

Announcements

INBRE Research Technology Core Voucher Opportunity

Due: January 1

This allows faculty and students at the predominantly undergraduate institutions (PUIs) to gain access to the Core Facilities at the lead institutions for both research and teaching. The Voucher application form can be found on the INBRE website, <https://inbre.uams.edu/cores/biotechnology/>. To **apply** for a voucher, you will need an official quote from the Core Facility. Please contact the Core Facility Director or [Dr. Alan Tackett](#) at least two weeks prior to the due date to obtain a quote. **Tips for a successful application:** have your samples ready for submission to the core because vouchers expire; involve multiple undergraduate students; write a concise description of the project; outline how the data obtained will enable publications involving undergraduate students and grant submissions.

UALR & UAMS Genomics Workshop

March 21 – 23, 2022 (UA System Spring Break Week)

UALR and UAMS are pleased to host a Genomics Workshop with both face to face and virtual options. Students will gain experience analyzing data using 3rd generation sequencing methods. This workshop is free and open to all interested high school, college, graduate students and faculty.

Please register using the following link: <https://www.surveymonkey.com/r/PFTGL77>.

For Bioinformatics Core support, please contact either Drs. [Galina Glazko, Ph.D.](#) (UAMS) or [Phil Williams](#) (UALR). The [Bioinformatics Core Support Request Form](#) can be found on the [INBRE website](#).

Fellowship opportunities are available through NIH for students and postdocs from underrepresented populations. For more information, visit the [iCURE website](#).

The NIH Office of Intramural Training and Education (OITE) offers many free online workshops and webinars for all levels of training. Below are a few links, but please be sure to take a look at the schedule for additional webinars that may be of interest:

December 17, 2-3 pm [MD and MD/PhD Application Q&A](#)

January 7, 11 am–12 pm [Applying to Graduate School: Biweekly Q&A Session](#)

January 14, 1:30–2:30 pm [Workplace Dynamics I: Gaining Self-Awareness and Communications Skills](#)

NIH has a new #COVID [website](#).

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Upcoming Meetings

INBRE Summer Mentored Research Program

SAVE-THE-DATE: May 23 – July 29, 2022

Application deadline: February 1

[Program information](#) online [application instructions](#) and [application](#).

INBRE Obesity and Diabetes Research Workshop for Undergraduates

SAVE-THE-DATE: May 25, 2022, 9 AM – 2 PM

This workshop will focus on obesity, diabetes and the need for research into treatment, management and care. The workshop is free and will be held in-person on the UAMS campus. Registration will be required. More details to come.

NISBRE Conference

Washington, DC, in June 2022 (tentative)

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Message from the PI



October and November were notable months for the Arkansas INBRE. In October, the Arkansas INBRE Fall Research Symposium took place in Fayetteville. For me, the meeting was memorable for two principal reasons. The first reason being that it was an “in-person” meeting, the first such meeting for the Arkansas INBRE since the 2019 Arkansas INBRE Fall Research Symposium. While some adjustments in the logistics of the meeting were necessary in deference to the ongoing pandemic, for instance elimination of the Friday evening dinner and the “spreading-out” of the poster sessions. Nonetheless, the main features of the meeting were retained including an outstanding keynote address by Dr. Jessica Snowden, an Associate Professor of Pediatrics at UAMS, and several workshops following the poster sessions. I for one enjoyed the meeting, especially being able to see “first-hand” through the oral and poster sessions

all the outstanding research that is being done by students and faculty from all the Arkansas INBRE institutions. Kudos to Dr. Feng (Seymour) Wang, current Director of the Arkansas INBRE Outreach Core, as well as the contributing University of Arkansas faculty and staff for organizing a terrific meeting.

The second reason the meeting was notable was that it gave me the opportunity during the Steering Committee Meeting/Dinner to honor Dr. Roger Koeppe for twelve years of service (2008-2020) to the Arkansas INBRE as Director of the Outreach Core. During his tenure, the Fall Research Symposium grew both in size and stature to its current state in which there are approximately 450 attendees and over 150 oral and poster presentations. The reputation of the meeting is such that we have attendees from other states including Oklahoma, Kansas, Missouri and Tennessee. I should also mention that Dr. Koeppe has recently retired from the University of Arkansas where he was a Distinguished Professor of Chemistry and Biochemistry. We wish Dr. Koeppe well during his retirement and thank him for his years of service and commitment to the Arkansas INBRE.

A second important scientific meeting for the Arkansas INBRE, the Southeast Regional IDeA Meeting, was held in November in San Juan, Puerto Rico. I am pleased to report that meeting attendees included 43 faculty and students from Arkansas. Of the fourteen students from Arkansas who attended, all were affiliated with institutions in the Arkansas INBRE network. Especially noteworthy was that Alicen Wilcox, a student at Harding University, received one of the four awards for outstanding student presentations at the meeting. Dr. David Donley, an Assistant Professor at Harding University, is Alicen’s mentor. A well-deserved award for an outstanding oral presentation on her work!

I hope everyone has a Happy Holiday Season!!

Faculty Spotlight: Featuring Faculty with an INBRE Recruitment Package



Joshua Kwekel, PhD
Assistant Professor
Ouachita Baptist University

In May of this year I joined the faculty in the Biology Department at OBU. I am a grateful beneficiary of the INBRE New Faculty Recruitment Award. My primary teaching responsibilities include Anatomy and Physiology 1/2, Histology, and Undergraduate Research Capstone. I am starting a zebrafish colony as the basis of my research efforts at OBU. Summer research focused on preparing

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my laboratory space and resources for zebrafish housing, husbandry, and protocol optimization. Progress in the zebrafish lab has slowed during the fall semester, however spring semester promises better opportunities to continue these efforts.

I earned my BS in Biomedical Sciences from Grand Valley State University. During undergrad, I began working part time as an assistant laboratory technician in the Genomics Core Facility under the direction of Dr. Brian Haab at the Van Andel Research Institute (VARI, Grand Rapids, MI) from 2000-2002. Those were the days of the booming DNA Microarray era making use of the recently completed Human Genome Project data for gene expression/transcript profiling. I completed my PhD in Biochemistry and Molecular Biology from Michigan State University in 2008. My dissertation research was performed in the laboratory of Dr. Tim Zacharewski, focusing on estrogen-like endocrine disrupting compounds, specifically estrogen receptor ligands, in eliciting estrogen-like changes using a toxicogenomic approach *in vivo* in rodent uteri. I began exploring species comparisons in estrogen gene expression profiles between rats and mice as an approach to evaluating conserved responses in estrogen signaling. Unsurprisingly, rats and mice exhibit almost identical uterine gene expression profiles in response to estrogen. However, one gene exhibited not merely species-specific expression, but species divergent expression. Uterine *Carbonic anhydrase 2* expression is upregulated by estrogen in mice, but down regulated in rats. This species divergence in expression was confirmed using other estrogen receptor ligands (Tamoxifen) and using RT-PCR. However, dissertation writing and defense and subsequent moving on to my post-doc prevented further inquiry.

I moved to Arkansas to take an ORISE postdoc position at the FDA research facility, National Center for Toxicological Research, in Jefferson, AR. I joined the Functional Genomics laboratory under the direction of Dr. James Fuscoe and began working on a rat lifecycle study examining normal variation in liver and kidney gene expression across age and sex. The aims of this research was to identify genes and characterize expression patterns that might be correlated to age- and sex-dependent differences in adverse drug reactions. This research was funded in conjunction with HHS's Office on Women's Health. Whole-genome profiling revealed many age and sex related differences in liver mRNA expression, especially among known drug metabolizing enzymes and transporters of interest for ADME effects in pre-clinical drug studies. Recent follow up studies using male and female rat primary hepatocytes treated with drugs that are targeted by these metabolizing enzymes have demonstrated pharmacokinetic differences that correlate with the differences in gene expression. However, after mRNA profiling studies were published, rising interest in microRNAs as pre-clinical biomarkers fueled profiling studies in the same rat lifecycle liver and kidney samples to better understand normal variation in the expression of these non-coding, regulatory miRNAs. After completing these experiments, our results indicated a much more subdued level of age and sex differences in miRNA expression compared to mRNA. However, a few fascinating patterns emerged; one relating to an entire cluster of miRNAs and their role in regulating developmental/neonatal liver energy homeostasis, which was described in subsequent publications.

Following a slight shift in calling, I pursued full-time undergraduate course instruction at the encouragement of a dear colleague, Dr. Miseon Seong, at Central Baptist College (Conway, AR). I began teaching several courses in Biology including Anatomy, Histology, Zoology, Neuroscience, and Biochemistry. The change revealed deep personal inclinations and aptitude I had only just begun to realize. Course preparation and laboratory instruction was very challenging but enflamed my passion for teaching and mentoring undergraduate students as they pursued career goals in pre-med, nursing, physical therapy, pharmacy and research. Fellow faculty, administration, and student feedback confirmed my new direction and I enjoyed developing and maturing my course curricula over the next five years. My heavy semester assignments of fall and spring courses including labs limited my time at CBC to only course instruction and academic advising, curtailing my ability to engage in undergraduate research, despite frequent encouragements from my fellow

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faculty member, Dr. Seong. She regularly shared of her positive interaction with Arkansas INBRE and the successes she enjoyed in obtaining small grants to fund her own research projects. Dr. Seong remains a colleague and friend; I look forward to meetings to hear about her INBRE funded research and share about my own.

I am indebted to Arkansas INBRE for making my hire at OBU possible through the generous New Faculty Recruitment Award. I am currently staging my new small lab for zebrafish research. My goal is to successfully incorporate zebrafish into my undergraduate course work, specifically in Histology, where students will process *in vivo* samples for routine fixing, sectioning, and staining of tissue samples. This vertebrate model will assist their development of valuable laboratory skills while deepening their knowledge of tissue level organization of developmental biology and histology. My desire is to continue in research projects which address my interests in age-dependent or development related biology and sex-differences that deepen our understanding of innate susceptibilities that underlies fundamental biological states. In my brief time at OBU, I have experienced a welcoming and resourceful culture of developing undergraduate researchers who actively participate at the edges of scientific understanding of topics they are learning about in their courses. This participation is made possible by the tremendous support of Arkansas INBRE. My 2021 summer research student presented some of our initial progress at last month's meeting. I look forward to generating data to share at the 2022 Fall Conference.

What you might not know about Dr. Kwekel...

I enjoy the outdoors. During the early Spring 2020 COVID months of off-campus instruction, I spent Friday afternoons exploring the Ozark National Forest for famed Arkansas waterfalls! The Natural State is full of beauty.

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Faculty Spotlight: Featuring Faculty with an INBRE Recruitment Package



Mick Yoder, PhD

Assistant Professor

University of Central Arkansas

I joined the faculty in the biology department at the University of Central Arkansas in the Fall of 2020 and my major teaching responsibility is our core Cell Biology course, as well as reviving our Developmental Biology course. Prior to joining the faculty at UCA, I spent time as a faculty member at SUNY Old Westbury and Penn State Brandywine. I earned my B.S. degree (biology) at Pennsylvania State University and my Ph.D. (molecular, cellular, and developmental biology) at the

University of Pittsburgh, in the laboratory of Dr. Jeffrey Hildebrand. I continued my studies as a post-doctoral researcher in the laboratory of Dr. Barry Gumbiner at the University of Virginia.

My journey as a researcher began as an undergraduate, where I had the opportunity to work in the laboratory of the late Dr. Robert K. Selander studying bacteriophage genomics. Working closely with a post-doc in the lab, learning new techniques, and trying to solve unanswered questions really gave me the 'research bug' and caused me to shift my goals from pursuing veterinary school to continuing research in a Ph.D. program. While I knew I did not want to continue working with bacteriophage (or microbiology in general), I absolutely knew that research was my passion. At the beginning of graduate school I was still a little unsure of my 'field of choice', but rotating through a few labs helped me focus on my interests. I ultimately joined a lab that performed research on a family of actin binding/regulatory proteins known as the shroom family and their role in neural development in a mouse model. The name is reference to the mutant phenotype in embryonic mice, where the neural folds do not properly fuse and result in a 'mushrooming' of tissue from the neural tube (similar to spina bifida). There I developed a new passion for understanding the 'formation of shape' in the context of cell behavior (ie. developmental biology).

I continued to pursue my interests in the 'cell biology of development' during my post-doc at UVA, where I developed a project to explore the role of cell-cell adhesion in early embryonic development. This project focused on a sub-group of the cadherin family of cell adhesion proteins, known as the non-clustered protocadherins. Protocadherins are a unique and diverse group, as many of them do not directly facilitate homophilic cell adhesion (like the classical cadherins), but rather they indirectly regulate adhesion by interfering with classical cadherins or through modulation of intracellular signaling. My initial experiments showed that axial protocadherin (*axpc*) is required for the formation of the notochord in the frog model *Xenopus laevis*, but like other protocadherins does not participate directly in cell-cell adhesion. The notochord is a critical embryonic signaling structure, which is absolutely required for patterning the neural tube. With this project in hand, I began my journey to establish my own research lab and continue my research on protocadherins and notochord morphogenesis and tissue formation.

I choose to use *X. laevis* as a model system for a variety of scientific and pedagogical reasons. As a vertebrate model system, much of the developmental program is highly conserved at both the physical and genetic level, so the results can often be broadly applied to explain phenomena in other vertebrates (including humans). Unlike placental vertebrates, *Xenopus* embryos develop externally, so early development can be observed in real time at both the organismal and cellular levels. External development also allows us to manipulate embryos at specific times and locations and to observe the effects/defects as they are occurring, including the removal of specific tissues which will continue their developmental program *ex vivo*. Being able to manipulate and observe individual cells in their natural environment is critical to understanding cell behavior

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during tissue formation. Additionally, *Xenopus* are easy and inexpensive to raise in a laboratory setting and females produce 100's of embryos per clutch. These aspects make the model excellent for undergraduate participation, who can practice all of the appropriate techniques and still have embryos remaining for experimentation.

I accepted the position at UCA because of their focus on undergraduate education and their strong support of both faculty and student research. Currently, my lab is investigating the molecular pathways that axial protocadherin (axpc) uses to direct cell behaviors during gastrulation, by exploring potential axpc interacting proteins. One of these potential interacting proteins, Tao kinase 3, is a member of the MAP kinase pathway. It is well known that MAP kinase signaling plays an important role in embryonic development (along with many other signaling pathways), but it has not yet been established that protocadherins are involved with MAP kinase regulation during gastrulation. The INBRE New Faculty Recruitment Grant has enabled me to purchase much of the necessary equipment and supplies required to begin my research, as well as providing support for my undergraduate researchers. Starting my lab at UCA during the height of the COVID pandemic was a bit challenging, but I am currently mentoring three undergraduates, all of whom have already made important contributions to the project through qPCR and *in situ* hybridization. These results were recently presented at the SE IDeA 2021 meeting in Puerto Rico and are currently being crafted into a manuscript for peer-review. In all, the results from my proposed research will not only contribute to the growing knowledge of cell signaling and development, but will ultimately help to establish a new paradigm of protocadherins as regulators of signaling.

I thoroughly enjoy training our next generation of scientists and one of the greatest aspects of mentoring undergraduates is to watch them develop into independent researchers, where their technical and intellectual independence allows them to design, execute, and evaluate new experiments in the lab. Students who join my lab will learn and employ microscopy, embryology, tissue culture, molecular and biochemical techniques all to better explore the wonders of developmental biology. I plan to continue to recruit additional students, hoping to reach a critical mass of about 5 per semester and establishing an unofficial mentorship program where the more senior students are helping to train the newer researchers. By mentoring others, we can strengthen and develop our own skills, so I always encourage my students to challenge themselves in this capacity. With the help of the Arkansas INBRE program, students who join my lab will contribute to all aspects of scientific research including experimentation, data analysis, presentation, and writing.

What you might not know about Dr. Yoder...

As recent transplants to Arkansas, my wife, 4 kids, and I have set the goal of hiking and/or camping at every one of the 52 state parks (we have made it to 10 in our first year). In addition to spending time with my family (hanging out, coaching, volunteering), I enjoy playing disc golf, fishing, and reading fantasy fiction.

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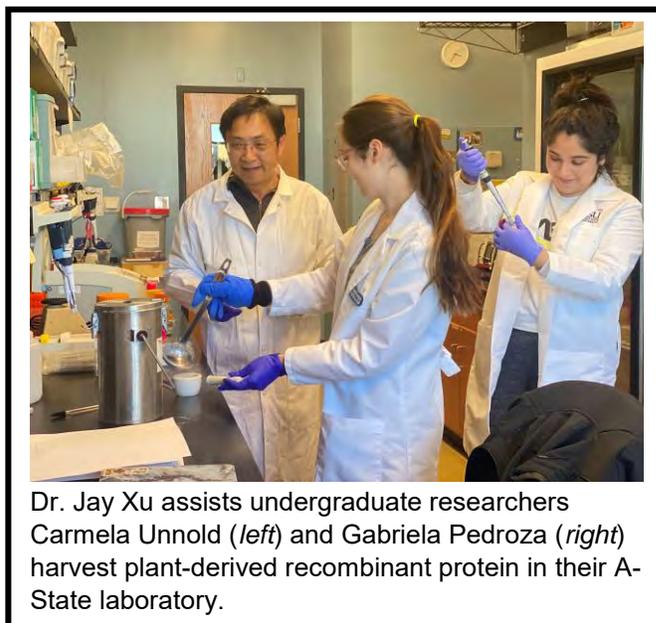


Arkansas INBRE-supported Research on Display in Fayetteville and in Puerto Rico

The October Arkansas INBRE Symposium in Fayetteville followed by the mid-November Southeast (SE) Regional IDeA meeting in Puerto Rico were met with pent up excitement from our state. There was an overwhelming excitement for (finally) face-to-face, or more accurately, mask-to-mask meetings. The presentations of new data by both faculty and students were a wonderful sign of perseverance through a year that we will all remember as being anything but normal.

At the Puerto Rico SE IDeA meeting, Dr. Jianfeng (Jay) Xu (Arkansas State University) was a highlighted speaker in the session “*Building Collaborative Research Across IDeA Programs*”. Dr. Xu presented his collaborative work supported by an NIH Supplement to the Arkansas INBRE entitled “*Plant cell-secreted growth factors for ex vivo production of red blood cells*”. The supplement supported a collaborative effort between an Arkansas INBRE-supported investigator and a Project Leader from an Arkansas COBRE (Centers of Biomedical Research Excellence). For the supplement, a COBRE-supported hematologist, Dr. Jason Farrar (UAMS Department of Pediatrics), provided the hematology expertise to Dr. Xu’s cutting edge plant-cell based production of recombinant proteins. Dr. Xu’s laboratory engineered plant cells to express erythropoietin (Epo), the major hormone producing red blood cells from bone marrow precursor cells. Their work established large-scale Epo production, purification, and extensive evidence of biological activity when CD34+ (precursor blood cells) were stimulated with plant-derived recombinant Epo. The potential benefits of this strategy are dramatically reduced Epo costs for a therapy that can be used in a wide-range of clinical scenarios, such as anemia, kidney disease, or to mitigate the side effects of cancer therapy. This collaboration highlights the synergism when two investigators with very different backgrounds (Dr. Xu plant biotechnologist and Dr. Farrar pediatric hematologist/oncologist) combine forces.

The preliminary engineering of plant cells to express Epo, was supported by the Arkansas INBRE to Dr. Xu as a Research Development Grant (RDGs). In the current portfolio of supported RDGs, Dr. Xu is expressing antagonists to tumor necrosis factor (TNF) as a possible therapeutic for inflammatory bowel disease (mentor, Dr. Frank Simmen, UAMS Department of Physiology & Cell Biology). This work has now gone to the “next level” with NIH support via the R15 mechanism ([link](#)) beginning in mid-September 2021 and continuing until June 2024.



Dr. Jay Xu assists undergraduate researchers Carmela Unnold (*left*) and Gabriela Pedroza (*right*) harvest plant-derived recombinant protein in their A-State laboratory.

We highlight the efforts of Dr. Xu for several reasons:

- First, is the success of leveraging Arkansas INBRE RDG support to obtain NIH extramural funding?
- Second, to anticipate additional NIH opportunities for INBRE-supported faculty to collaborate with COBRE-supported faculty. We encourage all INBRE-supported faculty to browse NIH Reporter to appreciate the scope of the 6 currently funded Arkansas COBREs and be aware of any opportunities where their own work could possibly be an INBRE/COBRE collaboration. Case in point, the Office of Research on Women's Health just released (11/23) a new supplement for INBRE investigators to partner with faculty from multiple NIH supported programs, including COBRE ([see link](#)). As always, we can help you in this endeavor if you have questions.

Student Spotlight



Jeffrey Kerst, DDS

2014 INBRE Summer Fellow

As a junior at the University of Arkansas at Little Rock, Dr. Howard Hendrickson took me under his wing to participate in one of his ongoing research projects. Dentistry called my name, but research was a necessary part of my career to deepen an understanding of science and appreciate its process. The summer with INBRE was integral to shaping my future as a private practitioner who still participates in advancing

dentistry through scientific studies.

Our project was dedicated to standardizing *Hydrastis canadensis*, or Goldenseal, which, at the time, could be found in many different concentrations and formulations. The INBRE program was, and continues to be, a top-tier research program for undergraduate students. Choosing to participate in INBRE at UAMS was a no-brainer for me, from both an academic and logistical standpoint.

My summer spent researching was an eye-opening experience, being both informative and fun. Each day spent in the lab working with LC-MS instruments really drives home how far science has come in a relatively short period of time. By the end of the summer, it was evident how much each of us had progressed in a short 10-week timeframe, even as many of us studied for the MCAT, DAT, PCAT, and what seemed like every other test under the sun. Now it's been fun to see us all travel across the world and begin our careers as doctors, dentists, pharmacists, professors, and researchers.

My journey extended from Little Rock, AR to New Orleans, Louisiana at the LSU School of Dentistry. It was surprising how much of the knowledge gifted to me through INBRE was of use while in dental school. The confidence that comes with learning and understanding a challenging subject has been a great motivation to continue learning, as well as give back through teaching. My weekends are spent lecturing to dentists and dental students across the country, many of which are dedicated to advancing the world of dentistry through evidence-based research.

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After finishing my studies at LSUSD, I followed my now-wife to Houston and started practicing as a *rover* dentist, temporarily filling in for over 50 dental offices with unique needs all across Louisiana and Texas. After retiring from life as a full-time traveling dentist, I opened Kerst & Caskey Family Dentistry in Shreveport, Louisiana with a dear friend and mentor, Dr. Gary Caskey. Together, we provide a variety of dental services to our community, as well as being the only dental COVID immunization site in the state of Louisiana. The INBRE program excels in preparing young people for a future in science in an ever-changing world, and I remain thankful to the researchers and staff at UAMS. I can't imagine spending the summer of 2014 in any other way.

What you might not know about Jeffrey Kerst...

Jeffrey and his wife, Allison, do a lot of adventure photography. Below are a couple of photos taken on their safari trip in South Africa!



Recent Publications

Safina I, Al Sudani ZAN, Hashoosh A, Darrigues E, Watanabe F, Biris AS, **Dings RPM, Bao Vang K.** Gold nanorods enhance different immune cells and allow for efficient targeting of CD4+ Foxp3+ Tregulatory cells. PLoS One. 2021 Aug 30;16(8):e0241882. doi: 10.1371/journal.pone.0241882. PMID: 34460818; PMCID: PMC8404976.

Alhallak I, Wolter KG, Castro Munoz A, Simmen FA, Ward RJ, Petty SA, Li LX, **Simmen RCM.** Breast adipose regulation of premenopausal breast epithelial phenotype involves interleukin 10. J Mol Endocrinol. 2021 Sep 9;67(4):173-188. doi: 10.1530/JME-21-0100. PMID: 34382943; PMCID: PMC8489570.

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Fawley MW, **Fawley KP**, Cahoon AB. Finding needles in a haystack-Extensive diversity in the eustigmatophyceae revealed by community metabarcode analysis targeting the rbcL gene using lineage-directed primers. J Phycol. 2021 Oct;57(5):1636-1647. doi: 10.1111/jpy.13196. Epub 2021 Aug 1. PMID: 34218435; PMCID: PMC8530920.

Choudhury R, Paudel P, Sharma AK, Webb S, Ware M. Evaluating the Merit of a Syringol Derived Fluorophore as a Charge Transfer Probe for Detection of Serum Albumins. J Photochem Photobiol A Chem. 2022 Jan 1;422:113563. doi: 10.1016/j.jphotochem.2021.113563. Epub 2021 Sep 30. PMID: 34720541; PMCID: PMC8553016.

Fawley MW, **Fawley KP**. Identification of Eukaryotic Microalgal Strains. J Appl Phycol. 2020 Oct;32(5):2699-2709. doi: 10.1007/s10811-020-02190-5. Epub 2020 Jul 15. PMID: 33542589; PMCID: PMC7853647.

#sharingnews

We are excited to share that the 2021 INBRE Fall Research Conference was a huge success! It was great to hold the conference in-person this year with over 300 registrants. The keynote speaker was Dr. Jessica Snowden, Professor in the Department of Pediatrics at the University of Arkansas for Medical Sciences. She gave a fitting presentation on “Communicating and Advocating for Science in Challenging Times”.

A huge thank you to Dr. Feng Wang, the conference organizing committee, Faculty and staff who took part in making the conference a great success. It was great to be able to meet in person and see all of the conference attendees.

Congratulations to all of the conference award winners! Winners can be found by following the [link](#).



One of the highlights of this year's Arkansas INBRE Fall Research Symposium occurred during the Steering Committee meeting/dinner that took place the evening of October 28th in Fayetteville. At the event, Dr. Lawrence Cornett had the opportunity to recognize Dr. Roger Koeppe for his service to the Arkansas INBRE as Outreach Core Director from 2008 to 2020. Under his leadership, both the Summer Undergraduate Research Program and the annual Fall Research Symposium have expanded and become highly impactful cornerstones of the Arkansas INBRE. At the same time that Dr. Koeppe stepped down as Outreach Core Director, he announced his retirement from the University of Arkansas as a Distinguished Professor of Chemistry and Biochemistry. However, it's been a gradual retirement. Dr. Koeppe is still writing papers and serving on graduate student dissertation committees as well as providing consultation to Dr. Feng (Seymour) Wang, the new Outreach Core Director, in order to insure continued excellence in Core activities.

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On the way to the Arkansas INBRE Fall Research Symposium, members of the Administration Core had the opportunity to stop in Clarksville and spend several hours meeting with faculty, students and administrators at the University of the Ozarks. The visit also included a tour of the new \$18.1 million Thomas and Frances Wilson Science Center that is expected to be completed by January 2022. An alteration and renovation (A&R) supplement to the NIH grant that supports the Arkansas INBRE provided funding to renovate two research laboratories within the Center. Pictured (L-R) are Dr. Jerry Ware, Caroline Miller Robinson, Dr. Larry Cornett, Diane McKinstry and

Dr. Tom Kelly. We greatly appreciate everyone for taking time to meet with us, especially President Richard Dunsworth who gave us an excellent overview of the history of the University of the Ozarks as well as the institution's commitment to excellence and innovation in higher education, and to Rebecca Lester, Director of Major Grants, for organizing the meetings.



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