

2015

## Inquiro 9 (End Matter)

Inquiro Staff

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# 2016-2017 *Inquiro* Submission Guidelines

Any UAB undergraduate student participating in scientific research and/or any undergraduate student participating in research at UAB is invited to submit a manuscript to be considered for publication in the 2016 – 2017 issue of *Inquiro*. Papers will be subject to anonymous review by faculty and students.

The deadline for submission is October 17, 2016; however, students participating in summer research at UAB or at another institution are encouraged to submit by September 9, 2016.

The journal accepts submissions in the following categories:

**Short reports:** A short report should give a concise overview of an original research project. Its content is comparable to that of science posters. The suggested length is 1,000 – 2,000 words.

**Long papers:** A long paper should give a substantial description of an original research project. It should include detailed discussions of the methods utilized and the results obtained. The suggested length is 2,500 – 4,000 words.

**Research narratives:** A research narrative describes an author's personal experiences in research using an editorial or narrative style. The suggested length is 600 – 800 words.

**Theses:** A thesis is similar to a long paper and should therefore be of similar length and content. The suggested length is 2,500 – 4,000 words. Students participating in undergraduate programs that require a thesis are encouraged to submit their work.

**Literature Reviews:** A literature review should give detailed information on the methodology of a scientific topic as well as the current scientific findings associated with the topic. Unlike a research paper, a literature review does not report novel information obtained from research performed by the author(s). The suggested length is 2,500 – 4,000 words.

The editorial board is also open to considering other forms of scientific writing for publication. Authors who wish to publish work that does not fit in one of the previously mentioned categories are strongly encouraged to contact the editors before submitting to the journal.

Initial submissions should follow these guidelines:

1. All submissions should be submitted as Microsoft Word documents, double spaced and formatted in 12 pt Times New Roman font. Pages should be numbered with the name of the primary author appearing in a header on every page.
2. Research papers should be written in third person. Research narratives should be written in first person.
3. Research papers should include a title, the full name(s) and affiliation(s) of the author(s), and the following sections: Abstract, Introduction, Materials and Methods, Results, Discussion, Conclusion, and References. Please consult the Manuscript Guidelines for Authors on our website for more specific instructions on each section.
4. Figures, tables and graphs should be submitted in their original formats in the highest resolution possible. They may be submitted as separate files or embedded in the text of the document in the locations in which the author would like them to appear in a published version. If submitted separately, please indicate in the manuscript where the figures should appear.

All manuscripts should be submitted through email, and authors should complete the submission form linked on the Submit page on our website. Include the article title as well as your name, university, major, and class standing in the body of the email.

Before submitting, please ensure that your mentor has read and approved of your manuscript. Your mentor will automatically receive an email requesting his or her approval of your submission. The manuscript guidelines document linked on our website should also be reviewed before submission.

Please send any questions or comments to [inquiro@uab.edu](mailto:inquiro@uab.edu). Students who wish to join the *Inquiro* staff may also contact the editors at this address.

For more information or to view previous publications, visit our website at [uab.edu/inquiro](http://uab.edu/inquiro).

Authors retain all rights to their submitted work, except to publish in another undergraduate science journal. *Inquiro* is an internal document of the University of Alabama at Birmingham.

## Chief Editors



### John Decker

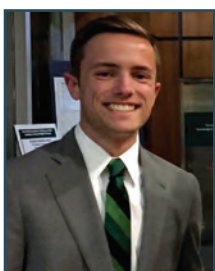
John Decker is a 2016 graduate of UAB and the University Honors Program with a B.S. in Neuroscience. His undergraduate research at UAB included three years of work relating to the neural control of eye movements, conducted under the supervision of Dr. Paul Gamlin in the Department of Ophthalmology. Outside of school, John enjoys literature, fencing, the outdoors, and aviation. In the fall of 2016, he will begin the Ph.D. program in Biomedical Engineering at Duke University.



### Maggie Collier

Maggie Collier is a junior Biomedical Engineering and Electrical Engineering student and a member of the Science and Technology Honors Program. Under the mentorship of Dr. Ho-Wook Jun, Maggie researches the use of a nanomatrix coating applied to the surface of microcoils used in coil embolization, a common brain aneurysm treatment. She is also a part of a team of undergraduate and graduate students working to build a 3D bioprinter for Dr. Zhang, Chair of the Department of Biomedical Engineering. After graduation, Maggie intends to pursue a research career in biotechnology while continuing to participate in various forms of scientific communication, particularly in scientific writing.

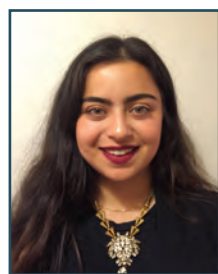
## Assistant Editor



### Josh Purvis

Josh is a sophomore neuroscience major. He is involved with two projects currently. First, Josh performs neuroimaging analysis to look for structural changes in the brain after Constraint-Induced Movement Therapy in MS and TBI patients. The other project is using Constraint-Induced Biofeedback Therapy to help restore upper motor function to a person with tetraplegia. His future plans are to get a Ph.D. in either behavioral or cognitive neuroscience and one day to become a professor at a major research university.

## Editorial Board



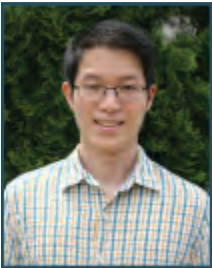
### Muna Al-Safarjalani

Muna Al-Safarjalani is a junior in the Honors College pursuing a major in Chemistry with a minor in French. For the past two years, Muna has researched under the mentorship of Dr. Andrei Stanishevsky. Her undergraduate research concerns the electrospinning and centrifugal spinning of biopolymer nanofibers and the consequential characteristics that affect their biocompatibility as systems for drug delivery and tissue healing. Muna has also conducted research on the local and national economic repercussions of the American prison system. Upon graduation, she hopes to complete a Pharm.D./Ph.D program.



### Hriday Bhambhvani

Hriday is a rising senior pursuing a dual degree in neuroscience and mathematics. He works in the lab of Dr. James Meador-Woodruff, where he studies cytoskeletal dynamics in schizophrenia. Eventually, Hriday hopes to work as a physician-scientist and study the molecular basis of neuropsychiatric illness.



### Alexander Chang

Alexander is a junior pursuing a B.S. in Molecular Biology and a minor in chemistry. After graduating, he plans on attending medical school. He has worked in Dr. Shahid Mukhtar's lab researching transcription factors associated with *Ralstonia solanacearum*, a plant pathogenic bacterium categorized under bioterrorism and in Dr. Lubin's lab researching the epigenetics of OGT. During his free time, he enjoys playing cello, discovering music, and cooking food.



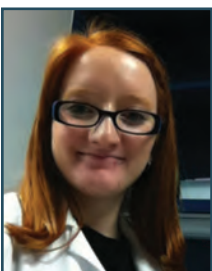
### David Chasteen-Boyd

David Chasteen-Boyd is a junior majoring in biomedical engineering, mechanical engineering, and math. He currently does research in Dr. Ho-Wook Jun's lab on the use of an implantable matrix composed of peptide amphiphile nanofibers and hydroxyapatite crystals that mimics the extracellular matrix of bone to speed growth and repair of fractures and bone defects. He also works on the feasibility of incorporating pH-sensitive liposomes as a sustained-release drug delivery system into many of the different projects that his research lab is working on. After graduating, David plans on entering an M.D./Ph.D. program and working on the development of prosthetic limbs.



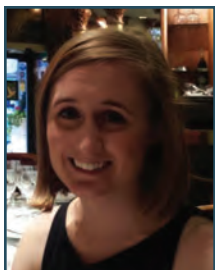
### Daniel Gilliam

Daniel is a senior in the Science and Technology Honors Program and the Early Medical School Acceptance Program double majoring in Neuroscience and Chemistry. He works in Dr. David Sweatt's lab investigating the epigenetic processes underlying learning and memory. In his spare time he enjoys reading, hiking, and playing piano and cello. After graduation Daniel will be pursuing a Ph.D. in Neuroscience at Harvard.



### Emily Haley

Emily is a junior neuroscience major. She is studying an enzyme (alpha Galactosidase) in Parkinson Disease that may help with clearance of the pathogenic alpha-synuclein protein aggregates. She works with cell culture and mouse models. After earning her neuroscience B.S. in December she plans to pursue a neuroscience Ph.D. and continue studying neurodegenerative disorders.



### Emily Jennings

Emily Jennings is a junior majoring in Neuroscience and minoring in Chemistry and Biology. Under the mentorship of Drs. Thomas van Groen and Inga Kadish in the Department of Cell, Developmental and integrative Biology, Emily has helped research a way to reduce the cognitive deficits associated with Alzheimer's Disease using a transgenic mouse model and the ANK6 dipeptide. Emily has also worked with aging and longevity. In her spare time, Emily enjoys traveling, reading, and keeping up with soccer (the real football).



### Charles Keith

Charlie Keith is a sophomore in the Science and Technology Honors Program. He is majoring in Anthropology with minors in Biology and Peace, Justice, and Ecology. He is working in Dr. Morris' lab learning different bioinformatics packages to sequence genomes and analyze microbial communities. He enjoys all kinds of music and plays the guitar and the piano in his free time.



### Jessica Maya

Jessica is a Junior majoring in Molecular Biology and is interested in research dealing with genetics, genomics, and bioinformatics. She is currently collaborating with Dr. Eric Sorscher and Dr. John Hartman in the UAB Cystic Fibrosis Research Center, looking at the structure and function of the gene product responsible for cystic fibrosis. They are working at a molecular level to discover new approaches for therapy for this disease. She hopes to pursue a Ph.D. in the future.



### Susmita Murthy

Susmita Murthy is a junior double-majoring in History and Biology. She plans on attending medical school after the completion of her undergraduate degree. She has done research in the lab of Dr. Michael Miller in the Department of Cell Biology studying the effects of Amyotrophic Lateral Sclerosis in *C. Elegans*.



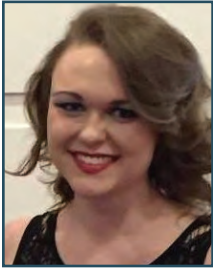
### Aashka Patel

Aashka Patel is a junior in the Early Medical School Acceptance Program and University Honors Program. She is pursuing a major in Neuroscience and a minor in Chemistry and Philosophy. Her research focuses mainly on frontotemporal dementia in Dr. Erik Roberson's lab in the Department of Neurobiology. In addition to being a member on the *Inquiro* board, Aashka serves as a UAB Ambassador. In her free time, she enjoys reading and spending time with her family and friends.



### **Amy Stewart**

Amy Stewart is a senior Neuroscience major in the University Honors Program. She is researching the antidepressant effects of ketamine in hippocampus in Dr. Lori McMahon's lab and will be attending Duke University in the fall to pursue a Ph.D. in Cell and Molecular Biology. In her free time, she enjoys reading and playing the flute.



### **Marina Triplett**

Marina Triplett is a junior in the Science and Technology Honors and Chemistry Scholars programs. She is pursuing a degree in Chemistry with minors in Biology and Spanish. She conducts research in the Department of Pharmacology and Toxicology in the lab of Dr. Mary-Ann Bjornsti, where she is studying the relationship between DNA supercoiling and yeast cell toxicity. After completing her undergraduate degree, she plans to earn a Ph.D. in Biochemistry or Genetics and pursue a career in scientific research. In her spare time, she enjoys watching classic films and attending musicals and classic rock concerts.



### **Neha Udayakumar**

Neha Udayakumar is a junior in the Science and Technology Honors and BioScholars programs. Her research in the Department of Biology investigates the potential for combinatorial treatments with dietary compounds for adjuvant treatment of breast cancer. Aside from academics, she is a freelance graphic designer and has an interest in medical illustration. She plans to pursue a career as a physician in the future.



### **Courtney Walker**

Courtney Walker is a junior neuroscience major in the Science and Technology Honors Program. She conducts research in Dr. Rosalinda Roberts's lab on the role of the substantia nigra in schizophrenia. In the future, she will pursue a Ph.D. in neuroscience and a career in research on mental illnesses. In her spare time, she enjoys playing the piano.



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acknowledgments

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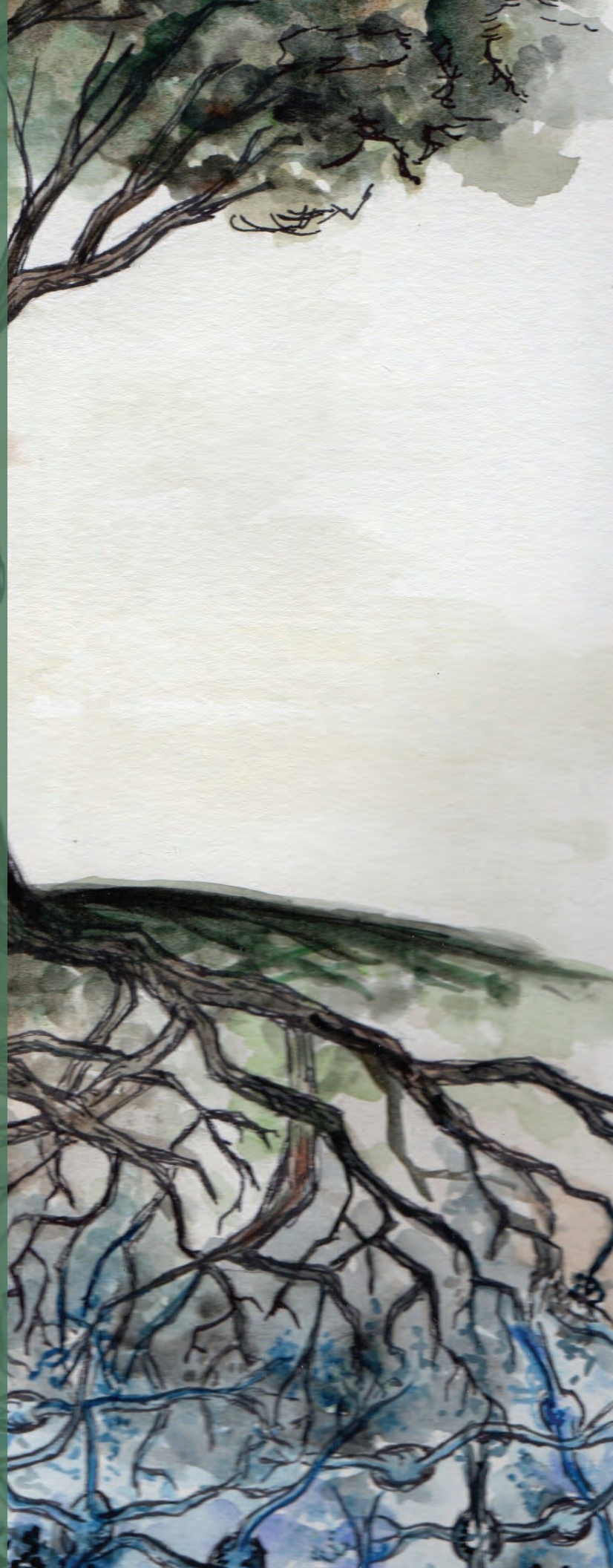
*2015 Faculty Reviewers:*

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