

## Detailed Project Description

### **Project overview:**

The World Biotech Tour (WBT) showcases the role of science centers in bringing together key stakeholders to promote understanding of a relevant societal issue: biotechnology. By involving students, teachers, science center professionals and the general public in hands-on activities and discussions about key issues pertaining to biotechnology, the WBT will demonstrate the relevance, excitement and wonder of biotechnology in a fun and exciting way.

From 2015-2017, the Association of Science-Technology Centers (ASTC) and Biogen Foundation will partner to bring the WBT to 12 selected international science centers for 3-day science festivals focused on the theme of biotechnology. Science centers participating in the WBT will provide a culturally unique visitor experience through several activities developed and hosted at each site. Selected science centers are awarded **\$25,000 (USD)** to fund WBT activities and programs throughout the active tour year (January – November).

### **3-DAY BIOTECH FESTIVAL**

Each participating science center will host a 3-day science festival with a biotechnology theme at their center. The festival should include several events, including an **opening ceremony** that involves the WBT trophy exchange, as well as any additional events each center develops on their own to make the festival a culturally unique experience. Planning for the event should include the Biogen Foundation and ASTC in several mandatory meetings leading up to the festival. Below are the minimum required activities each center must host during the 3-day event:

- **Hidden Biotech Scavenger Hunt**

**Did you know biotech is all around us, even though we don't see it right away? Guide visitors in exploring the hidden biotech in your center's exhibits.**

Detailed description - Museum staff will re-visit their center's permanent and visiting exhibits to find the "hidden" biotech topics. This will give staff the opportunity to re-explore their own exhibits and view it from a different perspective. It reminds us that biotechnology is all around us and we interact with it on a daily basis. By taking a new look at exhibits that at first glance may not seem biotech related and discovering the hidden biotech in them we begin to learn how we can perceive the world in this new light as well. Each center will then guide visitors through the same process by developing a self-guided or guided scavenger hunt through the center's exhibits to look for hidden biotechnology.

- **Science Café**

**Want to learn from real scientists? Host an open forum discussion with guest science speakers.**

Detailed description – Invite guest scientists to come give a short talk about their field of expertise or the current advances and discoveries in biotechnology. Visitors can learn about what's new and exciting in current research and ask questions directly to the scientist. Most members of the public rarely get the chance to speak directly to the people conducting research which builds a division between them and biotechnology. By connecting people with scientists directly we can empower the public to actively learn about biotechnology and how it affects their lives. Centers are suggested to reach out to local universities and Biogen employees.

- **Meet-a-Scientist**

**Invite a scientist to present activities to the public about their research. Get a chance to work alongside a real biotech scientist.**

Detailed description – Similar to the Science Café but less formal. Have a scientist set up an activity station at the museum in which they will guide visitors through the activity and discuss the biotechnology and science behind the activity. Centers are suggested to reach out to local universities and Biogen employees.

- **Lab-in-a-Box**

Science centers will use the three ASTC-designed activities provided in each box during events. Resources will also be available for download at the WBT microsite, [www.WorldBiotechTour.org](http://www.WorldBiotechTour.org).

Detailed description – ASTC will design hands-on activities that will be provided in boxes/kits for each museum site. These activities can be used at any of the WBT events and be accompanied by the center's own biotech activities. The activities will cover the basic foundations of biotechnology research, the excitement of biotech innovation, and the social global impact biotechnology has in all our lives. The activities by no means cover the broad breadth of biotechnology but are a way to scaffold the key messages of biotechnology and the spirit of the WBT. Each center is encouraged to develop their own activities and presentations to compliment the lab-in-a-box activities and to make their WBT event unique to their country's site.

- **Suggested 3-day festival schedule**

**The 3-day festival will impact the different kinds of visitors informal science institutes impact: School groups and students, families, and the community.**

Detailed description – A suggested schedule for the 3-day science festival is:

Friday – Activities geared towards school groups and students

Saturday – Activities geared towards families and the general public

Sunday – Bring the activities outside of the center and out to the community

## **AMBASSADORS PROGRAM**

Each center will assemble a select team of youths (15-18 year olds) to develop and present a biotech topic of their choice. They will present their topics to museum guests, schools, and community members and should have a large presence during all WBT events.

- **Mentor**

**Ambassadors will partner with a mentor (staff member, Biogen employee, teacher, etc) who will assist the teen in researching and training on how to communicate to the public.**

Detailed description – Each center will help pair a teen with a biotech mentor. The teens can work with their mentors on how to research a biotech topic, what kind of presentation to create, and how to present their topic to the public. The ambassador can also develop a hands-on activity related to their topic and facilitate the lab-in-a-box activities during WBT events.

- **Present**

**Ambassadors will present their biotech topics to (a) museum guests, (b) 3 local schools, and (c) at a community center/event.**

Detailed description – Once the ambassadors have created a presentation and/or activity based on a biotech topic they must communicate their research to the public. Besides presenting at the museum, ambassadors are encouraged to go out to their community and local schools. Their mentors and museum staff will help coordinate presentation opportunities at local schools and community center.

- **Virtual Exchange**

**Ambassadors converse with ambassadors from other participating centers around the world using online communication channels (Yammer, Google Hangout, social media).**

Detailed description – A big focus of the project is to foster global collaboration. Ambassadors from each museum site will connect with other ambassadors around the world to discuss their ideas and experiences being a part of the WBT. They can exchange activities and stories about their research and presentations and teach each other about the cultural differences and perceptions each country has towards biotechnology.

- **World Summit 2017**

**Nominate an outstanding ambassador to represent your center's WBT program at the 2017 World Summit event in Tokyo, Japan**

Detailed description – At the end of each year, participating centers will be able to nominate one outstanding ambassador to attend the World Summit event in Tokyo, Japan. The summit will be the culmination of the 3-year project and will show to the world the results of the tour. These outstanding ambassadors will present their biotech topic (in person and through a video) and discuss their experience in the WBT to leading figures in the field.

## **COMMUNITY OUTREACH**

The project aims to bring biotech out to the community instead of only catering to those that visit museums.

- **Communicate**

**Use social media and other communication channels to update community members on events and activities**

Detailed description – The WBT strives to be a global phenomenon. To quickly disseminate information to the world there will be a strong emphasis on using social media to engage people from all the around the world. Social media can include Facebook, Twitter, Instagram, and other local media. This will also include updates on the WBT social media outlets. When possible, science centers should attempt to attract local media (TV, print, or online) to cover and promote WBT events and activities.

- **Participate**

**Recruit ambassadors, center staff, community volunteers, local university staff, and Biogen staff to participate in WBT activities.**

Detailed description – The WBT involves engaging and connecting members of the biotech community with the public and information science institutes. Each center is encouraged to reach out to local universities and biotech companies to volunteer and participate in all WBT events, including mentoring ambassadors. Volunteers should be recognized at each event for their participation and commitment to the WBT.

## **REPORT**

Submit periodic reports on program progress

- **Evaluate**

**Select a local evaluator to report on program progress and visitor reactions to WBT events.**

Detailed description – Another purpose of the WBT is to evaluate how a global project is received and how people react to the biotechnology theme. The data collected from each year will be used to improve the following year's program. The final report will show all partners the successes and challenges to a project like the WBT. Each center will select a local evaluator, but the evaluator will be funded through ASTC's budget.

- **End-of-year Webinar**

**Participate in an online seminar with the other WBT sites, ASTC, and Biogen to share individual program events and feedback**

Detailed description – Evaluation at the end of each year is essential for the future success of the program. At the end of each project year the participating sites will participate in an online webinar hosted by ASTC where all partners will discuss the successes, challenges, and suggestions for the project.

## **CONTACTS**

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# World Biotech Tour

Powered by BIOGEN IDEC FOUNDATION & ASTC

## 3-Day Biotech Festival

Host a 3-day science festival on biotechnology

### Student activities

Activities at the science center geared towards school groups  
*\*Friday*

### Family activities

Activities at the science center geared towards families  
*\*Saturday*

### Community activities

Take the activities to the community and streets  
*\*Sunday*

### Exhibit Scavenger Hunt

Guide visitors in exploring the hidden biotech in your museum's exhibits

### Science Cafe

Host an open forum discussion with guest science speaker

### Meet-a-Scientist

Host a scientist "meet & greet" where guests can speak/Q&A with a biotech scientist at the museum. The guest scientist may bring an activity to engage visitors

## Ambassadors Program

Assemble a team of local youths (15-18 years old) to develop and present a biotech topic of their choice to science center guests, schools, and community members

### Mentor

Ambassadors will partner with a mentor (staff member, Biogen scientist, teacher, etc) who will assist in researching and training how to communicate to the public

### Present

Ambassadors will present their biotech topics to (a) museum guests, (b) 3 local schools, and (c) at a community center/event

### Virtual Exchange

Ambassadors converse with ambassadors from other participating centers around the world using online communication channels (Yammer, Google Hangout, social media)

### World Summit 2017

Nominate an outstanding ambassador to represent your center's WBT program at the 2017 World Summit event in Tokyo, Japan

## Community Outreach

Bring biotech out to the community throughout the year

### Communicate

Use social media and other communication channels to update community members on events and activities

### Participate

Recruit ambassadors, center staff, community volunteers, local university staff, and Biogen staff to participate in community activities

### Report

Submit periodic reports on program progress

### Evaluate

Select a local evaluator to report on program progress and visitor reactions. *\*ASTC*

### End-of-Year Webinar

Participate in an online seminar with the other WBT sites, ASTC, and Biogen Idec to share individual program events and feedback

## Lab-in-a-Box

Science Centers will use the three ASTC-designed activities provided in each box during events both at and outside the center. Resources will also be available and downloadable at the WBT microsite

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