



External Engagement

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[LA-SiGMA] will provide for efficient collection and dissemination of information between participants, the K-12 community, two-year colleges, and the general public.

External Engagement Strategies



Public Media

Public Lectures, News Media, EPSCoR Newsletters



Interview on Public Radio
with RET teachers.



LA-SiGMA featured in EPSCoR
newsletters.



EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH

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Materials Science Alliance Awarded Largest NSF Grant in Louisiana

Louisiana EPSCoR has been awarded a \$20 million Research Infrastructure Improvement (RII) grant that represents the largest ever awarded to Louisiana by NSF.

magnets and organic semiconductors.

Energy materials

The energy materials science driver will focus on the use of novel simulation methods to overcome

research will help the design of better electrochemical capacitors, fuel cells, hydrogen storage materials and metal oxide catalysts.

Biomolecular materials

Print media stories about LA-SiGMA in North & South Louisiana.

Engaging the Public



SciPort Discovery Center,
Shreveport, February 21, 2012



Super Science Saturday, Baton Rouge,
October 15, 2011 & October 26, 2012.
Over 2,600 people attended

Nanodays in Baton Rouge,
March 26 & April 2, 2011;
March 24 and 31, 2012; March
30 & April 6, 2013
Over 1,250 visitors

Public talks by DiTusa, Garno,
Kurtz, & Sprunger

Balloon Nanotube at the 2013
NanoDays hosted at the
Louisiana Art & Science
Museum, Baton Rouge



NSF/LA EPSCoR sponsored workshop:
Science: Becoming the Messenger,
November 17, 2011

Public Lectures: Speaking of Science (SoS)



SoS is one of the many programs administered by Louisiana EPSCoR. The program provides faculty speakers to K-12 schools free of charge.

51 SoS presentations in Year 3

2,124+
Students reached in Year 3

15,725+
Students reached in the last 6 years



Louisiana EPSCoR

EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH

And Speaking of Science...

Slime and Science A Winning Combo

Slime is the scientific tool of choice of a Tulane professor when she addresses elementary students.

Why Slime? "Slime makes for a really nice demonstration and shows children that science can be fun. It allows them to think like a scientist—to develop a hypothesis and test it experimentally—and they can pick it up and play with it too," says Dr. Diane Blake.

"If you want to interest kids in science I really think you have to reach them at an early age. I like to do presentations for elementary school students while they are still excited about learning and haven't reached the jaded teenage years.

"I have had audiences as young as six and as old as 10-12," continues the Tulane University Health Sciences Center Professor of Biochemistry, who plays a major role in the Biosensor Development team of LA EPSCoR's current Research Infrastructure Improvement Grant, CyberTools, from the National Science Foundation EPSCoR program.

Prior to her SoS presentations, parents are given a permission slip indicating that their children may or may not take their slime home with them. "I am really impressed by Louisiana parents; not a single one has refused. That wasn't true when I was in Tennessee; some parents were more timid and withheld their permission," adds Dr. Blake, who was on the faculty of Meharry Medical College in Nashville before joining Tulane in 1993.

Excerpts from 21 letters thanking Dr. Blake for her presentation to a fourth grade class at LaPlace's John L. Ory Elementary School:

"Making slime was not just fun it was educationally fun! When I got home I did a trick with it...thank you for letting us bring it home. I hope you can come back next year."

"It was neat when you talked about



Dr. Diane Blake, Tulane University Health Sciences Center Professor of Biochemistry and an SoS speaker.

Although very busy with her research, Dr. Blake says she enjoys making SoS presentations so much that she makes time for them. This academic year she has given presentations at elementary schools in Belle Chase, Franklinton, Chalmette and LaPlace.

"One of my graduate students, Marcia Henry, volunteered to assist me with the presentations. She impresses the students that girls and African Americans can have a major science career.

"The numbers of scientists and engineers graduating from U.S. institutions has been declining for years, and the nation has had to turn to foreign scientists to fill the gap, she adds.

"There are a lot of reasons for this decline,

atoms. You taught me a lot of science... The experiment was a success...The hypothesis was brilliant. You are the best scientist ever. My mom was freaked out by the slime."

"I still love my slime...Also, how is Tulane? Did you know I really like Tulane? How is the project of yours coming? I hope to go to Tulane some day."

Touting Science

LA EPSCoR's Speaking of Science (SoS) program for K-16 provides students in every type of school exposure to the State's best researchers.

Its purpose is to increase public awareness of exciting Research and Development in Louisiana, spark the interest of students in science and engineering (S&E) professionals and showcase the excellence of Louisiana's leading S&E faculty and professionals.

SoS speakers are available free of charge to speak to students, educators, parents and general audiences throughout Louisiana on a variety of topics.

Since 2001, 614 presentations to over 24,000 students have been made by SoS speakers. For information on SoS speakers and their topics send or to make arrangements for a speaker, contact Ms. Susan Jernigan at 225.342.4253, ext. 673, or susan.jernigan@la.gov.

The accompanying articles focus on SoS presenter Dr. Diane Blake, Tulane University Health Sciences Center, and letters she received from a 4th grade class.

but I think a lack of interest in science and the limited numbers of scientists who can serve as role models have contributed to the problem.

"I am hoping that my contributions to the SoS program can play a small role in increasing the interest of Louisiana students in science as a profession."

Letters, She Gets Lots & Lots of Letters

"I loved playing with the slime. I think you are a great scientist...it was a great experiment...I enjoyed having fun with you."

"Thank you for teaching us about atoms and matter. I was really interested...I scared my brother with the slime...Did food dye make the slime green?"

"It's a good thing you talked about atoms

Letters, Continued page 2

Target: Internal Communications



Leverage cyberinfrastructure, video-conferencing, collaboration tools, web portal, all-hands meetings.



- Monthly seminars over Polycom available to other campuses.
 - State-of-the-art HD synchronous video, lecture/seminar capture, and digitization equipment purchased in collaboration with LONI & BoR.
 - Web portal operational <http://lasigma.loni.org>
- ✓ More than 3,500 visits to main webpage since Dec. 2011.

LI/LA-SiGMA Seminar Series

The LONI Institute/LA-SiGMA seminar series started in September 2010 and is designed to provide a strong platform for interactions between various elements of the [Loni Institute](#) and [LA-SiGMA](#) . It is also expected to improve the general research atmosphere, and provide

January 2013

Date/Time	Speaker		
Jan. 23 3:30 p.m.	Stefano C Duke Univ		
Jan. 30 3:30 p.m.	Perla Balbu Texas A&M University		
Feb. 6 3:30 p.m.	Paul Canfie Iowa State University		
Feb. 13 3:30 p.m.	Kevin Osborn, University of Maryland	Two-Level System Material Defects in Superconducting Qubit Dielectrics	Tilton Hall 305, Tulane Available at LSU, UNO, LA Tech, and Xavier, and via Adobe Connect.
Feb. 20 3:30 p.m.	Alex Zunger, University of Colorado at Boulder	Deliberate Discovery of Missing Materials and the "Inverse Problem": Given a Desired, Target Property, Find the Structure	At 338 Johnston Hall, LSU Available at LA Tech, UNO, LA Tech, and Xavier, and via Adobe Connect.

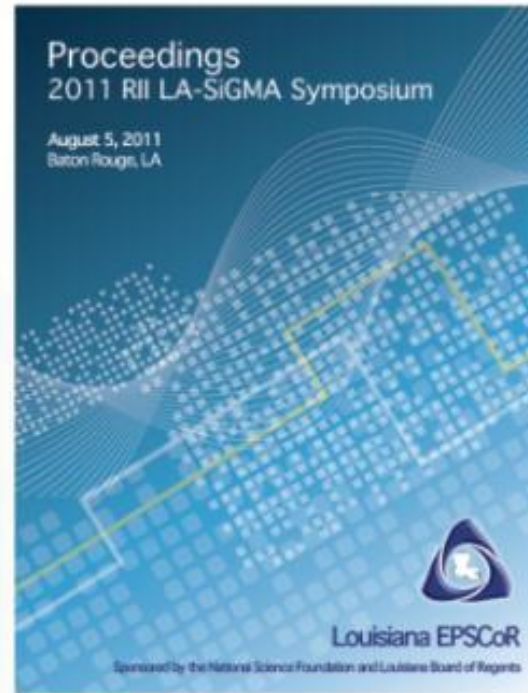
The screenshot shows the LA-SiGMA website interface. The main heading is 'LA-SiGMA Louisiana Alliance for Simulation-Guided Materials Applications'. Below this, there are sections for 'Graduate Fellowship Opportunities at LA-SiGMA', 'LA-SiGMA Workshop: Connecting data through semantics and ontologies: a pathway to open data in science, June 7-8, 2013', and 'Shodor and NCSI workshop on Intermediate Parallel Programming for Educators, July 14-20, 2013'. A sidebar on the right contains a 'LA-SiGMA Site Menu' with links to Home, About LA-SiGMA, Objectives, The Project, Interest groups, People, Management, News & Events, Courses, Software, Data Management and Publications, RET, and REU.

Target: Internal Communications



Leverage cyberinfrastructure, video-conferencing, collaboration tools, web portal, all-hands meetings.

- 2 meetings held this year, including EPSCoR RII LA-SiGMA symposium.
- LA-SiGMA Facebook page



- 111 contributed papers total
- 44 contributions in year 3

✓ Over 4,00 direct hits, more than 16,000 people saw associated content in the last year

Industrial Collaborations



- La Tech researchers continue to build their relationship with Ford and Jupiter Fuels
- Xavier working with Absorption Systems, Inc. of Philadelphia
- UNO working with Vertex Pharmaceuticals
- LSU working with Albemarle Corporation
- La Tech collaborates with Nanovation, LLC
- UNO working with Radiant Technologies, Ind.



Target: National and International Partnerships



- Indo-US Joint Center proposal
- NSF Materials World Network with German researches
- NSF-G8 Research Councils proposal awarded (LA-SiGMA, Japan, Germany)
- DAAD Student Exchange program with LA-SiGMA every summer.
- La Tech collaboration with IIT-Delhi, India
- MOU with Universidad Nacional Cordoba and Rio Cuarto, Argentina.



External Engagement Milestones



Strategies	Y1	Y2	Y3	Y4	Y5	
Leverage multiple avenues to engage the general public.	X	X	X	X	X	<i>On Track</i>
Create a web portal for distribution of project deliverables.	X	X	X	X	X	<i>On Track</i>
Create a repository and version control system for code development and distribution.	X	X	X	X	X	<i>On Track</i>
Leverage cyberinfrastructure to facilitate communication.	X	X	X	X	X	<i>On Track</i>
Use Newsletter/Brochures/Highlights to publicize Alliance activities.	X	X	X	X	X	<i>Ahead</i>
Create formal mechanisms for engagement with NSF.	X	X	X	X	X	<i>On Track</i>
Establish new national, industrial and international collaborations.	X	X	X	X	X	<i>On Track</i>