

Gary Graduate School

115 Cary Street • Richmond, VA 23220 • 111.555-5555 • gary.gradschool@richmond.edu

EDUCATION

University of Richmond, Richmond, VA, May 2007

Bachelor of Science in Biology, Chemistry Minor, Neuroscience Concentration. GPA: 3.70

Relevant Courses - Molecular Genetics, Cell and Molecular Biology, Evolution and Diversity of Life, Research Methods and Analysis, General Chemistry, Organic Chemistry, Physics I and II with Calculus, Clinical Neuroscience, Cellular Neurophysiology

Biology Honors Program, *University of Richmond*

Honors, *University of Richmond*

- Golden Key, International Honor Society
- Dean's List: Spring & Fall 2004, Spring & Fall 2005

PROFESSIONAL EXPERIENCE

Volunteer, *Home Again Emergency Shelter*, Richmond, VA Summer 2005-present

- Cared for children (ages 2-13) while mothers attend lifestyle improvement meetings
- Food server for homeless and battered women at various festivals in Richmond throughout the year

Intern, *International Hospital for Children*, Richmond, VA Fall 2005- present

- Set up and take children and families to and from doctor appointments, help purchase food, clothing, and medication necessary during stay in the United States
- Provide office aid to employees: data entry, background checks, filing, and mailing

Summer Research Fellow, *University of Richmond, Department of Neuroscience* Summer 2005

- Worked with Dr. Craig H. Kinsley in attempt to characterize the effects of reproductive experience on the rodent brain
- Specifically examined the effects of such an experience on mitochondrial abundance in hippocampus and preoptic area using immunocytochemistry and confocal microscopy

Dialysis Technician, *Bay Health Medical Center*, Dover, Delaware Summer 2004- present

- Assist doctors and nurses in providing treatment for hospitalized patients experiencing acute or chronic renal failure
- Manage the regulation and maintenance of hemodialytic machines

Shadowing Opportunities

Bay Health Medical Center, Dover, Delaware, Summer & Fall 2005
Dr. Gertrude Findley-Christian: Nephrology
Dr. Frank Marrow: Nephrology

- Observed femoral line placements, kidney biopsies, and physician rounds

Bon Secours Health System, Richmond, Virginia, Spring 2005
Dr. Stanley Tucker: Cardiology

- Observed echocardiograms, electrocardiograms, pacemaker evaluations, and routine office appointments

Maimonides Medical Center, Brooklyn, New York, Summer 2004
Dr. Richard Lazzaro: General Surgery

- Observed non-invasive gastric-bypass surgeries and post-surgery examinations

RESEARCH / PUBLICATIONS

Undergraduate Honors Research, University of Richmond, Department of Biology, Fall 2005 & Spring 2006

- Worked with Dr. Craig Kinsley and Dr. Scot Knight in the development of a real-time PCR protocol for examination of mitochondrial specific *cytochrome c oxidase* protein abundance in the rat hippocampus
- Experiments extended to transgenic mice genetically predisposed to express Alzheimer-like symptoms

Undergraduate Research Grants, University of Richmond

- Wrote, submitted, and awarded three grants (Spring 2005, Summer 2005 & Fall 2005) for research projects all attempting to characterize the effects of reproductive experience on neuronal mitochondrial abundance and efficiency

Undergraduate Research, University of Richmond, Department of Neuroscience, Fall 2004-present

- Investigated the subtle neurological alterations that occur following pregnancy

Presented Research Posters, Richmond VA & Washington D.C.

- *Sensory and Neural Up-Regulation in Females Following Reproductive Experience.* Banks, M., Kinsley, C., Karelina, K., Contino, R., Rima, B. and Graduate, G. Presented Spring 2005 at the UR Undergraduate Research Symposium, Richmond, VA
Abstract available: research.richmond.edu/students/Gary_Graduate.htm
- *Pregnancy/Motherhood induction and maintenance of neuroplasticity in the Maternal Rat.* Kinsley, C., Banks, M., Karelina, K., Rima, B., Contino, R., and Graduate, G. Presented Fall 2005 at the 35th Annual Society for Neuroscience Meeting, Washington D.C.

LABORATORY / COMPUTER SKILLS

- Confocal microscopy
- Image J analysis
- Immunocytochemistry
- Golgi Stain
- Gel Electrophoresis
- IR spectroscopy
- Standard oocyte physiologic recording techniques (i.e. voltage-clamp)
- Internet, Microsoft Word, PowerPoint, Excel, Origin
- Ample experience with journals and library research including Medline, Pubmed and EBSCO host

HONORS / ACTIVITIES

Kappa Sigma Fraternity, Beta-Beta Chapter, University of Richmond Spring 2003-present

- Vice President, Fall 2005
- TOTS- Team Captain (Philanthropic event), Fall 2004
- Alumni Relations Committee, Spring 2005-Present

Physics Olympics, University of Richmond, Department of Physics Spring 2005

- Helped in the planning and coordination of the 1st Physics Olympics with Dr. Con Beausang
- Served as a judge for the high school competition

Rho Iota, University of Richmond Fall 2005- present

- Greek life Christian group, weekly meetings

Undergraduate Student Symposium, University of Richmond, Spring 2004

- Presented findings from mitochondria and pregnancy project

Society for Neuroscience 35th Annual Meeting, Washington, D.C., Fall 2005

- Presented findings from the summer fellowship investigation of the effect of reproductive experience on functional levels of *cytochrome c oxidase* protein in the rat hippocampus

RESEARCH INTERESTS

- Helping children in need through work with *Home Again Emergency Shelter* and *The International Hospital for Children*
- Biomedical research and the theoretical mechanisms of the aging process
- Medicine & Neurophysiology
- The intersection of science and religion