



## Postdoctoral Scholar in Lighting Science

January 4, 2020

The Advanced Lighting Team at Pacific Northwest National Laboratory (PNNL) and the School of Civil and Construction Engineering at Oregon State University (OSU) are jointly recruiting a post-doctoral scholar to conduct and disseminate research on emerging areas of lighting science.

Your primary focus will be a project titled *Physiological Basis of Metamerism*, which has been conceptualized to probe the following: When two metameric lights are a visual match to a human observer, in what ways to the eye and brain have equal responses, and in what ways are the responses different? The project will investigate the underlying mechanisms and eye-brain physiology associated with metamerism.

While *Physiological Basis of Metamerism* will be your primary project, PNNL and OSU are broadly interested in supporting your academic and professional development. In consultation with Prof. Kevin Houser, you will develop an [Individual Development Plan](#) that will define the scope, goals, and anticipated products from your research training and professional development activities. We intend to support your development of the six core competencies identified by the [National Postdoctoral Association](#): discipline specific conceptual knowledge, research skill development, communication skills, professionalism, leadership and management skills, and responsible conduct of research. The best measure of success for a postdoctoral trainee is subsequent employment as a fully independent researcher, which is what we aim to support.

The research portfolio of PNNL's Advanced Lighting Team includes the visual effects of light on human perceptions of glare, flicker, and color; other physiological effects of light such as circadian and acute alerting effects; lighting used in horticultural applications; and other related topics. As part of your engagement and assimilation with the PNNL team, we would welcome your involvement in one or more of these other topics. We will also consider allocating a portion of your postdoctoral experience to university teaching if that is consistent with your career-planning and professional development goals.

### Minimum/Required Qualifications

- Doctoral degree in a relevant discipline awarded within the past five years (60 months) or within the next 8 months. Relevant disciplines include engineering, psychology, neuroscience, vision science, biophysics, and related disciplines.
- An emerging track record of publications in peer-reviewed journals and a drive to strengthen your publication record and research impacts
- A desire to be part of a team that is working to bridge the scientific and technical gaps between the fundamental science of light/eye/brain relationships and applied illuminating engineering
- A demonstrated commitment to collaboration, diversity, equity, and inclusion

### **Preferred Qualifications**

- Doctoral dissertation in a topical area that is closely related to the intersection between vision science and lighting science
- Demonstrated understanding and ability to interpret and apply basic theories, principles, methods, tools, and technologies related to the physiological effects of light on humans
- Demonstrated familiarity of the scientific literature about the physiological effects of light on humans
- Experience with functional magnetic resonance imaging (fMRI) equipment and experimental protocols
- Experience with apparatus design, especially spectral design and optical delivery of light stimuli to human observers
- Experience with the tools and techniques for measuring human physiological responses to light
- Strong programming skills, such as with MATLAB, Python, Excel, and/or other programming languages
- Experience running human factors research, including protocol design and collaboration with an institutional review board (IRB)

### **Equal Employment Opportunity**

Battelle Memorial Institute (BMI) at PNNL and OSU are Affirmative Action/Equal Opportunity Employers. We are committed to inclusive excellence by advancing equity and diversity in all that we do. We encourage applications from members of historically underrepresented racial/ethnic groups, women, individuals with disabilities, veterans, LGBTQ community members, and others who demonstrate the ability to help us achieve our vision of a diverse and inclusive community. All employment decisions are made without regard to race, color, religion, sex, national origin, age, disability, veteran status, marital or family status, sexual orientation, gender identity, or genetic information. All BMI staff must be able to demonstrate the legal right to work in the United States. BMI is an E-Verify employer.

### **Timeline and Application**

Applications received before February 28, 2021 will receive full consideration. Applications received after this date will be considered until the position is filled. A complete application will be a single PDF document containing:

1. Letter of interest describing how your qualifications and experience have prepared you for this postdoctoral position (1 – 2 pages).
2. Research statement that highlights your research accomplishments and describes your next steps (1 – 2 pages).
3. Curriculum Vitae (no length restriction).
4. Transcripts from previous degrees (no length restriction)
5. Names and contact information of three references (1 page).

Direct inquiries to Prof. Kevin Houser at [kevin.houser@oregonstate.edu](mailto:kevin.houser@oregonstate.edu). To apply for this opportunity, submit a complete application via e-mail to Prof. Houser.