

# MEGAN YATES

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## Education

University of Pittsburgh, Dietrich School of Arts and Sciences, Honors College

Graduation: August 2016

Academic Year: Senior

GPA 3.76

Majors: Biology & Computer Science

Credits 147(+12)

Minors: Chemistry & Political Science

Relevant Courses:

Genetics, Biochemistry, Organic Chemistry I & II, Physics I & II, Software Design Methodology, Programming Language for Web Applications, Software Testing, Introduction to Operating Systems, Introduction to Computer Architecture

## Objective

To gain acceptance into an internship position within a greater research or client project.

## Research Experience

**Brodsky Lab, Undergraduate Researcher** 10 hours/week Fall 2013-Present

Protein quality control with ER Associated Degradation utilizing yeast *Saccharomyces cerevisiae*. Specifically researching the role of three sub-loop domains in the ER epithelial sodium channel (ENaC) degradation.

**Summer Undergraduate Research Program** 40 hours/week Summer 2015

An intensive 10-week research experience administered by the Interdisciplinary Biomedical Graduate Program at the University of Pittsburgh School of Medicine. Continuation in the Brodsky Lab was through the P30 Kidney Center grant awarded by the Pittsburgh Center for Kidney Research. Weekly lectures in cell biology and molecular physiology were administered in conjunction with the research experience.

**UPMC Children's Research Summer Internship** 40 hours/week Summer 2014

Summer internship in the UPMC Rangos research facility working in both Dr. Vockley and Dr. Nicholls' labs in the Medical Genetics department. Poster symposium given at end of internship on a new approach to phenylketonuria (PKU) therapy through application of the genome editing tool, The Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)-Cas9 Type II system. A knockout phenylalanine (PAH) Yucatan minipig can be developed through transfecting the zygote with the CRISPR-Cas9 plasmids constructed over the summer internship.

## Publications & Presentations

### Journal Articles

Chen, Jingxin, Evan C. Ray, Megan E. Yates, Teresa M. Buck, Jeffrey L. Brodsky, Carol L. Kinlough, Katie L. Winarski, Rebecca P. Hughey, Thomas R. Kleyman, and Shaohu Sheng. "Functional Roles of Clusters of Hydrophobic and Polar Residues in the Epithelial Na Channel Knuckle Domain." *Journal of Biological Chemistry J. Biol. Chem.* (2015).

**21<sup>st</sup> Annual Midwest Stress Response and Molecular Chaperone Conference, Northwestern University** January 16<sup>th</sup>, 2016

"The Role of the Lhs1 Molecular Chaperone and Nucleotide Exchange Factor in the Degradation of the Epithelial Sodium Channel"

**Summer Undergraduate Research Program Presentation** July 30<sup>th</sup>, 2015

"The Mechanisms of Molecular Chaperone (*Lhs1*)-Dependent Degradation of the Epithelial Sodium Channel  $\alpha$  Subunit"

**Science 2014 Undergraduate Poster Session** October 2<sup>nd</sup>, 2014

"Genome Editing with CRISPR/Cas9 for Generation of Porcine Models of Metabolic Disease"

## **Employment & Volunteer Positions**

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<b>UPMC Shadyside Hospital</b>	4 hours/week	Fall 2015 – Present
Patient satisfaction volunteer – interact with patients on the orthopedic, surgical oncology and pulmonary and respiratory floors to assure hospital standards are being met and the patients in a comfortable and safe environment.		
<b>Experience in Undergraduate Teaching</b>	10 hours/week	Fall 2014
Undergraduate Teaching Assistant in Genetics taught by Dr. Campbell at the University of Pittsburgh Department of Biology. Attended and assisted during lectures, taught through recitations, and held office hours for the students ranging from sophomores to seniors.		
<b>Shadowing at Magee-Women's Hospital of UPMC &amp; Children's Hospital of Pittsburgh of UPMC</b>		Summer 2014
Shadowing experience in the triage unit at Magee-Women's Hospital, the Pediatric Intensive Care Unit at Children's Hospital of Pittsburgh and the Emergency Department at Children's Hospital of Pittsburgh		
<b>SummerBridge Pittsburgh, Tutor</b>	2 hours/week	October 2013
Tutoring 8 <sup>th</sup> graders from low-income families in mathematics, sciences, and history.		
<b>Emerging Leaders, Member</b>	20 hours	September 7 – 8, 2013
Develop personal identity and become certified in leadership skills through group dynamics, conflict management, and ethics and values		
<b>First Experiences in Research</b>	5 hours/week	Spring Term 2013
Working with Dr. Lemons in the Department of Education on Project ERIC: Enhancing Reading Instruction for Children with Down Syndrome: A Behavioral Phenotypic Approach		
<b>St. Margaret's Hospital</b>	4 hours/week	Summer 2009-September 2011
Patient transportation and interaction to and from physical therapy		

## **Computer Skills**

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Microsoft Office, Excel, Java & C Programming, Unix, PHP Scripting, MIPS Assembly Language, GitHub

## **Awards**

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University of Pittsburgh: Dean's Honor List	Spring 2014-Present
University of Pittsburgh Medical School: Summer Undergraduate Research Program (SURP)	Summer 2015
University of Pittsburgh: 40 <sup>th</sup> annual Honors Convocation University Scholar	Spring 2016

## **Activities**

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<b>University of Pittsburgh:</b>	
University of Pittsburgh Intermural Soccer	Fall 2012-Present
The National Society of Leadership and Success, Member	Fall 2013
Best Buddies, Associate Member	September 2012-Spring 2014
A nonprofit organization built to create one on one friendships, employment opportunities, and leadership skills for people with intellectual and developmental disabilities	