

## **Mini Review format for the Fundamentals of 21st Century Neuroscience**

This Research Topic welcomes Mini Reviews with a specific format. Please follow this guideline.

Mini Review articles cover focused aspects of a current area of investigation and its recent developments. They offer a succinct and clear summary of the topic, allowing readers to get up-to-date on new developments and/or emerging concepts, as well as discuss the following:

- different school of thoughts or controversies
- current research gaps
- potential future developments in the field.

Mini Reviews must not include unpublished material (unpublished/original data, submitted manuscripts, or personal communications) and may be rejected or reclassified, at a significant delay, if found to include such content.

Mini Reviews are peer-reviewed, have a maximum word count of 3,000 and may contain no more than 2 Figures/Tables.

Authors are required to pay a fee (B-type article) to publish a Mini Review.

The collection of review articles from this Research Topic will serve as literature references to a new course on the Principles of Neuroscience. Both the Research Topic and the course aim to provide a fresh and multi-scale view of brain function by incorporating knowledge ranging from molecular to cognitive and behavioural neuroscience. Therefore, authors should place each subject matter into the broader context of brain function, linking knowledge from their specific field of research to other relevant research areas and keeping in mind the importance of providing a multi-scale perspective of brain function to their readers.

Authors of outstanding contributions will have the opportunity to join the online course as guest lecturers.

Please follow up this guideline for the submission of your paper to this specific Research Topic:

1. Graphical Abstract
2. Abstract
3. Brief historical perspective
4. Summary of the established principles
5. Current state of the art
6. Highlight of future directions
7. Key concepts
8. References

Manuscripts should be submitted with numbered lines.

## **1. Graphical abstracts**

A Graphical Abstract is a single, concise, pictorial and visual summary of the review. This figure is specially designed for the purpose, which captures the content of the article for readers at a single glance. Please see examples below.

### Author instructions

A Graphical Abstract should allow readers to quickly gain an understanding of the main take-home message of the paper and is intended to encourage browsing, promote interdisciplinary scholarship, and help readers identify more quickly which papers are most relevant to their research interests.

Authors must provide an image that clearly represents the work described in the paper.

Graphical Abstracts should be submitted as a separate file in EES by selecting "Graphical Abstracts" from the drop-down list when uploading files.

### Specifications:

A Graphical Abstract should be a one-image file and should visualize one process or make one point clear. For ease of browsing, the Graphical Abstract should have a clear start and end, preferably "reading" from top to bottom or left to right. Try to reduce distracting and cluttering elements as much as possible.

- Image size: Please provide an image with a minimum of 531 x 1328 pixels (h x w) using a minimum resolution of 300 dpi. The image can be 180mm wide
- Font: Please use Times New Roman font with a large enough font size as the image will be reduced in size for the Table of Contents to fit a window of 200 pixels high.
- File type: preferred file types are TIFF and JPEG.
- No additional text, outline or synopsis should be included. Any text or label must be part of the image file.

## **2. Abstracts**

As a primary goal, the abstract should render the general significance and conceptual advance of the work clearly accessible to a broad readership. In the abstract, minimize the use of abbreviations and do not cite references. The text of the abstract section should be in 12 point normal Times New Roman. Maximum 250 words.

## **3. Brief Historical Perspective**

The Brief Historical Perspective should provide readers with an overview of the most significant and game-changing developments in the field, illustrated by classical experiments and published papers. The Historical Perspective should therefore provide a basis for readers to understand the past, interpret the present, and project the future of research in each field.

#### **4. Summary of the established principles**

This section should provide a short summary of the scientific concepts/principles/biological mechanisms that have been well established and documented. These principles and mechanisms are the foundations of each field of research and are essential for the understanding of complex mechanisms and data. This section should also highlight how the biological mechanisms that have been established in a field of research are necessary for the understanding of brain function as a whole.

#### **5. Current state of the art**

This section should provide an overview of the current state of each research area, including a critical appraisal of the most recent findings and technological developments, how these might drive the field forward, how novel data expands our understanding of brain function, and how to interpret data through a "multi-scale brain" perspective.

#### **6. Highlight of future directions**

In the light of current developments, this section should discuss future directions to be explored, how to best integrate knowledge from different neuroscience fields, and how a ground-breaking, multidisciplinary approach to each field of research could shed light on unanswered questions about brain function.

#### **7. Key concepts**

Your Review can highlight and explain key concepts in your field. Please highlight a minimum of four and a maximum of ten key concepts in bold in your manuscript and provide the definitions/explanations at the end of your manuscript under "Key Concepts". Each definition has a maximum of 400 characters, including spaces.

#### **8. References**

A maximum of 50 references are recommended. Please keep the reference list as up to date as possible and avoid referring extensively to your own published work.

<https://www.frontiersin.org/about/author-guidelines#SummaryTable>