The Center for Excellence in Education (CEE) developed and inaugurated the first USA Biolympiad (USABO) in 2002 to train future leaders in the biological sciences. In 2004, the USA Biolympiad Team was awarded an unprecedented four gold medals in Brisbane, Australia, a feat accomplished for the first time in Biology Olympiad history. The USA Biolympiad Team has continued this remarkable record of success by winning four gold medals in 2007, 2008, 2009, 2011, 2012, 2013, 2015, and 2017. Now in its twenty-second year, the USABO continues to nurture young scholars to careers of excellence and leadership in science.

The USA Biolympiad concentrates on stimulating young scholars’ intellectual curiosity and developing their critical thinking skills in biological reasoning. The rigorous USABO competition demands the best in practical and theoretical knowledge and includes four tiers: Open Exam, Semifinal Exam, National Finals, and the USA Biolympiad Team’s participation in the International Biology Olympiad (IBO) Challenge.

2024 USABO STATISTICS

Open Exam: 11,900 students from 690 schools, 44 states and 25 International Schools registered for the Open Exam.

Semifinal Exam: 423 students representing 20 states and 227 schools were in the Semifinal Exam.

2024 USABO STAFF

Administrator
Kathy Frame, USABO Director,
Center for Excellence in Education

Academic Staff
Instructors
Rasha Al-Ali, Ph.D., National
Institutes of Health
Kevin Bao, Ph.D. Candidate,
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Yufei Chen, MIT
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Mount Sinai
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Nature Center
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GroupLeader, Special Projects,
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Ivan Specht, Bioinformatics,
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Nicholas Wei, MIT
Kaiden Wu, University of
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Jonah Xu, MIT

Speakers
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CEE President
Adam Friedman, M.D.,
Ph.D. CEO, Scorpion
Therapeutics
Amy Adams, Acting Deputy
Director & Deputy Director
for Scientific Management
and Operations, NIH
Sarah Ying, M.D.
Clinical Instructor,
Otoneurology at MEEI
Founder at DeeperEdge
Closing Speaker: Allen Lin,
Ph.D., Principal Scientist,
Bioinformatics, Regeneron
Dr. Allen Lin is currently a Principal Scientist in Bioinformatics at Regeneron. He leads a small group of bioinformatic scientists who work cross-functionally to use genomic and transcriptomic sequencing to characterize gene therapy candidates, and such characterization is used in lead selection, optimization, and regulatory filings. His group also develops computational techniques for the sequence design of genetic medicines.

Allen’s interest in biology started at an early age in secondary school. Allen was a USABO silver medalist in 2005 and returned to USABO as a gold medalist in 2006, when he went on to compete in the IBO in Argentina and won a gold medal. Allen subsequently attended MIT and engaged deeply with the emerging field of synthetic biology. He graduated MIT on Goldwater and Department of Homeland Security scholarships, and with an MEng and a BS in Electrical Engineering and Computer Science, a BS in Chemical-Biological Engineering, and minors in Political Science and Biomedical Engineering.

Interested in the societal risks of synthetic biology, Allen went on to study as a Marshall Scholar in the United Kingdom at Cambridge University and the London School of Hygiene and Tropical Medicine, earning an MPhil in Technology Policy and an MSc in Public Health. While in the UK, he worked with Public Health England to analyze the cost-effectiveness of expanding HPV vaccinations beyond females to include gay and bisexual men, which was reviewed by UK’s decision-making committee and resulted in nationwide expansion of HPV vaccination.

Allen subsequently combined his interests in synthetic biology and evolutionary dynamics with a PhD from Harvard University in Systems, Synthetic, and Quantitative Biology, funded by a P.D. Soros Fellowship for New Americans and an NSF Graduate Research Fellowship. He conducted his thesis work at the Ragon Institute of Mass General, MIT, and Harvard, where he used AAV gene delivery of anti-HIV antibodies in search for a functional cure for HIV. He was also an Emerging Leaders in Biosecurity (ELBI) Fellow with the Johns Hopkins Center for Health Security.

Allen now resides in Queens, NY with his partner. Allen looks forward to returning to USABO this year and speaking with the finalists, having previously served as a USABO counselor in 2008, 2009, 2010, and 2012.
2024 USA BIOLYMPIAD NATIONAL FINALS CONVOCATION

Wednesday, June 5, 2024
Marymount University
2807 North Glebe Road
Arlington, VA 22207
6-8 p.m.

Marymount Welcome
Evan Lipp
Associate Vice President for Enrollment Management
Marymount University

CEE Welcome and Introduction
Joann DiGennaro
President
Center for Excellence in Education

Dinner Keynote Speaker
Allen Lin, Ph.D.
Principal Scientist, Bioinformatics
Regeneron

Presentation of Medals and Announcement of USA Biolympiad Team 2024
Kathy Frame
USABO Director
Center for Excellence in Education

Closing Remarks
2024 USA Biolympiad National Finalist
2024 USABO FINALIST BIOS

**Abhinav Anne** | Illinois Mathematics and Science Academy, Aurora, IL

Abhinav Anne is a sophomore at Illinois Mathematics and Science Academy. His passions are neuroscience, climate change, and public health. His honors include National STEM Challenge Champion, 3M Young Scientist Challenge Finalist, USA Medicine Olympiad Honorable Mention and USA Biology Bowl Semifinalist. He founded Project HOPE (Healing Opioid Prevention and Education) as an initiative to combat opioid overdose through education and legislative actions in the state of Illinois. He is the International Youth Neuroscience Association Director of Events and the Managing Editor of The Teen Magazine in the Youth Voices Category. As the National Research & Policy Coordinator for Fridays For Future, Abhinav applies his biological expertise to help address the global climate crisis, striving to combat global issues through informed advocacy and strategic policy development. In his free time, Abhinav enjoys playing the violin, engaging with nature, playing volleyball, and writing.

**Ava T. Bhowmik** | The Harker School, San Jose, CA

Ava T. Bhowmik is a sophomore at the Harker School. Her interest in biology was sparked in fifth grade when she saw an advertisement for a class featuring a pig dissection. Though the anticipated pig dissection never came to fruition during the course, she found herself forever in love with biology. She is a National JSHS gold medalist and an AIME qualifier. She is passionate about applying stem cell research to human health. This summer, she will continue an internship at the Stanford Cardiovascular Institute to delve deeper into the fascinating world of stem cells. Ava is a key member of her science bowl team and loves to coach middle schoolers. In her free time, you might find her cooking, playing lacrosse, drawing, or practicing cello & guitar.

**Aryan Bora** | William P. Clements High School, Sugar Land, TX

Aryan is a senior at William P. Clements High School and will attend MIT in the fall. He has always been interested in the natural sciences: he is a USNCO High Honors and United States Physics Olympiad (USAPhO) Gold Medal awardee and enjoys competing with his Science Olympiad and Science Bowl teams. Aryan has done math research with MIT PRIMES-USA and is currently conducting research in bioinformatics. Outside of STEM, Aryan enjoys playing piano and violin, and has sat in the back row of All-State Orchestra for the past 3 years. He is also a dedicated gamer, having over 8000 trophies in Clash Royale. During his free time (and school time), he enjoys playing soccer and card games.
Jerry Cao-Xue | William G. Enloe High School, Raleigh, NC

Jerry is a sophomore attending William G. Enloe High School and a returning USABO finalist. He had a wonderful time at camp last year. Since childhood, he has been curious about the nature of life, and he hopes to one day use his passion and knowledge to save lives. He and his teammates won the 2023 USA Biology Bowl and 2024 International Biology Bowl, and he is a 2024 British Biology Olympiad Gold Medalist. At his school, he is the co-president of the Biology Club, and is a key member of the varsity Science Olympiad team. In his free time, he enjoys playing his clarinet, ultrabullet chess, and practicing tennis with his friends. He is also a huge fan of the NBA, and he loves dribbling basketballs and reading the box score of NBA games.

Sophia Chen | Sage Hill School, Newport, CA

Sophia Chen is a 3-time USA(J)MO and 7-time AIME qualifier, Math Prize for Girls (MPfG) award winner, 2-time USNCO High Honors awardee, and United States Physics Olympiad (USAPhO) Gold semifinalist. Sophia has found her true calling in biology, qualifying 3 times for USABO camp and earning a Bronze Medal in 2023. Her interest in microbiology, sparked by last summer’s suspicious Gram stain and fueled by her fascination with the manifestations of human disease, introduced her to Pseudomonas aeruginosa, her favorite bacterium (pretty pigments!). When she is not running tournaments for local students and catching glimpses of her younger self in their eager smiles, you can find her accumulating small crafts like a bowerbird or optimally foraging for bagels and cheeses. Sophia dedicates her USABO journey to her fellow battle strategists, her calico namesake, and Frosty, and she is excited to continue studying the life sciences at MIT.

Kian Dhawan | Montgomery Blair High School, Silver Spring, MD

Kian Dhawan is a sophomore attending Montgomery Blair High School. He discovered his passion for biology through science bowl, which he has been competing in for 5 years and placed in the top 6 nationally this year. This summer, he plans to perform research in biotechnology, specifically chitosan-based polysaccharides optimized for hemostasis. His favorite fields of biology are biochemistry and genetics and as such his favorite textbooks include Brooker’s Genetics and Lehninger’s Biochemistry. However, neither of these comes close to matching the legendary Systema Porifera. During his free time, Kian enjoys hanging out with his best friend, Campbell Biology, and learning about his favorite amino acid, Phenylalanine. Outside of biology, he enjoys chemistry, math, and playing the piano.
**Tei Kim | Stanford Online High School, Redwood City, CA**

**Tei Kim** is a junior attending Stanford Online High School from Demarest, NJ. His interest in biology stems from a profound fascination with genetic technology and a keen desire to understand how life operates at the molecular level. So far, his passion has taken him from analyzing wastewater in exposome studies at Emory to studying root gene expression in Arabidopsis at Stony Brook. Tei is also a USAMO qualifier, USNCO finalist, USACO Platinum competitor, Coolidge Senator, and cofounder of Lend a Hand Tutor, a nonprofit organization that provides free online tutoring and organizes local environmental volunteering. When he unwinds, he fences, writes op-eds on the NBA for the OHS Observer, or drives out to get his daily dose of dirty brown sugar milk tea with his brother.

**Graysen Lee | Minnetonka High School, Minnetonka, MN**

Graysen Lee is a sophomore attending Minnetonka High School. He is fascinated by all things biological, especially neuroscience, cellular oncology, and molecular biology. This summer he plans to help conduct research on the role of Wolbachia species as nutritional symbionts in fruit flies, in the Lindsey Lab. His love for the natural world often keeps him outside where he enjoys identifying native fungi and geocaching. Graysen has an ardor for creation, which drives many artistic pursuits, and he can often be found making wheel-thrown pottery, etching intaglio prints, and accidentally overexposing his cyanotypes. A lifelong search for new experiences fuels his love for language-learning, traveling, and culinary exploration. Otherwise, he can be found poring over his prized copy of Lamhaj's Biology of Priapulids or organizing his ever-expanding collection of highlighters.

**Hengzhou Li | Northwood High School, Irvine, CA**

Hengzhou Li, a.k.a. Ferris, is a freshman at Northwood High School. His passion for biology began when he did Anatomy and Physiology in 7th grade for his middle school Science Olympiad team. This allowed him to begin appreciating nature’s “endless forms most beautiful.” He remains a contributing member of Northwood’s Science Olympiad (SciOly) team that recently placed second at States. His favorite part of biology is studying the nervous system which he explored through winning his local Brain Bee and promptly throwing at Nationals. Ferris is looking forward to reuniting with his long-lost brother, Campbell Biology, at Finals. In his free time, you may find him browsing Twitter or avidly watching his favorite soccer club, Tottenham Hotspur.
Suzuko Ohshima | North Hollywood High School, North Hollywood, CA

Suzuko Ohshima is a sophomore at North Hollywood High School. He prefers biology with its multiple systems to chemistry. He enjoys examining the applications of biological mechanisms, such as those necessary for rapidly pressing buttons to trigger bright flashes of light, thus leading him to consider the varied implications of reward pathway manipulation on members of the order Caudata. When he is not watching Science Bowl, Valorant, or similar 5-on-5 PVP e-sports, you can find Suzuko enjoying his world.

Cloris Shi | Troy High School, Fullerton, CA

Cloris Shi is a junior at Troy High School who finds biology fascinating. She is a 4-time USABO Semifinalist, 3-time AIME qualifier, and 6-time National Science Olympiad medalist. She conducts neuroscience research at UC Santa Barbara and hosts science fun nights for local students. As an alum of the Iowa Young Writers’ Studio and winner of a Scholastic National Medal in Poetry, Cloris also serves as an Editor-in-Chief of Polyphony Lit, an international literary journal with over 300 student editors and contributors from 71 countries and all 50 US states. She enjoys writing, running, jamming out to Taylor Swift, and listening to her favorite podcast, Matter of Opinion.

Frederick Song | Solon High School, Solon, OH

Frederick is a sophomore attending Solon High School in Ohio. Through his exploration of the world of biology, he has developed a fascination with the complex interactions that occur between components of biological systems, and is particularly interested in biochemistry and physiology. In addition to competing in USABO, he is also an active member of his school’s Science Olympiad team, having placed several times at the national level, and enjoys competing in Future Problem Solving (FPS) with his friends. In his free time, Frederick can be found playing the piano or violin, learning languages with a certain owl-themed app, losing in chess, or skiing.
Zirui Song | Horace Greeley High School, Chappaqua, NY

Zirui Song is a junior at Horace Greeley High School in New York. With a passion for medicine and biology and aspiring to be a neurosurgeon, she became a 2024 USABO national finalist and won gold in both 2024 British Biology Olympiad (BBO) and 2023 US Medicine and Disease Olympiad (USMDO). Passionate about epilepsy research, Zirui investigated the mechanisms behind nighttime risks of Sudden Unexpected Death in Epilepsy (SUDEP) at the University of Iowa Secondary Student Training Program (SSTP), earning hands-on opportunities with multiple experiments and second place at 2024 NY State Science and Engineering Fair (NYSSEF). As a US Figure Skating double gold medalist (Freestyle and Moves-in-the-Field) and current Team USA member in the Skyliners’ Synchronized Skating Team, Zirui’s team won a bronze at 2024 ISU World Junior Championships. Additionally, she enjoys playing the drum set in her school’s symphonic band and organizes blood drives in the community.

Bill Sun | Seven Lakes High School, Katy, TX

Bill Sun is a junior attending Seven Lakes High School in Katy, Texas. Recently, he has been working on a project involving animal movement and simulation of optimal foraging patterns using Levy flights. Aside from biology, Bill is also passionate about music; he is a 3-time All-State Symphony cellist and has won the South Texas Piano Competition. He is also an AIME qualifier and is a captain of his school’s Science Olympiad (SciOly) team. In his free time, he enjoys biking with members of his Tux biology bowl team and playing Minecraft.

Vishal Surya | Seven Lakes High School, TX

This is Vishal’s second time attending the National Finals, having qualified as a sophomore; he received the top 50 distinction as a freshman. His passion for biology stems from reading Kandel’s Principles of Neural Science in conjunction with a lack of similar enthusiasm for math. He is a junior captain of his school’s Science Olympiad team where he has medaled numerous times at the State, National, and Intergalactic levels. Also, Vishal competes in Lincoln Douglas debate where he qualified for the Tournament of Champions and reached deep elimination rounds at invitationals including Yale and Stanford. Many have confused him with Turkish Quandale Dingle after watching one of Vishal’s flawless dances. Outside of studying, he likes to listen to the works of Ariana Grande and Lil Uzi Vert, and biking with friends.
Jason Wang | Marriotts Ridge High School, Marriottsville, MD

Jason Wang is a graduating senior and 3-time returning USABO finalist. An aficionado of science and philosophy, he is an Atlas Fellow, ISEF Finalist, and 6-time AIME qualifier. He is also an RSI alum, and his Rickoid mailing status has now been toggled a total of 5 times—occasionally creating comedic confusion. Organically grown in the cornfields of West Friendship, Jason enjoys the rustic charm of nature and touching Poaceae. His favorite catchphrase, “oh whale!” reflects both his fondness for fish and his easygoing life philosophy. In his free time, Jason enjoys pondering science fiction, tearing up the soccer field, and canoeing the Chesapeake to save fish from drowning. Jason will always treasure his close friends from USABO, and he plans to study biology, physics, or policy at Harvard in the fall.

Haochen Wang | Jordan High School, Fulshear, TX

Haochen Wang is a senior at Jordan high school. Haochen is the president of the Science Olympiad team and a cofounder of the biology club. In the Science Olympiad, Haochen has medaled multiple times at national-level tournaments, including 2nd in cell biology at SONI and 1st in experimental design at Bird Science Olympiad (BirdSO), and has earned 70+ medals competing in high school. Haochen has cowritten/written 8 tests for Science Olympiad tournaments and CSE. Last summer, Haochen contributed to research on oxalate catabolism in plants at the Nakata lab. This is Haochen’s 3rd year participating in the USABO; he qualified for the top 50 in 2022 and 2023. Haochen won academic achievement award at JHS, so clearly PE is his best subject. In his free time, Haochen enjoys playing soccer with his friends and listening to instrumental music.

Kendall Wu | Dulles High School, Sugar Land, TX

Kendall is a junior at Dulles. His goliath height (5’ 8.5) makes him especially interested in the expanses of biology. He is a three-time research program reject, has contaminated three different cell lines, and was awarded the “Reading Rockstar” title in fifth grade. Kendall conducts research on telomeres and how they fit into evolutionary theories behind aging. He is a Texas Science and Engineering Fair 1st Place Loser (2nd Place awardee) and has presented his past research in international conferences. Kendall’s favorite hobbies include eating cacti, lassoing his cattle, and riding his horse to school.
Selena Yang | Lynbrook High School, San Jose, CA

Selena Yang is a junior at Lynbrook High School. She is enchanted by all things biology as evidenced by the four bio notebooks she carries everywhere in a beige tote bag. Aside from scribbling on these notebooks in lieu of studying, as co-captain of her school's Science Bowl team, Selena also enjoys playing Science Bowl with her amazing teammates. She spends her midnights dabbling in math (as a four-time AIME qualifier), writing for her school yearbook, and hanging out with her fearless little bunny mo (short for osmosis). She is grateful evermore to her parents, teachers, friends, and teammates for motivating and inspiring her throughout the years.

Zhe Zheng (Kevin) | University High School, Irvine, CA

Zhe Zheng (Kevin) is a junior attending University High School in Irvine, California. As a freshman, Kevin stumbled upon the subject of biology after taking the predetermined science course at his high school and blindly walked into the minefield of his inaugural USABO Open Exam. The harrowing experience only served to increase Kevin's infatuation with biology and influenced his eventful high-school career. In addition to USABO, Kevin is also a British Biology Olympiad Gold Medalist and an International Genetically Engineered Machine (iGEM) Silver Medalist. Outside of biology, Kevin is a 3x AIME qualifier, a USACO Silver competitor, and a proud Hampshire College Summer Studies in Mathematics (HCSSiM) participant obsessed with yellow pigs and the number 17. In his free time, you can find Kevin fencing and refereeing, unwinding at his local movie theater, or throwing medicine balls at his local CrossFit.
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Special thanks to our USABO host Marymount University
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