translational Medical Science)

Project Title – Designing and Testing a Novel Drug Targeting the Distinct Metabolic Roles of the Isoforms of PPARgamma

High School - Hunter College High School

Mentor – Li Qiang

Teacher – Gilana Reiss

Sharon Lin - Senior (Robotics and Intelligent Machines)

Project Title – A Novel Multiparameter Optical Sensor Using CMOS Imaging and Remote Neural Networks for Microbial Analysis

High School - Stuyvesant High School

Teacher – Jason Econome

Neeraj Sakhrani – Senior (Earth and Environmental Sciences)

Project Title – Mathematically Cutting to the Bone: Solving Analytical Problems in ESR Dating the Paleolithic Site at Isimila, Tanzania

High School - Bronx High School of Science

Mentor – Bonnie Blackwell

Teacher – Vladimir Shapovalov

ISEF Awards – American Geosciences Institute Second Award of \$1,000, Second Place Category Award - \$2000

Ajmain Yamin - Senior (Mathematical Science)

Project Title – n-Dimensional Fractions and a Generalized Calkin-Wilf Tree

High School - Bronx High School of Science

Teacher – Vladimir Shapovalov

Vera Zarubin – Junior (Materials Science)

Project Title – A novel methodology to build organic thermoelectric materials for sustainable and renewable energy applications.

High School - Bronx High School of Science

Mentor – Luat Vuong

Teacher – Vladimir Shapovalov

ISEF Award – Third Place Category Award - \$1000