

JAZZMIN OWENS

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EDUCATION

- PhD** Clark Atlanta University Aug 2018-Present
Ph.D. Biology
Atlanta, GA
- BA** University of Southern California Aug 2014
Bachelor of Arts, Biological Sciences
Los Angeles, CA

RESEARCH EXPERIENCE

Graduate Research Scientist Aug 2018- Present
Department of Biological Sciences/Center for Cancer Research & Therapeutic Development
Clark Atlanta University

Project: “Calcium (Ca²⁺) and Reactive Oxygen Species (ROS) crosstalk signaling in 3D cell culture to control inflammatory response at multiple length scales”

Advisor: Juana Mendenhall (Morehouse College)

- Targeting the NF- κ B pathway with biomaterial scaffolds can reduce the damage caused by ROS and calcium including reducing the signaling of the MMPs, TNF- α and IL-1 β

Project: “Mechanism of ID4 Phosphorylation”

Advisor: Jaideep Chaudhary (Clark Atlanta University)

- Investigated whether phosphorylation determines whether ID4 acts as a tumor suppressor or tumor promoter in prostate cancer cells

Project: “The role of YAP/TEAD in RELA-dependent Gene Transcription and Cell Biology”

Advisor: Bekir Cinar (Clark Atlanta University)

- Investigated whether there is crosstalk between the YAP1 and RELA Transcriptional Regulators in Prostate Cancer

TEACHING AND MENTOR EXPERIENCE

Teaching Assistant/ Adjunct Professor Aug 2019 to Present
Introduction to General Biology, Department of Biological Sciences, Clark Atlanta

General Biology 111 and 112 Laboratories

- Primary responsibilities include designing lectures and exams, as well as chemical reagents and supplies for laboratory experiments
- Developed quizzes and exams

Research Mentor

Jan 2019 to Present

Department Center for Cancer Research and Therapeutic Development, Clark Atlanta University

- Trained undergraduate students in basic science laboratory techniques and procedures
- Mentored undergraduate students to develop essential research skills (writing, critical analysis, and communication)
- Develop project sheets for undergraduate mentees

AP Biology Substitute Teacher

May 2018 to June 2018

Richmond County, Augusta, GA

- Filled long-term substitute teacher vacancy for high school AP Biology
- Adapted teaching methods and instructional materials to meet students' needs and interests
- Instructed students individually and in groups, using various teaching methods such as lectures, discussions, and demonstrations.

PUBLICATIONS

- Singh JK, Hutt DM, Tait B, Guy NC, Sivils JC, Ortiz NR, Payan AN, Komaragiri SK, **Owens JJ**, Culbertson D, Blair LJ, Dickey C, Kuo SY, Finley D, Dyson HJ, Cox MB, Chaudhary J, Gestwicki JE, Balch WE. Management of Hsp90-Dependent Protein Folding by Small Molecules Targeting the Aha1 Co-Chaperone. *Cell Chem Biol.* 2020 Feb 3. pii: S2451-9456(20)30033-7. doi: 10.1016/j.chembiol.2020.01.008.

CONFERENCE PRESENTATIONS (POSTERS)

Owens, J, (April 2023) "Investigating the role of [Ca²⁺] signaling and NF- κ B response under Oxidative Stress in chondrocyte cells using an Osteoarthritis model"- (First Place Winner)

Clark Atlanta University Annual Research Symposium, Atlanta, GA

Owens, J, (April 2020) "Mechanism of ID4 Phosphorylation

Clark Atlanta University Annual Research Symposium, Atlanta, GA

TECHNIQUES

- Protein/gene expression assays :(western blotting/ELISA, real-time RT PCR, gene silencing, Transfection: stable and transient (retrovirus)),
- Trans well migration, ChIP, cell cycle and proliferation assays

- Sequencing Techniques and antibody-based techniques (flow cytometry, Immunohistochemistry, Immunoprecipitation,
- Tissue Culture –Prostate Cancer cell lines and Human Chondrocyte cell line
- Isolation of Chondrocytes from Bovine Articular Carilage
- Cloning: transformation, RNA extraction, reverse transcription, PCR, DNA purification DNA gel analysis, quantification, and extraction
- Microscopy: confocal, fluorescence and light microscopy
- In-vivo animal model techniques (mice handling) (appropriate care, maintenance and sacrifice, aseptic surgical techniques, blood and plasma collection, and post-procedure care
- 3D Bioprinting
- Bioinformatics tools: RNA seq Analysis, BLAST, Gene Bank, NCBI, TCGI,
- Protein BLAST, T-COFFEE, UniPort.

CERTIFICATES AND TRAINING

Chemical Hygiene and Lab Safety Training Collaborative Institutional Training Initiative (CITI Program)

Working with Mice in Research Settings

Working with the IACUC - Investigators, Staff and Students

Reducing Pain and Distress in Laboratory Mice and Rats

Annual OSHA Bloodborne Pathogens Training

Hazard Communication

Aseptic Surgery

**Summer Workshops: Fundamental of Data Science 08/2022
(Stanford University ICME)**

**Cornell University-Certificate in Women's 08/2022
Entrepreneurship**

CompuCell 3D Virtual Tissue Modeling Workshop 08/2022

**Introduction to MATLAB and Data Science (The AUC 01/09/2023
Data Science Initiative)**

LANGUAGES

Spanish: Intermediate Listener, Speaker, Reading and Writing

ORGANIZATIONS

Toastmasters International (Present- Dec 2017)

EMBRIO Institute Student Council-Vice President (Present- July 2022)

COMPUTER SKILLS

Applications: MS office, Word, Excel, Power point, Photoshop

HONORS AND AWARDS

Clark Atlanta University Scholarship (2018-2020)

Clark Atlanta University Title III STEM Ph.D Student (Present-2020)

HBCU 20x20 Amgen BioTech Fellowship (Aug 2022-Oct 2022)