

GSDSEF NewsNote

Greater San Diego Science and Engineering Fair

P.O. Box 120191, San Diego, CA 92112-0191

www.gsdsef.org

VOLUME 14

NUMBER 2

SEPTEMBER 2003

GSDSEF 50!

by Lynne Durkee

In March 2004 we will celebrate the **50th** Anniversary of the Greater San Diego Science and Engineering Fair. We have come a long way!

In 1954 Kearny High science teacher Howard Weisbrod, who had held three school fairs, was eager to help organize a county one. Community interest ran high, businesses volunteered judges and monetary support and there were volunteers aplenty to run it. That first fair was held in an old warehouse building on Harbor Drive. Although the projects had little in common with the sophisticated work seen today (illustrating basic principles or demonstrating how something worked) - and girls and boys competed separately, it was an impressive beginning. The next year the Fair moved to Balboa Park, still its home.

Unfortunately, Howard Weisbrod passed away last year. He, and many others who helped develop our fair into one of the best in the country, won't be present for our Golden Anniversary celebration. But their dreams will live on in the achievements of students, in the invaluable support of teachers and parents and in the backing of community representatives dedicated to providing a forum for the student scientists of San Diego and Imperial Counties. The Greater San Diego Science & Engineering Fair will continue showcasing the work of these students, spurring them on to become the "movers and shakers" of the future.

The members of the Fair's Management Committee and Student Advisory Board are planning many special events for our **50th**. So, mark the dates (March 24 through 28, 2004) on your calendars and plan to join us at the Balboa Park Activity Center and Cox Arena for the celebration. It's sure to be a lot of fun with lot of surprises.

CHECK OUR WEB SITE, www.gsdsef.org, OFTEN FOR SPECIAL **50TH** ANNIVERSARY ANNOUNCEMENTS! NOTE: SEE THE **1ST** ONE ON PAGE **6** OF THIS NEWSLETTER.

John D. Isaacs

Scholarship Winner

A note from
Larry Nordell
Program Chair
MTS Summer Student
Internship Program

One of the most prestigious awards at the California State Science Fair (CSSF) is the John D. Isaacs Award (a \$12,000 scholarship, established in 1981 to recognize excellence in research by high school seniors, to encourage interest in marine science at the high school level and to encourage pursuit of scholastic excellence in higher education).

Each year a California high school senior who presents an outstanding marine science project at the California State Science Fair receives a scholarship sponsored by the California Sea Grant College System to study at a college or university in California.

The 2003 winner was Marwa Kaisey of La Jolla HS. She will use her scholarship at UCLA.

The work for which Marwa was recognized began during the summer of 2002 when she participated in the Marine Technology Society (MTS) Summer Student Internship Program. Marwa interned at the Scripps Institute of Oceanography on an internship funded by RD Instruments.

Marwa's project, "Brittlestar Bioluminescence: An Indicator of the Toxicity of San Diego Bay," was first entered in the Greater San Diego Science and Engineering Fair (participation in an area science fair is prerequisite for the Isaacs competition)

Marwa collected sediment and water from the back of San Diego Bay and from its mouth, then conducted a carefully controlled study to determine the effect of toxicity on the health and light emission of brittlestars.

Note: This is the second time in the MTS's four-year history that the Isaacs Award winner began his/her project as an MTS Summer Intern. In 2000 Brian Fulkerson from Mount Miguel HS was the winner. Brian interned at Oceaneering

where he still works part-time while attending UCSD.

CSSF Winners

Other CSSF awards won by San Diego area students were:

**Applied Mechanics/
Structures & Mechanisms/
Manufacturing
Second Place**

Griffin P. St. Hilaire (7th)
**"Effects of Stiffness and
Density on a Material's
Natural Frequency"**
*Advisor: Perry Thompson
School: Del Dios*

**Electricity & Electronics
Second Place**

Evangeline Fleischaker-9th
**Using Capacitance to Dis-
tinguish between Living
and Dead Cells"**
*Advisor: Patty Cameron
School: La Costa Canyon*

Honorable Mention



Nicholas A. Hosein (11th)

"The Utilization of Nitinol in an Artificial Limb"
Advisor: Valerie Atkinson
School: Torrey Pines

Environmental Engineering
Second Place

Cameron A. Huntley (8th)
"High Pressure Reverse Osmosis for a New Kind of Reservoir"
Advisor: C. McGuire
School: All Saints

Mammalian Biology
First Place

Sarah T. Silverstein (8th)
"Is Temporomandibular Joint Health Related to Posture?"
Advisor: Jessica Madonia
School: Pershing

Pharmacology/ Toxicology
Honorable Mention

Alan M. Joyce (7th)
"The Effectiveness of Commercial Products vs. Home Remedies on Whitefly"
Advisor: Roxanne Hunker
School: Rhoades

Physics & Astronomy
Second Place

Jacob J. Rucker (7th)
"Quantifying the Effect of Skyglow on the Visibility of Stars"

Advisor: Roxanne Hunker
School: Rhoades

Plant Biology
First Place

Samuel C. Spevack (7th)
"The Effects of Angle V Graft on Nerium Oleander"
Advisor: Gretchen Taylor
School: Hillsdale

Third Place

Matthew J. Bauer (8th)
"Characterization of Two Alleles Affecting Hypocotyl Length in Arabidopsis thaliana"
Advisor: Mr. Napolitan
School: Warren Walker

Social Sciences
Second Place



Emma F. Townsend-Merino (7th)
"The Effect of Eyeglasses on Perceived Intelligence"

Advisor: Laurie Wallin
School: Lewis

Zoology
First Place



Emily A. Koch (8th)
"Controversy in Forensic Entomology and Crime Scene Investigation: The Question that Is Bugging Forensic Entomologists"
Advisor: McGuire
School: All Saints

Third Place



Kristen D. Kelley (8th)

"Do Crickets Communicate Information About Their Environment Through Chirping?"

Advisor: Larry Hilke

School: Diegueno

Sigma Xi

Awards

By

Dr. Donald J. McGraw
Associate Provost, Uni-
versity of San Diego
Past President
San Diego Chapter of
Sigma Xi

The San Diego

Chapter of Sigma Xi, The Scientific Research Society, awarded nine cash prizes and certificates to select students of this year's Greater San Diego Science and Engineering Fair for the third time. Due to the generosity of Dr. and Mrs. Barry Quart, for which the Chapter is most grateful, the San Diego group has been able to offer substantial awards to students it selects for these honors. Sigma Xi is the largest and oldest scien-

tific and engineering honor society in the world with some 80,000 members in more than 515 chapters across the globe. Having started at Cornell University in the late 1800s, Sigma Xi has over 150 Nobel laureates on its long honor roll. Sometimes called the 'Phi Beta Kappa for scientists,' the San Diego Chapter of the Society held its annual awards and initiation banquet at the University of San Diego on May 6 and honored the following students. The Senior Division Physical Sciences/Engineering winner was Conrad Salinas, Grade 12, "Underclocking for Fun and Profit," Bonita Vista HS, Teacher: B. Hazel; the Senior Division, Life/Social Sciences was Shannon Smith, Grade 12, "Use of Compounds from *Serratia marcescens* in Fungal Inhibition," Mt. Miguel HS, Teacher: T. Linke; the Junior Division, Physical Sciences/Engineering was Garrett Rueda, Grade 8, "How Does the Nigerian Pot-in-Pot System Perform in Our Climate?", Pierce Middle School, Teacher: F. Lucio; and the Junior Division, Life/Social Science Gary

Western, Grade 8, "Invasive Species: Caffeine Kills Frogs: Will it Kill Maui's Plants?", Pershing Middle School, Teacher: J. Madonia. The San Diego Chapter makes cash awards also in cooperation with another local educational organization, Girl Power of Chula Vista. They choose their winners and these students were also recognized on May 6. The GPCV winners were Enid Guerrero, Grade 7, Castle Park Middle School, Teacher: Ms. Kirkland, "Bubbles"; Alma Mora, grade 8, Chula Vista Middle School, teacher: Ms. Henderson, "Earthquake Challenge"; Andrea Castillo, grade 8, Montgomery Middle School, teacher: Ms. King, "Accoustic Guitar /Tensile Strength"; Jennifer Simpson, grade 8, Mar Vista Middle School, teacher: Ms. Thornton, "Hardcore vs Softcore softballs"; and Kat Marie Ziegler, grade 8, Hilltop Middle School, teacher: Ms. Jones, "Viscosity."

GSDSEF Success Story

by Gretchen Taylor

Sam Spevack, an eighth grade student at Hillsdale Middle School, really appreciates the opportunities for growth offered by the GSDSEF. Two years ago, he wondered if there were a right or a wrong way to graft plants. He joined his school's extra-curricular Science Fair class, and worked all year developing a project called "Angle 'V' Grafts on Nerium Oleander", which he exhibited at the school science fair.

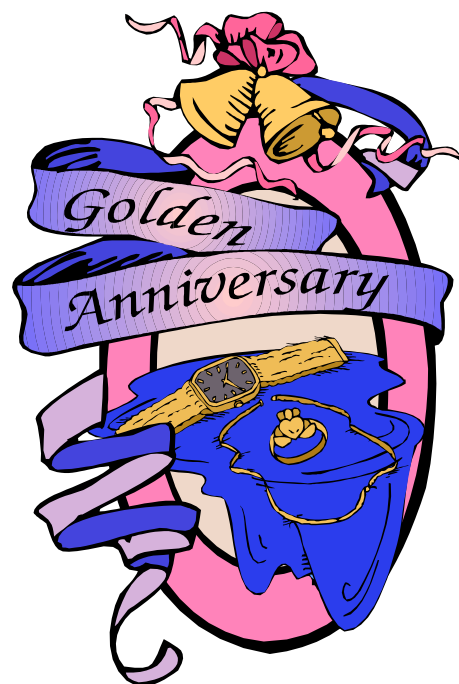
He knew that, as a sixth grader, he was not eligible for the GSDSEF, but he was not at all discouraged. With the determination of a true scientist, he said, "I'll just keep working on this for another year, and I'll have a two-year data set!". He did just that, and last year his project was accepted to the GSDSEF. But the story doesn't end there. One of the advantages of Science Fair is that it opens doors. In Sam's case, it

opened a *lot* of doors. His project was awarded First Place in the Botany category, and he was selected to compete in the California State Science Fair. Despite his teacher's dire warnings about the competition being tougher, and the judging being different, he headed off to Los Angeles with high hopes. To his (and his parents' and teacher's) delight, he was awarded First Place in the state in the Plant Biology category. But wait, there's more!

Because of his First Place award, he was nominated for the Discovery Channel's Young Scientist Challenge, to be held in Washington, D.C. in October, 2003. Acceptance to this competition required Sam to write a number of essays, and to answer many questions testing his factual knowledge. From over 7,000 nominees nationwide, 1969 students were accepted for entrance, and Sam was one of them. From that number, 400 students were chosen as semifinalists, and, again, Sam was one of them.

Forty finalists, who will compete for \$45,000 in scholarships, will be announced on September 17. We don't yet know if Sam will be one of the finalists, but we do know that he's already a winner!

Read about the Young Scientist Challenge at www.discovery.com/dcysc



GSDSEF NewsNote
Volume 14 Number 2
September, 2003

Mary Domb Mikkelson
Editor

GSDSEF 50TH ANNIVERSARY DRAWING NEAR!!!!!!
LET US HEAR FROM YOU SOON!

A NOTE FROM PHIL GAY

I'm sitting at my computer looking out the door of our new travel trailer, currently parked along the Umpqua River, near Elkton, Oregon. It's very peaceful, no houses in view. We saw many wild turkeys this morning, including 8 - 10 new hatchlings. This stop is the beginning of a six-week odyssey to see more of Alaska.

Wendy retired from San Diego City Schools this summer and has joined the Management-Committee! Our first joint project is to compile and print the 50th Anniversary Yearbook for the GSDSEF! This will be published in early 2004, in plenty of time for all the Anniversary festivities.

Upon our return from Alaska, we'll start compiling! So:

**WATCH FOR THE FORMER EXHIBITOR QUESTIONNAIRE
TO BE POSTED AT www.gsdsef.org
AND INCLUDED IN THE JANUARY ISSUE OF *NewsNote*.**

And, in the meantime, start composing your thoughts and organizing your input! We want to make this 4th Edition GSDSEF "Where Are They Now?" Yearbook the best it can be in memory of Howard Weisbrod, the Fair's founder.

Any upfront info/input you'd like to share now can be mailed to us at:

Phil & Wendy Gay
5715 Baltimore Drive, #29
La Mesa, CA 91942-4228

Then, when the questionnaire appears, please send it back ASAP! Note: E-mail will be an option then.

Thanks!

Phil & Wendy