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Messages from the LAS Newsletter Co-Editors

Dear Colleagues:

I appreciate the opportunity to serve as a co-editor of the LAS Newsletter. I am grateful for the contributions received from colleagues and hope for a wider participation in the future. Of course, the purpose of this newsletter is to make a modest but significant contribution to the LAS efforts aiming at the realization of its major goals:

1. To unite the scientists of Louisiana for the purpose of encouraging research and education in all branches of science.
2. To encourage and conduct scientific discussions; to publish and disseminate scientific material; to conduct all enterprises deemed to promote the causes of science; to foster the applications of science to the problems of humanity.
3. To encourage and assist teachers in Louisiana's elementary and secondary schools with the caliber of instruction necessary to generate and maintain an interest in all areas of science.
4. To be an active voice representing science in both higher education and K-12 in Louisiana.

As LAS' official voice, our Newsletter addresses some contemporary issues of Louisiana's science institution, recent LAS' events or news, views of some colleagues, and a reference and invitation to our upcoming conference, the 86th Annual Meeting.

My sincere thanks go to all who have contributed to this newsletter. I am particularly grateful for the contributions and kind support of Jonathan Akin and William Dees, present and past LAS presidents, respectively, and my "comrade-in-arms" Bogdan Strimbu.

I wish all of you a Happy New Year; and I look forward to seeing you on March 3, 2012, at our 86th Annual Meeting to be held at Louisiana State University in Alexandria, Louisiana.

Sincerely yours,

Riad Yehya, Co-Editor, Southern University



The year of 2010-2011 will be remembered probably as the year when everybody predicted a financial catastrophe that luckily did not materialize. In fact, higher education in Louisiana became more competitive, a direct result of the lack of funds available for research. The reduction of the financial resources available for different academic or research activities also increased the importance of “soft money”.

Consequently, a spur of fresh ideas and elements of novelties spanned the year. The results of this effervescent movement were partially presented at the Louisiana Academy of Sciences Annual Meeting, hosted by the University of Louisiana at Monroe. The event was in the tradition of the Academy’s Annual Meetings, with a large number of posters and oral presentations. The media that the Academy generates is usually concentrated around the Annual Meeting. However, the scientists actively involved in the Academy’s life dwell in the research realm without interruption, and consequently draw constant attention of the media. To ensure that the findings of Louisiana’s scientific explorations are continuously brought to the public’s attention, the Executive Council of the Louisiana Academy of Sciences decided to initiate a newsletter with the purpose of informing the interested public and private entities on the advancements occurring in Louisiana.

The newsletter will focus on some of the most important issues facing scientific research at the state and national level. We hope that you will enjoy reading the pages of the newsletter, and we are looking forward to seeing and hearing from you at the next Louisiana Academy of Sciences Annual Meeting hosted by Louisiana State University at Alexandria.

Bogdan Strimbu, Co-Editor, Louisiana Tech University



Statement from the Louisiana Academy of Sciences’ Past-President

Being a member of the Louisiana Academy of Sciences (LAS) is a wonderful way to support your scientific discipline and your school at the State and local level, and to support science and, especially now, science education in Louisiana. For undergraduate and graduate students, being a member of LAS and participating in annual meetings will help prepare you for an exciting career in science.

Reflecting on my last two years as President, I keep coming back to one word that sums up everything regarding the Academy and the good people who have made the Academy what it is today. That word is “INVOLVEMENT.”

Most LAS members might not know that only a small handful of people make certain that all members have a great annual meeting, make sure the membership is informed of what is happening regarding the Academy, and make the time to address significant issues confronting LAS. These few individuals have taken the time to become INVOLVED in the life of LAS. They all have diverse backgrounds, a “role up your sleeves, get to work ‘can-do’ attitude” and, most importantly, a strong desire to see a better Academy. We all should be exceedingly grateful to these fine people.

Continual INVOLVEMENT, not just by a few, but by everyone - professional scientists and students alike - is vital to the success of this professional organization. Does it take a lot of time? Not really. Small things, such as: (1) helping Section Chairs moderate a session, (2) helping the On-Site Meeting Coordinator by working at the registration desk, and/or (3) helping the Student Competitions Coordinators judge student presentations, can make a huge, positive impact on the Academy's annual meeting.

For professional scientists, simply visiting with students presenting posters at the annual meeting and/or sending the LAS Newsletter Co-Editors information about your work and the work of your students are excellent ways to support our Academy. All of these actions build a true scientific community.

Of course, running for and serving on the LAS Executive Council, volunteering to help a Section Chair or Division Director with some of his/her duties, and helping to address some of the challenges we have before us in the Academy do take a little more time, but also are important ways to support the Academy. So, to all members of LAS, please consider becoming actively INVOLVED in your Academy. I look forward to seeing everyone at the 2012 Annual Meeting of the Louisiana Academy of Sciences in Alexandria.

William H. Dees, McNeese State University



Reflections on the Louisiana Academy of Sciences 85th Annual Meeting

Although I have been on the faculty of the School of Forestry at Louisiana Tech University since December 2003, the 85th Annual Meeting of the Louisiana Academy of Sciences held last February in Monroe was my first experience of this group. I must admit that the experience was quite enjoyable and enlightening. As is often the case with academicians, I tend to be involved in more narrowly focused groups dealing directly with my own discipline. I was refreshed to see such a broad-based and wide-ranging academy. I also was impressed to see a venue that was

friendly to both student and faculty presentations, while maintaining professionalism and scientific rigor.

Even though the meeting was just a day, it was packed with presentations (over 100) and posters (nearly 100). Additionally, highly thought-provoking addresses during the lunch by Dr. Tuajuanda Jordan and Dr. Bill Dees provided an important thematic overview.

It was obvious that a great deal of planning and coordination went into the meeting. It was clearly no small undertaking. I appreciated the fact that the meeting rooms and the poster session were located very close to one another. This, plus rigorous attention to adhering to time schedules made going back and forth between the concurrent sessions simple.

The Louisiana Academy of Sciences provides an excellent way of staying current with the contemporary efforts of the Louisiana scientific community. Large-scale student involvement and input adds a welcome element of freshness. It is a very worthwhile endeavor.

William Ross, Louisiana Tech University



Editorial

Critical Educational Issues Facing the Nation

Thomas Jefferson believed that public higher education develops citizenship, fosters an informed public, and serves as an investment in the U.S. economic future. The combination of general-education and major/specialty requirements is to contribute evenly to the optimal overall development of America's youth. The ideal educational outcomes, however, are still chased dreams.

In Louisiana, like the rest of the country, there are several critical educational challenges that must be addressed. They include: dwindling public funding, high dropout and incompleteness rates, education for a "global age," inadequate academic preparation, including preparation of students for their future occupations, and inequity problems of accessibility and affordability, particularly for minority and low-income students.

In recent years, the U.S. economy has struggled with significant difficulties: Over 14 million Americans are looking for jobs, around 60 million are below the poverty level, and the unemployment rate stayed around 9% for years. The U.S. Congress has cut education programs from Pre-K through graduate education by billions of dollars. Several states, including Louisiana, reduced their public funding for education by over 25 percent.

Besides dwindling financial resources and fierce global competition, an emergent technology-based economy requires more than ever a competent labor force. Without it, “outsourcing” is the inevitable outcome: Jobs and industries will go to other nations. Virginia Governor, Mark Warner, chair of the National Governors Association, recently said, “Knowledge-based jobs are going to go where the knowledgeable workers are,” taking with them overseas economic growth and prosperity.

American students’ standard-test scores are below those of many other nations, including developing ones, and the U.S. dropout and incompleteness rates are the highest. Of every 100 ninth graders, only 18 earn a college degree. About 68% of high-school students graduate on time. Of the 68 graduates, about 40 enroll in college; and 27 continue to their next year. Only 18 of the original 100 ninth graders earn an associate’s degree within three years or a bachelor’s degree within six years.

As a result of globalization and tremendous political and public pressure, all educational institutions seek to produce results. That is, retaining and graduating a fair proportion of their students. Emphasis is placed on quantity and not on quality; and standards and excellence are sacrificed, including professional preparation. This problem is accentuated in minority institutions. Besides the inequity problems of accessibility and affordability, their low-income students are on average less academically prepared when they begin their college-study journey.

The magnitude of these challenges and their global and structural nature make these problems very difficult to address. As LAS members, we have to do our fair share.

Riad Yehya, Southern University



Louisiana Academy of Sciences Executive Council

President (2011-2013) Jonathan Akin	(337) 357-5323 jonathana@nsula.edu
Past-President (2011-2013) William H. Dees	(337) 475-5654 wdees@mcneese.edu
President-Elect (2011-2013) Gerald Blanchard	(985) 549-2158 gblanchard@selu.edu
Long Range Planning Chair William H. Dees	(337) 475-5654 wdees@mcneese.edu
Treasurer and Membership Secretary Elisabeth Elder	(318) 473-6518 eelder@lsua.edu
Secretary Frank Phillips	(337) 475-5656 fphillips@mcneese.edu
Senior Editor of <i>The Proceedings</i> John Doucet	(985) 448-4721 John.Doucet@nicholls.edu
Web Site/Communication Coordinator Yenumula Reddy	(318) 274-2421 ybreddy@gram.edu
Student Competitions Coordinators Constance Kersten Juliana Hinton	(337) 475-5674 ckersten@mcneese.edu jhinton@mcneese.edu
Archivist Thomas Sasek	(318) 342-1792 sasek@ulm.edu
Newsletter Co-Editors Riad Yehya Bogdan Strimbu	(225) 771-4962 riad_yehya@subr.edu (318) 257-2168 stribu@latech.edu
Agriculture, Forestry, and Wildlife Division Director David Kee	(337) 475-5690 dkee@mcneese.edu
Biological Sciences Division Director Jameel Al-Dujaili	(337) 457- 7311 Ext. 251 jdujaili@lsue.edu
Botany Section Chair Alex Lasseigne	(985) 448-4709 Alex.Lasseigne@nicholls.edu
Environmental Sciences Section Chair Frank Phillips	(337) 475-5656 fphillip@mcneese.edu
Microbiology Section Chair Jameel Al-Dujaili	(337) 457- 7311 Ext. 251 jdujaili@lsue.edu
Molecular and Biomedical Biology Section Chair Ann Findley	(318) 342-1817 afindley@ulm.edu

Zoology Section Chair Jonathan Akin	(337) 357-5323 jonathana@nsula.edu
Physical Sciences Division Director Diola Bagayoko	(225) 771-2730 Bagayoko@aol.com Bagayoko@phys.subr.edu
Chemistry Section Chair August Gallo	(337) 482-5679 gallo@louisiana.edu
Computer Science Section Chair Yenumula Reddy	(318) 274-2421 ybreddy@gram.edu
Earth Sciences Section Chair Gary Stringer	(318) 342-1898 stringer@ulm.edu
Materials Science and Engineering Section Chair Naidu Seetala	(318) 274-2574 naidusv@gram.edu
Math & Statistics Section Chair Donald Yates	(318) 473-6428 yates@lsua.edu
Physics Section Chair Pedro Derosa	(318) 274-3700 derosap@gram.edu
Science Education Division Director Susan Sullivan	(318) 473-6431 ssullivan@lsua.edu
Higher Education Section Chair Peter Sheppard	(337) 482-1514 psheppard@louisiana.edu
K-12 Education Section Chair James Whelan	(504) 304-3960 jameswhelan@charter.net
Social Sciences Division Director Alma Thornton	(225) 771-4249 alma_thornton@subr.edu
Sciences and Humanities Division Director John Doucet	(985) 448-4721 John.Doucet@nicholls.edu

**Louisiana Academy of Sciences (LAS)
86TH Annual Meeting, Saturday, March 3, 2012
Louisiana State University at Alexandria (LSUA)**

The LAS Executive Council and LSUA are delighted to announce the 86th Annual Meeting to be held Saturday, March 3, 2012, on the LSUA campus. Complete details on registration, abstract submission, directions to campus, and hotel options will be posted on the LAS website (<http://www.laacademy.org>).

The sessions will include oral and poster presentations in all LAS core areas. Undergraduate and graduate students also will have opportunities to compete for oral or poster presentation awards

(see the LAS website at <http://www.laacademy.org> for competition guidelines). As always, regular and emeritus members are invited to submit abstracts for oral and poster sessions.

Early registration (includes annual dues) is \$65.00 for regular members, \$35.00 for students, and \$35.00 for emeritus members). **Late registration and onsite registration** (includes annual dues) will be \$85.00 for regular members, \$55.00 for students, and \$55.00 for emeritus members. Registration is required to obtain a badge and to participate in the meeting. All attendees, including presenters, must be registered. If you are unable to attend the meeting but want to renew your membership, a membership form is available at <http://www.laacademy.org>.

Please invite colleagues and students to participate in this excellent annual professional state science event. All members of the scientific, and sciences and humanities communities, especially students, are welcome.

Directions to the LSUA Campus

From Baton Rouge: Take Interstate 10 or Highway 190 west to Interstate 49 north. From I-49, take the Turkey Creek/Meeker exit onto Highway 167 north. The road will dead-end at Highway 71. Turn north on Highway 71/167 through Lecompte. Campus will be about 9 miles on the right.

From Lafayette: Take Interstate 49 north. From I-49, take the Turkey Creek/Meeker exit onto Highway 167 north. The road will dead-end at Highway 71. Take Highway 71/167 north through Lecompte. Campus will be approximately 9 miles north on the right.

From Lake Charles: Take Highway 165 north to Highway 112 in Forest Hill. Go east on Highway 112 to Highway 71. Go north on Highway 71 approximately 7 miles. Campus will be on your right.

From Monroe: Take Highway 165 south to Highway 167 south. From Highway 167, exit onto Interstate 49 south. At exit 80, go south on Highway 71 for approximately 5 miles. Campus will be on your left just south of the intersection with Highway 3170.

From Ruston: Take Highway 167 south. Exit onto Interstate 49 south to exit 80. Go south on Highway 71 for approximately 5 miles. Campus will be on your left just south of the intersection with Highway 3170.

From Shreveport: Take Interstate 49 south to exit 80. Take Highway 71 South. Stay on Highway 71 for approximately 5 miles. The campus will be on your left just south of the intersection with Highway 3170.

Turn off Highway 71 onto Grady Britt Drive. Since the meetings are on Saturday, there should be ample parking in the Science Building lot, which will be on your left as you drive into campus. If that lot is full, continue east on Grady Britt. There are several parking lots where Grady Britt Drive crosses Jerry Myrick Drive.

LOUISIANA ACADEMY OF SCIENCES 2012 ANNUAL MEETING REGISTRATION FORM

Select one section affiliation

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_____ Agriculture, Forestry, & Wildlife Section

Physical Sciences Division

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 _____ Computer Science Section
 _____ Earth Sciences Section
 _____ Materials Science & Engineering Section
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_____ Sciences & Humanities Section

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 _____ Environmental Science Section
 _____ Microbiology Section
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_____ K-12 Education Section
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Social Sciences Division

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Circle Preferred Title: Dr. Mr. Ms.

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Last Name _____

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Institutional Affiliation _____

Select one registration classification

	EARLY *	LATE/ON-SITE
Faculty	_____ \$65	_____ \$85
Emeritus	_____ \$35	_____ \$55
Student	_____ \$35	_____ \$55
Guest	_____ \$10	_____ \$15

*Must be received by January 27, 2012

Make checks payable to LAS.

Mail to:

Dr. Elisabeth Elder
Biology Department
Louisiana State University at Alexandria
8100 Highway 71 South
Alexandria, LA 71302

If paying by credit card, complete the following information and fax it to Dr. Elisabeth Elder at 318-473-6563 OR scan and e-mail it to eelder@lsua.edu OR print it and mail it to the address above. Credit card payment must be received by January 27, 2012. Credit cards will not be accepted for late registrations or for on-site registration.

Circle credit card type: Visa MasterCard Discover American Express

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