



Michigan Society
for Medical Research

BioFocus

A Newsletter Exploring Science & Biomedical Research Issues For School Educators

Vol. 1, Issue 4, Fall 2002

Our Mission

The Michigan Society for Medical Research (MISMR) is a nonprofit educational organization that supports biomedical research and testing and the judicious use of animals in research, education, and testing in the interests of human and animal welfare. Established in 1981, MISMR is made up of the state's leading research universities, teaching hospitals, pharmaceutical companies, voluntary health organizations, and hundreds of scientists, educators, and students who understand and support the importance of animal research and testing in advancing health care and treatment.

MISMR Educational Projects & Activities

ANNUAL ESSAY CONTEST

Each year, MISMR sponsors an essay contest for all Michigan middle and high school students. Students from well over 500 schools in the state have annually participated in the contest to address the benefits of biomedical research. Prizes are awarded.

SPEAKERS BUREAU

MISMR volunteers visit K-12 schools and civic community groups through out Michigan each year to educate the public about biomedical research and to dispel commonly held myths.

ANNUAL SYMPOSIUM

MISMR's popular annual meetings have often proved to be "standing room only", typically attracting local and national educators and researchers with interactive training workshops and presentations promoting biomedical research.

HUMANS & ANIMALS ENRICHMENT PROGRAM

Designed for elementary school students, the Humans & Animals Enrichment Program increases awareness for students of the many contributions people derive from animals through the use of storytelling, discussion groups, slides, and demonstrations with live animals.

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BioFocus is published by the Michigan Society for Medical Research. Please send your questions, comments, and suggestions to:

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Why Not Michigan?

By Gene Menton

Having worked with students in preparation for competitions such as the Westinghouse (Intel) Science Talent Search, the International Science and Engineering Fair, the Junior Science and Humanities Symposium, and TEAMS for over twenty-five years now, I am bewildered by a question that comes to me at the end of every year, and that is "Why not Michigan"? Michigan students do not excel in those competitions. I know we have students capable of winning, and I know we have the schools and industrial resources to mentor superior research, but a review of long-term results show that we are not competitive with other states.



Perhaps the most prestigious science award an American student can win is the Intel Science Talent Search Award. Each year they identify the 300 most promising high school researchers in the country, based on research papers submitted. These students are designated as semifinalists, each receiving \$1000, and 40 finalists are chosen from that group. Finalists earn scholarships ranging from \$5000 to \$100,000. In 2002, Michigan had only one semifinalist, and no finalist. In comparison, Illinois had 10 semifinalists, Minnesota 4, Massachusetts, with only two-thirds the population of Michigan, had 7, Florida 12, Texas 11, and California 14, and as always, New York State led the nation with 162!

A similar picture develops in the science fair area, with the culmination of awards being a trip to compete in the International Science and Engineering Fair, as depicted a few years ago in the movie "October Sky". States can send as many students as they wish to fund by hosting regional fairs. Each regional fair can send two Grand Award winners to compete against students from all over the world. Michigan funded 22 projects in 2002. Oklahoma, with one third of our population, sent 24 students to the International Fair, Missouri 23, Mississippi sent 21, Texas 54, New Mexico 26, New York 62, and Florida 104. Puerto Rico sent over twice the number of students that Michigan sent! And how did we do against competition? No first or second place awards!

A search of the website databases of those two competitions shows that the results have been about the same for the last decade, an embarrassment for a state with one of the highest per-capita incomes in the nation, an industrial state with ample opportunity for corporate mentoring of aspiring young researchers.

A few years ago to try to satisfy my curiosity about why some schools are able to produce competition winners annually I visited some of those schools. The North Carolina School of Math and Science, a public school in Raleigh, is often well represented. It turned out that the year I visited they had 62 students who left school each afternoon to conduct research at nearby cooperating hospitals, engineering companies, and universities. The same was true at Stuyvesant and Bronx Schools of Science in New York City, and Thomas Jefferson in Alexandria, Virginia. There is no secret to success; it takes bright enthusiastic young students and hospitals, universities, and research facilities that are willing to work with the next generation of our American researchers. We have the students. It is happening in many other states, why not Michigan?

We Want to Hear From You!

We want to include your stories, comments, or questions relating to animals in your classroom in upcoming editions of *BioFocus*. Please email stories to mismr@umich.edu

Fast Facts About...

Heart Disease & Stroke

- Heart disease is the number one killer of Americans and stroke is number three.
- Heart disease, stroke, and other cardiovascular diseases are the most prevalent diseases among men and women of all races and ethnicities.
- 1.1 million people will suffer a heart attack this year.
- 6 million people suffer a stroke each year; nearly 30 percent of them will die within the year, and as many as 30 percent will be permanently disabled.
- By retirement age, 65 percent of Americans will have some form of cardiovascular disease.

How Biomedical Research Saves Lives

- Since 1970, death rates from cardiovascular diseases have fallen by almost 50 percent and death rates from stroke by 60 percent, yet they are still the leading cause of death according to the Center for Disease Control and Prevention (www.CDC.GOV).
- The National Institutes of Health-sponsored Framingham Heart Study identified smoking, high cholesterol, and high blood pressure as risk factors for heart disease and stroke. Awareness of these risk factors by physicians and the public resulted in a major decrease in heart disease and stroke since 1970 according to the National Institutes of Health (www.NIH.GOV).

Get Your Students Involved in Competitions!

There are numerous opportunities to get your students involved in science research competitions. These activities involve your students in the creativity and excitement of original research, allow them to share their findings with others, and give them an opportunity to see what other students are working on. Here is a partial list of those competitions.

The Junior Science and Humanities Symposium – Wayne State University

For this competition, students write a paper describing the research they have conducted. Judges at Wayne State University grade the papers, and the top 24 papers are selected for part two of the competition. The students chosen present their papers in early March at Wayne State. They are given 15 minutes for their presentations. The top five students are chosen to represent Michigan at the National Junior Science and Humanities Symposium. The top paper chosen in Michigan wins a \$4000 prize and the right to compete at the national symposium. Eight top papers are chosen at the national level, each of those eight students win an additional \$16,000 and the London Youth Fortnight Award, 15 days in London to attend the International Symposium.

For Information & Applications Write:

Wayne State University
Southeast Michigan JSHS
441 Education Building
Detroit, Michigan 48202
Online Information: <http://ted.coe.wayne.edu/JSHS.html>

The Metropolitan Detroit Science and Engineering Fair – Cobo Hall, Detroit

Students grades 7–12 have the unique opportunity of competing in the nation's largest regional science fair, usually numbering over 2000 students! Students are separated into 13 different categories. A first place award is given in each category, and the eight top awards are designated Grand Awards. These students get a full scholarship to Wayne State University, Oakland University, or Lawrence Technological University, and a chance to compete at the International Science and Engineering Fair against approximately 1200 students from over 40 different countries.

For Information Contact:

SEFMD
c/o Detroit Science Center
5020 John R
Detroit, Michigan 48202
Phone: 1-313-832-2066
Online Information: www.sefmd.org

Siemens Westinghouse and Technology Competition

This science research competition is for high school students who are seniors or for under-classmen working on a team project with a senior. Over one million dollars in scholarships are awarded each year.

For Information Contact:

Siemens Foundation
186 Wood Avenue South
Iselin, New Jersey 08830-2770
Phone: 1-877-822-5233
Online Information & Applications: www.siemens-foundation.org

Intel Science Talent Search

Now in its 61st year, the Intel Science Talent Search presents \$1000 to each of 300 semi-finalists with a matching \$1000 to the school, and prizes ranging from \$5000 to \$100,000 to the 30 top awards. This competition is for high school seniors only. To enter, a student writes a paper and submits that paper along with an application.

For Information Contact:

Intel Science Talent Search
Science Service
1719 North Street, NW
Washington, DC 20036
Online Information & Applications: www.sciserv.org/sts

For more answers to your questions visit our website: www.mismr.org



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**Deadline for 2003 MISMIR Annual Essay
Contest entries is December 19, 2002.**



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