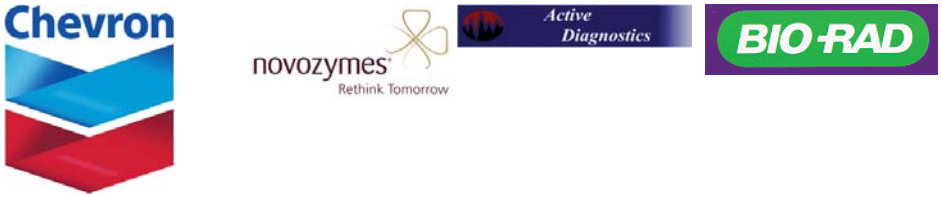
Thanks to all who sponsored this year's Teen Biotech Challenge!!



2009 Teen Biotech Challenge Awards Banquet

University of California, Davis
Freeborn Hall
May 22, 2009
5:30 – 9:30 pm

2009 Teen Biotech Challenge
Awards Banquet Program

WELCOME (6:30 PM)
Dr. Denneal Jamison-McClung, Director; BioTech SYSTEM

WEBPAGE & BOOTH VIEWING (5:30 – 7:00 PM)

DINNER, BIOTECH TRIVIA & RAFFLE (7:00 - 8:00 PM)

KEYNOTE ADDRESS (8:00 – 8:40 PM)
SPEAKER INTRODUCTION: Dr. Denneal Jamison-McClung
Director; BioTech SYSTEM

KEYNOTE SPEAKER: Dr. Jan Nolta
UC Davis Institute for Regenerative Cures

AWARD CEREMONY (8:30 – 9:30 PM)
Presenter: Ag & Industrial Area Winners
Dr. Feng Xu; Sr. Research Manager, Novozymes, Inc.
Presenter: Bioengineering Area Winners
Dr. Judith Kjelstrom; Director, UC Davis Biotechnology Program
Presenter: Biofuels & Bioenergy Area Winners
Dr. Ken Burtis; Dean, College of Biological Sciences, UC Davis
Presenter: Biomedical Applications Winners
Dr. Jacob Jorgenson; Partner, Velocity Ventures
Presenter: Forensics Area Winners
Dr. Kelly McDonald; Director; North Valley Biotechnology Center
Presenter: Genomics, Proteomics & Bioinformatics
Dr. Bernd Hamann; Associate Vice Chancellor of Research, UC Davis
Presenter: Stem Cells & Tissue Engineering
Dr. Jan Nolta, UC Davis Institute for Regenerative Cures

Bio-Rad Biotechnology Explorer Awards for Teachers
Presenter: Dr. Ingrid Hermanson-Miller, Bio-Rad, Hercules, CA

CLOSING REMARKS
Dr. Denneal Jamison-McClung; Director; BioTech SYSTEM

ACKNOWLEDGMENTS & THANKS

Event Sponsors: $3,000 minimum
AT&T, Biotechnology Program at UC Davis, Chevron, Genentech, and the North Valley Biotechnology Center

Platinum Sponsors: $1,000 - $2,999
Active Diagnostics Inc., Bio-Rad Laboratories, Novozymes, Inc., Symantec, Velocity Venture Capital

Gold Sponsors: $500 - $999
BayBio Institute, The Center for STEM Excellence, Sacramento State,.
Discovery Museum, Monsanto, Calgene Campus, Novartis, SARTA, UC BREP

Silver Sponsors: $250 - $499
UC Davis; College of Engineering, UC Davis; Financial Aid

TEACHERS
Annie Clegg - Antelope High School
Anne Whitford & Steven Conley - Bella Vista High School
Ray Lewis - Benicia High School
Marietta Dunaway - Campolindo High School
Nicole Brousseau - Christian Brothers High School
Ann Moriarty - Davis Senior High School
Louis Dias - El Camino High School
Barbara Lohman - Half Moon Bay
Vlastimil Krbecek - Hiram W. Johnson High School
Lilibeth Pinpin - Hogan High School
Dave Menshew - James C. Enochs High School
Lori Steward - Linden High School
Scott Martinez - Mira Loma High School
Lisa Voss - Pioneer High School
Clare Wiley - River City High School
Jason Brennan - Sheldon High School
Therese Shook - Vacaville High School

BOOTHS (Continued)

(Booth #10) Yola (Cont.) enables users to easily incorporate a variety of widgets including YouTube videos, Google Gadgets, PayPal Widgets and many more without needing to leave Yola or see any html code. Yola is the recipient of numerous industry accolades including The Industry Standard 100 and a Fast Company Fast 50 Reader Favorite. The company is headquartered in San Francisco, Calif. For additional information, please visit www.yola.com or call 415-227-0250.

(Booth #11) COSMOS, The California State Summer School for Mathematics and Science, COSMOS, is a 4-week summer residential program for high achieving math and science students. Students live on campus and attend subject specific classes taught by UC faculty and researchers. The program is open to 9th-12th grade high school students. This intense academic program is intended to inspire and encourage young people to pursue future study in a STEM (Science, Technology, Engineering and Mathematics) related field. Students will participate in related academic outings to places such as the Novozymes, Genentech, and Bodega Bay Marine Lab.

(Booth #12) The Center for STEM (Science, Technology, Engineering, and Mathematics) Excellence at California State University, Sacramento is a University-wide initiative aimed at strengthening the quality of STEM education and research, increasing the number of students graduating in STEM disciplines to meet local and national workforce needs, building the university's capacity to advance knowledge in STEM disciplines, and enhancing recruitment of students, staff, and faculty such that these populations better reflect the diversity of California. At the Teen Biotech Challenge 2009 Biotech Symposium Awards Banquet we will be providing information about Sacramento State academic programs that lead students to careers in biotechnology.

(Booth #13) SACNAS is a society of scientists dedicated to fostering the success of Hispanic/Chicano and Native American scientists—from college students to professionals—to attain advanced degrees, careers, and positions of leadership.

WELCOME TO TBC 2009

Welcome, one and all, to the Teen Biotech Challenge Symposium and Awards Banquet! This evening, we are celebrating academic excellence and the dedication of students, teachers and parents. We received 219 website entries for TBC2009, roughly double the entries received in 2008, and were impressed by their overall quality and creativity. The judges were assigned a tough task, but we are here to congratulate the "cream of the crop". As you arrive this evening, please participate in the symposium by viewing the website exhibits and poster displays, asking questions and congratulating the student winners on a job well done.

Biotechnology Serves the World

BioTech SYSTEM is a regional consortium for promoting education in science, technology, engineering and mathematics (STEM). Biotechnology incorporates all of these disciplines in an effort to tackle big global challenges, such as preserving the environment, feeding all of the world's people or curing sickness and disease. We need intelligent, well-educated students with an interest in solving problems through management of biological systems to consider biotech training programs and careers. Through the Teen Biotech Challenge, we hope that students will learn more about expanding biotech fields of study and will consider how they might personally contribute to global solutions while building rewarding biotech careers.

Sponsors Make TBC Possible

We would like to offer warm thanks to our event partners and community sponsors for making the Teen Biotech Challenge possible. TBC is financed solely via the generous support of industry and academic organizations (see the back page of the booklet for a complete list). Sponsors have demonstrated their commitment to educating and training your students in biotechnology—these forward-looking organizations recognize that your students are the future workforce and, without them, we will not achieve new technological milestones and maintain a competitive edge in the global marketplace. Please share your personal thanks with the sponsors joining us this evening.

Sincere Congratulations,

Dr. Denneal Jamison-McClung
Director, BioTech SYSTEM

TBC 2009 WINNERS

Ag & Industrial Focus Area Winners:

Javier Guinard & Madeline Sides, Davis H.S. ..... First Place
"GM Foods: Problem Or Solution?" F1

Johnny Nguyen, Sheldon City H.S. ..... Second Place
"Genetic Engineering" F1

Celena Tan & Faye Cheng, Benicia H.S. ..... Third Place
"The Tomato of Tomorrow"

JoAnn Yang, Sheldon H.S.…….. Honorable Mention
"Genetic Modifications: A New World"

Michael Noble, Sheldon H.S.……...… Honorable Mention
"A Future for Africa"

Derek Nguyen, Sheldon H.S..... Honorable Mention
"Understanding Tolerance Genes in Plants using Genomics"

Bioenergy & Biofuels Focus Area Winners:

Matthew Williams, Sheldon H.S. ..... First Place
"Biodiesel As A Solution" F2

Gregory Chin, Benicia H.S. ..... Second Place
"Sustainability for the Future of Mankind: Biofuels" F2

Lisa Tran, Sheldon H.S. ..... Third Place
"Biofuels Save The Earth"

Qixuan Chai, Kenny Ko & Ashlee Ellsworth, Bella Vista H.S.
"Biofuel Uses of Today and Tomorrow" ..... Honorable Mention

Sabah Sai, Sheldon H.S. ..... Honorable Mention
"Pollution Solution"

Danielle Ross, Janaye Marks & Marina Gomez, Hogan H.S.
"The Fuel of the Future" ..... Honorable Mention

Bioengineering Focus Area Winners:

Oscar Rivera, Donnie Littleton & LaShawna Tizenar, Hogan H. S.
"The World of Virtual Surgery" ..... First Place, F3

Sadaf Sobhani & Ella Eser, Davis H.S. ..... Second Place
"Cryobiology" F3

Priscilla Godina & Erikka Diarte, Linden H.S. ..... Third Place
"Silver Nanotechnology: Good Things Come in Small Packages"

BOOTHS (Continued)

(Booth #7) SWE (Society of Women Engineers) was founded in 1950, is a not-for-profit educational and service organization. SWE is the driving force that establishes engineering as a highly desirable career aspiration for women. SWE empowers women to succeed and advance in those aspirations and be recognized for their life-changing contributions and achievements as engineers and leaders. As a local Sacramento organization, SWE provides outreach to K-12 students, and support, mentoring, and scholarships for collegiate students pursuing engineering degrees. SWE also provides professional development and networking opportunities. More information is available at: http://societyofwomenengineers.swe.org/ and www.swesfs.org

(Booth #8) SAGE (Sacramento Advocates for Girls' Empowerment) is a nonprofit community organization located in Sacramento, CA and is comprised of a Speakers Bureau, Training & Education department and Outreach Program. This all-volunteer team is the first of its kind locally. It is entirely devoted to the encouragement and empowerment of middle-school and high-school girls in pursuit of careers in computer-related technology, life sciences, engineering, science, math and law. More information can be found at: http://www.sacsage.org/

(Booth #9) The UC Davis Biotechnology major for undergraduates is housed in the College of Agricultural and Environmental Sciences. Biotech majors build a solid academic foundation in biology during their first two years on campus, including coursework in genetics, molecular biology, cell biology and recombinant DNA technology. As upper division students, biotech majors choose an option for more focused study: animal; plant or microbial; or bioinformatics., with emphasis on acquiring related laboratory expertise. Research internships are required for all students in the program and allow students to hone problem-solving and technical skills necessary for success in industry and academic research settings.

(Booth #10) Yola, formerly SynthaSite, offers a free Website creation tool that empowers everyday users and small businesses to easily create professional quality Websites. Yola's intuitive drag and drop technology

(Booth #4) Bio-Rad's Biotechnology Explorer Program (Cont.)
From basics to best practices, Bio-Rad's inquiry-based kits and research-quality equipment connect students to the astounding explorations, applications, and issues percolating in biotechnology research laboratories around the world today. Bio-Rad's objective is to help support and vitalize life science education by providing educators with the resources they need to keep up in the science learning race. We believe this goal is best met by enabling teachers and students to experience scientific discovery first-hand. For more information go to explorer.bio-rad.com

(Booth #5) Partnership for Plant Genomics Education (PPGE) promotes education in the area of modern biotechnological research, focusing on secondary students and their teachers. PPGE has been providing biotechnology educational resources to secondary teachers since 1992 in the form of interactive software, professional development opportunities, and equipment loan programs.

PPGE will be giving away the following cd`s at tonight's event!!!

"DNA Fingerprinting Lab" The game starts where a CEO has been murdered.
The Student is part of the forensics team collecting and analyzing evidence and solving the crime.

"Virtual Plant Biotechnology" offers a genomics lab where Students can extract DNA and make genetically modified plants.

(Booth #6) ISPE, the International Society for Pharmaceutical Engineering, is the world's largest not-for-profit association dedicated to educating and advancing pharmaceutical manufacturing professionals and their industry. We are an independent organization led by the world's top pharmaceutical manufacturing professionals. We provide an inviting and neutral environment for experts, technologists, regulators, consultants and students to exchange ideas and practical experience. As a vibrant community, ISPE's Members work together to improve the industry, while helping each other make better choices, more quickly than ever before. ISPE has been recognized by the White House and regulatory bodies for contributions to the industry.

Bioengineering Focus Area Winners (Cont.)
Olivia Bermudez-Hopkins, Sheldon H.S. ..... Honorable Mention
"What's In Your Make-Up Bag? Nanotechnology?"
Ishmeal Ivory-Ford, Sheldon H.S. .....…..Honorable Mention
"Biomedical Robots"
Nhan Le, Sheldon H.S. .....Honorable Mention
"Biomechanics"

Biomedical Applications Focus Area Winners
Daniel Cattolica & Alex Thompson, Bella Vista H.S. ..... First Place
"Gene Therapy: Finding A Cure" F4
Domonique Lewis, Sheldon H.S. ..... Second Place
"Viral Warfare: The Battle Against HIV/AIDS" F4
Eloiza Carreras, Jeanette Dean & Sarah Reblando, Hogan H.S.
"Do These Genes Fit You?" ..... Third Place
Anabelle Dasalla & Farah Hamade, Sheldon H.S. .... Honorable Mention
"The Path to Immortality"
Ria Domier & Ayon Ryan Kabir, Davis H.S. ..... Honorable Mention
"The Vaccine Strikes Back"
Leanna Biddle, Sarah Klemm & Rachel Slyker, Benicia H.S.
..... Honorable Mention
"Gene Knockdown-The Breakdown and Applications of RNAi"

Forensics Focus Area Winners
Madison Wells & Paige Williams, Bella Vista H.S. ..... First Place
"Paternity Testing" F5
Anh Nguyen, Sheldon H.S. ..... Second Place
"Biological Warfare" F5
Mihaly Gorbach & Christine Read, Benicia H.S. ..... Third Place
"Let Perpetual Light Shine Upon the Unknown"
Ericka McDaniel, Hogan H.S. ..... Honorable Mention
"The Results Are In!"
Dan Guyen (Dianna) Ngo, Sheldon H.S. ..... Honorable Mention
"Bioterrorism"

TBC 2009 WINNERS (Continued)

Forensics Focus Area Winners (Cont.)

Vivian Ho, Sheldon H.S. ..... Honorable Mention
"DNA Profiling: A Way of Discovering"

Genomics, Proteomics & Bioinformatics Focus Area Winners

Patrick Simmons, Sheldon H.S. ..... First Place
"Epigenetics" F6

Brandi Stafford & Patricia Carlos, River City H.S. ..... Second Place
"Epigenetics" F6

Scott Walker, Benicia H.S. ..... Third Place
"Synthetic Biology"

Stacie Mensing & Tua Hallstrom, Benicia H.S. ..... Honorable Mention
"Epigenome and You"

Nick Brynelson, Paige Johnson & Joseph Kim, El Camino H.S.
"Manufactured Genome" ..... Honorable Mention

Akshay Sethi & Aradhana Verma, Mira Loma H.S. Honorable Mention
"Synthetic Genomics: The New Genome"

Stem Cells & Tissue Engineering

Chase Kelly-Reif, El Camino H.S. ..... First Place, F7
"Stem Cells: The Past, Present & Future of a Scientific Breakthrough"

Brenna Fallon & Jim Saetern, River City H.S. ..... Second Place
"Stem Cells: The Future" F7

Alex Johnson & Sean Ireton, Benicia H.S. ..... Third Place
"The Promise of Stem Cells

Nailah Johnson, Madelyn Jeanminette & Rachel Harper, Benicia H.S.
"NaiMadChel_Stem Cells" ..... Honorable Mention

Caterina Neef, Gerardo Torres-Rocha & Coleen Vargas, Hogan H.S.
"Stem Cell Therapy" ..... Honorable Mention

Michelle Hoang, Sheldon H.S. ..... Honorable Mention
"Xenotransplantation: Is It Worth The Risk"

BOOTHS

(Booth #1) American River College hosts two related biotechnology programs, the North Valley Biotechnology Center and the ARC Biotechnology Program. The North Valley Biotechnology Center provides training and support for the biotechnology industry in the Sacramento region and Northern California. The Center works with businesses, colleges, K-12 schools, and government agencies to promote biotechnology workforce and economic development. The ARC Biotechnology program trains community college students through both in-class and online courses to achieve a solid understanding of biotechnology and its applications in areas such as medicine, agriculture, forensics, and diagnostics. When students complete the course work, they have a solid grounding in theory and hands-on laboratory skills for transfer to upper division programs or entry into the biotechnology workforce.

(Booth #2) The UC Davis College of Biological Sciences Dean's Student Advisory Committee (DSAC) is made up of students registered in majors within the College of Biological Sciences. The associate dean for undergraduate academic programs solicits the committee for student input on how academic and administrative issues might affect undergraduate students. Each major within the college has at least two representatives who serve a minimum of one academic year.

(Booth #3) The UC Davis College of Biological Sciences (CBS) is one of few colleges in the country dedicated entirely to the study of basic biology. The college's faculty, researchers and students are advancing the planet's knowledge on many frontiers by exploring fundamental questions about life. Explore all of the possible majors offered, career options, and pick up the latest newsletters at the CBS booth!

(Booth #4) Bio-Rad's Biotechnology Explorer Program - Quality you can count on. At Bio-Rad our mission is to transform science education with engaging and pertinent lab activities that inspire today's students. Biotechnology brings real world relevance to biology, chemistry, physics, and computer science. (Continued on Page 8)