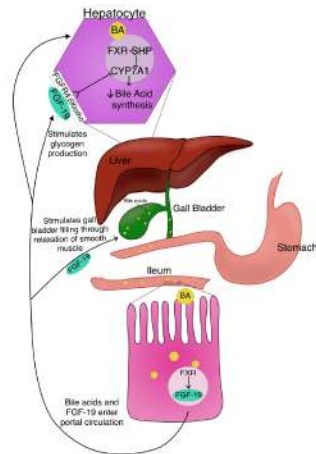


Introduction

- Fibroblast Growth Factor 19 (FGF19) is a hormone produced in the canine ileum. Bile acids stimulate FGF19 protein translation and release into the portal circulation (**Figure 1**).
- Previous studies in the Johnston laboratory have validated a commercial ELISA for measuring FGF19 in canine serum.
- A reference value for canine serum levels of FGF19 has not yet been established.



Myers J, et al. Am J Vet Res. 2021 Aug;82(8):676-682. PMID: 34296943.

Figure 1: FGF19 and the gut-liver axis. Bile acid absorption in the ileum upregulates Farnesoid X Receptor (FXR) mediated FGF19 expression and secretion into the portal vascular system. FGF19 inhibits bile acid production in the liver and promotes gallbladder filling.

Hypothesis

FGF19 values will be significantly higher in healthy dogs than dogs with gallbladder mucoceles.

The long-term goal of this project is to establish a reference interval for FGF19 in healthy dogs and to determine if FGF19 can be used as a biomarker of cholestatic hepatobiliary disease.



Photo by Andrea Johnston.

Figure 2: Gallbladder mucocele removed at surgery and opened to reveal its contents, which consist of congealed mucus and bile.

Methods

Study Population

- FGF19 serum levels were measured in 121 healthy dogs and 24 dogs with gallbladder mucoceles.

- Health status was determined based on history and physical exam.

Study Design

- Serum or plasma samples were analyzed with a commercially available canine FGF19 ELISA kit (MyBioSource), previously validated in our laboratory.

- CBC and serum biochemical data were recorded and compared between groups.

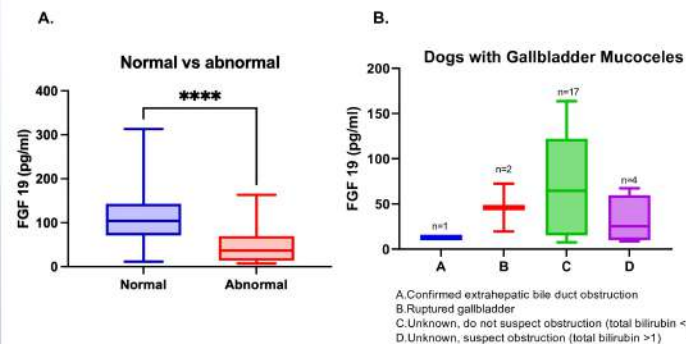
Statistical Analysis

- Pair-wise comparisons were made with the Mann-Whitney U or Kruskal-Wallis test.
- The 90% reference interval was determined by the non-parametric percentile method.
- All statistical analyses were performed in JMP® and MedCalc software. Graphs were generated using Prism GraphPad.

Results

- Healthy dogs had a significantly higher median FGF19 value (130.823 pg/ml) than dogs with gallbladder mucoceles (46.571 pg/ml, $p < 0.0001$, **Figure 3A**).
- Upper and lower limits of the 90% FGF19 Reference Interval of FGF19 obtained from 121 normal samples are 244.6 (227.2-295.5) and 30.5 (13.6-52.0) pg/ml.
- No difference in FGF19 was observed in obstructive versus non-obstructive gallbladder mucoceles (**Figure 3B**).

Figure 3: FGF19 levels. A) Box-and-Whiskers plots of FGF19 levels in normal dogs versus dogs with gallbladder mucoceles. B) Box-and-Whiskers plots of FGF19 levels in obstructive, non-obstructive, and ruptured gallbladder mucoceles.



- Dogs with gallbladder mucoceles had significantly higher white blood cell counts, ALT, AST, ALP, GGT, cholesterol, and total bilirubin than normal dogs ($p < 0.05$, **Figure 4**).

CBC and Chemistry Results in Normal Dogs and Dogs with Gallbladder Mucoceles

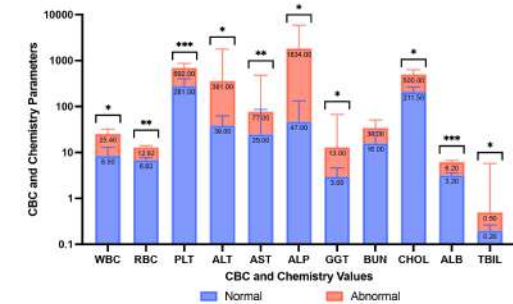


Figure 4: Mean CBC and chemistry values in dogs with and without gallbladder mucoceles. Purple bars represent the mean values in normal dogs and orange bars represent mean values in dogs with gallbladder mucoceles. Error bars represent the one-sided standard deviation. * $p < 0.0001$; ** $p < 0.005$; *** $p < 0.05$.

Conclusions

- Dogs with gallbladder mucoceles have lower serum levels of FGF19 than healthy dogs.
 - This is likely due to impaired gallbladder contraction, which dysregulates the gut-liver signaling axis.
- The FGF19 reference interval in normal dogs determined by this study overlaps with the FGF19 values of dogs with gallbladder mucoceles.
 - Due to the limited inclusion criteria, it is possible that dogs with abnormal gallbladder motility or intrahepatic cholestasis may have been included in the normal group.
- FGF19 levels cannot differentiate extrahepatic bile duct obstruction or gallbladder rupture in dogs with gallbladder mucoceles.

References



Acknowledgments

- We would like to thank Amanda Yang & Sarah Keeton for research support; Clinical Pathology, Community Practice, and the ECC for assisting with sample collection.
- Thanks to LSU Discover for sponsoring this project.

The LSU School of Veterinary Medicine presents:

PHI ZETA

RESEARCH EMPHASIS DAY



MARCH 1, 2023

8 AM - 2 PM

LSU School of veterinary Medicine

TAU CHAPTER OF PHI ZETA

Phi Zeta Research Emphasis Day is sponsored by the Tau Chapter of the Society of Phi Zeta—The National Honor Society of Veterinary Medicine. Phi Zeta recognizes and promotes scholarship and research in matters pertaining to the welfare and diseases of animals. Phi Zeta Research Emphasis Day promotes research in veterinary medicine; recognizes the research being conducted by our veterinary students, residents, graduate students and faculty; and encourages veterinary students to pursue careers in veterinary research. The Tau Chapter of Phi Zeta was established on March 30, 1977, with Dr. C.W. Titkemeyer as Chapter President. Phi Zeta is the abbreviation of the Greek word Philozoi, which means “love of animals.”

LSU

School of
Veterinary Medicine

Where science meets passion

About LSU Vet Med

Bettering lives through education, public service, and discovery

The LSU School of Veterinary Medicine is one of only 33 veterinary schools in the U.S. and the only one in Louisiana. LSU Vet Med is dedicated to improving and protecting the lives of animals and people through superior education, transformational research, and compassionate care. We teach. We heal. We discover. We protect.

MB15DSNDU	Louisiana Surveillance of Bovine Parasite Resistance and Comparison of Fecal	Basic Research	DVM, Non-DVM Students	Madison Davis
MC12MHRN	No Loop of Henle? No Problem! Furosemide Diuresis in Red Eared Sliders (<i>Trachemys scripta elegans</i>)	Clinical Research	Master (MS), House Officer, Residents, Non- DVM Undergraduates	Katie Metcalf
PhD10PHD	miRNA species as systemic mediators of Environmentally Persistent Free Radical (EPFR)- induced endothelial dysfunction.	PhD Student	PhD	Ankit Aryal
PhD11PHD	Non-Terminal Equine Model for Tendon and Ligament Regeneration	PhD Student	PhD	Takashi Taguchi
PhD12PHD	Polyunsaturated fatty acids: host-derived molecules that kill <i>Staphylococcus</i>	PhD Student	PhD	Alex Stackhouse
MB16DSNDU	Nrf2 regulates host protection against pneumonia caused by Carbapenem-resistant <i>Klebsiella pneumoniae</i>	Basic Research	DVM, Non-DVM Students	Mary Kate Lee
MC13MHRN	Evaluation of Fibroblast Growth Factor 19 (FGF19) in Healthy Dogs and in Dogs with Gallbladder Mucoceles	Clinical Research	Master (MS), House Officer, Residents, Non-DVM Undergraduates	Vy Truong
MC14CCRHOD	Sepsis and Necrotizing Hepatitis, Splenitis and Myositis in a Domestic Goat (<i>Capra hircus</i>) Caused by <i>Bacillus cereus</i>	Clinical Research	Clinical Case Reports by House Officer and DVM Students	Lauren Guarneri
MC15CCRHOD	Effect of varying angles for needle insertion on small intestinal leakage at injection sites: An ex-vivo study	Clinical Research	Clinical Case Reports by House Officer and DVM Students	Connor Pyne
MB17DSNDU	Breaking the Cycle of Preeclampsia: Gestational Pair-Feeding Attenuates Sex Steroid Hormone Dysregulation in Preeclamptic-like BPH/5 Mice	Basic Research	DVM, Non-DVM Students	Juliet Flanagan
MC16CCRHOD	Myxobolus-like Myxosporidean infection in a Coral Catfish (<i>Plotosus lineatus</i>)	Clinical Research	Clinical Case Reports by House Officer and DVM Students	Naomi Falconnier
MC17DS	Pulmonary Health Impacts of Golden Tobacco Flavored Vuse Alto Aerosols in Vulnerable Populations of Young mice.	Clinical Research	DVM Students	Noah Black-Ocken

A certificate of achievement from LSU. The certificate has a decorative border with a repeating pattern of stylized arches and a central square motif. The text is centered and reads: "LSU", "Discover Undergraduate Research Program", "presents this Certificate of Achievement to", "VY TRUONG", "for participating in the 2023 LSU Discover Day Undergraduate Research Conference", "Poster Presentation", "Presentation Title:", "Evaluation of Fibroblast Growth Factor 19 (FGF19) in Healthy Dogs and in Dogs With Gallbladder Mucoceles", and "April 21, 2023".

LSU

**Discover Undergraduate
Research Program**

presents this Certificate of Achievement to

VY TRUONG

for participating in the 2023 LSU Discover Day Undergraduate Research Conference

Poster Presentation

Presentation Title:

Evaluation of Fibroblast Growth Factor 19 (FGF19) in Healthy Dogs and in Dogs With
Gallbladder Mucoceles

April 21, 2023



**Discover Undergraduate
Research Program**

Dear Vy,

I am pleased to inform you that your proposal for an LSU Discover Fall 2022 research grant has been approved for funding! Read the following email carefully and **respond to this email before this Wednesday, August 17th at 10:00 AM.**

1. **CONFIRMATION:** In order to confirm your acceptance of this offer, you must reply to the following:
 - a. Verify that you will attend the mandatory orientation this Friday, August 19th at 11:00 AM – 1:00 PM.
 - b. What day will you begin your research?
 - c. Are you already listed in WorkDay?
 - d. Will you use your PSA funding for any other position on campus this Fall? If yes, for how many hours?
 - e. Fill out this lunch form: https://lsu.formstack.com/forms/pg_orientation_lunch

2. **MANDATORY ORIENTATION** (this Friday!):
 - a. Orientation agenda:
 1. 11:00 – 12:00: We will review all the requirements of the program, how the funding is dispersed, and describe our procedures in detail. There will also be a Q&A at the orientation.
 2. 12:00 – 1:00: There will be a presentation on professional relationships by Title IX coordinator Joshua Jones.
 - b. Faculty mentors are encouraged, but not required, to attend the 1st hour of the orientation. The 2nd hour of orientation is for students only.

3. **FUNDING**
 - a. You have been approved for \$1,500 in funding.
 - b. Funding time limit
 1. Funding may only be spent during the period of August 22nd - December 10th
 2. Unspent funds do not rollover to the next semester.

Once again, congratulations! Looking forward to meeting you at the orientation this Friday!

Kind regards,

Sarah Ferstel, MA

Associate Director of Undergraduate Research



**Discover Undergraduate
Research Program**

Dear Vy,

I am pleased to inform you that your application to renew your project grant for Spring 2023 has been approved for funding! Read the following email carefully and **respond to this email before next Wednesday, January 18th**.

1. **CONFIRMATION:** In order to confirm your acceptance of this offer, you must reply to this email with the following responses:
 - a. Verify that you will attend the mandatory orientation next Friday, January 20th from 12:30 PM to 1:30 PM in Student Union – Vieux Carre room 325
 - b. What day will you begin your research?
 - c. Fill out this lunch form: https://lsu.formstack.com/forms/pg_orientation_lunch

2. **MANDATORY ORIENTATION**
 - a. Orientation agenda: We will review all the requirements of the program and discuss new requirements for students in their second semester of funding. Lunch will be served.
 - b. Faculty mentors are encouraged, but not required, to attend. Mentors who wish to attend may fill out the lunch form to request a lunch.

3. **FUNDING**
 - a. You have been approved for \$1,500 in funding.
 - b. Funding time limit
 1. Funding may only be spent during the period of January 24th – May 6th, 2023
 2. Unspent funds do not rollover to the next semester.
 - c. You will be contacted by our Office Coordinator, Ms. Tori Clement, in the coming days as she sets you up in our system and asks for any final details. Make sure to reply to her emails in a timely fashion.

Once again, congratulations! Looking forward to meeting you at the orientation next Friday!

Kind regards,

Sarah Ferstel, MA
Associate Director of Undergraduate Research



Certificate of Completion

THIS ACKNOWLEDGES THAT

Vy Truong

Name

HAS COMPLETED ANIMAL WET LAB TRAINING FOR

- Mouse
 Rat
 Dog
 Cat
 Chicken
 Goat
 Guinea Pig
 Other: _____



TRAINING TECHNIQUES INCLUDED

- Physical Examination
 Restraint
 Euthanasia
 Proper Disposal
 Handling
 Blood Collection
 Injections
 Other _____

Dr. Elise Barras

6/13/2022

DIVISION OF LABORATORY ANIMAL MEDICINE
LOUISIANA STATE UNIVERSITY

TRAINING COMPLETION DATE





Certificate of Completion

THIS ACKNOWLEDGES THAT

Vy Truong

Name

HAS COMPLETED ANIMAL WET LAB TRAINING FOR

- Mouse
 Rat
 Dog
 Cat
 Chicken
 Goat
 Guinea Pig
 Other: _____



TRAINING TECHNIQUES INCLUDED

- Physical Examination
 Restraint
 Euthanasia
 Proper Disposal
 Handling
 Blood Collection
 Injections
 Other _____

Dr. Elise Barras

6/21/2022

DIVISION OF LABORATORY ANIMAL MEDICINE
LOUISIANA STATE UNIVERSITY

TRAINING COMPLETION DATE





Certificate of Completion

THIS ACKNOWLEDGES THAT

Vy Truong

Name

HAS COMPLETED ANIMAL WET LAB TRAINING FOR

- Mouse
 Rat
 Dog
 Cat
 Chicken
 Goat
 Guinea Pig
 Other: _____



TRAINING TECHNIQUES INCLUDED

- Physical Examination
 Restraint
 Euthanasia
 Proper Disposal
 Handling
 Blood Collection
 Injections
 Other _____

Dr. Elise Barras

9/27/21

DIVISION OF LABORATORY ANIMAL MEDICINE
LOUISIANA STATE UNIVERSITY

TRAINING COMPLETION DATE



TITLE: Crisis in Colfax: a qualitative media analysis of resilience themes in rural Louisiana

AUTHOR: Vy Truong, Dr. Margaret Reams, Jennifer Irving

AFFILIATIONS:

Louisiana State University, Department of Environmental Sciences

Louisiana State University Superfund Research Center

PURPOSE: The explosions of old munitions at Camp Minden and the open burning of expired ammunition by an industrial hazardous waste disposal facility near Colfax, Louisiana have caught the attention of the news media. Many community members also have become concerned about the potential health effects of exposure to this type of environmental pollution. A large amount of scientific information about hazardous treatment is collected by government agencies, but this information may not be easy for the public to access. Therefore, reports by the news media may be the primary way people learn about environmental risks. The purpose of this study is to use qualitative content analysis to develop themes about how risk, scientific uncertainty, and environmental equity have been portrayed by the news media in covering events in Colfax and communities near Camp Minden.

METHODS: We collected newspaper articles and categorized information contained in them into themes by generating initial codes, sorting through broad level of themes, and reviewing data extracts. The articles served as primary data sources to examine how environmental conflict resolution efforts have evolved.

RESULTS: The systematic newspaper analysis focused on the perception of risk in relations to two main themes: lack of trust between federal agencies and the public, and roles of government in managing the hazardous waste.

DISCUSSION: In both communities, media coverage went beyond the local community and helped raise awareness at the state and national level. This type of media coverage reinforce resilience by contributing to strategic communication, public understanding of scientific findings, and community cohesion.

GRANT SUPPORT: This work was supported by the National Institute of Environmental Health Sciences Superfund Research Program grant number P42 ES013648.

Crisis in Colfax: a qualitative media analysis of resilience themes in rural Louisiana

Vy Truong, Jennifer K. Irving, and Dr. Margaret Reams

Louisiana State University (LSU), LSU Superfund Research Center, LSU Department of Environmental Sciences

Background & Objective

Colfax and Camp Minden are both complex cases involving the treatment and disposal of hazardous/explosive materials. After an explosion in 2012, Camp Minden became a Superfund site, with the US Army, the US EPA, and the state of Louisiana all involved in decisions about the site. Colfax is the location of the only commercial, permitted open-burn hazardous materials treatment facility in the US, and it receives military waste/explosives from Camp Minden and military installations across the US. The cases are complex in terms of the science involved in assessing health risks and treatment technologies, the way the hazards are regulated, and the available avenues for residents to participate in the decisions that will affect the health and safety of their communities. The availability and broad sharing of accurate information about the hazard is an important building block of community capacity to take collective action to manage the risk. However, complex cases such as these introduce challenges for those writing news stories to inform the public.

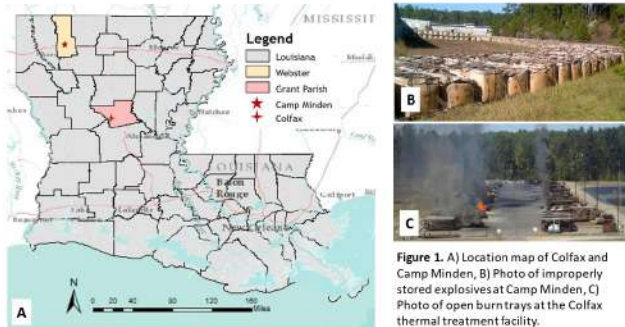


Figure 1. A) Location map of Colfax and Camp Minden, B) Photo of improperly stored explosives at Camp Minden, C) Photo of open burn trays at the Colfax thermal treatment facility.

The purpose of this study is to develop themes about how risk, scientific uncertainty, and environmental equity have been portrayed by the news media in covering events in Colfax and communities near Camp Minden.

Methods

We collected newspaper articles and categorized information contained in them into themes by generating initial codes, identifying quotes related to the codes, and sorting the quotes into categories. [1] Three sources were used to find articles: Academic Search Complete, NewsBank, and Google. The search terms consisted of the name of the site combined with a hazardous waste word (examples: Colfax AND pollution, Camp Minden AND burning). We used a pre-coding procedure [2] to identify text in the articles related to risk, scientific uncertainty, and environmental equity at the two sites and develop an initial list of codes. After pre-coding the articles, we developed a protocol sheet in excel [3] and extracted data from each article pertaining to positive/negative sentiment, actors or institutions, and health or scientific information. We used the quotes identified during pre-coding and the extracted data from the articles to combine codes into categories and develop initial themes.

Results

The article searches yielded 85 articles: 50 articles on Camp Minden and 35 articles on Colfax.

- After the initial search and coding process, four themes emerged (see Table 1).
- Many articles mentioned public policies and risks to human health and the environment but also discussed disposal costs.
- Some articles included detailed information about the “waste stream”.
 - This theme was more prevalent in articles about Camp Minden.
- Fewer articles discussed community engagement, but citizen action has influenced the policy responses at both sites

Table 1. Initial Themes

Theme	Colfax	Camp Minden	Total
1. Public policies and actors	24	27	51
2. Environmental health & justice versus disposal costs	16	14	30
3. Unusual waste stream	3	10	13
4. Community engagement & citizen action	5	7	12

Note: most articles addressed more than one theme

Hazardous Waste Management at Camp Minden & Colfax, Louisiana

Information from the articles was also used to identify important events that influenced hazardous waste management at Camp Minden and Colfax (see Figure 2).

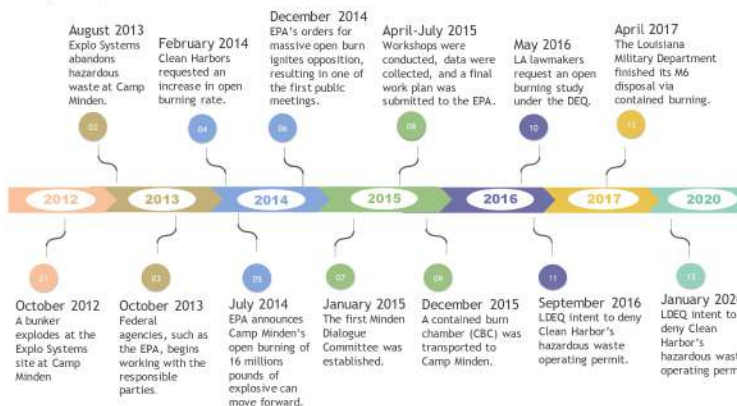


Figure 2. Timeline of significant events in Colfax and Camp Minden.

Discussion

In Camp Minden and Colfax, media coverage went beyond the local community and helped raise awareness at the state, and even national level.

- The theme of public policies and actors was most heavily represented in the media, including state-level policy responses (see Figure 3).
- Information about risks to human health and the environment was almost always presented along with uncertainties about more advanced remediation technology and disposal costs.
- Citizen action was discussed in two ways: (1) community members and local scientists participating in the dialogue committee and (2) governmental actors influencing public policies through bills.

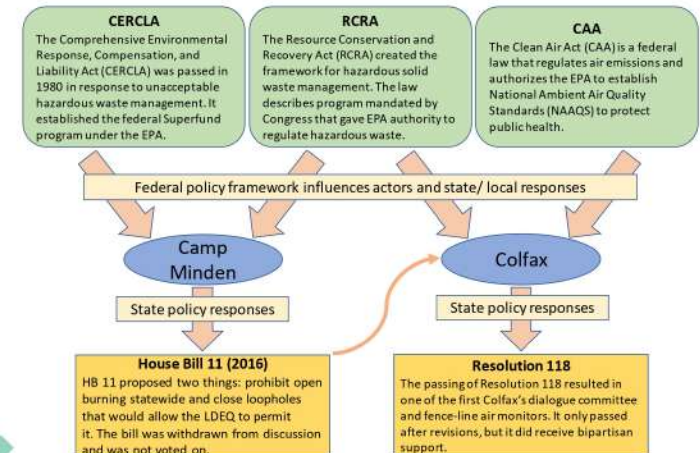


Figure 3. Regulatory Framework. The federal statutes that regulate hazardous-materials management at Camp Minden and Colfax, and recent Louisiana state legislative efforts to go further to protect the health and safety of these and other communities (HB11) and to give stronger voice to the stakeholders of Colfax (Res. 118).

References

1. Irving, J., K. and M. Reams, *Community resilience and critical transformations: the case of St. Gabriel, Louisiana*, in *Reviews on Environmental Health*. 2019. p. 293.
2. Saldaña, J., *The coding manual for qualitative researchers*. Third edition ed. 2016, Los Angeles, California: SAGE.
3. Altheide, D.L. and C.J. Schneider, *Qualitative media analysis*. 2nd ed. ed. Qualitative research methods: v. 38. 2013: Sage Publications.

LSU

Discover Undergraduate Research Program

presents this Certificate of Achievement to

Vy Truong

for participating in the 2021 LSU Discover Day

POSTER PRESENTATION

Crisis in Colfax: a qualitative media analysis of
resilience themes in rural Louisiana

April 16, 2021





DIVISION OF STUDENT
AFFAIRS

Campus Life

Louisiana State
University
LSU Student Union #358J
Baton Rouge, LA 70803

O 225-578-5160
F 225-578-9311

August 12, 2022

Geaux Big Baton Rouge Organizational Leadership Verification

Name: Vy Truong

Officer positions:

<u>Position</u>	<u>Dates</u>
Marketing Director	November 2019 – May 2020
Operations Director	August 2020 – May 2021
Assistant Director, Operations	August 2021 – December 2021

Thank you for volunteering in support of Geaux Big Baton Rouge. If you need any further documentation, please contact Caleb Wells at 225-578-5036 or cwells11@lsu.edu.



BOARD OF DIRECTORS

August 15, 2022

Micah Fincher

Partner, Litigation Practice
Group, Jones Walker LLP
Chair

Branden Barker

Owner, Barker Property
Management
Vice Chair

Michael Coatney

President, ACME Truck
Line
Treasurer

**Captain Chiquita
Broussard**

General Investigations,
East Baton Rouge Sheriff's
Office
Secretary

Jessica Engler, CIPP/US

Attorney and Partner,
Kean Miller, LLP

Jean-Paul "JP" Morrell

Attorney-at-Law,
The Middleberg Riddle
Group Law Firm

Lisa Mount, LCSW-BACS

Title IV-E Coordinator/
Assistant Professor,
Northwestern State
University

Tamara Palmer

Government Banking
Treasury Consultant,
Capital One

To Whom This May Concern,

This letter is to certify that Vy Truong served as a volunteer coordination intern at Sexual Trauma Awareness and Response (STAR) between January and May 2021.

In their capacity as an intern, Vy assisted our community education team.

Warmest Regards,

Racheal Hebert, LCSW-BACS
Founder, President & CEO



CERTIFICATE OF COMPLETION

Vy Truong

completed an internship with STAR from
January 2021-May 2021.

Racheal Hebert, LCSW-BACS
President & CEO