

## **Biointerphases Tutorials - Scope and Instructions for Authors**

Biointerface science and engineering sits at the crossroads between physics, materials science, chemistry, biology and engineering. As these fields advance, we are expected as multidisciplinary researchers to be able apply the latest technologies, techniques and know how to our own work and critically combine these techniques to gain qualitative and quantitative insight into our systems.

As non-specialists, it is often hard to determine which techniques are best suited to your system, how to prepare samples, how to design your experiments to work across a range of techniques and critically how to interpret your data or compare results to those in the literature.

The Biointerphases Tutorials aim to address this challenge. They are designed to inform the reader and give them insight into how to undertake any number of the following activities with confidence:

1. Select and use different techniques - guides for the non-specialist user.
2. Interpret results and link data together across techniques
3. Avoid common mistakes in data interpretation and statistical analysis.
4. Design multidisciplinary experiments across biology, physics, chemistry, maths and engineering.
5. Understand the scientific principles and theories behind specific aspects of biointerface science.
6. Specific challenges associated with the implementation of the technique to study different types of biointerfaces
7. Connect to experimental repeatability, reproducibility and replicability

As an Author of a tutorial, we invite you to share your specialist knowledge and knowhow with the community.

Tutorials can focus on one or many of the ideas detailed above and can take on a range of formats from the documentation of protocols and methods, through to the analysis of data to demonstrate common issues and artifacts. We encourage you to illustrate your submissions with examples of best practice as well as examples from your own work where things have gone wrong.

The format of the submission should follow a general structure that includes an introduction to the topic, a discussion of the challenges or the reasoning behind the need for a tutorial in this domain and a clear outline of the scope of the work to be presented. From there you may choose to structure the paper as you see fit. You may wish to include a special section or notes indicating specific hints, tips or tricks that novice users may wish to be aware of. You may want to include background reading or recommend specific publications you feel demonstrate best practice in their content and analysis of data or experimental design. The choice is yours and if you have questions about your approach, please feel free to contact the Editor in Chief, [Biointerphases\\_editor@avs.org](mailto:Biointerphases_editor@avs.org).

To increase the reach of your tutorial paper, we encourage you to think about how we can create short video or other web-based content to promote your submission once it is published.