THE KWON LAB
FOR LOW VISION AND BRAIN RESEARCH

Two postdoctoral positions are now available at the laboratory of MiYoung Kwon (http://labs.uab.edu/kwon/) in the Department of Ophthalmology and Visual Sciences at the University of Alabama at Birmingham (UAB). The lab is funded by the NIH/NEI, Research to Prevent Blindness (RPB), and the EyeSight Foundation of Alabama.

The research agenda in the lab is to understand how the human visual system adapts to pathological changes with the following specific goals:

1. To characterize the statistical properties of the visual world altered by vision loss
2. To understand how the brain encodes and learns to interpret degraded sensory information
3. To understand how training/learning modifies visual processing in impaired vision
4. To translate a patient's eye health information into everyday visual function

The research involves structural and functional MRI, psychophysics, eye tracking, retinal imaging techniques (e.g., OCT), and computational modeling/machine learning.

Please also see our recent publications: https://labs.uab.edu/kwon/publications

Position 1: Functional brain imaging
The ideal candidate must have a Ph.D., preferably with a specialization in brain imaging and/or vision research; proficiency in computer programming (MATLAB/PsychToolBox or Python) and neuroimaging software (SPM, Freesurfer, or FSL) and computational/statistical analysis. Experience with eye tracking, EEG or MEG would be a plus.

Position 2: Computation and modeling
The ideal candidate should have a Ph.D. in quantitative science or a related and relevant field; background in data mining, machine learning, network analysis, and/or statistical modeling; strong computer programing and analytical skills. The successful candidate will have access to large data sets of structural and functional eye health information, eye movements, and higher-level visual function such as reading, visual search, and driving.

Both positions are available immediately. Initial appointment for both positions will be for one year, with possible renewal for additional year(s). Pay will follow the NIH payscale. For more information, contact MiYoung Kwon at kwon@uab.edu Interested applicants should submit an email of the following items (in a single PDF file):

1. Indicate whether you are applying for Position 1 or 2
2. Curriculum Vitae
3. A brief statement of research interests / future research plans (no more than 1 page)
4. Provide 3 references, including contact information for each
5. Copies of 1-2 selected publications

All interested applicants should submit their application to kwon@uab.edu. Consideration of applications will begin immediately and will end when the position is filled.

The lab is conveniently located in the UAB Callahan Eye hospital clinic, which provides easy access to a variety of patient populations and theoretical/clinical expertise from ophthalmologists,

optometrists, vision scientists, and optical imaging/biomedical engineers. The UAB Civitan Neuroimaging Center (https://www.uab.edu/medicine/cinl/) houses a 3T Siemens Prisma scanner equipped with an Eyelink 1000 eye tracker and a BOLDscreen 32 display from SR Research Ltd.

UAB offers excellent postdoctoral training and education programs (e.g., various workshops on grant writing, presentation and teaching skills; tuition waivers for graduate level courses - also for a spouse) and fringe benefits (e.g., 403b matched up to 5% of salary). More information can be found here: https://www.uab.edu/postdocs/perspective-postdoctoral-scholars

UAB is an Equal Opportunity/Affirmative Action Employer committed to fostering a diverse, equitable and family-friendly environment in which all faculty and staff can excel and achieve work/life balance irrespective of, race, national origin, age, genetic or family medical history, gender, faith, gender identity and expression as well as sexual orientation. UAB also encourages applications from individuals with disabilities and veterans.