National Finals
The Center for Excellence in Education developed and implemented the first-ever USA Biology Olympiad (USABO) in 2002 to train future leaders in the biological sciences. In 2004, the U.S. Team was awarded an unprecedented four gold medals in Brisbane, Australia, a feat accomplished for the first time in Biology Olympiad history. The U.S. 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 seventeenth year, the USABO continues to nurture young scholars to careers of excellence and leadership in science.

The USA Biology Olympiad 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 U.S. Team’s participation in the International Biology Olympiad (IBO).

The 30th Annual International Biology Olympiad will be held in Szeged, Hungary from July 14th to July 21st, 2019.

2019 USABO STATISTICS

Open Exam: Over 10,000 students from 498 schools, 45 states and 6 International Schools registered for the Open Exam.

Semifinal Exam: 592 students representing 35 states and 4 International Schools participated in the Semifinal Exam.

National Finals: 20 National Finalists representing 18 schools and 11 states.
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Bowen Jing, Stanford University
Alexander Tsao, Massachusetts Institute of Technology
Jason Yang, Massachusetts Institute of Technology
Pam R. Taub (RSI,’93) MD, FACC, is Associate Professor of Medicine in the Division of Cardiovascular Medicine, Department of Medicine, at the University of California (UC), San Diego. She is also the founder and Director of the Step Family Foundation Cardiovascular Rehabilitation and Wellness Center. Dr. Taub was responsible for all aspects of creating the center.

Her clinical practice focuses on preventive cardiology, lipidology as well as women's cardiovascular health. She is active in clinical/translational research and has received funding from the National Institutes of Health (Principal Investigator on R01 grant), Department of Defense, and American Heart Association. Her research focuses on assessing the impact of pharmacologic intervention and lifestyle changes on cardiometabolic disease. She is conducting research studies evaluating biomarkers for cardiovascular risk factor stratification, studying the effects of daily fasting in improving cardiometabolic parameters and examining the effects of a compound in dark chocolate (epicatechin) on mitochondrial function/cellular bioenergetics and exercise capacity, Dr. Taub is widely published and has authored numerous publications in top peer-reviewed journals.

Dr. Taub is a fellow of the American College of Cardiology. She has consistently been selected by her peers as a top physician in the San Diego Magazine “Physicians of Exceptional Excellence” annual survey.

Dr. Taub received her MD from Boston University School of Medicine. She completed her residency in internal medicine at the University of Washington Medical Center in Seattle and her fellowship in cardiovascular medicine at UC San Diego. She is board certified in internal medicine, cardiovascular disease, and nuclear cardiology.
Wednesday, July 3, 2019
University of California San Diego
Village 15
6:00 p.m.– 9:00 p.m.

Welcome and Introductions
Scott Rifkin, Ph.D.
Associate Professor, Biological Sciences
University of California San Diego

Keynote Speaker
Dr. Pam Taub
CEE Alum & Associate Professor of Medicine,
University of California San Diego

Dinner

Comments
Joann DiGennaro
President, Center for Excellence in Education

Presentation of Medals and Announcement of Team USA 2019
Kakoli Mitra, Ph.D.
Manager, USA Biology Olympiad, Center for Excellence in Education
&
Kathy Frame
Consultant/Advisor, USA Biology Olympiad & Special Projects, Center for Excellence in Education
&
Victoria Berdin (Logistics Lead)
Dean’s Office Staff, Division of Biological Sciences, University of California San Diego

Closing Remarks
2019 USA Biology Olympiad National Finalist
Richard Chai | West Windsor-Plainsboro High School South, West Windsor, NJ

Richard Chai is a senior attending West Windsor-Plainsboro High School South in Plainsboro Township in Middlesex County, New Jersey. A four-time USABO semifinalist, he is excited to have the opportunity to attend the National Finals. Richard is President of his school’s Science Club, where he dabbles in the biology-related events of Science Olympiad. He also participates in his school’s Science Bowl and Ocean Bowl (B) teams, is a three-time AIME qualifier, and is involved in the Ultimate Frisbee team. Outside of school, Richard is an Eagle Scout of Troop 66, and an EMT at his local First Aid Squad. In his free time, he can be found playing various card games, listening to intellectually-stimulating Korean pop music, and feeding in Dota 2. He will be attending the University of Pennsylvania in the fall.

Suhas Chundi | Carmel High School, Carmel IN

Suhas Chundi is a junior at Carmel High School in Carmel Indiana. His noteworthy accomplishments include winning 4th place in the Indiana State wrestling tournament with a 30 - 4 record for the season. He progressed to the state science fair with his research on aluminum toxicity on plant roots, but claims he was not intelligent enough to move onto ISEF. He is a 3 time AIME qualifier and member of his schools 5th place science bowl team. Suhas served in student government for 2 years. In his free time, Suhas enjoys Ultimate Frisbee, Spike ball and weightlifting.

Joseph Dong | Troy High School, Fullerton, CA

Joseph is a junior at Troy High School in Fullerton, California. He is a Gold Medal recipient of the Congressional Award, founder of the local student-run volunteer organization SteamOn, and president of his school's Botany Club. Joseph is also a Finalist of the U.S. Constitution Day Poster Drawing Art Contest, two-time AIME qualifier, a Gold tier of the USA Computing Olympiad, and a National Champion Gold Medalist of Science Olympiad. Aside from academics, Joseph also finds his passion in music, being a two-time 1st Place winner of the American Protégé International music competition as a cellist. He performs at nursing homes, festivals, and charity events. In his ever-dwindling free time, Joseph relaxes by creating games on Scratch, attempting to compose electronic music, and running—you might catch him running in his community park on weekends.
Leon Fan | Belmont High School, Belmont, MA
Leon Fan is a junior attending Belmont High School in Belmont, Massachusetts. He is especially interested in molecular biology; last summer, Leon conducted research on the effects of cytoskeletal-inhibiting drugs on wound healing in Clytia hemisphaerica. At school, he is the captain of the Science Bowl and Science Olympiad teams, focusing on biology-related events. Leon has been awarded gold medals at both the Harvard Invitational and Massachusetts State Science Olympiad for Anatomy and Physiology. In addition to biology, Leon has a passion for computer science and math. He is the captain of the BHS Computer Science club and a gold level participant in USACO. Leon loves his job as a math instructor at Mathnasium, where he tutors a new generation of mathematicians. During his free time, Leon can be found playing tennis, reading, and exploring international cuisine.

Kaivalya Hariharan | Ridge High School, NJ
Kaivalya Hariharan (he goes by Kaivu) is a junior at Ridge High School, New Jersey. Unsurprisingly, he is interested in biology, primarily because he thinks dinosaurs are pretty neat. He has spent the last two summers researching the genetic characterization of rare disorders. Kaivu is a fan of numbers, is an AIME qualifier, and a puzzle-before-bed kind of person. He is the captain of the Ridge National Science Bowl team which made top 16 at the Nationals this year. He is also a competitive tennis player, and he has been playing singles for his school varsity team since freshman year. Kaivu likes to read postmodern literature, wade through philosophy and logic, play and watch sports, make and appreciate bad puns, and overuse conjunctions.

Charles Huang | Lynbrook High School, San Jose, CA
Charles Huang is a senior at Lynbrook High School in California. He plans to study bioengineering at Stanford University. In the past, Charles has conducted research in the fields of biomaterials, solid state chemistry, and structural biology. He was a Regeneron STS Semifinalist and Intel ISEF competitor for his research on characterizing the binding patterns of the molecule NADPH. Additionally, he was a Siemens Regional Finalist for his research on the chemical vapor deposition of Molybdenum Disulfide. Charles is the captain of his school's Science Bowl team, that competed in the National Science Bowl. He is also the president of the Lynbrook Science Club and vice president of the Astrophysics Club. In his free time, he likes playing ping pong. As a lover of the book "Biology of Plants" by Peter Raven, Charles is learning the art of growing bonsai trees (his favorite plant hormone is gibberellic acid). His favorite molecules are NADPH and nitric oxide, and he enjoys playing the ukulele.
Kameel Khabaz | Fairmont Preparatory Academy, Anaheim, CA
Kameel Khabaz is the Class of 2019 Valedictorian at Fairmont Preparatory Academy in Anaheim, California. For the past three years, he has been a devoted member of his school’s Science Bowl Team. He is also the co-founder of his school’s Science Journal Club which seeks to discuss and understand current scientific research through reading journal articles. When he is not studying Campbell Biology or listening to cranial nerve songs (and music videos), Kameel enjoys conducting scientific research at the University of California, Irvine, and the University of Southern California. He also loves to balance scientific discovery with varsity tennis, local volunteering, and a passion for surgery, which he seeks to practice in the future. This fall, Kameel will continue his studies at the University of Chicago.

Saleha Mir | City Honors School, Buffalo, NY
Saleha Mir is a senior attending City Honors School in New York. She has investigated chemotherapeutic drug design related to glioblastoma multiforme at the Roswell Park Comprehensive Cancer Center for several years, in addition to serving as lab manager and training with the Da Vinci surgical system. She enjoys teaching and learning from others in both science and global culture, having founded a program tutoring English to Middle Eastern, Hispanic, and Indian immigrants at her local mosque for 3 years. Saleha is also passionate about creating strong, self-sustaining communities, and hopes to serve in Peace Corps before pursuing a career in medicine. When not studying, Saleha enjoys relaxing with friends and family, featuring evening bonfires and spicy food.

Atharv Oak | West Windsor Plainsboro High School South, Princeton Junction, NJ
Atharv Oak is a senior attending West Windsor Plainsboro High School South, NJ. He is interested in all areas of STEM and is fluent in four languages. Atharv is a two-time AIME qualifier and a returning USABO finalist. He is a passionate member of his school’s Science Bowl and Science Olympiad teams. In his free time, he enjoys cycling, swimming, playing card games and binge-watching House M.D. and The Big Bang Theory. His family has moved a lot; consequently he has attended five different schools. He loves to explore new places and cannot wait to explore Boston and Cambridge while attending MIT beginning this fall.
Nithin Parsan | William P. Clements High School, Sugar Land, TX
Nithin Parsan is a junior attending William P. Clements High School in Sugar Land, Texas and a returning USABO finalist. He is the founder and president of his school’s Biology Olympiad club and a proud member of the Science Bowl team, securing a 2nd place state finish for three consecutive years. As an officer of Clements JETS, Nithin coordinates and participates in Science Bowl and Science Olympiad, where he has won several state medals. He holds a deep passion for biochemistry and believes research innovation is paramount to societal progress. This summer, he will be conducting research at Stony Brook University on chromatin remodeling. En su tiempo libre, Nithin can be found watching movies, procrastinating on schoolwork, and tinkering with his backyard foundry.

Sagarika Samavedi | Interlake High School, Bellevue, WA
Sagarika Samavedi is a senior and IB diplomate from Interlake High School in Washington. She has represented her school at the National Science Bowl and Science Olympiad. Her passion in renewable energy led her to research thermostable enzymes for biofuel production. Currently, she studies water pollution and its effect on phytoplankton genetics. She has presented her work at Intel ISEF, Google Science Fair, AJAS, National JSHS, SJWP and the National Army Science and Technology Conference. In her spare time, she can be found following the migratory path of Red Knots, or looking for Jupiter’s moons through her telescope. She has performed Kathak, a classical Indian dance form, for 9 years. She will attend Stanford University and plans to study bioengineering.

Henry Shen | Oak Ridge High School, Oak Ridge, TN
Henry Shen is a senior at Oak Ridge High School in Tennessee. His favorite USABO subject is “Plant Anatomy and Physiology.” Henry enjoys activities like Science Bowl and Brain Bee, and he is currently studying hearing loss at Oak Ridge National Laboratory. Outside of biology, Henry enjoys running cross-country and track, playing the piano and violin, and listening to anything by Nicki Minaj. He recently joined his school’s tennis team, breaking the school record with an impressive ten-game losing streak. Pursuant to his love of plants, Henry will join his fellow trees at Stanford University this fall.
Kimberly Shen | Mounds View High School, Arden Hills, MN
Kimberly Shen is a junior at Mounds View High School in Arden Hills, Minnesota and a returning USABO finalist. She is passionate about many fields of science including biology and astronomy. Since 2017, she has been a valuable member of her school’s nationally-ranked Science Olympiad team and has medaled multiple times at the national level. Kimberly is also an avid pianist. In 2018, she won first prize in the Schubert Club and Thursday Musical scholarship competitions and competed in the national finals of the Music Teachers National Association (MTNA) Senior Piano competition. In her free time, she enjoys listening to music and collecting stuffed animals.

Lakshay Sood | Middlesex County Academy for Allied Health and Biomedical Sciences Woodbridge, NJ
Lakshay Sood is a senior at the Middlesex County Academy for Allied Health and Biomedical Sciences in Woodbridge, NJ. Lakshay is passionate about teaching and biochemistry and hopes to earn an MD/PhD degree to work as a translational physician-scientist. He was a biochemistry TA at Rutgers University and the head Volunteer Coordinator at his local food pantry. In his free time, Lakshay enjoys playing sports of all types, FIFA, and listening to the king of pop, Sam Smith. Lakshay would like to thank his family, friends, and teachers for their immense support as he begins studies at Johns Hopkins University in the fall.

Christopher Wang | Acton-Boxborough Regional High School, Acton, MA
Christopher Wang is a senior attending Acton-Boxborough Regional High School in Massachusetts. He is a captain of his school’s Science Olympiad team and has won a total of seven medals at the 2018 and 2019 National Tournaments, including three gold medals and two silver medals. He has also been a two-time qualifier for the American Invitational Mathematics Examination (AIME), an Honors recipient in the U.S. National Chemistry Olympiad (USNCO), and a Gold Division competitor in the USA Computing Olympiad (USACO). He loves to share his passions for biology and chemistry by mentoring students in his school’s science classes and writing formidable tests to challenge his Science Olympiad teammates. In his free time, he enjoys composing music, playing video games, and eating lots of snacks. He will be attending Washington University in St. Louis this fall.
2019 USA BIOLOGY OLYMPIAD NATIONAL FINALISTS

**John Yang | Princeton High School, Princeton, NJ**
John Yang is a junior attending Princeton High School in New Jersey. As the 2019 USA Brain Bee National Champion, John will represent the US in South Korea at the International Brain Bee in September. He has also led Princeton High School to a first place win in the 2019 Euro Challenge Competition. His dual passion for biology and economics comes from a desire to help individuals in their day-to-day lives. John regularly volunteers at his local elderly care center and coaches his former middle school Science Bowl team. When not drawing diagrams in his notebooks, John likes to listen to K-pop and debate the merits of Game of Thrones fan theories.

**Eric Wang | Naperville North High School, Naperville, IL**
Eric Wang is a junior attending Naperville North High School in Naperville, Illinois. He is a DECA International Medalist, has won two Science Olympiad state gold medals, and is a member of his school's Science Bowl team. In his sophomore year, he chaired a committee on Student Government that helped to successfully lobby and enact a change in his school's SEL curriculum. This summer, he will be conducting research to better understand the epigenetic mechanisms that regulate cancer progression and interning for CRC Oncology. In his free time, he enjoys pool, poker, and piano. He also played tennis for two years, but after coming to the profound realization that he would never be better than a brick wall, switched to weightlifting and can now bench 225 pounds - which is coincidentally the number of times he has read *Campbell’s*.

**Albert Zhang | North Hollywood High School, Hollywood, CA**
Albert Zhang is a sophomore at North Hollywood High School in California. He was a member of his school’s 3rd place National Science Bowl team. He is also a USAJMO qualifier. Albert likes to wander around school, admiring the trees and the birds; he particularly delights at the time he saw five seagulls competing for bread. Albert also likes to play Nocturne Op. 9 No. 2 by Chopin on his piano, and learn about Ornithology and Anthropology while playing jazz on his Harmon-muted trumpet.
Brian Zhang | Carmel High School, Carmel, IN
Brian Zhang is a junior attending Carmel High School in Indiana. He thinks biology is more fascinating compared to the rest of the sciences and, therefore, loves the subject. He is a captain of his school's National Science Bowl team and has competed at nationals for two years, taking 5th place in 2019. He is a five time AIME qualifier, and he is also the president of his school's biology and earth science clubs. In his free time, Brian enjoys lifting weights and playing guitar.

Jason Zhang | Troy High School, Troy, MI
Jason Zhang is a senior at Troy High School in Michigan. This is his second year attending the National Finals. He is especially interested in molecular biology and has conducted research on cancer genetics and the use of molecular biomarkers as diagnostic tools. Jason serves as president of his school's Science Olympiad team and Biology Club as well as competing in Science Bowl. He is also a member of his school's Cross Country and Track and Field teams, and is a viola and piano player. In his free time, Jason enjoys running, listening to Latin pop, and binging Netflix.
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The Center's mission is to nurture high school and university scholars to careers of excellence and leadership in science, technology, engineering and mathematics, and to encourage collaboration between and among leaders in the global community.

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