

# JOSHUA J. COOK, M.S., ACRP-PM, CCRC

ADJUNCT PROFESSOR | GRADUATE STUDENT  
CLINICAL RESEARCHER | DATA SCIENTIST  
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## **PROFESSIONAL PROFILE**

- Driven professional with a strong background in bench to bedside research with a proven interest in pursuing a career as a physician-scientist (eventually), while actively engaged in teaching, mentorship, research, and data science opportunities. My academic and professional research efforts have led to undergraduate honors thesis acceptance, subsequent undergraduate research publication, several successfully completed clinical trials with associated publications, and certification by the Association of Clinical Research Professionals (ACRP) as a Project Manager (ACRP-PM) and Clinical Research Coordinator (CCRC).
- Currently working in higher education as an Adjunct Professor while pursuing an additional master's degree to further my research-driven education in preparation for dual doctoral (M.D./Ph.D.) application. I aim to synthesize my knowledge of the biomedical sciences, clinical research, and data science to become a physician-scientist capable of seamlessly integrating clinical care with clinical research in a way that maximizes evidence-based care options for my patients.
- Proficient and effective science communicator and professor (both oral and written), frequently teaching, explaining, and presenting complex information and industry jargon to audiences of various backgrounds (scientific and nonscientific). I deeply acknowledge the importance of teaching and of mentorship and thus aim to honor my own mentors by continuing to guide others to the best of my ability.

*Last Updated: February 26<sup>th</sup>, 2024*

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## **EDUCATION**

University of West Florida (UWF) | 2022-Present  
**Master of Science (M.S.)** | Data Science

Wake Forest University (WFU) | 2023  
**Master of Science (M.S.)** | Clinical Research Management

University of West Florida (UWF) | 2021  
**Bachelor of Science (B.S.)** | Biomedical Sciences, Kugelman Honors 4-Year Pathway | Magna Cum Laude (cGPA 3.72/4.0)

University of West Florida (UWF) | 2019  
**Associate of Arts (A.A.)** | Magna Cum Laude (cGPA 3.72/4.0)

Florida Virtual School Full-Time (FLVS-FT) | 2016  
**High School Diploma** | Scholars Designation (cGPA 3.92/4.0)

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## **SKILLS & CERTIFICATION** *(Ranked: beginner -> intermediate -> experienced)*

\*Top rated skills according to colleagues on [LinkedIn](#)

### **Biomedical Sciences**

General Skills	Laboratory Safety & Biohazardous Material Management	Experienced <u>*Certified, UWF, 2024</u>
	Biomedical Responsible Conduct of Research (RCR)	Experienced <u>*Certified, CITI, 2018-2021</u>
	Pipetting (Micro and Serological)	Experienced
	Top Balances (Standard and Analytical)	Experienced
	Centrifuges (Standard and Mini)	Experienced
	Research Documentation (Physical and Digital)	Experienced
	Autoclave	Experienced
Protein Analysis	Animal Care ( <i>M. musculus</i> )	Experienced
	Bradford Assay	Experienced
	Protein Normalization	Experienced

DNA Analysis	Western Blotting	Experienced
	Enzyme-Linked Immunosorbent Assay (ELISA)	Intermediate
	Luminex® MAGPIX® Multiplexing	Intermediate
	DNA Isolation	Intermediate
	Polymerase Chain Reaction (PCR)	Intermediate
Cell Culture	Electrophoresis (Agarose and SDS-PAGE)	Intermediate
	Aseptic Technique	Experienced
	Bacterial Culture ( <i>E. coli</i> )	Intermediate
	Immortal Cell Lines (C2C12, H9C2, SH-SY5Y)	Intermediate
Cellular Analysis	Human Mesenchymal Stem Cells (MSCs)	Intermediate
	Microscopy (Light and Fluorescent)	Experienced
	Complete Blood Cell (CBC) Count	Experienced
	Total Nucleated Cell (TNC) Count	Intermediate
	<i>In-vitro</i> Differentiation (Adipocyte, Chondrocyte, Osteoblast)	Intermediate
	Staining (Gram, Alizarin Red, Alcian Blue, Oil Red O)	Intermediate

## **Clinical Research**

General Skills	Good Clinical Practices (GCP)*	Experienced *Certified, <b>NIH NIDA</b> , <u>10Apr2021-10Apr2024</u>
	Protecting Human Research Participants (PHRP)	Experienced *Certified, <b>NIH</b> , 2018-2024
	Information Privacy Security & HIPAA Adherence	Experienced *Certified, <b>CITI</b> , 2018-2021
	Clinical Research/Clinical Trial Coordination*	Experienced *Certified, <b>ACRP CCRC</b> , <u>16SEPT2023-16SEPT2025</u>

Management	Patient Communications*	Experienced
	Medical Records Management (AllScripts/PACS/Athena)*	Experienced
	Project Management	Intermediate <u>*Certified, <b>ACRP-PM</b>, 10OCT2023-15NOV2023</u>
	Study Design/Protocol Writing	Experienced
	Institutional Review Board (IRB) Regulatory Affairs (local and central)	Experienced
Procedures	Project Lifecycle Regulatory Affairs (Startup, conduct, closeout)	Intermediate
	FDA Regulatory Affairs (IND, NDA, BLA, IDE)	Beginner
	Sterile Technique	Intermediate
	Phlebotomy/Blood Processing	Intermediate
	Shipping Dangerous Goods (SDG)	Intermediate <u>*Certified, <b>Mayo Clinic</b>, 20OCT2023-20OCT2025</u>
Technology	Clinical Trial Management Systems (CTMS)(CRIO)	Intermediate <u>*Certified, <b>CRIO</b>, 2022</u>
	Electronic Data Capture (EDC) (Biolinica, iMedidata, iMednet, Clindex, Castor)	Intermediate

## **Data Science**

Mathematics & Statistics	Undergraduate Algebra, Trigonometry, Calculus	Experienced
	ANOVA (1-way, 2-way, nonparametric methods)	Experienced
	Homogeneity of Variance (HoV)	Experienced
	Normality/QQ Plots	Experienced
	Pairwise Comparisons (ex: Tukey's HSD), Linear Contrasts	Experienced
	Chi-squared	Intermediate
	Simple/Multiple Linear Regression (SLR, MLR)	Intermediate

Programming & Database	Time Series Analysis (TSA)	Beginner
	Machine Learning (ex: decision trees, random forest, XGBoost)	Intermediate
	Deep Learning (CNN)	Beginner
	Multivariate Analysis	Beginner
	Research Electronic Data Capture System (REDCap)	Experienced
	Quatrics	Intermediate
	Structured Query Language (SQL)	Beginner
	Statistical Analysis System (SAS®)	Beginner
	R (Base, tidyverse, gt, gtsummary, gtextras, markdown, knitr, quarto)	Intermediate
	Python (Base, numpy, pandas, matplotlib, scikit-learn)	Intermediate
	GitHub/Git	Intermediate <a href="#"><u>*jic54 (Joshua J. Cook, M.S., ACRP-PM, CCRC) (github.com)</u></a>
	Microsoft Excel, PowerBI	Beginner
	Microsoft Power Query (DAX)	Beginner
	Microsoft Power Automate	Beginner

## **Other**

Language	English	Experienced
Teaching	FERPA	Intermediate <a href="#"><u>*Certified, EverFi, 2018</u></a>
Software	Microsoft Windows	Experienced
	Apple MacOS	Experienced
	Microsoft 365 (OneDrive, Outlook, OneNote, Sway, Word, PowerPoint, Teams, Forms)	Experienced
	Google G Suite (Gmail, Calendar, Drive, Meet)	Experienced
	Canvas by Infrastructure	Intermediate
	WebEx/Zoom	Experienced

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## **PROFESSIONAL EXPERIENCE**

### **University of West Florida (UWF)**

#### *Department of Biology*

**Adjunct Professor** | Jan2024-Present

Spring 2024 Adjunct appointment for UWF Department of Biology:

- BSC1086L CRN 10239 A&P II lab
  - BSC2011L CRN 10260 Biology II Lab
  - BSC2011L CRN 10261 Biology II Lab
  - BSC2011L CRN 10263 Biology II Lab
  - BSC2011L CRN 10264 Biology II Lab
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- Leadership – Peter Cavnar, Ph.D. (Department Chair), Sarah Tominack, Ph.D. (Biology Lab Coordinator), Erica Taylor, Ph.D. (Anatomy & Physiology Lab Coordinator)
  - Qualifications – Graduate-level education and experience in biology, anatomy & physiology, cell & molecular biology, and genetics.
  - Instruction: Direct instruction of 150 biology undergraduate and non-major undergraduate students with the aid of undergraduate- and graduate- level teaching assistants (TAs).

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### **Andrews Research & Education Foundation (AREF)**

#### *Research Department*

**Research Quality Analyst** | Feb2023-Dec2023

Responsible for data literacy, quality/risk management, regulatory affairs, solutions development, and clinical studies development which aim to generate ethical, sustainable, and well-supported research activity.

- Leadership – Jen Mostert, CPA (Executive Director) and Steve E. Jordan, M.D. (Primary Investigator).
- Qualifications - Previous work experience and undergraduate research internship which included both certification and on-the-job trainings in the daily operations, management, and oversight of clinical trials ([see professional experience](#)). Education in Clinical Research Management and Data Science. Promoted from previous position (listed below).

- Data Literacy: Responsible for the management of team data collection plans, data quality assurance, data analysis and validation, and data dissemination methods. Aids in the organization's ability to make data-informed decisions that improve success.
- Quality/Risk Management: Responsible for physician and team member education and mentoring related to the facilitation of Good Clinical Practices (GCP), Good Documentation Practices (GDP), and Good Clinical Data Management Practice (GCDMP) for clinical professionals involved in research studies. Aids in the organization's ability to mitigate risk by ensuring quality through adequate training and use of data in decision making.
- Clinical Studies Development: Responsible for enhancing collaboration with team, physician, and industry partners to develop research ideas and protocols. Supports the organization by developing standard operating procedures (SOPs), assessing study timelines and forecasts, and overseeing investigator and fellow needs for research development.
- Regulatory Affairs: Serves as a liaison with Institutional Review Boards (IRBs) for developing studies and Statistical Analysis Plans (SAPs) and varying peer-reviewed journals to facilitate manuscript publications. Involved in regulatory and grant applications through the Florida Department of Health (DoH), U.S. Food & Drug Administration (FDA), National Institutes of Health (NIH), and other supporting agencies.
- Solutions Development: Responsible for providing time-efficient and scientifically-sound solutions to research, data, quality, and business problems posed by AREF and all involved stakeholders.
- Key Accomplishments – Successful startup and closeout of 30+ clinical and 5+ benchtop and research studies (publications in progress, see below). Direct training and mentoring of 70+ undergraduate- and graduate-level research interns, resulting in several medical/graduate school matriculations and residency program acceptances (orthopedic and radiology), multiple internship extensions and hires as part-time research assistants or specialists. Publication in Arthroscopy. Best paper award and presentation at the 2023 WUSS annual conference. ACRP certification as a Project Manager (ACRP-PM) and Certified Clinical Research Coordinator (CCRC). Paper and presentation at the 2023 PharmaSUG annual conference. Awarded the 2023 Association of Clinical Research Professionals (ACRP) Clinical Research Leadership Scholarship. Publication in the Journal of Cartilage & Joint Preservation (JCJP). Renewal and increase of annual grant funding based on study enrollment and conduct efforts (see below).

#### **Clinical Research Coordinator (CRC) | May2021-Feb2023**

Responsible for the primary coordination and operations of 35+ active clinical research studies within the areas of orthopedic sports medicine and regenerative medicine under one executive director and several primary investigators.

- Leadership – Jen Mostert, CPA (Executive Director) and Steve E. Jordan, M.D. (Primary Investigator).

- Qualifications - Previous work experience and undergraduate research internship which included both certification and on-the-job trainings in the daily operations, management, and oversight of clinical trials ([see professional experience](#)).
- Clinical Operations – Responsible for study initiation, recruitment, enrollment, coordination, quality assurance, close out, data analysis, and manuscript writing. Study designs include both descriptive (case reports/series, surveys), and analytical (experimental randomized controlled trials (RCTs), observational (cohort, case-control). Conduct subject consent, enrollment/treatment, and follow up visits. Lead experiments within the Andrews Center for Regenerative Medicine focusing on quantitative and qualitative analysis of human stem cell products (MSCs/HPCs) and platelet rich plasma (PRP). Oversee daily operations of research site including regulatory management, subject file management, and site communications. Facilitate physician and administration communication. Direct training and management of research assistants and interns (both undergraduate and graduate levels).
- Key Accomplishments – Direct hiring before undergraduate graduation. Successful startup of 20+ and closeout of 5+ benchtop and clinical research studies (publications in progress, see below). Successful training of several dozen research interns, resulting in multiple internship extensions and one hire as a part-time research assistant. Represented AREF at the 2022 American College of Sports Medicine (ACSM) Annual Meeting and World Congresses in San Diego, CA. Awarded the inaugural AREF Scholarship for dedication and work-ethic. Renewal and increase of annual grant funding based on study enrollment and conduct efforts (see below). Promotion received Feb2023.

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## University of West Florida

*Departments of Chemistry, Tutoring & Learning Services, Biology, and Research Administration and Engagement (ORAE)*

### **Chemistry Success Leader** | Aug2019-Dec2020

Led weekly workshops to reinforce material learned during previous lecture and provide an open learning opportunity for undergraduate students.

- Courses - General Chemistry I (Aug2019-May2020), General Chemistry II (Jun2020-Aug2020)
- Preparation - Completed leadership trainings in preparation for mentoring students enrolled in general chemistry. Attended weekly meetings with chemistry professors to prepare for weekly materials. Attended weekly general chemistry I/II lectures to review relevant material.
- Sessions - Hosted Success Sessions immediately following lectures to groups of 30-60 students aimed at reviewing material and helping students master application problems via in-class worksheets and quizzes. Worked out problems with class on chalk board. Graded quizzes. Assisted in lecture exam proctoring. Hosted WebEx and Canvas Conference sessions during COVID-19 courses.

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- Key Accomplishments – Increased retention rates among general chemistry students despite COVID-19 pandemic; data for the program pending publication.

#### **Peer Academic Coach** | Jan2020-May2020

Met weekly with students from diverse backgrounds to provide academic coaching and goal setting.

- Preparation - Completed trainings on FERPA, academic resources, active-listening, autism spectrum disorder, and myUWF Navigate & Accommodate applications for student reports. Met biweekly with TLR staff to train and update on academic coaching progress.
- Sessions - Met weekly with students for academic coaching and support in person, and through Zoom sessions during COVID-19 courses.
- Key Accomplishments – Aided half a dozen students throughout the academic year, preventing them from dropping courses and reducing stress during the COVID-19 pandemic.

#### **Undergraduate Teaching Assistant (TA)** | Aug2019-May2020

Assisted instructors in weekly lab setup, experimentation, cleanup, and student examination.

- Courses - Concepts in Human Physiology Lab (Jan2020-May2020), Genetics Lab (Aug2019-May2020), Biology I Lab (Aug2019-Dec2019)
- Preparation - Completed annual laboratory safety training in preparation for TA position. Met weekly with lab coordinators, lab instructors, and other teaching assistants to review and prepare for the weekly labs.
- Sessions - Assisted instructors in weekly Genetics, Biology I, and Human Physiology labs in lab setup, experimentation, cleanup, and examination. Graded homework, quizzes, and exams. Assisted in lab exam proctoring. Managed Canvas by Infrastructure software for grades, attendance, and course content. Assisted in lab WebEx sessions during COVID-19 courses.
- Key Accomplishments – Provided students with key laboratory skills, successfully completed lab courses during the COVID-19 pandemic.

#### **Lead Clinical Research Coordinator (CRC)** | Aug2018-Aug2019

Aided the director and Principal Investigator in the coordination and management of a recently initiated clinical research site out of the University of West Florida.

- Leadership - Rodney Guttman, Ph.D. (Principal Investigator), Kristina Robison, M.S. (Director)
- Preparation - Completed undergraduate research internship which included both certification and on-the-job trainings in the daily operations, management, and oversight of clinical trials ([see research experience](#)).

- Clinical Operations – Responsible for subject recruitment, study enrollment, subject follow-ups. Oversaw regulatory documentation, FDA compliance, Institutional Review Board (IRB) compliance, and adverse event reporting (AE/SAE) alongside site personnel and medical doctors. Further developed initial clinical research management and oversight systems as undergraduate research interns were onboarded (subject medical charts, standard operating procedures (SOPs), electronic data capture systems (EDC), clinical trial management systems (CTMS)). Assisted in consenting, screening, and enrollment process. Directed medical specimens and study drug dispensing. Aided in study closeout. Responsible for training of research interns.
- Responsible Studies (per Delegation of Authority):
  - Sponsor: Otsuka Pharmaceuticals. A Phase 3, 12-Week, Multicenter, Randomized, Double-blind, Placebo-controlled, 2-Arm, Fixed-dose Trial to Evaluate the Efficacy, Safety, and Tolerability of Brexpiprazole (OPC-34712) in the Treatment of Subjects With Agitation Associated With Dementia of the Alzheimer's Type. ([NCT03548584](#))
  - Sponsor: Avanir Pharmaceuticals. A Phase 3, Multicenter, Randomized, Double-blind, Placebo-controlled Study to Assess the Efficacy, Safety, and Tolerability of AVP-786 (Deuterated [d6]-Dextromethorphan Hydrobromide [d6-DM]/Quinidine Sulfate [Q]) for the Treatment of Agitation in Patients With Dementia of the Alzheimer's Type. ([NCT02442778](#))
  - Sponsor: Avanir Pharmaceuticals. A Phase 3, Multicenter, Long Term, Extension Study of the Safety and Efficacy of AVP-786 (Deuterated [d6] Dextromethorphan Hydrobromide [d6-DM]/Quinidine Sulfate [Q]) for the Treatment of Agitation in Patients With Dementia of the Alzheimer's Type. ([NCT02446132](#))
- Key Accomplishments – Presented research at state local (UWF), state (FCHC), and regional (SRHC) research conferences. Trained four undergraduate research interns. Successfully initiated and closed three clinical research studies within the area of CNS disorders.

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## **ACADEMIC RESEARCH EXPERIENCE**

### **University of West Florida**

*Departments of Mathematics and Statistics, Movement Sciences and. Health, Research Administration and Engagement (ORAE), and Biology*

#### **Graduate Research Assistant (RA) | Aug2023-Present**

Assisted Principal Investigator in several data science research projects focusing on using historical clinical trials data to predict future trial probability of success given protocol, study, and results data, and developing a reproducible statistical methodology for use in consensus statements, which are common in high-risk clinical research studies.

Key Research Projects: “*Prediction of Clinical Trial Enrollment Rates*” and “*Statistical Considerations in the Development of a Consensus Statement.*”

- Leadership – Achraf Cohen, Ph.D. (Principal Investigator).
- Preparation – Enrolled in Data Science master’s degree, member of UWF CSDA.
- Research Methods – Developed predictive models to assess the probability of success of a proposed clinical trial given protocol characteristics using historical data. Analyzed the iterative nature of consensus statement building and the necessity for clear statistical considerations in both the design and interpretation phases to ensure the validity of the consensus statement.
- Key Accomplishments – Awarded the UWF Graduate Student Travel Grant. Placed 1<sup>st</sup> in the inaugural UWF 3MT competition. Poster acceptance to the 2024 Conference on Statistical Practice (CSP). Placed 8th / 30 in the annual USC National Big Data Health Science Student Case Competition. Paper/presentation acceptances (4) to the 2024 PharmaSUG Conference.

**Undergraduate/Graduate Research Assistant (RA) | Jun2019-Jun2022**

Assisted Principal Investigator in several research projects focusing on Alzheimer’s Disease (AD) pathology and metabolic diseases such as Non-alcoholic Fatty Liver Disease (NAFLD).

Manuscript Submission (Accepted 04Apr2022): “*Endurance exercise-mediated metabolic reshuffle attenuates high-caloric diet-induced non-alcoholic fatty liver disease (ANNHEPATOL-D-22-00103R1)*”

Undergraduate Honors Thesis (Accepted 21Apr2021): “*Endurance exercise attenuates hypercaloric diet-induced hepatic steatosis by metabolic reprogramming.*”

- Leadership – Youngil Lee, Ph.D. (Principal Investigator), Yongchul Jang, Ph.D. (Post-Doctoral Student)
- Preparation – Maintained UWF laboratory safety training safety certifications. Shadowed post-doc student, upper-classman undergraduate students, and PI to learn lab protocols. Participated in weekly lab meetings and literature presentations.
- Lab Maintenance – Restocked reagents, stock solutions, and lab materials. Responsible for lab cleaning. Maintained stocks of wild type and transgenic mice (*M. musculus*).
- Thesis Research Methods – Conducted exercise training on mice. Harvested post-mortem samples of liver, heart, brain, and skeletal muscle tissue from mice. Prepared for protein quantification through western blotting by measuring total protein concentration using the Bradford Assay. Normalized tissue samples in preparation for western blotting. Performed western blotting experiments and ImageLab data analysis to determine specific protein concentrations for samples. Engaged in scientific writing for undergraduate honors thesis and subsequent publication.

- Other Research Methods – Assisted in cognitive assessment of mice via Barnes Maze Testing and Open Field Testing. Shadowed PI directly during cell-culture study. Assisted in the growth and differentiation of purchased cardiac (H9C2 – *R. norvegicus*), neural (SH-SY5Y – *H. sapiens*), and skeletal muscle (C2C12 – *M. musculus*) immortal cell lines. Treated groups within the three lines with different treatments over the course of 24-, 48-, and 72-hour periods. Lysed and collected cellular contents for western blot analysis. Performed western blot analysis on cultured cells following standard procedures.
- Key Accomplishments – Acceptance of undergraduate honors thesis by the UWF Kugelman Honors Program. Presentation of thesis work at local (UWF) and regional (SEACSM) research conferences. 2021 OUR Spring Symposium People’s Choice Award for thesis presentation. Successfully trained several lower classman students in lab protocols and experiments for other projects. Thesis work accepted for publication within the Annals of Hepatology (2022).

### **Intern Clinical Research Coordinator (CRC) | May2018-Aug2018**

Facilitated daily clinical trial operations under direct supervision of clinical trials director and Principal Investigator at a recently initiated clinical research site.

Key Research Project: *“Clinical Trials at the University of West Florida: Advocating for Sponsorship in Undergraduate Clinical Research.”*

- Leadership - Rodney Guttman, Ph.D. (Principal Investigator), Kristina Robison, M.S. (Director)
- Preparation - Completed certifications in Good Clinical Practices (GCP), Protecting Human Research Participants (PHRP), and many other documented trainings required for ethical clinical research.
- Clinical Operations – Trained by Director and PI in daily operations of clinical research sites, including subject recruitment, subject follow-ups, regulatory documentation, FDA compliance, IRB compliance, and adverse event reporting. Aided in implementation of clinical research management and oversight systems for new site startup.
- Key Accomplishments – Presentation of research project at local conference (UWF). Hired as a part-time employee after the conclusion of summer internship ([see professional experience](#)).

### **Undergraduate Research Assistant (RA) | Aug2019-Dec2019**

Initiated independent student-lead project aimed at gaining exposure to large-scale data analysis with PI supervision and regulation.

Key Research Project: *“Organizing and Evaluating Drug Recalls by the U.S. Food and Drug Administration.”*

- Leadership – Rodney Guttman, Ph.D. (Principal Investigator)
- Preparation – Formed an interdisciplinary team of students from the UWF Departments of Biology and Mathematics. Obtained source data sets from the U.S. Food and Drug Administration through website database and openFDA, and Elasticsearch-based API maintained by the FDA for archival records.
- Research Methods – Performed qualitative data analysis using MAXQDA 2018 software for importing and auto coding all relevant lines of data and computing frequency charts for coding numbers. Used frequency charts to compile graphical data for presentation. Produced a Word Cloud from isolated drug recall explanations given by the FDA using MAXQDA coding.
- Key Accomplishments – Presentation of research project to Kugelman Honors staff and at a national research conference (NCHC).

### **Undergraduate Research Assistant (RA) | Jan2018-Mar2019**

Assisted Principal Investigator in current research project focusing on the identification of bacteriophage specific and selective for Alzheimer's Disease-associated metabolites.

Key Research Project: “*Phage-Based Biomarkers in Alzheimer's Disease.*”

- Leadership – Rodney Guttman, Ph.D. (Principal Investigator)
- Preparation – Maintained UWF laboratory safety training safety certifications. Shadowed upper-classman undergraduate students, and PI to learn lab protocols. Participated in weekly lab meetings.
- Lab Maintenance – Restocked reagents, stock solutions, and lab materials. Responsible for lab cleaning.
- Research Methods – Panned several libraries of bacteriophage against metabolites found in Alzheimer's Disease samples (i.e., tau, Amyloid Beta) using enzyme-linked immunosorbent assays (ELISA). Confirmed specificity and selectivity of phage via bacterial culture and sequencing.
- Key Accomplishments – Presentation of research project at local conference (UWF).

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## **RESEARCH DOCUMENTATION**

### **Publications**

- Anz, A., **Cook, J.**, Branch, E., Rahming, C., Ostrander, R., Jordan, S. Cells Remain Viable When Collected with an In-line-suction Tissue Collector from Byproducts of Anterior Cruciate Ligament Reconstruction Surgery. *Arthroscopy, Sports Medicine, and Rehabilitation (ASMAR)*. 12Dec2023.

- **Cook, J.** A Dash of SAS®, a Pinch of R: Cooking up Dashboards Using Two Very Different Programming Languages. *2023 WUSS Conference Proceedings*. 02Nov2023.
- (MANUSCRIPT SUBMITTED OCT2023) Parsa, A., **Cook, J.**, Forutan, H., Sayyed Hoseinian, S., Anz, A. Effectiveness of Orthobiologic Interventions in Patients with Greater Trochanteric Pain Syndrome; A Systematic Review and Meta-Analysis. *Archives of Bone and Joint Surgery*. TBD.
- **Cook, J.**, Truett, J. Making Publication Metric Tracking Easy: Using a Reproducible, Integrated System of R and Microsoft Power BI® to Ease the Pain of Assessing Publication Metrics. *2023 PharmaSUG Conference Proceedings*. 17May2023.
- Branch, E., **Cook, J.**, Cohen, A., Plummer, H., Emami, A., Truett, J., Anz, A. Platelet Rich Plasma is similar to Platelet Rich Plasma Plus Hyaluronic Acid for the Treatment of Knee Osteoarthritis at 2 Years: A Randomized Controlled Trial. *Journal of Cartilage & Joint Preservation*. 18Mar2023.
- **Cook, J.**, Wei, M., Segovia, B., Simpson, J., Taylor, S., Kim, S., Cosio-Lima, L., Koh, Y., Lee, Y. Endurance exercise-mediated metabolic reshuffle attenuates high-caloric diet-induced non-alcoholic fatty liver disease. *Annals of Hepatology*. 28Apr2022.

## **Presentations**

- **Cook, J.** (16Feb2024), Oral Presentation (Cook, J.). The Argo Formula: Crafting Medical Professionals Equipped for the Data-Intensive Clinical Research Frontier. *2024 UWF Biology Seminar Lecture, Pensacola, FL*.
- Lafler, K., Lafler, R., **Cook, J.**, Wade, A., Sloan, S. (01Nov2023), Panel Discussion. Benefits, Challenges, and Opportunities with Open Source Software (OSS) Integration. *2023 WUSS Conference, San Diego, CA*.
- **Cook, J.** (01Nov2023), Oral Presentation (Cook, J.). A Dash of SAS®, a Pinch of R: Cooking up Dashboards Using Two Very Different Programming Languages. *2023 WUSS Conference, San Diego, CA*.
- **Cook, J.**, Truett, J. (17May2023), Oral Presentation (Cook, J.). Making Publication Metric Tracking Easy: Using a Reproducible, Integrated System of R and Microsoft Power BI® to Ease the Pain of Assessing Publication Metrics. *2023 PharmaSUG Conference, San Francisco, CA*.
- **Cook, J.** (25Oct2022), Oral Presentation (Cook, J.). SAS® Student Showcase. *2022 SouthEast SAS® Users Group (SESUG) Conference, Mobile, AL*.

- **Cook, J.,** Lee, Y., Et. Al. (04Jun2022), Oral Presentation (Cook, J.). Endurance exercise-mediated metabolic reshuffle attenuates high-caloric diet-induced non-alcoholic fatty liver disease. *2022 American College of Sports Medicine (ACSM) Annual Meeting and World Congresses, San Diego, CA.*
- **Cook, J.** (21Apr2022), Oral Presentation (Cook, J.). Research Efforts at the Andrews Research & Education Foundation (AREF). *2022 UWF Cell Biology Lecture, Pensacola, FL.*
- **Cook, J.,** Lee, Y., Et. Al. (15Apr2021), Virtual Thesis Presentation (Cook, J.). Endurance exercise prevents metabolic distress-mediated hepatic senescence via enhancing lipid oxidation and inhibiting lipogenesis. *2021 UWF OUR Spring Symposium.*
- **Cook, J.,** Lee, Y., Et. Al. (18-19Feb2021), Virtual Presentation (Cook, J.). Endurance exercise prevents metabolic distress-mediated hepatic senescence via promoting autophagy. *2021 American College of Sports Medicine Southeast Chapter (SEACSM) Annual Meeting.*
- **Cook, J.,** Lee, Y., Et. Al. (04Aug2020), Virtual Presentation (Cook, J.). Exercise-based Regulation of Blood Sugar, and its Implications in Neurological Diseases. *2020 UWF HMCSE SURP Symposium.*
- **Cook, J.,** Guttman, R., Et. Al. (08Nov2019), Oral Presentation (Cook, J.). Organizing and Evaluating Drug Recalls by the U.S. Food and Drug Administration. *2019 National Collegiate Honors Council Conference (NCHC), New Orleans, LA.*
- **Cook, J.,** Guttman, R., Et. Al. (18Apr2019), Oral Presentation (Cook, J.). Clinical Trials at the University of West Florida: Advocating for Sponsorship in Undergraduate Clinical Research. *2019 UWF OUR Spring Symposium, Pensacola, FL.*
- **Cook, J.,** Guttman, R., Et. Al. (29Mar2019), Oral Presentation (Cook, J.). Clinical Trials at the University of West Florida: Advocating for Sponsorship in Undergraduate Clinical Research. *Southern Regional Honors Council (SRHC) Conference, Memphis, TN.*
- **Cook, J.,** Guttman, R., Et. Al. (09Feb2019), Round-table Discussion. Clinical Trials: A Guide to Understanding Them. *2019 Florida Collegiate Honors Council (FCHC) Conference, Orlando, FL.*

- **Cook, J.,** Guttman, R., Et. Al. (10Aug2018), Oral Presentation (Cook, J.). Clinical Trials at the University of West Florida. *2018 UWF HMCSE SURP Symposium, Pensacola, FL.*
- **Cook, J.,** Guttman, R., Et. Al. (19Apr2018), Oral Presentation (Cook, J.). Phage-Based Biomarkers in Alzheimer's Disease. *2018 UWF OUR Spring Symposium, Pensacola, FL.*

### **Clinical Study Involvement**

<b>Therapeutic Area</b>	<b>Indication Group(s)</b>	<b>Role(s)</b>	<b>Number of Studies</b>	<b>Involvement</b>	<b>Phase(s)</b>
Orthopedic Sports Medicine	Connective Tissue Injury	CRC/Research Quality Analyst	40+	3 years	III/IV
Regenerative Medicine	Stem Cell and Platelet Rich Plasma (PRP) Therapy	CRC/Research Quality Analyst	15+	3 years	I/II
Neurology	Alzheimer's Disease (AD)	CRC/Intern	2	1.5 years	III

### **Funding**

- Regenerative Medicine Grant (within AREF) | State of Florida Department of Health (DoH) | 2023-2024 (\$2,500,000), 2022-2023 (\$1,000,000), 2021-2022 (\$500,000)
- UWF OUR Virtual Travel Award | PI: Youngil Lee, Ph.D. | Jan-May2021 (\$500)
- UWF OUR Project Award II | PI: Youngil Lee, Ph.D. | Jan-May2021 (\$500)
- UWF OUR Project Award I | PI: Youngil Lee, Ph.D. | Aug-Dec2020 (\$500)
- UWF Kugelman Honors Thesis Grant | PI: Youngil Lee, Ph.D. | Aug-Dec2020 (\$1,500)
- UWF OUR Project Award | PI: Youngil Lee, Ph.D. | Jan-May2020 (\$500)
- UWF OUR Project Award | PI: Rodney Guttman, Ph.D. | Aug-Dec2019 (\$500)
- UWF OUR Project Award | PI: Rodney Guttman, Ph.D. | Aug-Dec2018 (\$500)

### **Training Programs**

- UWF OUR Summer Undergraduate Research Program (SURP) | PI: Youngil Lee, Ph.D. | May-Aug2020



- UWF OUR Summer Undergraduate Research Program (SURP) | PI: Rodney Guttman, Ph.D. | May-Aug2018
- UWF OUR Works! Federal Work-Study Program | PI: Rodney Guttman, Ph.D. | Jan-May2018
- UWF OUR Explorers Shadow Program | PI: George Stewart, Ph.D. | Jan-May2017

## **EXTRACURRICULAR ACTIVITIES**

### **Professional Memberships**

- PYP Mentor Pensacola | Mentee | Nov2023-Present
- Pensacola Young Professionals (PYP) | Member | Oct2023-Present
- UWF Computational Statistics and Data Analytics Lab (CSDA) | Member | Aug2023-Present
- Western Users of SAS® Software (WUSS) | Member | Jul2023-Present
- PharmaSUG | Member | Mar2023-Present
- WFU Biomedical Student Ambassador | Student Ambassador | Spring 2023
- Healthcare Information and Management Systems Society (HIMSS) | National, Regional Student Member | Oct2022-Oct2023
- UWF Graduate Student Advisory Board (GSAB) | Member | Oct2022-Present
- Southeast SAS® Users Group (SESUG) | Member | Aug2022-Present
- UWF Industry Mentoring in Stem (IMSTEM) Program | Mentor | Aug2022-Present
- Association of Clinical Research Professionals (ACRP) | Member | Aug2021-Present
- UWF Sustained Alumni | Member | May2021-Present
- American College of Sports Medicine (ACSM)/Southeast Chapter (SEACSM) | National, Regional Member | Feb2021-Jan2022; Apr2022-Apr2023
- Florida Undergraduate Research Leadership Summit (FURLS) | Member | Feb2021-May2021
- UWF American Physician Scientist Association (APSA) | Founding Member, Outreach Coordinator | Sept2020-May2021
- UWF Muslim Student Association (MSA) | Member | Jan2020-May2021
- UWF Alpha Epsilon Delta | Member, Volunteer Coordinator | Aug2020-May2021
- UWF American Medical Women's Association (AMWA) | Member | Feb2019-Jun2019
- UWF Kugelman Honors Program | Member, Peer Mentor | Aug2017-May2021, Aug2019-May2020
- UWF TRiO Leadership Council | Council Member | Jan2017-Oct2017
- UWF TRiO Student Support Services (SSS) | Member | Aug2016-May2021

### **Community Service**

- WUSS | Volunteer | Nov2023 (4 hours)

- PharmaSUG | Volunteer | May2023 (12 hours)
- SouthEast SAS® Users Group (SESUG) | Volunteer | Aug2022 (3 hours)
- Baptist Medical Park Surgery Center | Volunteer | Mar2021-May2021 (50+ hours)
- UWF OUR Spring Symposium | Volunteer | 2019-2021
- UWF Science Olympiad Competition | Volunteer | 2020
- Pensacola Habitat for Humanity | Volunteer | Feb2020-May2021
- American Association of Retired Persons (AARP) MentorUP Event | Event Contact | Sept2018-Jan2020 (Annual/Biannual Events)
- Keep Pensacola Beautiful | Volunteer | Sept2017-Sept2019
- Pensacola American Cancer Society | Volunteer | Sept-Oct2017
- Pensacola Waterfront Rescue Mission | Volunteer | Sept2017
- Ronald McDonald House Charities of Northwest Florida (RMHC-NWFL) | Volunteer | 2013-2017 (100+ hours)

### **Medical Shadowing**

- Woodlands Medical Specialists | Jennifer Miley, M.D. (Primary Care/Family Medicine) | Dec2020-Jan2021 (60+ hours)
- Woodlands Medical Specialists | Hillary Hultstrand, M.D. (Primary Care/Family Medicine) | Dec2020-Jan2021 (40+ hours)
- West Florida Hospital Medical Center Clinic (MCC) | Ethan Gore, M.D. (Neurology) | Dec2020-Jan2021 (70+ hours)

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### **HONORS & AWARDS** (\*merit-based, <sup>i</sup>graduate-level)

- \*<sup>i</sup>PharmaSUG New Professional Scholarship | PharmaSUG | Spring 2024
- \*<sup>i</sup>Placed Top 10 (8/30) | USC National Big Data Science Student Case Competition | Spring 2024
- \*<sup>i</sup>WUSS Best Paper Award (Open Source) | WUSS | Fall 2023
- \*<sup>i</sup>UWF Graduate Student Travel Award | UWF | Fall 2023
- \*<sup>i</sup>UWF 3-Minute Thesis (3MT) 1<sup>st</sup> Place Overall Award | UWF | Fall 2023
- \*<sup>i</sup>WUSS Student Scholarship | Western Users of SAS® Software (WUSS) | Fall 2023
- \*<sup>i</sup>PharmaSUG Student Scholarship | PharmaSUG | Spring 2023
- \*<sup>i</sup>ACRP Clinical Research Leadership Scholarship | ACRP | Spring 2023
- \*<sup>i</sup>Whataburger Family Foundation Scholarship | Whataburger Family Foundation | Spring 2023
- \*<sup>i</sup>Academic Student Grant | SouthEast SAS® Users Group (SESUG) | Fall 2022
- \*<sup>i</sup>Robert W. Nolan Scholarship | Fleet Reserves Association (FRA) Education Foundation | Fall 2022
- \*<sup>i</sup>Whataburger Family Foundation Scholarship | Whataburger Family Foundation | Fall 2022
- \*<sup>i</sup>UWF Post-baccalaureate Education Grant | UWF | 2021-2022

- \*<sup>i</sup>Whataburger Family Foundation Scholarship | Whataburger Family Foundation | Spring 2022
- \*<sup>i</sup>Andrews Research & Education Foundation Scholarship | AREF | 2021-2022
- \*UWF OUR Spring Symposium People's Choice Award | UWF OUR | 2021
- \*UWF Selig Leadership Scholarship | UWF Kugelman Honors Program | 2020-2021
- \*UWF Honors Tuition Waiver Scholarship | UWF Kugelman Honors Program | 2019-2020
- \*UWF John C. Pace Scholarship | UWF Kugelman Honors Program | 2019-2020
- \*UWF Department of Biology Scholarship | UWF Department of Biology | 2019-2020
- \*UWF Bookstore Scholarship | UWF | 2019-2020
- \*UWF John C. Pace Honors Leadership Award | UWF Kugelman Honors Program | 2019-2020
- \*Whataburger Family Foundation Scholarship | Whataburger Family Foundation | 2018-2019, 2019-2020
- \*The Dream Scholarship | UWF | 2017-2018, 2018-2019
- \*Florida Medallion Scholars Award | Florida Student Scholarship Grant Programs | 2016-2021
- \*The President's Volunteer Service Award | President's Council on Service and Civic Participation | 2016