

## Seeking an Undergraduate Student – Searson Lab

Hello,

My name is Alex Pessell and I am a 2<sup>nd</sup> year BME Ph.D. Student here at Johns Hopkins. I obtained my undergraduate degree in biomedical engineering from Trine University, a small engineering school in Indiana. In the past, I did an REU (Research Experience for Undergraduates) at the University of Maryland and worked as a Research Assistant at a start-up called Blaire Biomedical.

Currently, I am in Peter Searson's lab improving and expanding our current *in vitro* blood-brain-barrier models, applying them to discover unsolved mechanisms in BBB biology, and adapting them to discover therapeutics for clinically relevant human diseases. Our lab is very friendly, and we often enjoy going out to eat as a group or to other events on/off campus. We are a 50/50 mix of biology/engineering, with my projects having more of an engineering emphasis.

I am seeking a freshman or sophomore who would aspire to work with me in an individualized, one-on-one research experience to learn and grow their research skills while figuring out their career trajectory after their time at Johns Hopkins is finished.

All applicants who feel as if they closely match the following criteria are encouraged to apply:

1. Freshman or sophomore (or first or second year of undergraduate work)
2. Obtaining a degree in a biology/engineering field
3. Interested in the brain, learning more about ischemic stroke, how the brain and the gut interact, and using simple perturbations such as pressure or temperature to understand the BBB and develop potential therapeutics
4. Have an interest in a research-based career, or an interest in obtaining a master's or Ph.D. post-graduation in a related field
5. Interested in learning how to perform good science in the lab, give good presentations, become a better scientist overall, and be involved in a Ph.D. researcher's day-to-day operations/projects
6. Willing or potentially willing to work in the lab for several years (fall and spring) part-time, and maybe even work for a summer in the lab (if interested)

No previous research experience (whether at JHU or outside) is required. This is an opportunity to have an in-depth relationship and learn a lot of skills to jump-start your post-undergraduate career or future graduate research program.

I am planning on only taking one student. Please send me a copy of your current resume, a short paragraph on why you think you would be a great candidate for this position, and a little bit about yourself beyond your resume (e.g. interests, hobbies, background). If you are interested, please send your "application" (resume and short paragraph) to my email – found below) by the end of the day on October 3<sup>rd</sup>. You will be contacted about an interview thereafter if considered.

Sincerely,

Alex Pessell

Send all materials to: [apessell1@jh.edu](mailto:apessell1@jh.edu)