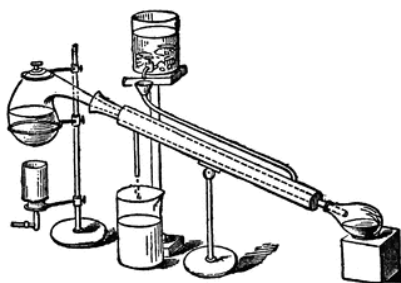




SOUTHWEST RETORT



SEVENTY-THIRD YEAR

November 2020

*Published for the advancement of
Chemists, Chemical Engineers
and Chemistry in this area*

published by

The Dallas-Fort Worth Section, with the cooperation of five other local sections of the American Chemical Society in the Southwest Region.

Vol. 73(3) November 2020

Editorial and Business Offices: *Contact the Editor for subscription and advertisement information.*

Editor: Connie Hendrickson: retort@acsdfw.org

Copy and Layout Editor: Lance Hughes: hugla64@gmail.com

Business Manager: Martha Gilchrist: Martha.Gilchrist@tccd.edu

The Southwest Retort is published monthly, September through May, by the Dallas-Ft. Worth Section of the American Chemical Society, Inc., for the ACS Sections of the Southwest Region.



Contact the DFW Section
 General: info@acsdfw.org
 Education: new@acsdfw.org
 Elections: candidates@acsdfw.org
 Facebook: DFWACS
 Twitter: acsdfw

TABLE OF CONTENTS

Fifty Years Ago.....5

ARTICLES and COLUMNS

Letter from the Editor.....17

Around the Area.....16

Chemistry Shorts.....8

NEWS SHORTS

Cracking the Secrets of Dinosaur Eggshells.....7

Western Diet Impairs Odor-related Learning and Olfactory Memory in Mice9

Brown Carbon ‘tarballs’ Detected in Himalayan Atmosphere10

Luminescent Wood could Light up Homes of the Future11

A Patch that could Help Heal Broken Hearts14

ANNOUNCEMENTS and MEETINGS

ACS Kenneth A. Spencer Award.....12

Report on Our Fall ACS Virtual Council Meeting.....15

INDEX OF ADVERTISERS

Huffman Laboratories.....3

Vance Editing.....3

TMJ Data Entry and Editing.....3

ANA-LAB.....4

PITTCON.....6

SERVICES and ANNOUNCEMENTS

Elemental Analysis

CHNOS Ash
ICP · AA · ICP/MS
TOC · TOX · BTU
Problem Solving

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936

Phone: (303) 278-4455
FAX: (303) 278-7012
chemistry@huffmanlabs.com
www.huffmanlabs.com



EDITING AND PROOF- READING SERVICES

Need someone to proof or edit your next paper, grant, or presentation? Let an experienced proofreader and PhD chemist do it for you! I have a strong grasp of English grammar and scientific writing and can condense text without losing the underlying meaning. Competitive rates! Contact Mike Vance:

vance2276@gmail.com

408-786-7451

TMJ

Data Entry and Editing

Specializes in:

- **Company newsletters**
- **Confidential Data Entry**
- **Free Quotes**

Contact Lance at

hugla64@gmail.com

Or

214-356-9002

22 Ti 47.867	23 V 50.942	24	25	26	27	28	29	30	31	32	33	34 Se 78.96	35 Br 79.904	
40 Zr 91.224	41 Nb 92.906												52 Te 127.60	53 I 126.90
72 Hf 178.49	73 Ta 180.95												84 Po (209)	85 At (210)
104 Rf (261)	105 Db (262)													
57 La 138.91	58 Ce 140.12	Pr 140.91	Nd 144.24	Pm (145)	Sm 150.36	Eu 151.96	Gd 157.25	Tb 158.93	Dy 162.50	Ho 164.93	Er 167.26	69 Tm 168.93	70 Yb 173.04	

ANA-LAB
CORP.

THE COMPLETE SERVICE LAB

Quality Analytical & Environmental Services Since 1965

ANA-LAB CORPORATION
2600 Dudley Road • P. O. Box 9000
Kilgore, Texas 75663-9000
903-984-0551 • Fax: 903-984-5914
www.ana-lab.com • Email: corp@ana-lab.com

Ana-Lab Corporation is an employee-owned organization which provides superior, innovative and cost effective solutions for clients through exceptional science, processes and people. With a staff of experienced, professional and talented chemists and technicians supported by sophisticated laboratory testing equipment, Ana-Lab is the preferred environmental testing laboratory serving clients nationwide.

Regional Service Centers

Amarillo, TX
Phone / Fax 806-355-3556
Email: panhandlesales@ana-lab.com

Dallas, TX
Phone / Fax 972-837-9412
Email: northtexas@ana-lab.com

Austin, TX
Phone / Fax 512-821-0045
Email: centex@ana-lab.com

Brownsville, TX
Phone / Fax 956-831-6437
Email: rgvtex@ana-lab.com

Houston, TX
Phone / Fax 281-333-9414
Email: gulfcoastsales@ana-lab.com

Norman, OK
Phone / Fax 405-590-2533
Email: oklahoma@ana-lab.com

Shreveport, LA
Phone / Fax 318-219-9300
Email: arkla@ana-lab.com



T104704201

FIFTY YEARS AGO IN *THE SOUTHWEST RETORT*

Dr. Paul K. Kuroda of the University of Arkansas has been named recipient of the 1970 ACS Southwest Regional Award. Dr. Kuroda will be given this award next month at the ACS Southeast/Southwest Regional Meeting held in New Orleans. Dr. Kuroda was honored for his research in radio, nuclear, and environmental chemistry. His famous Plutonium-244 theory gives a means of dating events in the early history of the solar system. After the conclusion of World War II Dr. Kuroda was one of the few Japanese scientists allowed to immigrate to the United States. Prior to his immigration Kuroda had received the Pure Chemistry Award, the highest award from the Chemistry Society of Japan. After further post-doctoral studies with I. M. Kolthoff at the University of Minnesota, Kuroda joined the faculty of the University of Arkansas. He has written a total of 194 papers and book chapters.



Compiled by
E. Thomas Strom

Dr. Gilbert Ayres of UT-Austin has been selected by the Dallas Society of Analytical Chemists to receive their 1970 Analyst of the Year Award. This award is given each year to an outstanding analytical chemist in the Southwest Region of the country.

Louisiana State University will host the university's first Air Pollution Symposium on Jan. 25-28. For this year the symposium will replace LSU's annual Symposium on Analytical Chemistry. This new symposium will host 250 chemists and engineers concerned about air pollution control.

In the Central Texas ACS Section at UT-Austin, **Dr. James Boggs** attended the "Symposium on Molecular Structure and Spectroscopy" in Columbus, OH, where he gave a paper. **Dr. Alan Cowley** returned from trip abroad sponsored by NSF, where he gave several invited lectures. **Dr. Allen Bard** presented two papers at the Society of Applied Spectroscopy meeting in New Orleans.

Newly elected 1971 officers for the Dallas-Fort Worth ACS Section are **Dr. Herman Custard**, Chair-Elect; **Dr. John Maguire**, Secretary; **Dr. Andrew T. Armstrong**, Treasurer; and **Drs. Bernard Carbajal** and **Donald Wiggins**, Directors. The Chair for 1971 will be **Dr. William H. Watson**.

Mobil's Field Research Laboratory was honored to have **Professor Alfred Treibs** as a guest on Sept. 21. Dr. Treibs was associated with Nobel Laureate **Hans Fischer** for some fourteen years. The pioneering work by Dr. Treibs on porphyrins in crude oils, shales, and coals in 1934-35 provided the first conclusive proof of the biogenic origin of petroleum. Professor Treibs can be rightly called the father of modern organic geochemistry. At Mobil, Professor Treibs presented a lecture on some aspects of porphyrin chemistry with a historical review of the early work of Hans Fischer, after which he consulted with chemists **Tom Strom**, **Ellis Bray**, and **Wilson Orr**.

At the University of Arkansas **Dr. A. Wallace Cordes** was awarded an NSF grant to conduct a "Research Participation Program in Structural Chemistry for College Teachers" for the summer of 1971.



PITTCON[™]

CONFERENCE & EXPO

March 8-12, 2021

**VIRTUAL
CONNECTIONS
THAT MATTER**

pittcon.org

*Exposition.
Technical Program.
Short Courses.
Networking Sessions.
Employment Bureau.*



Cracking the Secrets of Dinosaur Eggshells

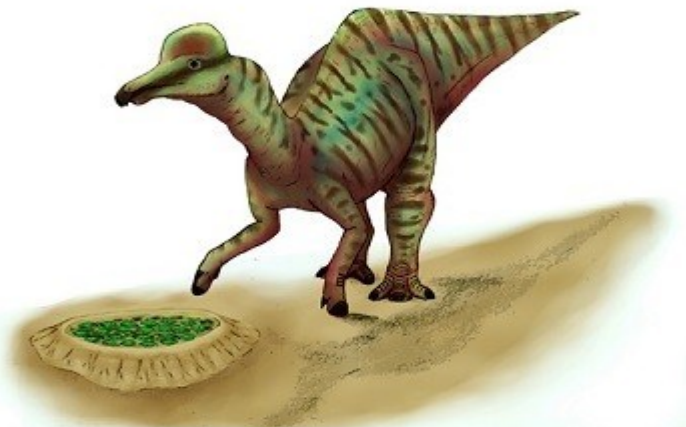
“Searching for a Clue to Characterize a Crystalline Dinosaur’s Eggshell of Baja California, Mexico”

ACS Omega

Since the famous discovery of dinosaur eggs in the Gobi Desert in the early 1920s, the fossilized remains have captured the imaginations of paleontologists and the public, alike. Although dinosaur eggs have now been found on every continent, it’s not always clear to scientists which species laid them. Now, researchers reporting in *ACS Omega* have narrowed down the list for an unknown eggshell from Mexico by comparing its microstructure and composition with four known samples.

Because many dinosaur eggs are similar in size and shape, it can be difficult to determine what type of dinosaur laid them. Clues can come from fossilized embryos (which are rare), hatchlings in the same nest or nearby adult remains. Scientists also have identified microscopic features of eggshells that differ among groups of dinosaurs. In addition, researchers have studied the elemental composition of fossil eggshells to learn more about the paleoenvironment and conditions that led to the eggs’ fossilization. Abel Moreno and colleagues wanted to compare the microstructure and composition of five dinosaur eggshells from nests in the El Gallo Formation of Baja California, Mexico. Based on the eggs’ shapes and sizes and the fossil record of the area, the researchers had concluded that three of the eggs were laid by ornithopods (bipedal herbivores) of the hadrosaur family (duck-billed dinosaurs) and one by a theropod (bipedal carnivores) of the troodontidae family (small, bird-like dino-

saurs). The remaining sample was too damaged to classify by the naked eye. Using scanning electron microscopy, the team examined the external and internal sur-



Researchers studied eggshell microstructures to help estimate whether an unknown sample was laid by an ornithopod (herbivorous; top) or a theropod (carnivorous; bottom).

Credit: Adapted from *ACS Omega* 2020, DOI: 10.1021/acsomega.0c03334

faces and a cross-section of each eggshell. In contrast to the smooth outer surface of the theropod shell, the shells from the ornithopods and the unknown sample had nodes at different distances across the shell. Images of shell cross-sections from the ornithopods revealed that mammillary cones — calcite crystals on the inner surface of the shell — formed thin, elongated columns arranged

Cracked Eggshells cont'

in parallel, with irregular pores. In contrast, the eggshell from the theropod showed thicker, shorter cones arranged in a bilayer, with wider pores. The unknown sample more closely resembled the ornithopod eggshells, leading the researchers to hypothesize that it was probably also from the hadrosaur family. In addition, the researchers conducted an elemental composition analysis, which they say is the first such analysis on dinosaur eggshells collected in Mexico. They say the findings might help reveal how the fossilization process varied among species and locales.

The authors acknowledge funding from [FOMIX-Yucatan](#), the [National Council of Science and Technology \(CONACYT\) of Mexico](#) and the [General Directorate of Academic Personnel Affairs \(DGAPA\)-Support Program for Research and Technological Innovation Projects \(PAPIIT\)](#).

2020 DFW Section Officers

Chair: Mihaela C. Stefan

Chair-elect: Trey Putnam

Past Chair: Denise Merkle

Treasurer: Martha Gilchrist

Secretary: Heidi Conrad

Councilors (2018-20) Mary Anderson

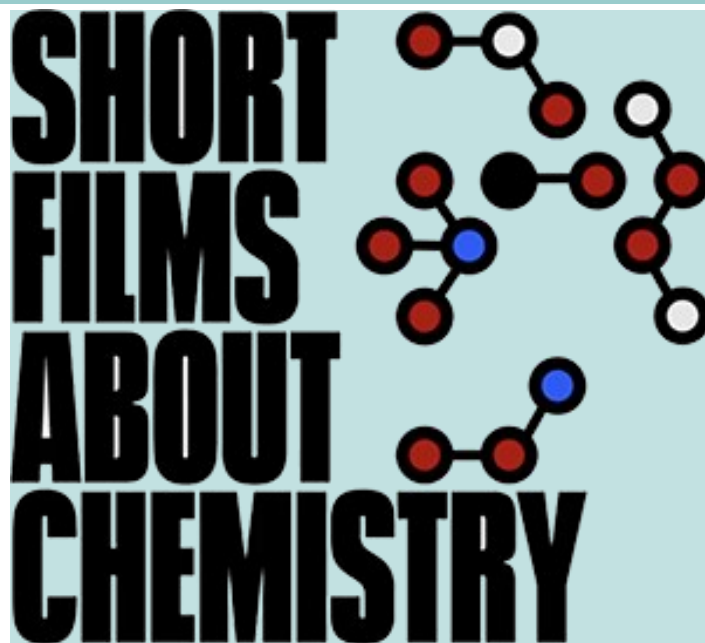
Councilors (2019-21): Linda Schultz,

E. Thomas Strom, and Jason McAfee

Alternate Councilor (2018-20): Ed Donnay

Alternate Councilors (2019-21):

Michael Bigwood, John McIlroy, and Daniela Hutanu



Introducing Chemistry Shorts: a new series of brief films that spotlight innovative ways that chemists and chemical engineers are working to solve important problems and create new opportunities. Each film is accompanied by a lesson plan that offers suggestions on how to integrate it into the classroom.

The first three films and lesson plans are available at:

<https://chemistryshorts.org>

* Direct Air Capture & The Future of Climate Change, with Christopher Jones (Georgia Tech)

* Under the Skin, with Zhenan Bao (Stanford)

* Rewriting Life, with David Liu (Harvard)

Chemistry Shorts is also on YouTube and Twitter:

<https://www.youtube.com/c/chemistryshorts>

<https://twitter.com/chemistryshorts>

From the ACS Press Room

Western Diet Impairs Odor-related Learning and Olfactory Memory in Mice

“Western Diet Accelerates the Impairment of Odor-Related Learning and Olfactory Memory in the Mouse”

ACS Chemical Neuroscience

Problems with the sense of smell appear to be an early indicator of cognitive decline in people with type 2 diabetes. However, it is unknown whether factors such as diet and obesity play a role in who develops these symptoms. Now, researchers reporting in *ACS Chemical Neuroscience* found that mice fed a moderate-fat, high-sugar chow (simulating a Western diet) showed a faster decline in their ability to learn and remember new odors.

Some people with type 2 diabetes (T2D) show signs of olfactory dysfunction, including problems with detecting, discriminating or recalling odors, or even a complete loss of smell. These symptoms are strongly associated with cognitive impairment, and evidence suggests they could be an early indicator of the condition in people with T2D. Obesity, which is the main risk factor for T2D, has also been associated with olfactory dysfunction, but the impact of obesity on the sense of smell specifically in these patients is unclear, as studies have produced conflicting results. Also, it's unknown whether certain nutrients in the diet, such as fat and sugar, affect the sense of smell. To find out, Grazyna Lietzau, Cesare Patrone and colleagues wanted to compare the effects of two diets on different olfactory functions in mice: a high-fat, moderate-sugar diet (HFD); and a moderate-fat,

high-sugar diet (similar to a Western diet, WD). In mice, both diets cause obesity and T2D-like features.



A Western diet impairs the ability of mice to learn and remember new odors.

Credit: TheWorst/Shutterstock.com

At one, three and eight months, the team performed tests to assess different olfactory functions in the mice. By eight months, both the HFD- and WD-fed mice had impaired odor detection, odor-related learning and olfactory memory compared with the control mice.

However, the WD-fed mice had a faster decline in the latter two abilities, showing olfactory dysfunction as early as 3 months after beginning the diet. These findings indicate that a high dietary sugar content, rather than hyperglycemia or weight gain, is linked with early deterioration of olfactory functions related to learning and memory, the researchers say. How sugar causes these effects, and whether they are also seen in humans, the re

Continued on Page 13

From the ACS Press Room

Brown Carbon ‘tarballs’ Detected in Himalayan Atmosphere

“Evidence for Large Amounts of Brown Carbonaceous Tarballs in the Himalayan Atmosphere”

Environmental Science & Technology Letters

Some people refer to the Himalaya-Tibetan Plateau as the “third pole” because the region has the largest reserve of glacial snow and ice outside of the north and south poles. The glaciers, which are extremely sensitive to climate change and human influence, have been retreating over the past decade. Now, researchers reporting in ACS’ *Environmental Science & Technology Letters* have detected light-absorbing “tarballs” in the Himalayan atmosphere, which could contribute to glacial melt.



Researchers have detected light absorbing “tarballs” in the Himalayan atmosphere, which could contribute to glacial melt.

Credit: Meiqianbao/Shutterstock.com

Burning biomass or fossil fuels releases light-absorbing, carbonaceous particles that can deposit on snow and ice, possibly hastening the melting of glaciers. Previous research has

shown that one type of particle, called black carbon, can be transported long distances by wind to the Himalayan atmosphere. But much less is known about the presence of brown carbon, a particle that can form tarballs — small, viscous spheres consisting of carbon, oxygen and small amounts of nitrogen, sulfur and potassium. Weijun Li and colleagues wanted to see what types of individual aerosol particles were present in air samples taken at a remote, high-altitude research station on the northern slope of the Himalayas.

Using electron microscopy, the researchers unexpectedly found that about 28% of the thousands of particles in the air samples from the Himalayan research station were tarballs, and the percentage increased on days with elevated levels of pollution. Analyzing wind patterns and satellite data revealed that a dense array of active fire spots, corresponding to large-scale wheat-residue burning on the Indo-Gangetic Plain, occurred along the pathways of air masses that reached the Himalayan research station during sampling. Through modeling calculations, the team estimated that tarballs deposited on glacial surfaces could contribute a significant warming effect. As a result, future climate models should consider the long-range transport of tarballs to the Himalayas, the researchers say.

The authors acknowledge funding from the [National Natural Science Foundation of China](#), the [China Postdoctoral Science Foundation](#), the Research Funding of School of Earth Sciences of [Zhejiang University](#),

From the ACS Press Room

Luminescent Wood could Light up Homes of the Future

“Luminescent and Hydrophobic Wood Films as Optical Lighting Materials”

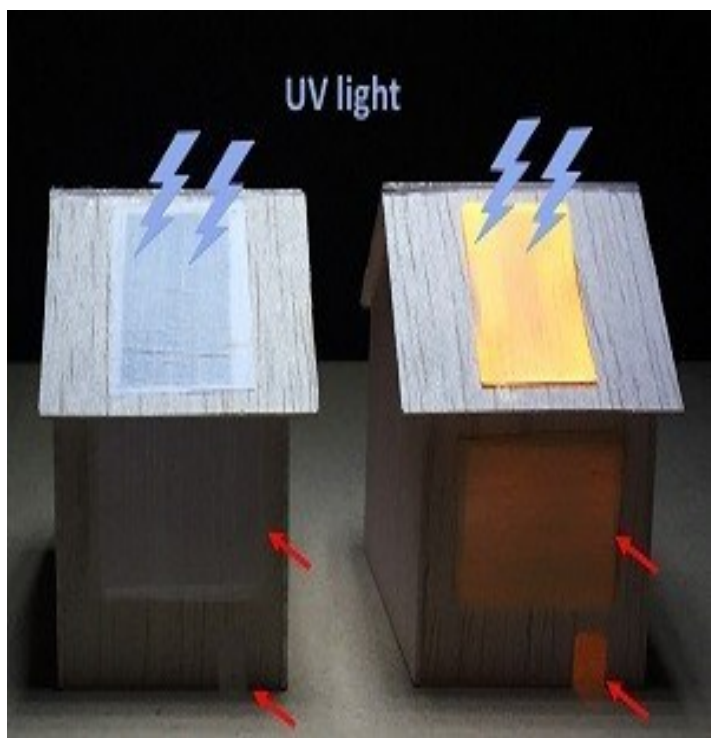
ACS Nano

The right indoor lighting can help set the mood, from a soft romantic glow to bright, stimulating colors. But some materials used for lighting, such as plastics, are not eco-friendly. Now, researchers reporting in *ACS Nano* have developed a bio-based, luminescent, water-resistant wood film that could someday be used as cover panels for lamps, displays and laser devices.

Consumer demand for eco-friendly, renewable materials has driven researchers to investigate wood-based thin films for optical applications. However, many materials developed so far have drawbacks, such as poor mechanical properties, uneven lighting, a lack of water resistance or the need for a petroleum-based polymer matrix. Qiliang Fu, Ingo Burgert and colleagues wanted to develop a luminescent wood film that could overcome these limitations.

The researchers treated balsa wood with a solution to remove lignin and about half of the hemicelluloses, leaving behind a porous scaffold. The team then infused the delignified wood with a solution containing quantum dots — semiconductor nanoparticles that glow in a particular color when struck by ultraviolet (UV) light. After compressing and drying, the researchers applied a hydrophobic coating. The result was a dense, water-resistant wood film with excellent mechanical properties. Under UV light, the quantum dots in the wood emitted and scattered an orange light that spread evenly throughout the film’s surface. The team demonstrated the ability of a luminescent panel to light up the interior of a toy house. Different types of quantum dots could be incorporated into the wood film to create various colors of lighting products, the researchers say.

The authors acknowledge funding from the [Royal Society of New Zealand Te Apārangi](#) and the [New Zealand Ministry of Business, Innovation and Employment](#).



When exposed to UV light on the outside, a luminescent wood panel (right) lights up an indoor space (as seen through “windows;” red arrows), whereas a non-luminescent panel (left) does not.

Credit: Adapted from *ACS Nano* 2020, DOI: 10.1021/acs.nano.0c06110

ACS KENNETH A SPENCER AWARD

DR. JERRY W. KING

The Kenneth A. Spencer Award of the American Chemical Society was recently awarded to Dr. Jerry King for outstanding achievement in agricultural and food chemistry. Dr. Jerry King, CFS – formerly of the University of Arkansas, is receiving the 2020 Spencer Award. The award is given by the Kansas City Section of the ACS. Dr. King is being recognized for specifically his contributions in applying sub- and su-



percritical fluids for chemical separations – both in processing as well as the analysis foods and natural products. He presented a lecture entitled, “A Multidisciplinary Journey through Agricultural and Food Chemistry” at ACS’s Fall National Meeting in San

Francisco, and later at award banquet held in his honor in the Kansas City area by the local ACS section.

Dr. King has over 55 years of experience in the fields of chemistry, chemical engineering and food technology. His research has been conducted in government (USDA), industrial, academic, and as a consultant (CFS). Dr. King has published over 275 papers/proceedings including government reports and 3 patents. These activities have promoted environmentally-sustainability and have resulted in a number of consumer-friendly products. The roadmap to these developments have included many collaborations both nationally and internationally - liaisons with researchers/institutions in Europe, Asia, and Latin America, including the USA-regulatory agencies of FDA, FSIS, FGIS, and EPA. A major emphasis over this time period has been creating value-added by-products from agriculturally-derived processing wastes such as grape/berry pomaces, deodorizer distillates, expeller-derived residues, and wood wastes, as well as “green’ laboratory and analytical methodologies.

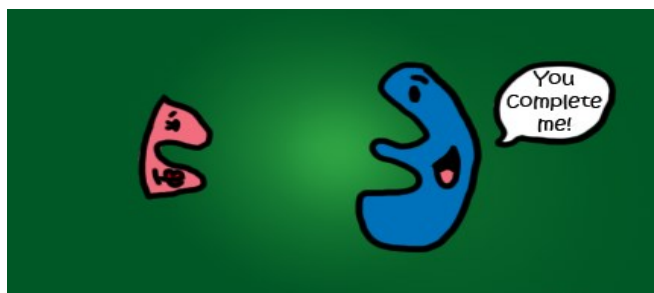
Previously he has been awarded AOAC’s Harvey Wiley Award in 1997 for his research in analytical SFE. In 1998, he received the Award of Excellence at the 8th International Symposium on SFC/SFC for “pioneering achievement, leadership, and enthusiasm in the development of supercritical fluid technology and the education of others”. He was awarded an Underwood Fellowship in 1999 for sabbatical study in the United Kingdom,

and in the following year, he received the Keene P. Dimick Award at Pittcon for his contributions in the fields of gas and supercritical fluid chromatography. He also has been awarded the Herbert J. Dutton Award from the American Oil Chemists' Society for his contributions to the analysis and processing of lipids and oils. He was selected for a Marie Curie Chair by the European Union in Brussels, Belgium in 2004. In 2007 he was the Outstanding Researcher in the Department of Chemical Engineering at the University of Arkansas. In 2008 he was the Mariwala Visiting Professorship at UICT in Mumbai, India. In May 2012, he was elected a fellow of the American Oil Chemists' Society, and in 2013, elected as a Fellow of the Industrial & Engineering Division of the American Chemical Society. In 2015, Dr. King was appointed to a Visiting Fulbright Research Chair at the University of Alberta. In 2018, he was the Chairman of the Separation Science & Technology a Sub-Division of the ACS, and more recently served as the co-Program Chair for the ACS sub-division on Cannabis Chemistry.

Western Diet *Con't from Page 8*

searchers acknowledge, remains to be determined.

The authors acknowledge funding from the [Swedish Research Council](#), the [European Foundation for the Study of Diabetes/Sonofi European Diabetes Research Programme in Macrovascular Complications](#), the [Swedish Heart-Lung Foundation](#), [Diabetesfonden](#), [Svensk Förening för Diabetologi](#), [Karolinska Institutets Stiftelser och Fonder](#), [STROKE Riksförbundet](#), Stiftelsen för Gamla Tjänarinnor and the [regional agreement on medical training and clinical research \(ALF\) between Stockholm County Council and the Karolinska Institutet](#).



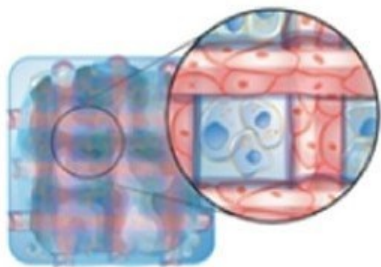
★
★
Congratulations
★

A Patch that could Help Heal Broken Hearts

“Cardiac Stromal Cell Patch Integrated with Engineered Microvessels Improves Recovery from Myocardial Infarction in Rats and Pigs”

ACS Biomaterials Science & Engineering

According to the American Heart Association, heart disease is the leading cause of death worldwide in recent years. During a heart attack, or myocardial infarction (MI), a blocked artery and the resulting oxygen deprivation cause massive cardiac cell death, blood vessel impairment and inflammation. Now, researchers reporting in *ACS Biomaterials Science & Engineering* have developed a cardiac patch with tiny engineered blood vessels that improved recovery from MI in rats and pigs.



Pre-Vascularized Patch

A cardiac cell patch combines an engineered blood vessel network (red) with human cardiac stromal cells (blue) in a 3D fibrin matrix, as seen in this artist's rendition.

Credit: Adapted from *ACS Biomaterials Science & Engineering* 2020, DOI: 10.1021/acsbiomaterials.0c00942

they don't restore both cardiac muscle and blood supply to the injured site. Ke Cheng and colleagues previously developed a relatively easy-to-make pre-vascularized cardiac patch, which contained engineered mi-

crovessels in a fibrin gel spiked with cardiac stromal cells. When implanted into rats after an MI, the cells in the patch secreted growth factors that made cardiac muscle and blood vessels regrow. Now, the researchers wanted to test the patch further in rats, as well as in pigs, which have cardiovascular systems more similar to humans than those of rodents.

The researchers implanted the cardiac patch in rats that recently had a heart attack. Four weeks later, rats that received the patch had less scar tissue, increased cardiac muscle and improved cardiac pump function compared with untreated rats. The team observed similar effects in pigs that had undergone MI and were treated with the patches. The patch increased recruitment of the pigs' progenitor cells to the damaged area and enhanced the growth of new blood vessels, as well as decreased cardiac cell death and suppressed inflammation. Although prior studies have used blood vessel-forming cells or natural blood vessels to vascularize cardiac patches, this study is the first to demonstrate the success of pre-vascularized cardiac stromal cell patches using microengineered synthetic blood vessels for treating MI in a large animal model. More studies on the mechanisms, safety and efficacy of patch repair are needed before the technology can be applied to humans, the researchers say.

The authors acknowledge funding from the [National Institutes of Health](#), the [American Heart Association](#), the [National Science Foundation](#), the [North Carolina State University Chancellor's Innovation Fund](#) and the [University of North Carolina General Assembly Research Opportunities Initiative](#).

REPORT ON OUR FALL ACS VIRTUAL COUNCIL MEETING

Reporter E. Thomas Strom

You faithful readers of *The Southwest Retort* will have noticed that there was no councilor's report in the *Retort* on the Spring, 2020, ACS National Meeting in Philadelphia.

However, you would not have been surprised at that omission, as the Philadelphia meeting was cancelled because of the Covid-19 pandemic. As spring ended and summer began, it became clear that the pandemic was not throttling down because of the warm weather. Consequently, ACS changed the format for the August, 2020, ACS National Meeting intended for San Francisco to an online format. Since the Council is an important governing body of the ACS, this dictated that the Council itself should meet in an online fashion, *i.e.*, in a virtual manner. As this was a new procedure for the Council, ACS arranged for two online practice sessions before the actual online meeting of Aug. 19th. All four of your DFW councilors, Mary Anderson, Jason McAfee, Linda Schultz, and Tom Strom, participated in this new Council format.



Much of the work of ACS is carried on in and by committees. The personnel for important Council committees

are elected by the Council itself from a slate of qualified candidates. Typically five individuals are chosen from a slate of ten. Those

elected for the Council Policy Committee were Mark D. Frishberg, Elizabeth M. Howson, Zaida C. Morales-Martinez, Margaret J. Schooler, and Jeanette M. Van Emon. The elected individuals for the Committee on Committees were Martha G. Hollomon, Diane Krone, Sarah M. Mullins, Andrea B. Twiss-Brooks, and Javier Vela. The elected members for the Committee on Nominations and Elections were Jetty L. Duffy-Matzner, Kevin J. Edgar, Neil D. Jespersen, Julianne M. D. Smist, and Linette M. Watkins.

Mary Anderson is our local representative on the Membership Affairs Committee (MAC). Mary reports that MAC has been working for some time in streamlining and updating membership pricing. Stay tuned for exciting news in this area from the next national ACS meeting.

There were several key actions by the Council. On the recommendation of the Committee on Committees, and with the concurrence of the Council Policy Committee, the Council approved the Petition to Clarify Amendments to the Standing Rules and disbanded the Joint Board-Council Committee on Chemical Abstracts. This latter action is contingent on approval by the Board of Directors. Several councilors argued from the floor against ending this Chem Abstracts Committee. On the recommendation of the Committee on International Activities, and with the concurrence of the Council Policy Committee, Council approved the creation of an ACS International Chemical Sciences Chapter in Israel, contingent on approval by the Board of Directors.

ACS Meeting Report cont'

The Budget and Finance Committee gave an update on ACS financial performance through July 31st. The Net from Operations yielded \$55.7 million, which was \$25 million higher than from the same period in 2019. Total revenues are \$354 million, 5% ahead of last year, and total expenses are \$298 million, or 3% below last year. Unrestricted Net Assets increase to \$466 million. Of course, the main effect of the Covid-19 pandemic has yet to be felt. The most direct revenue impact to ACS were the terminations of the Spring ACS Meeting and the in-person

Green Chemistry Conference. Significant effort has been devoted to expense management. The total registration for the online fall meeting was 6,477. Virtual presentation uploads were 4,067.

This was your councilor's first experience with a virtual meeting. It's interesting to go to the dictionary definition of the word. **Virtual**---"being so in effect or essence, although not in actual fact or name." My personal definition would be "something like a real meeting, but not *really*." It was possible for speakers to the various issues to be visually seen, provided they hit the correct link and were put properly in the queue. My personal opinion is that I would rather attend a face-to-face meeting, because something is lost with the absence of personal interaction.

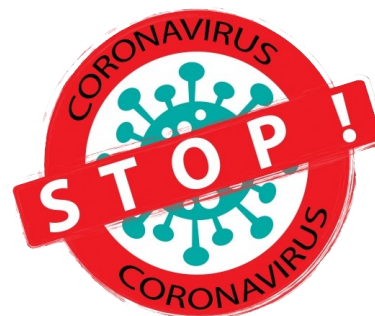
Will the Spring, 2021, ACS National Meeting will really take place face to face in San Antonio? I hope it will. However, viruses are a law unto themselves. Covid-19 has the last word in this instance.

Around the Area



UT Dallas

Professor Julia Chan was named the recipient of the 2020 Southwest Region ACS Award for Outstanding Contributions to the Advancement of the Field of Pure and Applied Chemistry. Professor Vladimir Gevorgyan, the Robert A. Welch Distinguished Chair in Chemistry, was awarded a three-year grant concerning Novel Synthetic Methods from the NSF.



From the Editor

Breaking news: in the last three days, both Moderna and Pfizer have announced the submission of their COVID-19 vaccines to the FDA for emergency approval. Both of these are mRNA vaccines, a new method of vaccine production, where an mRNA sequence that codes for the virus spike protein is used for injection, rather than the traditional use of a killed or attenuated virus. Cells read the sequence in the mRNA and produce copies of the spike protein, which cause the immune system to produce antibodies. These are only the first of the onslaught of vaccines against Covid-19, and more are coming, thanks to the tremendous efforts of research labs all over the world.

Virtual learning and meetings are the new reality, and even after the current pandemic is under control, I think that the virtual universe will continue to grow. PITTCON is going virtual. Tom Strom went to a virtual counselors' meeting. Chemistry Shorts is a new series of brief films featuring chemists and chemical engineers working to solve important problems; the films are accompanied by a lesson plan that offers suggestions on classroom integration...check it out.

*Best regards,
Connie*