(Publicity)

International Biology Olympiad

Tsukuba Science City welcomes IBO 2009

The 20th International Biology Olympiad will be held in Tsukuba City, Ibaraki Prefecture, from July 12 to 19.

The IBO is one of the International Science Olympiads, which are competitions for high school students from all over the world, and is being held in Japan for the first time. At the IBO, students are tested on their skills in tackling biological problems and carrying out biological experiments.

Up to four high school students, who are selected at their respective national competitions, will participate in the international competition. For IBO 2009, around 220 students from 56 countries and regions are expected to participate. Participants are accompanied by two team leaders, who act as judges.

The IBO aims at stimulating active interest in biological studies among secondary school students and expanding their talents, and promoting the exchange of knowledge in biology education between countries.

It also gives participants the opportunity to have international contacts and establish friendships with other biology students from around the world.

The students take a five-hour practical exam and theoretical exam. The theoretical exam consists of some 100 to 130 questions, which measure students' problem-solving abilities and understanding, not just knowledge.

After the students' performance and answers are examined by judges, who are biology professors, high school teachers, etc., high achievers in the top 10 percent, 20 percent and 30 percent will be awarded gold, silver and bronze medals, according to their individual scores. Last year's top three scorers were South Korea, China and the U.S.

The IBO 2009 opening ceremony will take place July 13 at the Epochal Tsukuba International Congress Center, followed by a welcome party. The practical exam and theoretical exam are July 14 and 16, respectively, at the University of Tsukuba. On July 15, 17 and 18, students will participate in excursions and cultural programs to foster international exchange. The closing ceremony will be July 18 at Epochal Tsukuba, where the medals will be presented, followed by a closing farewell banquet.

The event is hosted by the 20th International Biology Olympiad Organizing Committee, Japan Science Foundation and University of Tsukuba, supported by the Japan Science and Technology Agency, and a number of organizations and enterprises, and co-organized by Ibaraki Prefecture, Tsukuba City, Tsukuba Science City Network, Tsukuba Expo '85 Memorial Foundation, and the National Museum of Nature and Science. His Highness Prince Akishinonomiya, who is active in biological research, is the honorary president of IBO 2009.

The IBO originated from an international biology competition held between Czechoslovakia and Poland from 1985 to 1989. Seeing the positive experience in other International Science Olympiads, UNESCO asked the former Czechoslovakia to take the initiative in creating an International Biology Olympiad. For the first IBO, held in Olomouc, Czechoslovakia, in 1990, six countries (Belgium, Bulgaria, Czechoslovakia, German Democratic Republic, Poland and the Soviet Union) participated. Since then, the IBO has been held annually and the number of participating countries has been increasing steadily.

Other than the IBO, Japan participates in four International Science Olympiads — the Mathematical Olympiad, Physics Olympiad, Chemistry Olympiad and Olympiad in Informatics. The Mathematical Olympiad was held in Japan in 2003. In 2010, the Chemistry Olympiad will be held in Japan.

Symbolizing a brighter future

The IBO 2009 emblem symbolizes the talented young students soaring into the future from Tsukuba.

Its circular shape signifies friendship and peace, in the hope that participants from all over the world establish international exchange and friendship. The circle also stands for the sun in the Japanese flag, indicating the host country Japan, with a five-petal cherry blossom. The white mountain silhouette is Mount Tsukuba, the symbol of Tsukuba City, the venue of the event.

The basic color, "Ibaraki Blue," represents the wide sky and the vast waters of Ibaraki Prefecture's Lake Kasumigaura.

The bird in the emblem is an albatross (Pheobastria albatrus). The population of this species dropped sharply because of overhunting, and its habit is limited to the Torishima and Senkaku islands today. However, its numbers have recovered to 2,500 as a result of conservation activities mainly by Japanese researchers. Because the bird has recovered from the verge of extinction, the motif is employed in the emblem as it shows the spirit of the IBO, which hopes to enrich education and the environment. Also, the bird's migration across borders is a link to the cross-border international exchange of participants.

In the footsteps of science pioneers

Hiroo Imura
CHAIR, 20TH INTERNATIONAL BIOLOGY OLYMPIAD ORGANIZING COMMITTEE

Hiroo Imura

This year marks the 150th anniversary of the publication of Charles Darwin's "On the Origin of Species," presenting the theory of evolution. I am very happy to see in this memorable year Japan hosting the 20th International Biology Olympiad 2009 (IBO 2009), supported by many private companies as well as the government.

A half-century after James Watson and Francis Crick discovered the double-helix model of DNA structures, man in 2003 finally completed decoding the human genome. What we were made aware of through the research of genes is how astonishingly "uniform" and yet how astonishingly "diverse" the innumerable species of life on Earth are. This exquisite system must be a secret that has enabled life on Earth to weather many major upheavals of the global environment and evolve in the period of some 3.7 billion years from the birth of life on the planet.

In the next 50 years, it is likely that human beings may be able to perfectly unravel the mechanism of life, and apply the knowledge learned from it to medicine, health, food and the environment, allowing human beings to flourish. I am certain that senior high school students who get together from around the world will play leading roles in the research.

I hope that people throughout the world pay keen attention to IBO 2009 in Tsukuba Science City, Ibaraki Prefecture.

Reaching for the sky: The University of Tsukuba, located in the heart of Tsukuba Science City, and Mount Tsukuba, the symbol of the city UNIVERSITY OF TSUKUBA

Tsukuba Science City: Japan's research heart

Tsukuba City, the venue of IBO 2009, is known as Tsukuba Science City, the nation's research core. There are some 13,000 researchers working in 300 research institutes and companies.

The whole city of Tsukuba was redeveloped as a government project following Cabinet approval in 1963. By 1980, most of the scheduled city development and relocation of government research institutions, universities and other facilities was completed. The private sector quickly followed. The city has a population of approximately 200,000 people.

The city is located 60 km northeast of central Tokyo and 40 km northwest of Narita International Airport. From Tokyo there are highway bus services connecting the two cities in 60 to 80 minutes and the Tsukuba Express rail line, which was opened in 2005. The opening of the rail link, which connects the two cities in only 45 minutes, has brought Tsukuba a new stage of development.

The University of Tsukuba, one of IBO 2009's host organizations, and the venue for theoretical and practical exams, opened its campus in Tsukuba Science City in 1973, and plays a core role in the area. Spreading over 258 hectares, it is Japan's largest university, and has 16,000 undergraduate and graduate students.

Japan's representatives aim for gold

Japan participated in the IBO for the first time in 2005 in Beijing.

The number of applications for domestic selection has risen during the four years since the last event and the results at the international competition are getting better each year.

Students representing Japan are selected via the "Biology Challenge" competition, organized by the Japan Biology Olympiad Committees. For IBO 2009, four students, selected from 2,482 applicants through three stages of screening, will participate. The four representatives received special training from December until last month, in the hope of winning Japan's first gold medal.

Ryota Otsuki, a second-year student at Chiba Prefectural Funabashi Senior High School: "Since I was small I've liked insects and other forms of life, and became interested in biology. To be honest, I'm really surprised I was chosen, but I will do my very best, aiming to win Japan's first gold medal."

Atsuhito Nakayama, a first-year student at Nada Senior High School, Hyogo Prefecture: "I'm very happy. I would like to study harder and show the world Japan's real strength. And I would also like to exchange views with high school students from all over the world about our common interest, biology."

Ayako Yanaka, a first-year student at Oin Senior High School, Tokyo: "I simply applied to test my ability and never expected to be selected. I am delighted. Working hard, I will do my utmost."

Mai Yamakawa, a second-year student at Oin Senior High School, Tokyo: "The most important reason why I am here is my fortunate encounter with a good mentor at the school's biology club. After going through the final screening, I felt there would be many more things I could do. I will do my best."

Building cross-cultural understanding

Providing students with opportunities for international experience and cross-cultural understanding is one of the important aspects of the IBO. Each year, the host country introduces in various ways the nation's culture, tradition and biological features.

For IBO 2009, participants will travel to Tochigi Prefecture's Nikko City, a popular sightseeing spot. They will visit Nikko Toshogu Shrine, one of the most important buildings in Japan's early-modern period, which was designated as a UNESCO World Heritage site.

To provide a glimpse of Japan's plant and animal life, they will also visit the Nikko Laboratory of the Fisheries Research Agency on the shores of Lake Chuzenji in Nikko. At the laboratory, set in a deep forest, visitors can observe and study a variety of freshwater fish, including rare species such as "ito."

At the welcome party on Monday, July 13, original sushi, created by a Japanese high school student will be served. The sushi won first prize in the high school students cooking contest held in June as an IBO pre-event. Contestants had to create menus that introduce Japanese food using the delicacies of Ibaraki Prefecture, which has a variety of local specialties.

As part of the recreational activities, a "Tsukuba Night" will be held on Thursday, July 16, in cooperation with Tsukuba City. A traditional Japanese summer festival will be re-created with all the attractions, such as Bon and Yosakoi dancing, a "mikoshi" portable shrine and parade of floats, and stalls serving "yakisoba (stir-fried noodles)," "takoyaki (octopus dumplings)," etc. Award-winning menus from the cooking contest will also be served at the stalls.

Made in Japan: Nikko Toshogu Shrine's Yomeimon gate (above); a pond of rainbow trout at the Nikko Laboratory of the Fisheries Research Agency (above right); and original sushi, which will be served at the IBO's welcome party
NIKKO TOURIST ASSOCIATION, FISHERIES RESEARCH AGENCY, JAPAN SCIENCE FOUNDATION

We support The 20th International Biology Olympiad 2009 Tsukuba Japan.

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