



## Advances in Seizure Prediction and Detection

Guest Editor:

### Dr. Mark Myers

Department of Anatomy and  
Neurobiology, University of  
Tennessee Health Science  
Center, Memphis, TN 38163, USA

Deadline for manuscript  
submissions:

**closed (15 April 2022)**

### Message from the Guest Editor

Seizure prediction based on EEG/iEEG is complicated by two factors. The first is that preictal and interictal EEG/iEEG patterns across patients vary substantially. The second is that EEG/iEEG is highly complex and varies over time, and no single measure of EEG/iEEG has yet been predictive on its own. Therefore, high sensitivity is possible using a patient-specific classification method based on multiple features extracted from EEG/iEEG.

Technological advances have focused on various feature extraction approaches to seizure prediction. Feature extraction approaches include, but are not limited to, univariate linear and nonlinear measures, and bivariate linear measures. In terms of advancements in classification, support vector machines are currently the most popular approach in supervised machine-learning and have been adopted in a large number of seizure-prediction studies. Other classifiers that have had a reasonably high degree of success are artificial and cellular neural networks.

The overall aim of this Brain Sciences Special Issue is to disseminate and discuss recent advances in seizure prediction methodologies.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Stephen D. Meriney

Department of Neuroscience,  
University of Pittsburgh,  
Pittsburgh, PA 15260, USA

## Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, PSYINDEX, CAPus / SciFinder, and other databases.

**Rapid Publication:** manuscripts are peer-reviewed and a first decision is provided to authors approximately 12.9 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2024).

## Contact Us

Brain Sciences Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/brainsci](http://mdpi.com/journal/brainsci)  
[brainsci@mdpi.com](mailto:brainsci@mdpi.com)  
[X@BrainSci\\_MDPI](https://twitter.com/BrainSci_MDPI)