



THE 2019
INTERNATIONAL
BRAIN BEE
WORLD
CHAMPIONSHIP

SEPTEMBER 19-23, 2019

IBRO CONGRESS | DAEGU, KOREA

The International Brain Bee

neuroscience competition

Welcome from the 2019 IBB Co-Chairs

On behalf of the 2019 Organizing Committee, it is a true privilege to welcome you to the 21st International Brain Bee World Championship in Daegu, Korea, in partnership the 10th World Congress of the International Brain Research Organization. Congratulations to all student participants on their exceptional achievements as National Champions, and we look forward to an enriching, friendly, and inspiring competition and event.

With a record-breaking number of student participants from all six continents, we celebrate this opportunity to gather a global group of up-and-coming scientists and doctors. The multi-day event includes one day and one half-day of competition sessions, hosted by the Korea Brain Research Institute, Kyungpook National University, and the 10th IBRO World Congress. With a stellar panel of world-class judges and ten national Brain Bee coordinators, students are encouraged to discuss research topics, academic opportunities, and career paths during the competition breaks.

Cultural activities around the city intend to support the development of lasting community among participants, with the chance to network in the earliest stages of their scientific explorations. Imagine if the most talented, ambitious scientists of our modern world had met while young students? Their possibilities for collaboration, creative idea generation, and mutual support would even further change the world. This is the potential we see in you.

The program will continue to support participants through an online alumni organization, allowing the connections built during this World Championship to continue and grow throughout university and graduate careers. We are delighted to provide the framework for an experience of a lifetime and hope each participant is charged with the motivation to contribute to advancing science and humanity.

Best wishes for a scientifically inspired future,

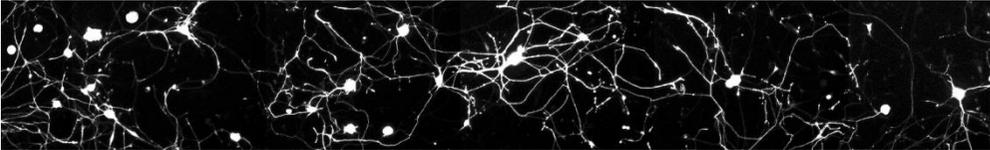


Dr. Yoo-hun Suh



Dr. Julianne McCall





- General Program Information -

Event Duration:

September 19th — September 23rd, 2019

Hosting Conference:

IBRO 2019 the 10th IBRO World Congress of Neuroscience, Joint Meeting of the International Brain Research Organization & Federation of Asian-Oceanic Neuroscience Societies

Competition Venues:

Korean Brain Research Institute
<http://eng.kbri.re.kr/>

Kyungpook National University
www.en.knu.ac.kr/main/main.htm

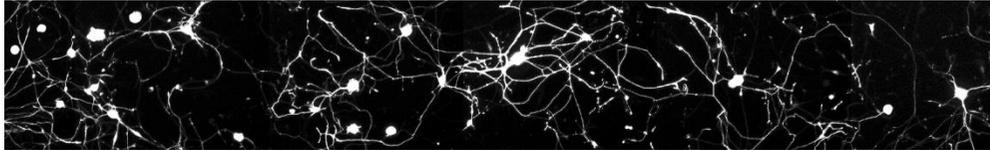
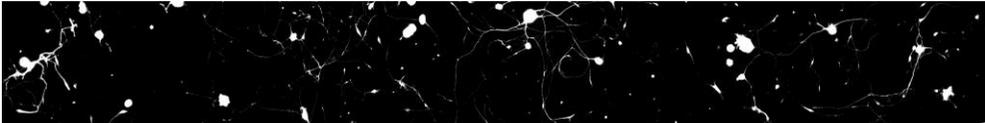
IBRO 2019 - EXCO Convention Center
www.ibro2019.org

Accommodation:

Boutique InStar Hotel
Address: 164 Yuram-ro, Dong-gu, 410509 Daegu

Event Websites:

www.theBrainBee.org
www.facebook.com/internationalbrainbee



- Program Schedule -

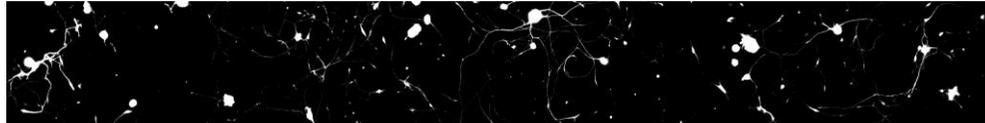
THURSDAY, SEPTEMBER 19th

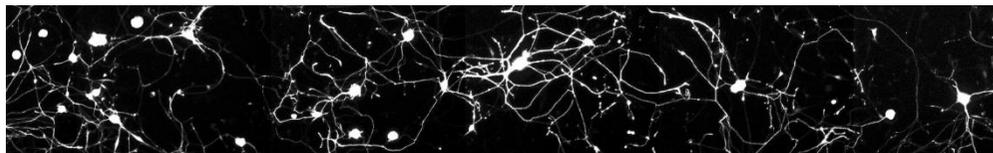
Welcome National Brain Bee Champions and Guests!

- 16:00 Welcome & Opening of the Program
Student Introductions
Hotel Restaurant
- 18:00 Welcome Dinner
Joyful Hall Banquet

FRIDAY, SEPTEMBER 20th

*Brain Bee Written Exam, Neuroanatomy,
Neurohistology & Patient Diagnosis Sections*

- 9:00 Written Exam
Korean Brain Research Institute
- 10:30 Patient Diagnosis
Korean Brain Research Institute
- 12:00 Lunch and Tour
Korean Brain Research Institute Museum
- 14:00 Neuroanatomy & Neurohistology *Kyungpook*
National University
- 15:30 Tour of the Research Campus
Kyungpook National University
- 18:00 Dinner
InStar Hotel Restaurant
- 



- Program Schedule -

SATURDAY, SEPTEMBER 21st

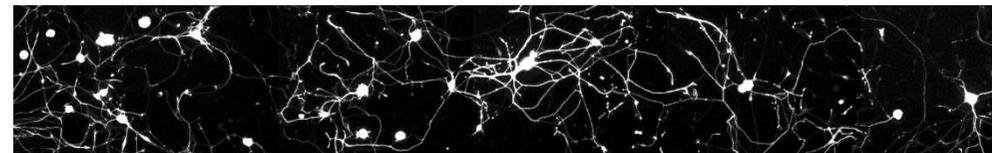
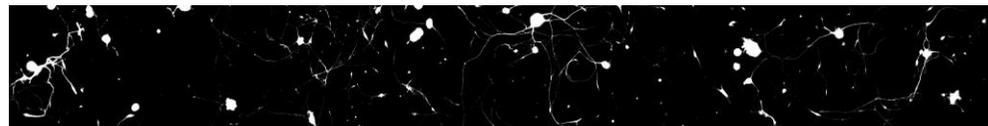
Live Judging Session and Award Ceremony

- 9:00 Brain Bee Live Judging Session
EXCO Convention Center Room 320
- 11:30 Announcement of the IBB Champion
- 12:00 Lunch at the Conference
- 13:00 Presidential Lecture
- 14:00 IBRO Congress Opening Ceremony
EXCO Convention Hall 5F
- 15:20 IBB Award Ceremony
EXCO Convention Hall 5F
- 18:00 Celebration Dinner *Dynasty Hall, The Grand Hotel Daegu*

SUNDAY, SEPTEMBER 22nd

IBRO Congress Experience and City Tour

- 9:00 IBRO Congress Experience:
Plenary Lecture, Exhibit Hall
Demonstrations, and Interactive Tour
Poster Session
EXCO Convention Center



- Program Schedule -

SUNDAY, SEPTEMBER 22nd, continued

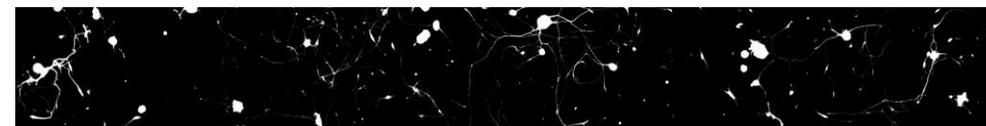
IBRO Congress Experience and City Tour

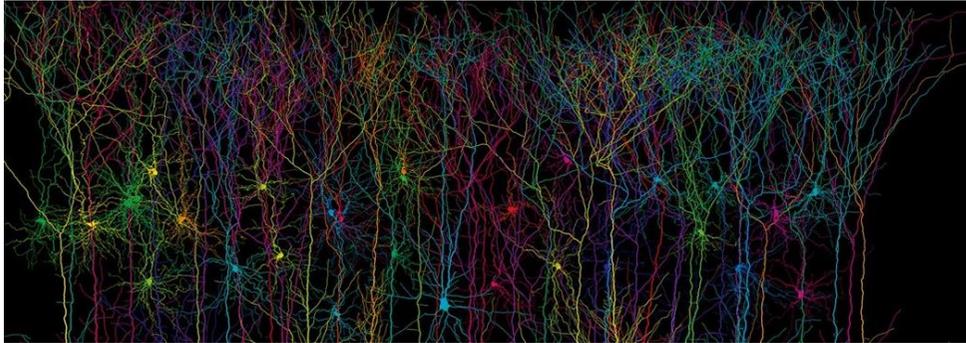
- 12:00 Lunch at the Conference
- 13:00 Transfer to City Tour
IBB Shuttle Bus
- 14:00 Modern Korea City Tour
Daegu Tourism Bureau
- 16:00 Group Photos in the City
Modern Korea City Tour
- 18:00 Farewell Dinner
Traditional Korean

MONDAY, SEPTEMBER 23rd

Program Conclusion

- 7:00 - 9:00 Breakfast
InStar Hotel Restaurant
- 12:00 Hotel Check-Out
InStar Hotel Reception





The 2019 International Brain Bee
- Organizing Committee -

Yoo-hun Suh, MD PhD, President, Korean Mind, Brain and Education Society

Julianne McCall, PhD, Science Officer, California Governor's Office of Planning & Research

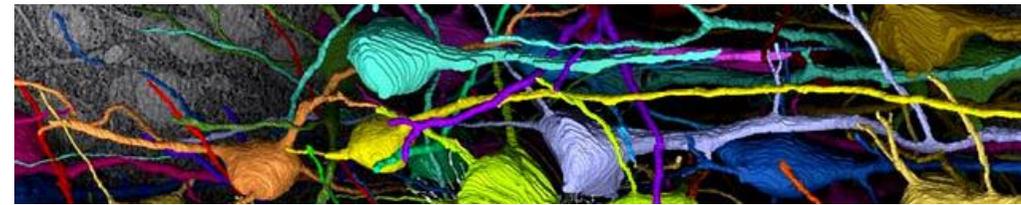
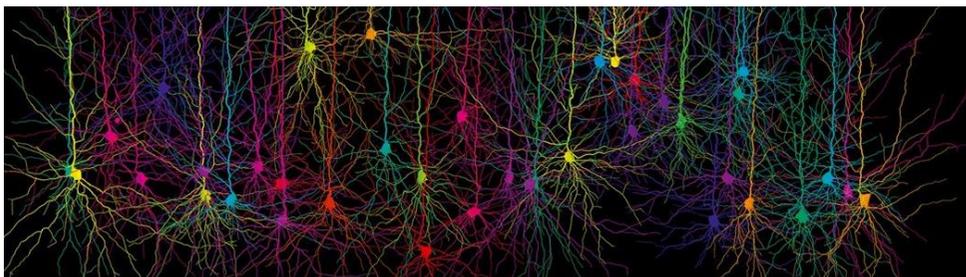
Seong-Whan Lee, PhD, Head, Department of Brain and Cognitive Engineering, Korea University

Sung-Jin Jeong, PhD, Principal Researcher Molecular Aging & Development Lab; Director, IBRO 2019 Office

Cheil Moon, PhD, Professor, Daegu Gyeongbuk Institute of Science & Technology

Ho-Won Lee, MD PhD, Professor, Kyungpook National University

Hwan Tae Park, MD PhD, Director of Peripheral Neuropathy Research Center, Dong-A University



- Support Teams -

Local Coordination

Hae Ryung Jung, Brain Research Policy Center, KBRI

Sumi Lee, IBRO 2019 Office, Korean Brain Research Institute

Hee-Jun Cho, Daegu Metropolitan City

IBB Liaison

Astrid Eberhart

Academic Advising & Content Development

Ionut Dumitru, PhD
Karolinska Institute

Tiziana Cesetti, PhD
German Neuroscience Olympiad

Friedrich Schwartz
German Neuroscience Olympiad

Marta Orlando, PhD
Charité University Hospital

Teresa Spanò
Max Planck Institute

Logistics and

Communications Team

Chanel Matney, PhD

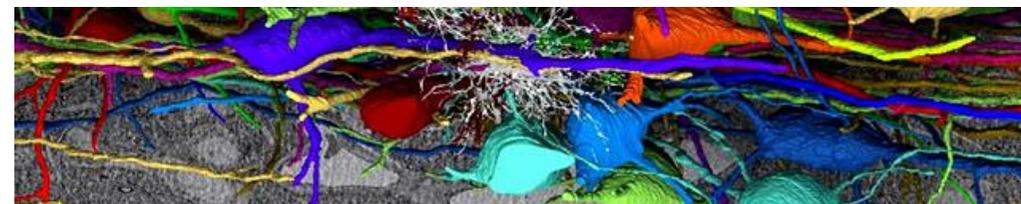
California Council on Science & Technology

Marissa Kraynak, PhD
California Council on Science & Technology

Shannon Connelly
France Brain Bee

Landon Klein, PhD
California Council on Science & Technology

Olivia Krieger
University of California, Davis





Letter from the IBB Founder and Board Chairman

Dear Brain Bee Champions:

Imagine if you will: a color you have never seen before; a sound you have never heard before; a fragrance you have never smelled before. They do exist. Animals detect them, but we can only imagine them. You are all here this week representing your families, your schools, your countries, because of your hard work and knowledge.

But Einstein once stated that “Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution.” Where imagination comes into play, new knowledge is born. Imagination gave birth to the International Brain Bee.

Imagine yourself in your dream job, career or profession, producing original work, creating new knowledge. That is what the International Brain Bee is all about. Follow your heart, but take your brain with you. Fulfillment in life is based on following your dream.

Welcome to Korea and congratulations on being Regional Brain Bee Champions. Many thanks to the Korean Brain Bee Regional Committee, the International Brain Research Organization, and the 2019 IBB World Championship Organizing Committee.

This year is the first time that the World Brain Bee Championship is in Asia. A record number of countries have come together in peace and harmony. Make the most of this precious experience, and may the memories and friendships you create last a life time.

After you return to your homes, put your knowledge to good use. Continue your involvement in the Brain Bee, and start a new Brain Bee chapter in your town. Consider joining the International Youth Neuroscience Association. Whether your calling is that of a parent, teacher, farmer, craftsman, scientist, nurse or physician, use your imagination and knowledge to alleviate suffering and solve the problems of the people around you and around the world.

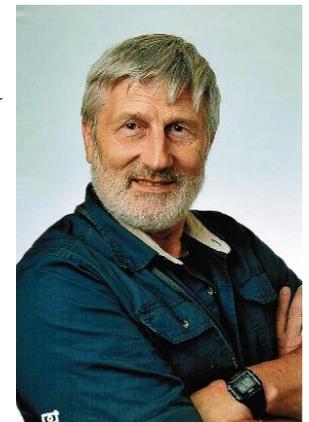
The world needs you. As our future generation, much is expected of you. The concepts that you learn can be applied to your daily life, and they can also spark your imagination. But imagination not acted on will never get bigger than the neural circuit that it occupies. You can choose to sit on it or use it. Only through action can character be strengthened and success achieved.

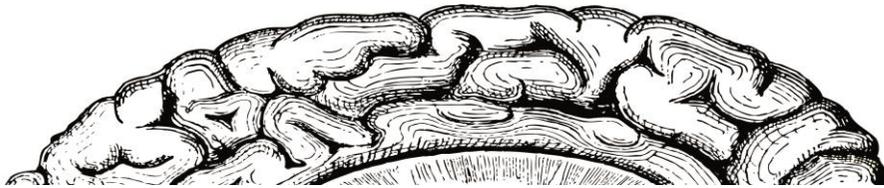
I wish you a rich imagination and prosperity in life.

Remember, the human brain holds the key to your future and the future of the world. It can be your best friend or your worst enemy. For better or worse, the decision is up to you.

Live long and prosper,

Dr. Norbert Myslinski
IBB Board Chairman and Founder





- Message from the President of IBRO-
Dr. Pierre Magistretti

The International Brain Research Organization is truly delighted to have the opportunity to welcome the participants of the 2019 International Brain Bee in Daegu, Korea. IBRO and our IBRO World Congress co-hosts, the Korea Brain Research Institute and the Korean Society for Brain and Neural Sciences, are certain this year's competition will be an inspirational event that will involve and expand interest in the brain sciences among our global youth. The future of neuroscience depends upon the encouragement and support of the next generations of aspiring brain scientists, and the annual IBB competitions help to ensure this. On behalf of IBRO, our World Congress co-hosts and fellow IBB Governing Partners, I wish all 2019 IBB participants an exceptional and memorable experience.

Good luck, everyone!

Pierre Magistretti
IBRO President



Dr. Yoo-hun Suh, MD PhD

Dr. Suh is President of Gachon University Neuroscience Research Institute and was the Founding President of the Korea Brain Research Institute. He also holds a faculty position at Seoul National University, leads the Korea Brain Education Society as President, and serves as Co-Chair of the 2019 International Brain Bee. In 2009, he received Korea's Most Distinguished Scientist Award. His research has greatly contributed to treating neurodegenerative diseases, including Alzheimer's and Parkinson's Diseases, by studying novel genes, molecular interactions, and stem cell therapies. Dr. Suh is a member of the Korean National Academy of Science



Dr. Yun Wang, PhD

Dr. Wang is the Associate Dean of the School of Basic Medical Sciences at Peking University, China. She also serves as Vice Director of the Department of Neurobiology, Vice Director of the Neuroscience Research Institute, and President of the Chinese Association for Physiological Sciences. She has conducted research at the U.S.

National Cancer Institute and U.S. National Institutes of Health following the completion of her PhD at Beijing Medical University in 1996. Professor Wang's major research interests include signal transduction of pain and molecular mechanisms of neuronal development, injury, and repair. She has published more than 60 research papers in peer-reviewed scientific journals.



- Judging Panel -

Dr. Wing-Ho Yung, PhD

Dr. Yung serves as the President of the Hong Kong Society of Neuroscience and Director of the Gerald Choa Neuroscience Centre at the Chinese University of Hong Kong. He received his PhD from Oxford University in Cellular Neurophysiology and leads IBRO Neuroscience Schools in Hong Kong.



Dr. Sunday Agba Bisong, PhD

Dr. Bisong is an Associate Professor of Neurophysiology and head of the Department of Physiology at the University of Calabar, Nigeria. He is a Fellow of IBRO and has worked in the Canadian Department of Foreign Affairs and International Trade.

Dr. Cynthia Smith, PhD

Dr. Smith is a Research Scientist at The Jackson Laboratory in the United States. There, she is part of the Mouse Genome Informatics Team, focusing on discovering models of human disease using a systems biology approach. She received her PhD from Cornell University Medical College



- Judging Panel -

Dr. Anna Beyeler, PhD

Dr. Beyeler is a Principal Investigator of the French National Institute of Health (INSERM), where she is establishing an independent research program to decipher the role of neural populations of the insular cortex in emotional valence and anxiety. She completed a Post-Doctoral Fellowship at MIT researching neural circuits.



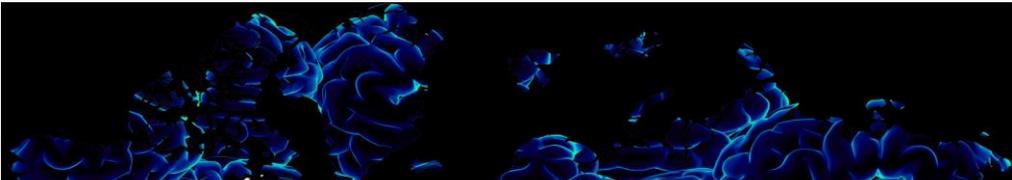
Dr. Darcy Peterka, PhD

Dr. Peterka is the Director of Cellular Imaging at the Zuckerman Institute, where he develops cutting-edge optical methods to address challenging questions about the brain and its function. He received his PhD from UC Berkeley and conducted research at the Lawrence Berkeley National Laboratory in California.

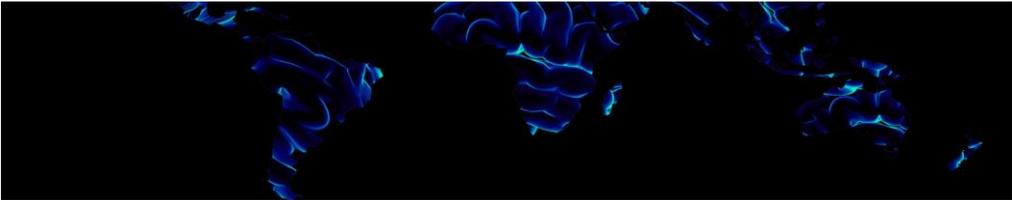
Dr. Cheah Pike See, PhD

Dr. See is an Associate Professor of Neurobiology and Human Anatomy at the University Putra Malaysia. She leads the Neurobiology and Genetics Research Group, where she focuses on neurodevelopmental disorders. She has also worked at Harvard University in research to address brain tumors.





STUDENT PARTICIPANTS



*Congratulations to all 2019
National and Regional Champions*

AUSTRALIA

Silas Hansch-Maher

BRAZIL

Gustavo Miller Santos

CANADA

Zhongyi Sun

CHINA

Yidou Weng

EGYPT

Youssef Hossam Ibrahim

FRANCE

Seung-Bin Joo

GERMANY

Jasmin Alami

GRENADA

Jevonie Thomas

HONG KONG

Chi Ngai Wong

INDIA

Disha Agrawal

IRAN

Kamand Soufiabadi

IRELAND

Michael Flaherty



ISRAEL

Ely Shillo

ITALY

Giuseppe Imperatore

JAPAN

Riki Shimizu

KOREA

Dong-Won Lee

MACAO

Un Wai Choi

MALAYSIA

Ahmad Darwisy Bin
Shaifuzain

NEPAL

Yatish Aryal

NETHERLANDS

Myrthe Weessies

NEW ZEALAND

Sophia Ye

NIGERIA

Rita Chimdimma Okafor

POLAND

Natalia Koc

ROMANIA

Razvan-Adrian
Covache-Busuioc

SINGAPORE

Yau Chun En

UKRAINE

Igor Arefiev

UNITED ARAB EMIRATES

Pranjal Naryani

UNITED KINGDOM

Caius Gibeily

UNITED STATES OF AMERICA

John Yang



AUSTRALIA

Silas Hansch-Maher

Silas Hansch-Maher is an 11th year student at St. Ignatius College in Athelstone, South Australia. At school, he strives to learn more than he is taught in the classroom and is especially intrigued by the sciences. He also enjoys extending himself in math and Latin because both topics provide interesting challenges. Silas is an enthusiastic member of his school's debate team and is passionate about his involvement. In his spare time, he enjoys reading, socializing with friends, and listening to music. He also enjoys keeping up with current events. Silas discovered the exciting and complex world of neuroscience upon entering his state competition, and he has found learning about the brain incredibly fascinating and enjoyable.



CANADA

Zhongyi (Jenny) Sun

Zhongyi Sun recently graduated from Old Scona Academic High School in Edmonton, Alberta and will be attending the University of Alberta next year. She enjoys staying productive by reading, watching instructional videos, or doing homework. In her free time, she enjoys playing flute, singing karaoke, and playing mobile games. She also listens to many types of music, ranging from classical to pop. Zhongyi's interest in neuroscience stemmed from her fascination with the complexities of the nervous system. She is especially drawn to the intriguing nature of the yet-to-be-discovered causes of certain neural disorders (such as epilepsies) which are currently under research. In the future, she hopes to apply her knowledge of the nervous system to improve the lives of people with these unfortunate disorders and diseases.



BRAZIL

Gustavo Miller Santos

Gustavo Miller Santos is an eleventh-grade student at the Technical High School of Campinas. Having always been passionate about technology, he studies Information Technology at his school. Gustavo also became intrigued by biology a few years ago, and since then, studying its complexities has become one of his greatest hobbies. This year, he won a gold medal in the Brazilian Biology Olympiad. In Gustavo's free time, he enjoys reading, watching series, listening to music, and spending time with friends. He finds neuroscience fascinating and ultimately hopes to connect his knowledge of computer science to assist people with neurological disorders. Gustavo is excited about the opportunity to participate in the IBB and to learn more about the complexities of the nervous system. He feels honored to represent Brazil in the competition.



CHINA

Yidou (Gwen) Weng

Yidou (Gwen) Weng is a student at Jiangxi Normal University in China. She had only, until recently, followed the standard Chinese curriculum, developing an interest in nearly every school subject for the past 16 years. Everything changed when the book What a Plant Knows opened a brand-new world about science and passion. Many ideas from various books have inspired her to pursue neuroscience. In particular, uncovering the biological basis of human higher cognition has led her to want to become a neuropsychologist. She firmly believes that deep expertise in both neurology and psychology are imperative to achieving her career goals. She sees her participation in the International Brain Bee as the first step toward achieving her dream, and is excited to participate with fellow students from around the world.



EGYPT

Youssef Hossam Ibrahim

Youssef Hossam is a senior student at El Nasr Boys' School in Alexandria, Egypt. Through his scientist father, he was exposed to scientific thinking early on, which helped to develop his passion toward diverse fields like Physics, Biology and Neuroscience. He has ranked top of his class for 14 consecutive semesters, engaged in research projects on Immunology and Physical Energy, and been elected as president of his school's student union. He is amazed by the electrochemistry of brain circuits and by the use of Cognitive-Behavioural-Therapy to reorganize brain circuits affected in pathology. He hopes to have a career researching these topics alongside being a neurologist. In his leisure time, Youssef enjoys learning languages, and engages in activities related to politics, economics and entrepreneurship.



FRANCE

Seung-Bin Joo

Seung-Bin Joo is a 16-year-old Korean student attending the International School of Paris in France. From a young age, Seung-Bin has been an avid learner excited to discover new things, whether it was devouring physics books or self-learning calculus. In grade 10, he was encouraged by his sister to join the ISP Neuroscience Club. At first, he was hesitant, but the neuroscience club was a great learning environment that allowed his interest in neuroscience to grow exponentially. Fueled by this fascination, Seung-Bin is excited to represent France in the International Brain Bee. He believes that neuroscience will provide an invaluable foundation of knowledge which he hopes to integrate into his future career in mechanical and aerospace engineering. Outside of academics, Seung-Bin enjoys landscape photography, orchestral film composition, speedcubing, chess, and basketball.



GERMANY

Jasmin Alami

Jasmin Alami is a 16-year-old high school student attending Robert Schuman Gymnasium Sham and living in the heart of the Bavarian forest. Biology—being her favorite subject in school—has always been a big interest of hers. Her passion for neuroscience in particular sparked when she discovered a book about the brain in the local library several years ago. She is fascinated by the complexity of the whole nervous system and wants to gain a deeper understanding of it. In her future, Jasmin intends to study neuroscience in order to eventually be an active member in research of the nervous system. Aside from neuroscience, Jasmin is also involved in photography, which she enjoys especially together with her best friend. She was recently awarded a regional photography prize. Additionally, she enjoys running and dancing as a balance to everyday life. Jasmin is both honored and excited to represent Germany at the International Brain Bee 2019.



GRENADA

Jevonie Thomas

Jevonie Thomas is a 15-year-old form 4 student at the J.W Fletcher Catholic Secondary School in Grenada. He is enthusiastic about the fields of biology, linguistics, dietetics and physics. He intends to pursue a career that incorporates all of these subjects, starting with neurologist and ending with dietician. Three of his many aspiring goals are to contribute to a cure for Schizophrenia, give a TED Talk, and to lead the Neurology Department at a hospital. After hearing and researching the story of Charles Whitman, Jevonie has become fascinated by the field of Neuroethics. He has what he would call an “eternal hunger for knowledge.” This is what drives most of his life's goals and actions.



HONG KONG

Chi Ngai Wong

Genper Wong attends St. Paul's Co-Educational College in Hong Kong. Through his biology lessons, he has become fascinated by the wonders of nature. Biology is one of his favourite subjects and he is particularly interested in neurology, human anatomy and cellular biology. Recently, he has also ventured into the world of organic chemistry. Although he likes calculus and topology, the manipulation of formulas in physics has never been his primary interest. In addition to science, he is also captivated by Chinese literature and classical Latin. In his spare time, Genper enjoys playing the piano and listening to music; he especially loves contemporary classical music. In the future, he plans to write philosophy books and become a university researcher. It is Genper's ambition to learn everything in the world!



INDIA

Disha Agrawal

Disha Agrawal is a 12th grade student at Modern School in New Delhi. Her primary topics of study include biology, physics, chemistry and mathematics. She plans to pursue a career in medicine and harness the newer developments of artificial intelligence in healthcare. Her interest in neuroscience developed after reading about the intricacies of the human brain while preparing for the Brain Bee competitions. She wishes to become a neurologist and is driven by the desire to unravel the mechanisms behind several neurological disorders to contribute to finding cures. She is also an enthusiastic pianist and takes keen interest in music and tennis in her spare time. Her favourite compositions are by Yanni - mysterious and powerful, just like the brain.



IRAN

Kamand Soufiabadi

Kamand Soufiabadi is a 12th grade student at Farzanegan I: No. 56. She was introduced to neuroscience when she accidentally bumped into a large brain poster on her school's announcement board. She decided to enlist in the Brain Bee competition and has been fascinated with neuroscience ever since. She also loves math and physics, and finds it beautiful that every science major has a correlation with mathematics. Kamand enjoys jazz and folk music and her favorite movie is *Her*.



IRELAND

Michael Flaherty

Michael is a student at Colaiste Einde in Ireland. He is especially interested in biology and chemistry. Michael is trained in first aid and has won national competitions in first aid as both an individual and as part of a team. Although these competitions developed his passion for helping others, they did not necessarily inspire a career in medicine or science. Michael is unsure of his career path, but learning about the neurobiological aspect of addiction, decision-making and mental health has helped him to realize that neuroscience applies to more than just the academic world and scientific community, as it is the study of what makes us who we are. His other interests include classic films, contemporary theatre, music (especially jazz), professional wrestling and drama.



ISRAEL

Ely Shillo

Ely is a 16-year-old high school student studying neuroscience at the Weizmann Institute in Israel. He was always interested in science as a kid, but while he may spend the night dreaming about string theory and thalamic nuclei, he spends the day running into people as an avid American football player. When he finds time away from studying and football practices, he likes to hang out with his friends at the beach, attend parties (responsibly and sober, of course), and occasionally read a good book. He wants to be a doctor in the future, but whether that means being a neurosurgeon, neurologist, or something without “neuro” is still undecided. His main motivation for winning this competition is make his family members proud and to prove to his older sister that he has what it takes to compete in a world class competition.



ITALY

Giuseppe Imperatore

Giuseppe Imperatore is in his final year of high school at Iis Liceo Fermi in Italy. His favorite subjects are biology, physics, and chemistry. He has loved medicine since he was a child, is especially interested in human pathology and anatomy, and would like to become a pediatric neurosurgeon. He is also very interested in clinical biochemistry and scientific research in the field of neuronal regeneration. In his spare time, he likes to read foreign novels, listen to classical music (especially Paganini and Mozart) and he has been keen on cinematography and swimming for several years. Finally, Giuseppe really likes to travel both in Italy and abroad and visit museums and historical places as he is passionate about the history of classical and Renaissance art.



JAPAN

Riki Shimizu

Riki Shimizu is a 12th grade student at Nada High School in Japan. He is fascinated by the enormous potential that neuroscience can have on our society and desires to continue this line of study into undergraduate. He is especially interested in the research of molecular biology and the development of next-generation Brain Machine Interface. In addition to science, he is also interested in various subjects such as business, politics, and international affairs. In the summer of 2019, he was invited to join the Boys and Girls United Nations Ambassador 2019 and visited Malmo in Sweden and Geneva in Switzerland to study SDGs. His hobbies include reading books, playing tennis and poker, and listening to classical music or whatever stimulates his curiosity. Riki is excited to participate in the IBB with many talented students from all around the world.



KOREA

Dong-Won Lee

Dong-won Lee is a second-year student at Daesung High School in Korea. He is full of curiosity and tends to search for theoretical reasonings. After meeting many people and going through various experiences, he developed a deep interest in human consciousness and mentality. While studying biology, philosophy, and neuroscience, he stumbled across a book called, *The Man Who Mistook His Wife for a Hat*. This book is what led him to fall in love with the human brain and to adopt the dream of being a scholar in psychology and neuroscience. Furthermore, Dong-won created his own club named Biochemistry in Daesung (BID) with his friends. As a leader of BID, he and club members have conducted several studies. Dong-won strives to pour passion into every moment of his life.



MACAO

Un Wai Choi

Un Wai Choi recently graduated from Colégio de Santa Rosa de Lima - Secção Chinesa in Macao, where she was the class representative for six consecutive years. Un Wai is passionate about biology and neuroscience. She hopes to use her knowledge and understanding to help others in need, through medical research in her future career. Last year her project exploring usage of and support for Chinese Medicine, was chosen to be the winner of a research competition. In addition to her studies, she enjoys playing the piano and violin as well as collecting stamps and travelling. She was also a member of the Macao Conservatory Orchestra. In September, she will begin medical school to pursue her dream to become a doctor or physician-scientist. Un Wai feels extremely honored and grateful to be able to represent Macao at the 2019 World Brain Bee Championships.



NEPAL

Yatish Aryal

Yatish Aryal attends K.K. International School in Nepal. Since the age of five, he has been fascinated by doctors that serve the poor and needy in his country. Yatish is interested in brain diseases and disorders, such as addiction, epilepsy, stroke, parkinsonism, and dementia. He wants to become a neurologist to help the many senior citizens he has seen in his country that have had strokes or suffer parkinsonism. Yatish thinks the IBB is an excellent opportunity to gain exposure to neuroscience and to learn from an early age. He is excited to meet and connect with the other students that will be participating in the Brain Bee competition and the faculty working in brain research in order to share ideas in the future. Yatish is honored to represent his country and aims to bring the knowledge he will gain to eventually serve his home community in a holistic approach.



MALAYSIA

Ahmad Darwisy Bin Shaifuzain

Ahmad Darwisy Bin Shaifuzain is a 17-year-old, form five student from Sekolah Menengah Sains Tengku Muhammad Faris Petra, Kelantan, Malaysia (public boarding school). At school, he holds the position of deputy head prefect which requires him to also be active in the school's student council. His favourite subjects are mathematics and biology. He has won many awards in various mathematics competitions in Malaysia such as Kangaroo Math Competition, as well as internationally such as SASMO, AIMO and WMGO since he was 13. His interest in neuroscience began when he started studying biology in school in early 2018. He loves reading books and articles on neurosciences, as well as other subjects.



NETHERLANDS

Myrthe Weessies

Myrthe Weessies is a 19-year-old student attending Stedelijk Gymnasium Nijmegen: Kronenburgersingel 269 school in the Netherlands. Ultimately, she plans to become a doctor. Outside of academics, Myrthe enjoys judo, being an entertainer for children, and reading all types of books. Myrthe's hair color frequently changes as it has been black, red, and even purple. Winning the national round of the Brain Bee in the Netherlands was amazing and Myrthe is excited for continuing on in the competition.



NEW ZEALAND

Sophia Ye

Sophia Ye is a year 12 student from ACG Parnell College in Auckland. Sophia has been interested in science, especially biology and the processes of living things, her entire life. She first started to become fascinated by the brain a couple of years ago, and has since been drawn in by how complex and intricate it is. Sophia aspires to study medicine in the future, and contribute to something that will positively impact the lives of others. Outside of school, Sophia participates in contemporary dance and volunteer work. In her spare time, she also enjoys drawing, swimming, reading and spending time with friends. Sophia is most excited for the opportunity to study neuroscience, a topic she is passionate about, and to meet others with similar interests.



POLAND

Natalia Koc

Natalia is a recent graduate from Leopold Lis-Kula High School in Rzeszow. She has been interested in psychology since junior high school, but participating in the Brain Bee let her explore the biology of the human brain. Fascinated by discovering molecular secrets about the nervous system, she decided to pursue a career as a scientist working on the biochemical and molecular basis of memory and mental diseases. Natalia has had an opportunity to complete internships in molecular biology laboratories and engage in neuroscience research, which deepened her interest in molecular sciences. Besides neuroscience, Natalia enjoys dancing, listening to good music, and developing photography skills. Her plans for the nearest future, besides developing a science career, include learning Chinese language and programming.



NIGERIA

Rita Chimdimma Okafor

Okafor Rita Chimdimma graduated from a renowned school called Madonna Model Secondary School owerri, Imo state, where she studied all science subjects including English and Economics. She is Fifteen years old and was born in Ndiezike Ihiala, Anambra state. She lives with her family of seven at Irete owerri, Imo state. Rita is hard-working, honest, and intelligent and enjoys drawing, listening to music, and reading books, especially educational and motivational books. Rita is aspiring to study medicine at Nnamdi Azikiwe University, Awka in order to fulfill her dream of becoming a neurosurgeon. She is grateful to the International Brain Bee competition crew for this wonderful opportunity to study and understand the working principles affecting the brain, knowing that this will help her in the pursuit of her dreams.



ROMANIA

Răzvan-Adrian Covache-Busuioc

Răzvan-Adrian is a 12th grade high school student at Colegiul National "Alexandru Ioan Cuza" in Romania. His passion for biology and related sciences began at 14 years old. Răzvan-Adrian participated in every year's biology national olympiad in Romania, also in the 2018 European Union's Science Olympiad and 2019 International Biology Olympiad. In his spare time, he loves reading books, mostly related to arts, philosophy and history. Next year, he plans to attend medical school and fulfil his dream of practicing medicine and helping people. Răzvan-Adrian hopes that one day, his work and passion will bring hope in places where all hope is gone.



SINGAPORE

Yau Chun En

Yau Chun En is a 17-year-old student from Singapore. In his free time, Yau enjoys playing casual badminton, sleeping, swimming and lugging biology textbooks around. He first encountered biology when he was 15 and has been fascinated with the subject since then. He aims to lead a lifestyle where he can sustain himself on less coffee and less time holed up in his room.



UNITED ARAB EMIRATES

Pranjal Naryani

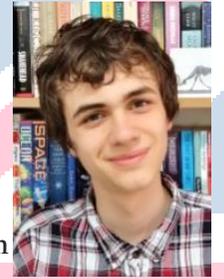
Pranjal Naryani is a class 12 student at The Indian High School, Dubai. Pranjal's has interest in not only biology, but literature and math as well. She has won distinction in Math and English Olympiad and even represented her country for APMO. Her father first introduced her to neuroscience and it all began with one sentence – “The brain is the most logical and most mathematical organ of the human body.” Her interest in neuroscience mirrors the teachings and motivation of her parents, who have constantly mentored and boosted her self-esteem. She is amused by the untrodden path the study of brain offers to young learners and how their minds, and thoughts can shape the world. She hopes that someday she can give her significant contribution to the field and make a difference.



UNITED KINGDOM

Caius Gibeily

Caius Gibeily is a Scottish student at George Heriot's School Lauriston PI, UK. He plans to study biological sciences at university and has an avid interest in a wide range of subjects, from linguistics to physics, to coding artificial lifeforms and playing the violin in his free time while supporting his family of fish and plants. His interest in biology stems from his fascination for the complexity of living systems. He has researched and presented on the 'random-walk' foraging behaviour of slime mould, and was awarded gold medals in the British Biology and Mathematics Olympiads. Caius's fascination in neuroscience began in philosophy with the substrates of consciousness and methods of computationally modeling neural networks. He considers the competition an exciting means to meet other competitors who are equally passionate about science.



UKRAINE

Igor Arefiev

Igor spent the first nine years of school focusing on the study of English before enrolling in a Ukrainian medical lyceum. He was motivated to enter the specialized lyceum to study biology intensely. Last year, Igor participated in the Ukrainian National Biology Olympiad. This year, he became interested in Neuroscience because it's really exciting to know and understand how the most sophisticated machine in the world works. Igor is also eager to better understand how we can apply our knowledge of neuroscience to AI for neurological diseases treatments. He is currently a student at Kyiv National University studying Biology. In his free time, Igor enjoys solving challenging math and physics problems, playing guitar, and reading (mostly scientific) books.



★ UNITED STATES OF AMERICA ★ John Yang



★ John Yang is a senior attending Princeton High School in the United States. Besides winning the 2019 USA Brain Bee, John is also a USA Biology Olympiad Bronze Medalist. He placed 4th internationally in the Toronto Biology Olympiad. Currently, John interns at the Princeton Neuroscience Institute studying how neural circuits are involved in aggression and contributed to a novel machine learning behavioral algorithm. He has also led Princeton High School to winning first place in the 2019 National Euro Challenge Competition. His dual passion for biology and economics comes from a desire to benefit individuals in their everyday lives which he tries to pay forward by coaching his middle school Science Bowl team, hopefully passing on his love for knowledge and discovery.



- Message from the 2018 IBB Champion -

Dear 2019 International Brain Bee Participants,

I would like to wholeheartedly congratulate all of you on winning the National Brain Bee contests. I am in awe of all of you, knowing already an immense effort which has to be put into the preparation. I am sure that you feel very proud of the accolade that you have already achieved in your National Brain Bee contests.

I am confident that for each one of you, it is an enormous accomplishment to reach this level. I am also certain how proudly your parents, relatives, friends, teachers must feel, knowing how far you have gone. I ought to add that they have every reason to feel so. You found a way to rise to the top through perseverance and hard work.

It will continue to be an honor to be able to represent your home community, and I hope you use the opportunity well.

I wish you all the best,

Piotr Oleksy



From Left to Right: 3rd Place Winner Huai-Ying Huang from Canada, 1st Place Winner Piotr Oleksy from Poland, and 2nd Place Winner Giovanni De Gannes from Grenada

- About the Brain Bee Program -

The primary goal of the IBB is to motivate students to learn about the brain and to inspire them to pursue careers in neuroscience so they can help treat and find cures for brain disorders. It was founded in 1998 by Dr. Norbert Myslinski at the University of Maryland in the United States as a competition for high school students and has grown from a grassroots effort to a successful global educational and outreach initiative.

Almost entirely run by volunteers, there are currently approximately 175 local Brain Bee competitions in more than 50 countries, engaging over 25,000 students across six continents every year. The culmination of this program is the international competition held every year in conjunction with major scientific conferences, providing an enriching experience for the participants and those who witness the event.

In early 2018, five major organizations dedicated to brain research and education came together with the Brain Bee Founder to support the formal establishment of the International Brain Bee organization (IBB), as a non-profit educational organization. Prior to that, the IBB operated and grew solely based on extraordinary volunteer commitments of time and resources.

The establishment of the IBB as a charitable organization will ensure the continued success of the Brain Bee initiative and help realize its full potential. This major milestone was made possible through multi-year funding commitments from five leading global neuroscience partner organizations: the American Psychological Association (APA), the Dana Foundation, the Federation of European Neuroscience Societies (FENS), the International Brain Research Organization (IBRO) and the Society for Neuroscience (SfN), in partnership with Dr. Myslinski.



The central IBB organization will formally link the efforts at the local, national and international levels, and build the Brain Bee brand as a globally connected initiative. The IBB Board will work closely with the committed network of volunteer coordinators around the world to ensure the effective implementation of the new organizational structure and continued success of the IBB globally.

Other former hosts of the World Championship include the Federation of European Neuroscience Societies, American Psychological Association (APA), IBRO, World Congress of Neurology, World Congress of Psychology, Canadian Neuroscience Society, and the International Society for Neurochemistry. The Dana Foundation and SfN have also been long-time partners in the Brain Bee initiative, as organizers of the New York City and Washington, DC Chapter Brain Bees, respectively.



About the American Psychological Association (APA)

The American Psychological Association (APA) is the largest scientific and professional organization representing psychology in the United States. APA's membership includes nearly 115,700 researchers, educators, clinicians, consultants and students. Through its divisions in 54 subfields of psychology and affiliations with 60 state, territorial and Canadian provincial associations, APA works to advance the creation, communication and application of psychological knowledge to benefit society and improve people's lives.

About the Dana Foundation

The Dana Foundation is a private philanthropic organization that supports brain research through grants, publications, and educational programs.

About the Federation of European Neuroscience Societies

The Federation of European Neuroscience Societies is the voice of neuroscience in Europe, representing 43 European national and single-discipline neuroscience societies, comprising 22,000 members.

About the International Brain Research Organization

The International Brain Research Organization (IBRO) is the global federation of neuroscience organizations that aims to promote and support neuroscience training, teaching, collaborative research, and advocacy around the world, representing more than 80 international, national, and regional scientific organizations.

About the Society for Neuroscience

The Society for Neuroscience (SfN) is an organization of nearly 37,000 basic scientists and clinicians who study the brain and nervous system.

About the Brain Bee Founder

Dr. Norbert Myslinski is a member of the University of Maryland's Department of Neural Pain Sciences in Baltimore. He has devoted his professional life to teach about the human brain around the world. He founded the Brain Bee 1998 and fostered its growth into a successful global initiative. In 2016, Dr. Myslinski was awarded the SfN Science Educator Award supported by the Dana Foundation.

- Host Conference -



All participants are granted the opportunity to attend the 10th World Congress of Neuroscience of the International Brain Research Organization at the EXCO Convention Center in Daegu. The IBRO Congress serves as a major international meeting in neuroscience, drawing attendees from every part of the world. The conference promises to be intriguing with a number of new technologies facilitating rapid development across many fields. Interdisciplinary research, as well, is changing the face of traditional science, incorporating different perspectives to complex systems.

IBB participants will interact with neuroscientists from across the globe during seminars, poster sessions, networking breaks, and exhibitions. Live demonstrations will present latest technologies and provide the chance for participants to personally experience the next wave of neuro- and biomedical sciences.

Attendance at all conference sessions listed on the agenda is mandatory for student participants, while adult chaperones are granted flexibility to select different activities throughout the conference experience. Participants are registered for the full conference.

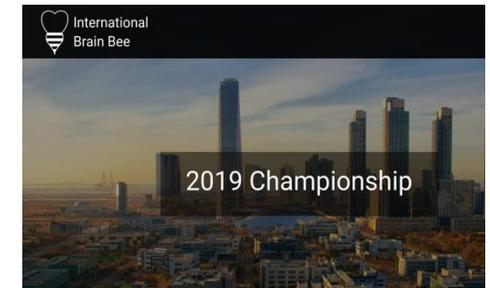
- Past IBB Champions -

- 1999: David Alpay: Earl Haig High School, Toronto, CANADA
2000: Otilia Husu: Mountain Ridge High School, UNITED STATES
2001: Arjun Bharioke: Churchill High, New Jersey, UNITED STATES
2002: Marvin Chum: Earl Haig High School, Toronto, CANADA
2003: Saroj Kunnakkat: Lynbrook H.S., New York, UNITED STATES
2004: Bhaktapriya Nagalla: Farmington High School, UNITED STATES
2005: John Liu: Michigan High School, Berea, Ohio, UNITED STATES
2006: Jong Park, UT High School, Toronto, Ontario, CANADA
2007: Melody Hu, Wayzata H.S., Minneapolis, UNITED STATES
2008: Elena Perry, Richard Montgomery H.S., UNITED STATES
2009: Julia Chartove, Richard Montgomery H.S., MD UNITED STATES
2010: Ritika Chohani, Prabhavati Padamshi Soni I.C., Mumbai, INDIA
2011: Thanh-Liem Huynh-Tran, Cate School, CA, UNITED STATES
2012: Teresa Tang, Brisbane State H.S., Queensland, AUSTRALIA
2013: Jackson Huang, Academy for Science and Tech, AUSTRALIA
2014: Gayathri Muthukumar, National Public School, Bangalore, INDIA
2015: Jade Pham, James Ruse Agricultural H.S., AUSTRALIA
2016: Ana Ghenciulescu, "Mihai Viteazul" College, ROMANIA
2017: Sojas Wagle, Har-Ber High School, Arkansas, UNITED STATES
2018: Piotr Oleksy, Liceum Ogólnokształcące High School, POLAND

- Stay Connected -

IBB Website

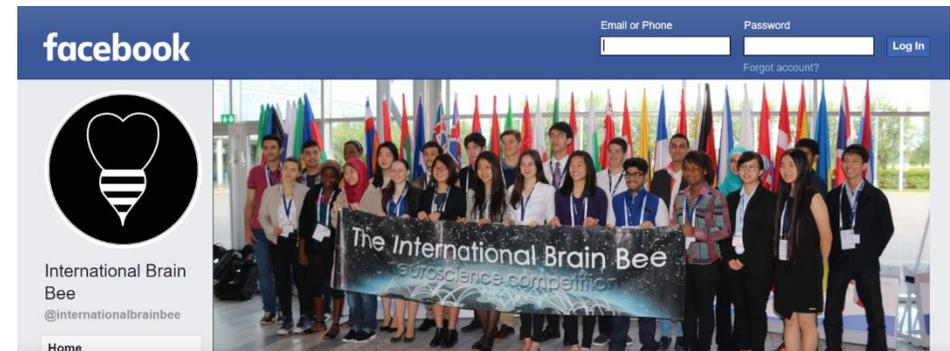
The 2019 IBB website provides event updates, judge profiles, event photos, and in-depth info: www.theBrainBee.org



Social Media

Competition news will also be shared as it unfolds on the public IBB Facebook page, so participants can share the link with friends and family back home to keep them updated!

www.facebook.com/internationalbrainbee and #ibro2019



International Youth Neuroscience Association

Students are encouraged to join IYNA at www.youthneuro.org.

On-the-ground Contacts

2019 IBB Co-Chair Dr. Julianne McCall

Email: 2019ibb@thebrainbee.org

Tel: +82/106.829.8328; WhatsApp +1.202.830.8310

2019 IBB Logistics Lead Dr. Chanel Matney

Tel: +1/443.205.5457

Daegu Tourist Helpline and Translation Service: +82/53.1330

Korea Emergency Line: 119

The International Brain Bee Organizing Committee is truly grateful for the generous academic and society partners which made this program possible:



Korea Brain Research Institute



Korean Brain Education Society



Ministry of Science and ICT



DAEGU METROPOLITAN CITY



DAEGU
Convention & Visitors Bureau



School of Dentistry
Kyungpook National University



**SOCIETY for
NEUROSCIENCE**



Federation of
European
Neuroscience
Societies



**AMERICAN
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Leadership Initiatives
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