

Ima Brain

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OBJECTIVE Research Specialist

ACADMEIC GOAL Acceptance to and Completion of Graduate Program in Biochemistry

ACADEMIC BACKGROUND

Clayton State University

Bachelor of Science in Biology

Chemistry Minor

GPA 3.8

Morrow, GA
expected 2010

PRIMARY FIELDS OF INTEREST

Biochemistry

- Metabolism of pharmaceutical drugs and herbal supplements
- Biochemical properties of the cell membrane
 - Structure and function of lipid rafts and cholesterol
- Mechanisms of protein involvement in disease
- Mechanisms of neurotransmitter release

Molecular and Cellular Biology

Microbiology

RELEVANT COURSEWORK

Principles of Biology I, II (and Labs)

Microbiology (and Lab)

Cell Biology

Genetics

Immunology

Botany

Biology Seminar

Biology Research Practicum

Biotechnology Laboratory[†]

Biocomputing[†]

Human Anatomy and Physiology I, II (and Labs)

Principles of Chemistry I, II (and Labs)

Organic Chemistry I, II (and Labs)

Biochemistry I, II

Medicinal Chemistry

Environmental Chemistry

Chemistry Internship

Principles of Physics I, II (and Labs)

Modern Physics (and Lab)

Introductory Statistics

Presentational Speaking

Applied Calculus[†]

[†] In Progress

SKILLS

Laboratory Skills

- Basic Laboratory Procedures
- Bacterial Culture Techniques
- Bacterial Transformation[†]
- Cell Culture[†]
- Centrifuge/Microfuge Techniques
- Chromatography (Column, Liquid, Gas, Size Exclusion, etc.)
- DNA Isolation/Quantification
- DNA Sequencing
- ELISA[†]
- Media Preparation
- Microbiology
- Microscopy
- Molecular biology[†]
- Organic Synthesis
- PCR
- Pipetting
- Protein Isolation[†]
- Recombinant Technology
- Restriction Analysis

Laboratory Skills Continued

- Experimental Design
- Forensic Analysis[†]
- Gel Electrophoresis
- Gene Cloning[†]
- Genetically Engineered Organisms[†]
- Immunocytochemistry[†]
- SDS-Page[†]
- Southern Blots/Western Blots/Northern Blots[†]
- Spectroscopy (IR, GC/MS, etc.)
- Tissue Printing[†]
- Immunofluorescence Labeling[†]

Computer Skills

- Bioinformatics (BLAST, Primer Design, PAM/BLOSUM, etc.)
- Biology Workbench
- Coding languages (Basic X[†]/HTML, SMIL, CSS[†], C++[†])
- Entrez Databases
- Mac Programs (basic)
- MS Office Suite (Word, Excel, PowerPoint, FrontPage)
- Protein Explorer
- PubMed
- Type 78+ wpm, 99% Accuracy
- Web Design Experience

Other Skills

- CPR
- First Aid
- Interpersonal Skills
- Leadership
- Organization
- Small and Large Animal Training

[†] In Progress

RESEARCH EXPERIENCE AND INTERNSHIPS

Research Internship and Biology Research Practicum

Spring 2009 to Present

- Conducted an independent research project under Dr. Mary Farmer that studied the preferential feeding behavior of *Eisenia fetida* on selected microorganisms
- Project is ongoing and paper is being prepared for publication

Chemistry Internship

Spring to Summer 2008

- Conducted an internship project under Dr. Pamela Thomas and Dr. John Jones to develop chemical demonstrations and accompanying storylines to utilize during the presentation of difficult topics in introductory college and advanced high school level chemistry lectures
- Partnered with several local high schools to design an informative handout that explained the chemical reaction and included a list of materials needed to perform the demonstration

PRESENTATIONS

At Academic Conferences:

Brain, I. 2009. Preferential Feeding of *Eisenia fetida*. Presentation at the Georgia Collegiate Honors Conference. Kennesaw, Georgia.

Brain, I., Thomas, P.M., and Jones, J.R. 2008. The Use of Demonstrations to Enhance the Lecture. Symposium at the Conference on College & University Teaching. Milledgeville, Georgia.

For Coursework Requirements:

Brain, I. 2007. The Feeding Behavior of *Eisenia fetida*. Requirement for Biology Research Practicum.

Brain, I. and Williams, L. 2008. Introduction to the Structure, Function, and Research Applications of Lipid Rafts. Requirement for Biochemistry II.

Brain, I. 2007. Chamomile: Herb of Healing. Requirement for Medicinal Chemistry.

Brain, I. 2007. Pharmaceutical Treatments for Anaphylaxis. Requirement for Medicinal Chemistry.

PAPERS

For Publication:

Brain, I. and Farmer, M. 2008. The Preferential Behavior of Selected Microorganisms. Being prepared for publication.

For Coursework Requirements:

Brain, I. 2007. The Pathophysiology and Pharmaceutical Treatment of Chronic Bronchitis. Requirement for Human Anatomy and Physiology II.

Brain, I. 2006. The Diagnosis and Pharmaceutical Treatment of Anaphylaxis. Requirement for Medicinal Chemistry.

TEACHING AND WORK EXPERIENCE

Clayton State University

Morrow, GA

Center for Academic Success Peer Tutor

Fall 2008 to Present

- Provide tutoring assistance to students in all of introductory and many of advanced biology, chemistry, physics, English, and music classes
- Identify student areas of weakness and student learning style
- Provide academic information using variety of teaching methods
- Use interpersonal skills to relate to people from wide range of backgrounds, abilities, cultures, ethnicities, ages, and levels of income

Teaching Assistant, Biochemistry I

Spring 2009

- Instructed and helped students learn topics presented in Biochemistry I
- Coached students as needed during stated office hours
- Led organized study sessions
- Created activities to engage students
- Served as role model and mentor for students

Henry County Parks & Recreation

Ola, GA

Camp Counselor

Summer 2007

- Supervised groups of children, ages 9-11
- Planned and implemented activities
- Communicated with parents regarding children's involvement and challenges

ENT Office and Allergy Clinic

Griffin, GA

Volunteer Immunotherapist

2008 to Present

- Administer weekly at-home immunotherapy for five patients
- Maintain accurate medical chart records
- Monitor supplies and patient allergy dosage vials

Assistant, ENT Office

Summer 2008

- Obtained patients' medical histories
- Prepared medical instruments for basic procedures
- Filed charts
- Obtained medication samples for patients
- Assisted with basic medical procedures
- Assisted with the preparation of surgical paperwork
- Cleaned medical instruments

Assistant, Allergy Clinic

Summer 2007

- Assisted with charting of new and returning patients
- Assisted with and charted the titration and mixing of patient allergy vials
- Monitored and replenished supplies in clinic rooms
- Emptied and replaced sharps containers and biohazard bins
- Assisted basic allergy and lung capacity testing
- Organized supply closet and other storage space

ACADEMIC HONORS AND AWARDS

- Clayton State University Women's Forum Outstanding Female Student Scholarship Recipient
- Clayton State University Student Leadership and Involvement Award
- National Dean's List
- Clayton State University Scholastic Achievement Award
- Clayton State University Honors and Superior Contributions to Community Service Award
- Honors Student Scholarship Recipient
- Dean's List (15 semesters)
- HOPE Scholarship

AFFILIATIONS AND ACTIVITIES

American Medical Student Association

Member - 2007 to Present

Webmaster - 2008 to Present

Clayton State Science Association

Member - 2004 to Present

Golden Key International Honour Society

Member - 2008 to Present

HaeSan Tae Kwon Do Association

Member - 2008 to Present

Honors Student Association

Member - 2006 to Present

Phi Eta Sigma National Honor Society

Member - 2007 to Present

Webmaster – 2006 to 2005

United States Eventing Association

Member - 2007 to Present

American Red Cross Blood Drives

Volunteer - 2006 to Present

GA-Adopt-a-Stream

Volunteer - 2007

REFERENCES

Provided upon request