



Kansas science competition to feed International BioGENEius Challenge *Engaging future scientists in cutting edge biotechnology research*

August 17, 2010 -- KansasBio, in partnership with the Biotechnology Institute, will operate the Kansas BioGENEius Challenge in March and April 2011, sending winning entrants to the national competition in Washington, D.C., prior to the BIO Convention in June 2011.

What kind of projects are successful: A model example of the caliber of research done by winning entrants is that of 2010 top winner Raina Jain of Bethlehem, Pennsylvania. Raina's project was "Engineering Glass Bone Implants to Enhance the Adhesion of Precursor Osteoblast Cells" and investigated whether cells adhere better to rough or smooth surfaces of Bioglass, an implant material that turns into bone over time and is commonly used in ear and dental implants. In recent years, students have done research on groundbreaking topics from optical tweezers to advance detection of resistant bacteria in hospitals to microbial fuel cells.

Process...How KansasBio will launch our competition: After discussion with the Institute about its plan and timeline, KansasBio was named as one of ten states to roll out a state competition in conjunction with the Biotechnology Institute. KansasBio will work with its local ISEF-affiliated science fairs for a BioGENEius award within or adjunct to the fairs, using the established mechanism for discipline competitions within the fairs (Kansas City Science and Engineering Fair and the Kansas State Science Fair). Fairs provide rules and requirements, and the Institute will advise on communication with the fairs as needed. The Institute will also provide branding guidelines for naming and recognition of local sponsors so KansasBio will begin fundraising in August. In September, the Institute will provide marketing materials (a mailer, e-flier, email call for projects) targeted to students and teachers, and KansasBio will develop a marketing plan for outreach to students and teachers, with guidance from the Institute. Students will be directed to the Institute website to apply starting in September. Marketing to students and fundraising efforts will continue from September until the February 18th and March 4th application deadlines.

In October, KansasBio will begin to recruit judges from industry, secondary and post-secondary educational institutions. Local judges will include scientists, educators and biotech industry and community leaders and be recruited by February. The local BioGENEius competition will take place in March/April in coordination with KansasBio's affiliate fairs. Up to 3 winners from Kansas BioGENEius Challenge will be selected to present their research in poster and oral presentations at the U.S. National BioGENEius Challenge in Washington prior to the BIO convention.

The Biotechnology Institute will also make the U.S. National BioGENEius competition available to students who are not in areas from which the local competitions draw. These students will

apply directly to the Institute through the online application process. The Institute will convene a panel of judges to select 15 additional student delegates to join local BioGENEius winners in the U.S. National competition.

A maximum of 45 delegates will compete in the 2011 National competition, which will take place two days prior to the BIO convention.

The top 10 U.S. National winners will compete in the International Challenge with students from around the world immediately after the U.S. Nationals. The Institute will host the 2011 U.S. National and International competitions which will take place on June 24-25, 2011 and June 26-27, 2011 respectively. All National competitors will be encouraged to stay for the International awards ceremony on June 27.

KansasBio will:

- Develop a working relationship with local and state ISEF-affiliated science fairs: the Kansas City Science and Engineering Fair and the Kansas State Science Fair
- Develop and market the Kansas BioGENEius competition and awards
- Raise funds to support the Kansas BioGENEius competition
- Recruit local science fair competitors to apply for the BioGENEius competition
- Provide all competitor application information to the Biotechnology Institute
- Recruit a panel of judges to review projects and select 3 winners to attend U.S. National BioGENEius competition
- Provide travel and accommodations for winners plus chaperone(s) to attend National BioGENEius competition prior to BIO convention
- Celebrate the winners and award prizes

Kansas BioGENEius Challenge Overview

- KansasBio's judges will choose three winners from the Kansas City Science and Engineering Fair in March 2011.
- KansasBio's judges will choose three winners from the Kansas State Science Fair in April 2011.
- KansasBio's judges will interview each of the six winners in April 2011 and select up to three statewide winners of the Kansas BioGENEius Challenge who will go on to compete in the U.S. National BioGENEius competition in Washington DC in June 2011.
- Each fair winner (6) will be awarded a cash prize.
- Each teacher of the winners (6) will be awarded a cash prize.
- The winners (6) and teachers (6) will be invited to present their posters at the May 2011 KansasBio Board of Directors meeting, where they will be recognized for their outstanding achievements.
- The statewide winners will be provided with additional scholarships and awards so they and their chaperone(s) may attend the US National BioGENEius competition in Washington DC in June.
- *Additional details will be provided in October with the on-site and videoconferencing meetings with school, teachers, and students.*