



LOUISVILLE REGIONAL SCIENCE FAIRS, Inc.

Louisville Regional Science Fairs News Update: Fall 2008

Janine R. Mura, Newsletter Editor

Visit LRSF on the Web at www.LRSF.org

45th Annual Louisville Regional Science Fairs
Saturday, March 14, 2009
University of Louisville Student Activities Center
Project entry deadline: Friday, February 6, 2009 at 6:00 pm

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Message from the Fair Director

The 45th edition of the Louisville Regional Science Fairs (LRSF) will be held Saturday, March 14, 2009 at the Swain Student Activities Center complex, on the Belknap Campus of the University of Louisville.

Students from the 12-county region will again have the opportunity to show off their projects and compete for cash and scholarship prizes. We expect over 300 students to participate. Most are already working on their projects and we wish them the best.

This year, in May, 31 high school students (including 8 from our Fair), and 18 teachers and fair directors from across Kentucky, attended the Intel International Science and Engineering Fair (ISEF) in Atlanta, Georgia.

TEAM KENTUCKY contestants at ISEF were awarded approximately \$7,000 in cash and scholarships in this international competition, involving some 1500 students from about 50 countries. In addition, the competitors met others interested in science and technology and had the opportunity to make friendships that will last a lifetime.

The University of Louisville gave LRSF the opportunity to award full tuition scholarships to the 8 high school student overall winners (see page 5). We thank U of L for their continued participation this year.

(Continued on page 2)

**Are you considering entering LRSF for the first time in 2009?
See page 4 for some hints on how to P.R.E.P.A.R.E.**

Message from the Fair Director (cont'd)

Teachers entering students into our Science Fairs passed along a capable and competitive group of students to ISEF. Those teachers that had the opportunity to accompany their student Finalists to Atlanta with me did a great job of supporting students and their projects, and serving as chaperones.

I will again be working with teachers this year to help them understand our processes and to provide information and other help with rules, pre-approvals, judging, etc. If you need help, let's talk. If you know of another school or teacher who would like help, please pass along my contact information.

For ISEF 2009, and all affiliated fairs, there have been a few more rules revisions. Details can be found at www.societyforscience.org/isef/index.asp. Primarily the changes are clarifications. A few form updates have been made.

The ISEF categories remain unchanged for 2008. New for this year: the LRSF categories will be identical to the ISEF categories, as listed at right.

Also, beginning this year, students must complete their formal project presentations within 5 minutes. This is to make sure all students and projects have equal time "at bat," given the limits on judging time.

We are modifying and updating our LRSF forms, and they will be posted on our Web site at www.LRSF.org at a later date. Watch for more details in future newsletters.

As we move forward during this year, please contact me at joelgittelson@bellsouth.net or call if you need any information.

Also, please visit www.LRSF.org and check out what is available on-line. We have included information about our Fair as well as links to other informative website sources.

Joel Gittelson (502) 454-4457

Fair Participant Information

The Louisville Regional Science Fairs are open to students in **grades 6 through 12** in all public, private, parochial, and home schools in **12 Kentucky counties:**

Anderson, Boyle, Bullitt, Hardin, Jefferson, Marion, Mercer, Nelson, Oldham, Shelby, Spencer, and Washington.

Competitive Divisions

Junior: Grades 6, 7, 8.

Senior: Grades 9, 10, 11, 12.

Categories

Each school may enter *three* exhibits in the following categories:

- Animal Sciences
- Behavioral and Social Sciences
- Biochemistry
- Cellular and Molecular Biology
- Chemistry
- Computer Science
- Earth and Planetary Science
- Energy and Transportation
- Engineering: Electrical & Mechanical
- Engineering: Materials & Bioengineering
- Environmental Management
- Environmental Sciences
- Mathematical Sciences
- Medicine and Health Sciences
- Microbiology
- Physics and Astronomy
- Plant Sciences

Team Projects

A team project is defined as a study conducted by *two* or *three* students in any discipline. As in 2008, two team projects from each school may enter.

Please refer to the ***International Rules and Guidelines for Precollege Science Research*** (described on page 3 of this newsletter) for special team project rules.

Science Fair Rules

A booklet entitled *International Rules and Guidelines for Precollege Science Research, 2008/2009* is available at:

www.societyforscience.org/isef/document/completerules2009.pdf

Links to **individual topics** in this booklet are listed at the bottom of the [ISEF Rules Page](#).

Each teacher participating in the Fair should download this information. Because the Regional Fairs are affiliated with the ISEF, we must operate according to these rules. Use the [Rules Wizard](#) on the ISEF website to help with required forms.

It is very important that every teacher and student follow the **current 2008/2009 rules** which apply to his or her area(s) of research. Do not use rules from a previous year.

Note that each school is required to set up a **Scientific Review Committee (SRC)** and an **Institutional Review Board (IRB)** to review all proposed student research. Click [here](#) and scroll down to "SRC and IRB Review Boards" for detailed guidance.

Tips for Selecting a Project Subject

Two helpful suggestions...

(1) As your student thinks about her/his science project subject selection, they should consider that projects involving animals, tissues, human subjects, possibly dangerous materials, etc. will potentially require **more forms to fill out** for regional science fair entry, greater adult project **supervision**, and more work to be done in regulated research facilities under qualified scientist supervision.

The **Rules and Guidelines** booklet (see above) will provide the necessary detailed information. The **ISEF "Rules Wizard"** at www.societyforscience.org/isef/students/wizard/index.asp is another helpful source.

(2) To avoid non-correctable issues later on, it is suggested that things happen in the proper sequence and that forms are appropriately signed and dated. As an example, projects involving animals will need pre-approvals.

The **Research Plan** should be the first document completed. This, along with the required pre-approval forms, should be submitted to the approving body/persons and returned with approving signature/s and dates **BEFORE** any actual project work is started.

Without the details in your Research Plan, the approving persons will not have enough information on which to base their decisions.

Application Process and Timetable

February 6, 2009 – Deadline for entry into Louisville Regional Science Fairs.

Plans for an [online entry process](#) are underway, though not yet finalized. Details will be announced later. There will still be a requirement to submit paper documents with signatures.

Completed **Student Entry Forms** must be in the hands of Amy Sprinkle, Assistant Fair Director, by **Friday, February 6, 2009, at 6:00 pm. No exceptions will be made.**

To submit your forms, or ask any questions about application procedures, please contact Assistant Fair Director **Amy Sprinkle** at:

1042 Franelm Road
Louisville, KY 40214-4627
Phone: (502) 213-7312
E-mail: amy.sprinkle@kctcs.edu

LRSF – UofL, Saturday, March 14, 2009

KY-SEF – Eastern Kentucky University, Saturday, April 4, 2009

ISEF – Reno, Nevada, May 10-15, 2009

**New Teachers:
P.R.E.P.A.R.E. for the 2009 LRSF**

Are you considering entering student projects in the 2009 LRSF? Have you thought about it in the past, but had concerns that the entry process would be difficult or involve too much paperwork?

The LRSF has drawn a consistently strong field of projects each year from several of the excellent schools in our Kentucky region. **We welcome all schools who would like to be a part of this experience.** There are plenty of awards and learning experiences to go around!

In 2008, five (5) schools participated in the LRSF for the first time, plus one who had joined LRSF in 2007 with only a single project entry. **Students from these “newcomer” schools earned these awards at LRSF:**

- A First Place Best of Fair
- Three (3) Second Place category awards
- Two (2) Third Place category awards
- Two of these schools also tied for 3rd Place in the Overall School Awards for their division.

Plan now to join our event in March 2009!

Here are some ideas and hints to help you **P.R.E.P.A.R.E.:**

Project Selection. Some projects typically require more forms, more adult project supervision, and more work to be done in regulated research facilities supervised by a qualified scientist.

Such projects often involve microorganisms, animals, tissues, human subjects, or hazardous materials. Simpler may be better.

Rules Wizard. This online guide at www.societyforscience.org/isef/students/wizard/index.asp walks you through questions about a student's proposed project, then tells you what forms and approvals you will need before beginning work on that project.

You'll print the output to include in the LRSF application packet.

Early Start. Begin considering project ideas and science fair logistics during summer or early fall – especially if you are planning a school science fair – so there is time to complete forms, obtain any pre-approvals, and make plans.

Typically the LRSF application deadline is in early February.

Plan the Research. The Research Plan is the first document to be created and approved, before starting any project work.

It's straightforward, consisting of: 1) the question being addressed, 2) hypothesis, problem, or engineering goals, 3) detailed description of procedures and data analysis, and 4) bibliography.

Approvals. Three (3) LRSF forms, plus a Teacher Tally sheet, and three (3) ISEF forms are the basics for all projects.

The Rules Wizard will list other approval forms if a project needs additional scientific review (see “Project Selection” above).

Important: Obtain any required pre-approvals before the project work begins.

Resources. Mr. Joel Gittelsohn, LRSF Fair Director, is available to answer any questions you may have.

Visit www.LRSF.org throughout the school year for forms, information, and links to useful Web sites.

Embark on the Project. Employ the scientific method, Enlighten the students, and Everyone Enjoy the scientific inquiry process!

Special note about **Project Categories:** The 17 categories listed on page 2 are described in more detail on the ISEF Web site at http://www.societyforscience.org/isef/students/research_categories.asp.

At LRSF, projects are not divided further into the **sub-categories** shown, but you can get an idea of the types of projects in each category.

Intel ISEF Finalists

Two students from the life sciences, two from the physical sciences, and two teams will be selected as Finalists to represent the Louisville Regional Science Fairs at the **59th International Science and Engineering Fair** to be held in [Reno Nevada, May 10-15, 2009](#). Travel expenses of the students and their teachers will be provided by LRSF.

We congratulate our **2008 ISEF finalists** who competed in Atlanta, Georgia this May:

- Chenguang “Caden” Mu, Ballard HS
- Christiane Hoyle, Ballard HS
- Tony DelGrosso, Ballard HS
- Patrick Rademaker, St. Xavier HS
- Corey Hall and Mazie Walthall (team), Christian Academy of Louisville
- Ashley Fields and Kristin Fields (team), Ballard HS

Chenguang “Caden” Mu from Ballard High School won a **Fourth Award** at ISEF in the Medicine and Health Sciences category.

His project, [“Green Tea's Anticancer Effect on SK-MEL-2 Human Melanoma,”](#) also won first place in the LRSF Life Sciences Fair, Senior Division.

Chenguang is a senior at Ballard High School. His after school schedules are filled with community services and club activities such as NHS, Mu Alpha Theta, Guitar club, French club, and Science Fair. Although he is taking many challenging classes, he is able to maintain a 3.8 GPA.

In his spare time, Chenguang likes to play music with his guitar and enjoys volunteering at UofL, the place that made his science fair project possible. He wants to major in pharmacy and become actively involved in the field of medicine when he goes to college.

Society for Science and the Public Middle School Program

The **SSP Middle School Program** is a U.S. national science competition for science fair participants in grades 5–8. 300 semifinalists and then 30 Finalists are selected annually to participate in the finals of this competition.

Gathering in Washington, D.C. each October, the Finalists present their projects to judges, fellow students and the public. In addition, Finalists work in teams on a variety of scientific experiments to judge their science, reasoning and communication skills.

LRSF nominates middle school students to this program based on their achievements in the **Junior Division** at our Fairs. Nominees submit an on-line entry form by June, with semi-finalists and finalists announced at the end of the summer.

We will have the opportunity in 2009 to nominate the top 10% of our middle school students for this competition.

Awards & Scholarships

The Science Fair gives first, second, and third place **cash awards** to winners in each category, in Junior and Senior Divisions.

There are also government agencies, professional organizations, and corporate sponsors that give **Special Awards**.

The University of Louisville has made full tuition, renewable, four-year **scholarships** available to winners in the Fairs: Two in the Life Sciences, two in the Physical Sciences, and one for each of the students who have the winning Team Projects.

To qualify for the scholarships, students must:

- 1) Meet UofL eligibility criteria, be admitted to the university, and attend UofL beginning with their freshman year.
- 2) Maintain a minimum 3.0 GPA for renewal.
- 3) Be selected as an ISEF Finalist from the Fairs.