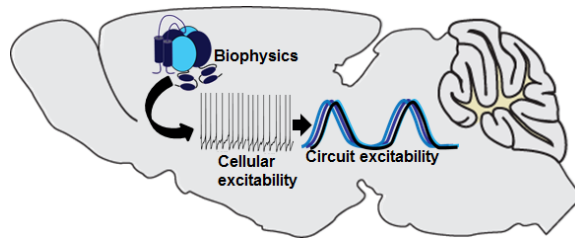


[Postdoctoral Position to Study KCNMA1-Linked Channelopathy](#)

Our research focuses on how ion channels regulate information coding in the brain and muscles (meredithlab.org). We combine the genetic manipulation of ion channel function with cellular to whole animal *ex vivo* and *in vivo* electrophysiology and physiology. Two recent goals of the lab are to identify the fundamental biophysical properties of BK channels that cause neurological disease and that underlie circadian time in the brain's central clock. Techniques in the lab center around multi-level electrophysiological recordings: voltage- and current-clamp, multi-electrode array, and EEG/EMG/ECG telemetry from heterologous cells, neurons, acute brain slices, organotypic cultures, and from awake, behaving animals.



For this NIH-funded postdoctoral position, we are seeking a highly motivated team-player to contribute to our studies of a new neuromuscular channelopathy defined by mutations in *KCNMA1*, the gene encoding the large conductance Ca^{2+} -activated BK channel. The project involves investigating human mutations and their impact on excitability in heterologous cells and neuronal models. See our recent publications:

- *BK channel properties correlate with neurobehavioral severity in three KCNMA1-linked channelopathy mouse models.* [eLife, 2022, 11:e77953](#)
- *KCNMA1-Linked Channelopathy.* [Channels, 2021, 15\(1\):447-464](#)
- *Comparative Gain-of-Function Effects of KCNMA1-N999S Mutation on Human BK Channel Properties.* [Journal of Neurophysiology, 2020, 123:560](#)

To apply: Candidates should have a PhD in biophysics, neuroscience, physiology, or other relevant field. Experience with electrophysiological recordings is required. Excellent oral and written communication skills should be demonstrated through publications and research presentations. Individuals from underrepresented groups in the sciences are especially encouraged to apply.

Please send by email to Dr. Andrea Meredith (ameredith@som.umaryland.edu) with:

- your CV

- a letter describing your research accomplishments, expertise, and career goals

- contact information for three references

The Department of Physiology offers outstanding research and NIH-funded postdoctoral training opportunities. Our faculty have made fundamental discoveries in ion channel biophysics in cardiac, neuronal, and renal physiology. Departmental postdocs benefit from formal career development resources through the Office of Postdoctoral Scholars, including grant writing and other professional activities.



The University of Maryland School of Medicine is the oldest public medical school in the U.S. and the founding campus of the University of Maryland system. The SOM ranks 6th among all 76 public medical schools. Located in downtown Baltimore, our campus is adjacent to Oriole Park and Raven's Stadium, and within walking distance of excellent dining, shopping, and entertainment at Baltimore's Inner Harbor. The West Side Cultural District surrounds the University with residential, retail, and performing arts venues. The University is ~60 minutes from NIH (Bethesda, MD), 38 miles from the National Mall (Washington, DC), and is also close to Philadelphia and New York City.