

SUMMARY

I am a first year medical student interested in translational medicine with an emphasis in information technologies and interdisciplinary research design. I view the work that the Anesthesia Patient Safety Foundation has done to improve patient safety and reduce anesthesia-related mishaps as a successful model for how forward-thinking translational research can directly improve patient well-being.

I am proficient in several data manipulation and analysis platforms, web programming, and graphic design. My professional experience includes more than three years of research experience in biomedicine and public health, directing an emergency response team, serving as a member of an IRB, and working as a web developer, an EMT, and as a disabilities assistant.

EDUCATION

The University of Queensland, M.B.B.S., expected 2016
Brisbane, QLD, Australia and New Orleans, LA, USA
Ochsner Clinical School

Mills College, *Post-Baccalaureate Pre-Medical program*, 2009-2011
Oakland, CA, USA
Relevant courses: Genetics, Immunology, Organic Chemistry,
Physiology

Pitzer College, B.A., *Public Health and Science, Technology, & Society*, 2008
Claremont, CA, USA
Relevant courses: Biotechnology, Mathematical Physiology, Philosophy of Science

Thesis: *Would you or wouldn't you?: A report on the artifacts of performance enhancement on college campuses and the implications of their use.*

Activities: Institutional Review Board student member, Health Education Outreach, Outdoors Club treasurer, editor for the *Asclepius Health Journal*

RESEARCH

Research Assistant, *UCSF Anesthesia Department* (Dec 2009 - Sept 2011)
Stratmann Lab; San Francisco, CA

I worked in a lab that studies the physiological basis of anesthesia-induced cognitive deficits in the neonatal brain. My project examined the effects that neonatal exposure to anesthesia has on hippocampal-dependent memory. I developed and used an animal model to evaluate behavioral memory impairments in rats, then performed histology studies to learn more about the underlying mechanism of anesthesia-induced neurotoxicity. My lab has recently finished a manuscript detailing our findings, and it is currently being prepared for publication.

Analysis of Destabilising Noise in Bistable Systems, *Harvey Mudd* (Sept - Dec 2008)
Claremont, CA

I worked with a team of students to investigate how feedback delay and noise effect the stability of nonlinear bistable systems. We used XPPAUT and python to evaluate the stochastic resonance in each of three models of bistable nonlinear feedback systems: the Mackey-Glass model, a postural sway model, and a genetic switches model. Our results suggested that incorporating the time delay of the feedback control system is crucial for characterizing stable bistable systems.

Study Coordinator, *Pomona College* (Sept 2007 – May 2008)
Health Education Outreach; Claremont, CA

I worked with volunteers, health officials, and Institutional Review Boards (IRBs) to administer the ACHA-NCHA student health survey to six colleges. This project included editing informed consent forms, writing IRB proposals, and facilitating the collection and evaluation of the survey data.

Research Intern, UC Berkeley School of Public Health (May - Aug 2006)

CHAMACOS laboratory; Berkeley, CA

I assisted with a pesticide exposure study. My responsibilities included creating a questionnaire and a food diary for study participants, and cataloging urine samples. The study, "Pesticides and their Metabolites in the Homes and Urine of Farmworker Children Living in the Salinas Valley, Ca," was published in the *Journal of Exposure Analysis and Environmental Epidemiology* in July 2007.

LAB TECHNIQUES

- Bacterial transformation
- DNA cloning
- FISH staining
- Gel electrophoresis
- PCR
- Southern Blotting
- Column, gas, and TLC chromatography
- Fractional distillation
- LaTeX typesetting
- Light Python and XPP AUT programming
- NMR and IR spectroscopy
- Statistics in R and Excel

MEDICAL EXPERIENCE

Director, Pitzer Emergency Response Team (2006 - 2008)

Claremont, CA

I directed a team of EMTs and first responders to provide first aid services at seven colleges. I facilitated a weekly meeting in which I taught CPR and emergency preparedness skills, and lead discussions about health and safety. During my tenure as director, I spearheaded an Alcohol Response Unit, and sat on the College Safety Committee and the Student Senate.

Evening Attendant, private employer (May - Aug 2008)

Berkeley, CA

I assisted a professional man with a severe mobility disability. My responsibilities included helping him with his activities of daily living, medications, dressing, catheter, lifting him into bed, and preparing his medical equipment for the evening and following day.

EMT Driver/Attendant, Medic-1 Ambulance (Jan - April 2007)

San Dimas, CA

I provided BLS care to sick, injured, and elderly patients during interfacility transfer. Other duties included managing the ambulance supplies and writing reports for Emergency Departments, insurance agencies, and the Company's internal records.

Volunteer, Glide Health Center (Sept - Dec 2006)

San Francisco, CA

I assisted clinicians at a free HIV testing and counseling clinic with patient care by taking vital signs, organizing and updating medical records, distributing condoms, and other administrative tasks.

OTHER EXPERIENCE

Medical Content Director, Vivacare Inc. (May 2010 - Jan 2011)

Berkeley, CA

I was responsible for writing, developing, and editing consumer/patient-oriented health education handouts for a patient education service provided to doctors by Vivacare. In this position, I developed several hundred handouts on topics including medications, diseases, and pathology. In the second half of 2012 I focused much of my attention to the technical challenges of developing a new consumer website for the company, fromyourdoctor.com.

Web Developer, Fog Magazine (January 2009 - present)

Oakland, CA

I created Fog Magazine as a venue for developing my thoughts about the role of science in our society and to practice writing about these topics for a variety of audiences. It focuses on issues related to scientific journalism, bioethics, and technology. In addition to the articles that I write, I also designed the website, manage the MySQL databases, and write the XML, HTML, and PHP code that is necessary for the site to function.

Wilderness Guide, Lifeschool Go Adventure! (May - August 2007)

Bodega, CA

I led teenagers aged 12-18 on trips into backcountry wildernesses in California, Colorado, and New Mexico. In this position I was responsible for administering backcountry first aid, teaching compass and map skills, environmental ethics, and rock climbing safety.

Swim Instructor, Piedmont Swim Club (2005 - 2009)

Piedmont, CA

I taught swim lessons to students aged 2-16 in levels ranging from elementary through advanced swim technique and water safety. I also gave weekly demonstrations of various pool safety procedures and interventions for children and pool staff. My favorite week of swim lessons began with a student who was afraid to get her head wet, and then ended with her swimming half of the length of the pool.

HOBBIES

Bike touring

Music composition and audio engineering

Rock climbing

Surfing