

On the Bayou

MAY 2019

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Message from the Director

Dr. Deepak Bhatnagar

This month SRRC had the pleasure of hosting the planning meeting for the SEA Executive Steering Committee of the Council for Employee Engagement, Diversity, Inclusion and Outreach (SEACEEDIO), which included a visit by our Area Director, Mr. Archie Tucker. And it so happens that this month our SRRC family was engaged in a number of activities that encompass the spirit that this group is promoting for SEA.

- ◆ We had “Take Our Daughters and Sons to Work Day” with over 30 children participating. A large number of SRRC staff volunteer each year, and make it a real fun event for the kids such that most of the children wish to come every year.
- ◆ Earth Day was celebrated with a speaker that educated us on some positive initiatives that will improve environmental issues in New Orleans neighborhoods. Residents in these neighborhoods participated in the complete process of implementing solutions in their communities. The program highlights inclusiveness and working together, amongst the diversity, to build something that will benefit all.
- ◆ Our SRRC staff volunteers, through the Human Relation’s Committee, do an excellent job organizing Special Emphasis Events each year. The recognition of diversity and its benefits is emphasized at these events, and is now showcased in a poster that was put up this month outside the Director’s Office.
- ◆ This month we also recognized our Administrative professionals for their dedication and excellent service to the Center, overcoming various odds.

Our events are successful with the help of many dedicated volunteers who want us all to work together as one big family. These efforts did not go unnoticed by our recent SEACEEDIO visitors. “You have amazing folks at SRRC, and it was an honor to learn first-hand about the great historical and current work being performed there. ... we are hoping to highlight the SRRC at the upcoming Summer issue of PEDAL... We will highlight some of the things about how SRRC incorporates those aspects of diversity, inclusion, outreach and employee engagement in the article as well.”

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Take Our Daughters and Sons to Work Day 2019

Submitted by: Darlene Downey and Chris Mattison

SRRC held its annual Take Our Daughters & Sons to Work Day on Monday April 22th. The theme was “Workforce Development For All”, and the day was filled with learning, questions, and some laughter. This year we had a large attendance as 31 student visitors attended the event. The day started with a continental breakfast and Dr. Deepak Bhatnagar, Center Director, introducing the students to the scientific method and the research conducted at the Southern Regional Research Center. Ms. Shannon Beltz presented the students with notes on how to remain safe while in the building and in the labs during their visit.

The students observed five tour stops with topics including the use of polymers to make slime, study of phase changes using liquid nitrogen to make ice cream, production of butter and aroma identification, microscopic characterization of hair, chromatograph of ink dyes, fingerprint analysis, and evaluation of flame retardant cotton. There was also a tour stop to learn about and demonstrate coastline preservation methods from the Lake Pontchartrain Basin Foundation.

Directly following lunch, students participated in an intellectually stimulating game of “Buzzer Beater Trivia”. After the trivia game, The Wildlife Hospital of Louisiana, part of the Baton Rouge Vet School gave a presentation about the importance of wildlife conservation. Students had the opportunity to see real-life raptors: Harris’s and Broad Winged Hawks, and a Grey Phase Eastern Screech Owl.

Over 40 SRRC personnel helped with the events of the day, and we extend a heartfelt ‘Thank you’ to all who volunteered. We received a great deal of positive feedback and really appreciate everyone’s help for making the day a memorable experience.



SRRC Earth Day 2019 Celebration

Submitted by: Cathy Mason

On April 25, the Southern Regional Research Center celebrated Earth Day. We started the celebration with a short movie on plastic pollution by Plastic Pollution Coalition. (<https://www.plasticpollutioncoalition.org/pft/2016/3/9/jeff-bridges>) The documentary examined the cost of producing plastic items, both in manufacturing cost and environmental cost of disposal. Isabel Lima then provided a brief review of plastic use in the US and globally, followed by a multiple choice quiz with prizes awarded for the correct answers. The prizes were all items that can replace plastics in our lives....recyclable fabric bags for groceries, mesh bags for produce, metal drinking straws and reusable, BPA-free water bottles. Everyone enjoyed the quiz and prizes!

Casey Grimm, our EMS coordinator provided a brief summary of the completed items of our EMS Goals for the past year. He also requested that we send any EMS goals suggestions on to him for next year.

Cathy Mason gave a brief overview of the new SRRC Rain Garden (one of our EMS goals); the groundwork was finished on April 18th and plants can now be set in place. We expect to have the rain garden finished by mid-May. Everyone was invited to tour the garden at a later date since we had thunderstorms throughout the scheduled tour for that day.



Next, we enjoyed a presentation by Aron Chang, a local architect who specializes in community based planning and urban design in coastal communities. Aron is a founding member of the Water Collaborative of Greater New Orleans, and served on Mayor Cantrell's Water Plan Subcommittee, and on the New Orleans City Council Environmental Advisory Committee. His talk entitled, "Community Based Climate Adaptation in New Orleans", explained the process of educating people about environmental problems in New Orleans, such as flooding and subsidence, so they can be involved in solutions in their communities.

Finally, we had our annual Book and Plant Swap, which is always a great hit. Many people brought in a variety of houseplants, vegetable plants and landscape plants to trade with others. Our magazines and books were recycled, finding new 'homes' with our staff.



Events and Observances (cont.)

Celebrating Administrative Professionals Day at SRRC

Submitted by: Deepak Bhatnagar

SRRC celebrated Administrative Professionals Day on April 24th.

I asked everyone at the Center to use this occasion to collectively give thanks to the outstanding SRRC Administrative Staff who provide exceptional service to the rest of us on a daily basis. The support they provide keeps us out of trouble for the most part, and allows us to concentrate our efforts on the science.

The Employees Advisory Council made the arrangements for this celebration.



SEACEEDIO Annual Meeting

Submitted by: Matt Moore and Jimmy McAlpine

The Southeast Area Council for Employee Engagement, Diversity, Inclusion, and Outreach (SEACEEDIO) Executive Steering Committee held its annual meeting at SRRC April 30- May 1. The Committee serves in an advisory capacity to SEACEEDIO by helping formulate and recommend activities of Employee Engagement with focus in areas of Equal Employment Opportunity (EEO), Affirmative Employment Programming and partnering with stakeholders. This was the first time the Committee has met outside of Stoneville, MS. Executive Steering Committee members were not only excited to tour the SRRC facilities, but more importantly, to speak to employees directly about employee engagement and diversity activities spearheaded by SRRC under the leadership of Dr. Deepak Bhatnagar. Committee members also spent time developing a vision for future SEACEEDIO activities based on the success of SRRC efforts.



Pictured left to right: Deepak Bhatnagar, Matt Moore, Telisa Loveless, Shannon Beltz, Archie Tucker, Russell Scarborough, Jessica Loggins, Maureen Wright, Jimmy McAlpine, Alvin Simmons, and Janell Becker.

All Staff Meeting

All Staff Meeting was held on April 30th and included information on various items/events of the Center, and was mostly focused on safety related items in preparation for the upcoming Area safety inspection. Several presentations were provided: general safety given by Shannon Beltz; chemical hygiene given by Michael Easson, and biosafety given by Matt Gilbert. The highlight of the meeting was the presentation given by our Area Director, Mr. Archie Tucker, where he gave some useful insights into ARS activities and budget.

Outreach Activities

ACS Louisiana Section Career Fair

Submitted by: H.N. Cheng

SRRC participated in the American Chemical Society (ACS) Louisiana Section Career Fair on April 6 at Xavier University's Norman C. Francis Science Complex. The event was sponsored by ACS student chapters at Xavier, Loyola, and Delgado. Nine organizations participated, including SRRC, FBI, Oxychem, Kilpatrick Townsend & Stockton LLP, Eurofins, Eli Lilly, Delgado Community College, Tulane University, and ACS. Many students came in and discussed career options with the organizations. It was also a good opportunity for these organizations to display their products and discuss their ongoing work.

A panel discussion was also held, with five panelists from Oxychem, Eurofins, Eli Lilly, Delgado, and Sophie B. Wright Charter School. The panelists first described their academic backgrounds and their current jobs. They then answered questions on how they used chemistry in their jobs and provided advice to students wanting to go to graduate schools. The discussions were very informative.

SRRC volunteers **Michael Santiago, Chanel Fortier, and H. N. Cheng** are shown in front of the Center's exhibit booth. The second photo shows Chanel describing our research to one of the students.

Thanks are due to Mike Dowd and Scott Pelitire for lending us the display materials.



Outreach Activities (cont.)

Delgado Visitors

Submitted by: Jacqueline Nesbit

SRRC hosted students enrolled in the Science Laboratory Technician/Biotechnology (SLT) program at Delgado Community College on April 23.

The SLT program requires students to complete an internship in a chemistry- or biology-related laboratory and this visit allowed students, who are interested in interning at SRRC, to learn more about our facility. Our Center Director, Dr. Deepak Bhatnagar gave a brief history of SRRC as well as an overview of the past and present research of our various scientists.

Jay Shockey, Stephanie Boone and Geromy Moore each presented a “sales pitch” on their research. These presentations were also attended by SRRC scientists who expressed interest in taking part in this collaboration with the Delgado SLT program.

The students then toured a FPSQ lab, the vintage lab and the textile plant, courtesy of John Bland, Christine Sickler and Chris Delhom, respectively. The Delgado students genuinely enjoyed their visit and opportunity to learn about our facility and research. Many thanks to all who participated.



Events and Observances (cont.)

Public Service Recognition Week

Submitted by: **Trinia Bax**

The New Orleans Federal Executive Board is sponsoring the observance of Public Service Recognition Week during the week of May 20-24, 2019. The three PSRW events that will occur include the Distinguished Service Awards Luncheon Ceremony, the Annual Interagency Mall Exhibition and the Public Service Outreach event:

MALL EXHIBIT

The Mall Exhibition will be held at the Lakeside Shopping Mall in Metairie on Tuesday, May 21, 2019, from 10 a.m. to 4 p.m. at 3301 Veterans Memorial Boulevard, Metairie, LA . The exhibit will feature booth displays by federal, local and military organizations.

AWARDS LUNCHEON

The Awards Luncheon will be held on Wednesday, May 22, 2019, at the Audubon Tea Room, 6500 Magazine St, New Orleans, LA from 11:30 am to 1:30 pm. Check-in begins at 11:00 am

COMMUNITY OUTREACH

The Community Outreach Event this year will center around helping to feed the homeless and those in need. We will be sending out a separate email detailing how to participate in this outreach effort. The plan is to provide opportunities for federal employees to donate items at their workplace or to serve locally at a food bank.

NACOP Workshop

Submitted by: **Dawn Reed**

The National Advisory Council for Office Professionals (NACOP) is currently planning a workshop for Office Professionals throughout the agency.

The mission of the National Advisory Council for Office Professionals (NACOP) is to serve the Agricultural Research Service (ARS) Administrator and management in an advisory capacity on new initiatives, which impact employees across the Agency, and to enhance the office support profession through training, mentoring, and recognition.

Have you heard the news? NACOP is having a Training Workshop !

If you want to learn more about:

AXON? Heather Gossel will be there.

RPES? Amy Hegarty will be there.

These are just a couple of the subject matter experts who will be leading training breakout sessions.

We look forward to seeing you in Norman, Oklahoma, at the NACOP Training Workshop.

NACOP 25+ Years Strong:
Accomplished, Resourceful, and Successful (ARS)
Norman, Oklahoma
July 17-18, 2019

Editor's Note: Our very own Dawn Reed is NACOP Senior Chair.

Safety Corner

Submitted by: Shannon Beltz

SEA Annual Inspection

Shelia Parker and Darryl Williamson will be visiting SRRC from Tuesday May 14 – Thursday May 16 to perform their Annual Inspection of our facility. Please take a few minutes to walk through your labs and work spaces and just make sure everything is ready. Tidy up, clean up, make sure your signage is clear, and your documentation is available. I am more than willing to answer any questions you have while doing your preparations. Thanks for your efforts!

OMSP (Occupational Medical Surveillance Program)

Most of you have turned in your 182AB forms ... THANKS! If you have not yet turned it in, please do so. I am willing to help if need be, just reach out. The OMSP is a great program and is very worthwhile for all of us exposed to hazards at work. I have learned a lot more about it this year, and I am impressed. Please consider participating, it is for YOUR benefit and well-being!

Do you need a little boost for your Safety Element on your PAP?

Safety is a Critical Element on our PAPs, so if you need a few ideas on how to do more for this element, I can help. I am making a list of quick jobs and items that I can share with anyone who needs a little something extra. Just contact me and let me know you are interested.

Former SRRC Visiting Scientist Promoted to President of Yichun University

Submitted by: Heping Cao

Dr. Xiaochun Zeng, a former visiting scientist at SRRC, was recently promoted to President of Yichun University, Jiangxi Province, China. Dr. Zeng is a Professor of Plant Physiology at Yichun University, which has 1414 faculty and staff and 17860 undergraduate and graduate students. He worked in the laboratory of Dr. Heping Cao, Commodity Utilization Research Unit from August 2014 to February 2015. He is grateful for the research experience gained at SRRC and appreciates Dr. Deepak Bhatnagar for the office space and Ms. Hsiaopo Cheng for the use of her car. After he returned to China, Drs. Cao and Zeng established a no-funded collaborative agreement on metabolism and utilization of plant oil and starch. They have coauthored two peer-reviewed papers published by Journal of Agricultural and Food Chemistry (2015, Vol. 63, pages 929-942) and PLOS ONE (2018, e0198828).



Submitted by: Terri Von Hoven

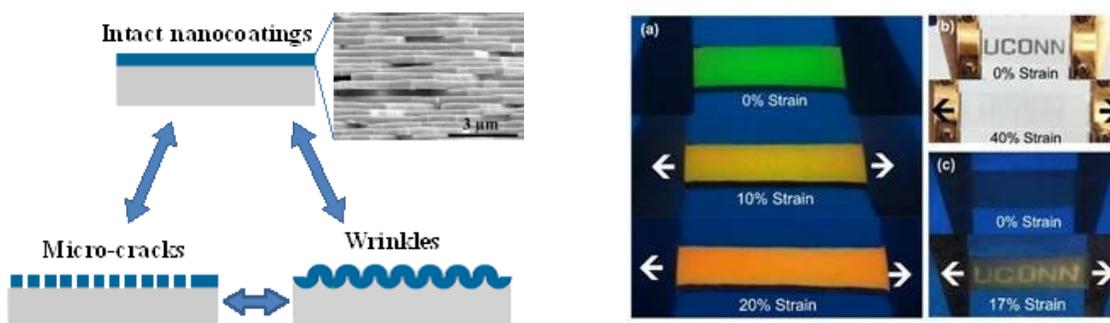
May 5 - 8	78th Sugar Industry Technologists Conference, Durban, South Africa
May 5 - 8	AOCS Annual Meeting, St. Louis, Missouri
May 6 - 7	International Conference on Polymer Chemistry, Amsterdam, Netherlands
May 6 - 7	International Conference on Plant Physiology and Biotechnology, Prague, Czech Republic
May 6 - 7	European Conference on Research in Agri, Food, and Aqua, Amsterdam, Netherlands
May 10 - 11	Global Food Security, Food Safety & Sustainability, Montreal, Canada
May 20 - 22	International Conference on Materials Science and Chemistry, Zurich, Switzerland
May 23 - 24	International Conference on Food Processing, Food Safety & Packaging, Paris, France
May 27 - 31	European Materials Research Society, Nice, France

Submitted by: Sunghyun Nam

An open seminar entitled, "Multifunctional Biomimetic Nanocoatings: from an Intact Thin Film to Microcracks to Wrinkles and the Corresponding Property Tuning" will be presented by Dr. Luyi Sun on Friday, May 10 at 10:30-11:30 am in Bayou Conference Room.

Dr. Luyi Sun is a professor in the Department of Chemical and Biomolecular Engineering, and the director of the Polymer Program at the University of Connecticut. His current research focuses on the design and synthesis of nano-structured multifunctional hybrids for various applications.

In this presentation, nanocoatings with three distinct microstructures inspired by nature will be discussed. In the first part, organic/inorganic hybrid nanocoatings with a nacre-like microstructure generated via a facile co-assembly process will be presented. In the second part, inspired by marine organisms that can use muscle-controlled surface structures to achieve rapid and reversible changes in transparency, color, and patterns, a series of strain dependent mechanochromic devices will be presented. In the third part, a series of moisture responsive wrinkle dynamics inspired by human skin on a similar bilayer structure featuring different reversibility and stability will be discussed. The above three biomimetic nanocoatings are promising for widespread applications.



SRRC Recycling News

Submitted by: Isabel Lima

SRRC recycling efforts in 2018 are estimated below:

Amount (lbs)	Material type
500	aluminum cans and tin
1000	plastic
20000	cardboard/magazines/catalogs/misc. paper
1000	white ledger paper
1000	miscellaneous batteries
8000	Electronics equipment including computers
53000	scrap metal
1000	tree trimmings (compost)
960	printer cartridges
86460	total in Pounds
43.23	total in Tons

The New Orleans Department of Sanitation offers a Household Hazardous Waste (HHW) Drop-Off Day annually on the second Saturday in May.

Therefore, Orleans Parish is holding its next **HOUSEHOLD HAZARDOUS WASTE COLLECTION DAY** on **Saturday, May 11th 2019** from **8 am to 1 pm** on **2829 Elysian Fields Avenue, New Orleans, LA**.

Visit <https://www.nola.gov/sanitation/trash/household-hazardous-waste/> for more information on what qualifies as “household hazardous waste” and which should NOT be placed in trash during regular trash pickups.

Below is a list of Common Household Hazardous Wastes (HHW):

Batteries	Paint Thinner and Varnish
Incandescent/Florescent Bulbs	Grout
Pesticides	Oil, Gasoline
Garden Chemicals	Aerosols
Muriatic Acid	E-Waste
Televisions	Household Cleaners
Paint (latex and oil-based)	Flammable Liquids
Paint Thinner and Varnish	Pool Shock

SRRC Recycle Dates: May 9 and 23



New Orleans and Louisiana Area Events

Submitted by: Terri Von Hoven

Wednesdays at the Square	Lafayette Square, NOLA	May 1, 8, 15, 22, 29
Rayne Frog Festival	Rayne, Louisiana	May 8-11
Cochon de Lait Festival	Mansura, Louisiana	May 9-12
Art Jam by KID smART	Southern Rep, NOLA	May 11
Crawfish Mambo	UNO, NOLA	May 11
Top Taco Fest	Woldenberg Park, NOLA	May 16
Bayou Boogaloo	Bayou St. John, NOLA	May 17-19
Plaquemines Parish Seafood & Heritage Festival	Belle Chase, Louisiana	May 17-19
Birdfoot International Music Chamber Festival	NOLA wide	May 22-31
Krotz Springs Sportsmen's Heritage Festival	Krotz Springs, Louisiana	May 23-25
Greek Fest	Holy Trinity Church NOLA	May 23-26
Treme Arts and Culture Festival	7 th Ward-wide, NOLA	May 26-26

New Ice Dispenser

Submitted by: Mike Easson

A new ice dispenser is now available in Break Room 3120. The ice dispenser uses filtered tap water and is for human consumption only, not for research.





SRRC Goes to the Jazz and Heritage Festival



NEW ORLEANS JAZZ
HERITAGE FESTIVAL



Death of Former Employee

Noelie Rita Bertoniere passed away on April 3 in The Villages, Florida. She held a BS degree in Chemistry from St. Mary's Dominican College and a PhD in Organic Chemistry from the University of New Orleans. She worked as a Research Chemist/Research Leader at the Southern Regional Research Center for 41 years prior to her retirement in 2001. Dr. Bertoniere is the author of numerous technical publications involving her research on the chemical modification of cotton fabric and the structure of cotton cellulose. She was a member of the American Chemical Society and the American Association of Textile Chemists and Colorists. Noelie was a lifelong resident of New Orleans until she lost her home after Hurricane Katrina in 2005 and moved to The Villages, Florida.



Recent SRRC Publications

Submitted by: Suhad Wojkowski

Cheng, H.N. and Gross, Richard A. and Smith, Patrick B. (2018) [Green Polymer Chemistry: Pipelines Toward New Products and Processes](#). In: Green Polymer Chemistry: New Products, Processes, and Applications. ACS Symposium Series, volume 1310. American Chemical Society, Washington, DC. pp. 1-11.

Cole, Marsha and Eggleston, Gillian (2019) [Development of a New Industrial Method to Measure Starch in Sugar Products](#). International Sugar Journal, 121 (1442). pp. 122-132.

Cui, Peng and Lin, Qiang and Fang, Dongming and Zhang, Lingling and Li, Rongjun and Cheng, Junyong and Gao, Fei and Shockey, Jay M. and Hu, Songnian and Lu, Shiyong (2018) [Tung Tree \(Vernicia fordii, Hemsl.\) Genome and Transcriptome Sequencing Reveals Co-Ordinate Up-Regulation of Fatty Acid \$\beta\$ -Oxidation and Triacylglycerol Biosynthesis Pathways During Eleostearic Acid Accumulation in Seeds](#). Plant and Cell Physiology, 59 (10). pp. 1990-2003.

Eggleston, Gillian and Stewart, David and Aponte, Fernando and Montes, Belisario and Boone, Stephanie and Verret, Chardcie (2018) [How to Use and Interpret the Results from a High Performance Liquid Chromatography System at a Sugarcane Factory](#). International Sugar Journal, 120 (1431). pp. 210-217.

He, Zhongqi and Guo, Mingxin and Sleighter, Rachel L. and Zhang, Hailin and Fortier, Chanel and Hatcher, Patrick G. (2018) [Characterization of Defatted Cottonseed Meal-Derived Pyrolysis Bio-Oil by Ultrahigh Resolution Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry](#). Journal of Analytical and Applied Pyrolysis, 136. pp. 96-106.

Li, Cuicui and Feng, Weiying and Song, Fanhao and He, Zhongqi and Wu, Fengchang and Zhu, Yuanrong and Giesy, John P. and Bai, Yingchen (2019) [Three Decades of Changes in Water Environment of a Large Freshwater Lake and its Relationship with Socio-Economic Indicators](#). Journal of Environmental Sciences, 77. pp. 156-166.

Liu, Shasha and Wu, Fengchang and Feng, Weiying and Guo, Wenjing and Song, Fanhao and Wang, Hao and Wang, Ying and He, Zhongqi and Giesy, John P. and Zhu, Peng and Tang, Zhi (2018) [Using Dual Isotopes and a Bayesian Isotope Mixing Model to Evaluate Sources of Nitrate of Tai Lake, China](#). Environmental Science and Pollution Research, 25. pp. 32631-32639.

Shockey, Jay M. and Lager, Ida and Stymne, Sten and Kotapati, Hari Kiran and Sheffield, Jennifer and Mason, Catherine and Bates, Philip D. (2019) [Specialized Lysophosphatidic Acid Acyltransferases Contribute to Unusual Fatty Acid Accumulation in Exotic Euphorbiaceae Seed Oils](#). Planta, doi.org/10.1007/s00425-018-03086-y.

Uka, Valdet and Moore, Geromy G. and Arroyo-Mananares, N. and Nebija, Dashnor and De Saeger, S. and Di Mavungu, J.D. (2019) [Secondary Metabolite Dereplication and Phylogenetic Analysis Identify Various Emerging Mycotoxins and Reveal the High Intra-Species Diversity in Aspergillus flavus](#). Frontiers in Microbiology, 10 (667). pp. 1-20.

van der Sluijs, Marinus HJ and Delhom, Christopher D. and Wanjura, John and Holt, Greg (2019) [A Preliminary Investigation into the Feasibility of Gin Blending](#). Journal of Cotton Science, 23. pp. 97-108.

Wright, Maureen S. (2018) [Microbiology in the Sugar Industries](#). Sugar Industry/Zuckerindustrie, 143 (2). pp. 83-87.