Call for Special Issue Papers: **Bacterial Electrophysiology**

Deadline for Manuscript Submission: February 1, 2021

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The traditional role for the transmembrane electrical potential in bacteria is limited to energy transduction. The proton motive force (PMF) must be maintained to power established housekeeping functions such as ATP production and flagellar motors. However, an unexpected and growing body of evidence indicates that the situation is much more complex than previously anticipated. Results have revealed that the transmembrane electrical potential in bacteria is dynamic, and there are voltage-gated channels in the membrane that respond to stimuli to perform physiological functions that remain unclear.

This Special Issue, entitled "Bacterial Electrophysiology," will consist of original research, perspectives, and review articles focused on the mechanistic and physiological basis for changes in the transmembrane electrical potential in bacteria. This call for papers is purposefully broad and will include bacterial systems spanning single cells and whole populations, and experimental contexts ranging from controlled laboratory environments to natural environmental communities.

Areas of interest include, but are not limited to:

- Single cell bacterial electrophysiology
- Bacterial ion channels and transporters
- Microbial community and biofilm electrophysiology
- Synthetic biology and bioengineering of bacterial electrophysiology
- Tool development and measurement technologies for bacterial electrophysiology
- Electrochemical impacts of metabolism in bacteria
- Electrochemical basis of plant-microbe and host-microbe interactions

Contributions will receive prompt and thorough peer review. Please refer to our Instructions for Authors at www.liebertpub.com/bioe before submitting your manuscript for consideration. Authors are encouraged to vet ideas directly with Guest Editor Dr. Arthur Prindle (arthur.prindle@northwestern.edu) before submitting.

Early submissions will receive prompt and thorough peer-review; accepted manuscripts will be published e-pub ahead of print when-ready. This Special Issue is scheduled to appear in full online and in print in June 2021.

About the Journal

Bioelectricity is the only peer-reviewed journal dedicated to the study of the natural electricity within living organisms and how to harness this phenomenon to treat and cure disease. The Journal publishes groundbreaking multidisciplinary research and advances documenting this next step in the evolution of how we study life. For complete tables of content and a sample issue, please visit the *Bioelectricity* website, www.liebertpub.com/bioe.

About the Publisher

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