



Gelfand Science and Engineering Fair Program

Case Western Reserve University

May 2012

2011-2012 saw a record number of schools and students participating in the Gelfand Science and Engineering Fair program. The program funded science fairs in 21 schools including an entire high school (Shaw High School - more than 1,000 students). In addition, we initiated a new collaboration with the Cuyahoga County Library system, supporting science fair activities in 8 of their after school homework centers. Final reports from the funded sites are not due until late May, but we predict the program impacted more than 5,000 students in northeast Ohio.

Under the leadership of James Bader and Nancy DiIulio, 20 CWRU undergraduate and graduate students were trained as Gelfand Fellows during the 2011-2012 school year. Feedback from teachers in schools where Fellows worked has been overwhelmingly positive, and in many schools, the Fellows have become the core of the science fair program. We are proud to report these students continue to be excellent role models in the community and outstanding ambassadors for the program and the university.

On May 24, the first (annual we hope) Gelfand Expo will take place. Unlike a traditional science fair format, this event is intended to raise the quality of projects through a combination of fun and learning for the participants.

The Gelfand Expo will be limited to 5th and 6th graders because these students (1) typically do individual rather than class projects, (2) have ample time in their academic careers to benefit from the experience, and (3) are not old enough to be eligible to attend the Northeastern Ohio Science and Engineering Fair (NEOSEF). We invited schools that include 5th and 6th grades to send 10 students to participate and we expect 98 students on campus for this event.

In the morning session, students will be mixed by school and broken up into small groups of 8- 10. Each group will be facilitated by a Gelfand Fellow or CWRU graduate student and a high school student. This session is intended to be a learning experience about what constitutes a good project. Students will bring their projects and will be asked to look for examples of projects that ask excellent questions, are quantitative, included appropriate experimental design, data presentation, conclusions drawn from evidence, aesthetically pleasing layouts, etc. We hope that by seeing and getting to talk about other projects (things they typically can't do at a regular fair), students will produce higher quality projects next year.

Following the learning session, participants will hear a short presentation by a high school student winner at NEOSEF and who was selected to participate in the Intel International Science and Engineering Fair. The purpose of this session is to provide a role model from a near peer who has done some very interesting work. The emphasis will be more on the thought process than the actual content.

After a delicious boxed lunch, we will re-convene the groups from earlier in the day and give them a design/building challenge that will require teamwork and some level of creativity. It should be chaotic and lots of fun.

Looking ahead to the 2012-2013 school year, we anticipate sufficient funds will be available from

previous awards to fund the program for another year. We should be able to fund at least 20 schools and 20 Fellows through existing funds. For the 2013-2014 school year and beyond, the Gelfand Science and Engineering Fair program will be coordinated by the newly established Gelfand STEM Center at Case Western Reserve University and will be funded through the endowment of the Gelfand Family Charitable Trust.

On behalf of my colleagues Nancy DiIulio and Kathy Kwiatkowski, I thank the Gelfand family for their prior support and the belief they have shown in the university to further STEM education through their generous support.

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