NeuRi
Student Congress
of Neuroscience

How to write
a scientific abstract

Guidelines for authors

Where to find abstract guidelines and templates?

https://neuri.uniri.hr/ ⟶ Abstract submission

Please read these guidelines
before writing your abstract!

Guidelines

Research competition guidelines and scopes	Template literature review
Template case report	Template research

Use the appropriate template!

How to write author list and affiliations

- authors are listed as First name Last name, separated by commas, without titles (dr. sc. etc.)

- presenting author is written first, in bold and underlined

- mentor is always listed as the last author

- use superscript numbers to indicate different affiliations

- list affiliations below authors in order of superscripts (e.g., [1]Department, University, City, Country; [2]Company, City, Country)

- include full institution name, department, city, and country

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*presenting author

The 4 Cs

1. **Complete** → Covers all major parts of the project.

   Does it cover the Why (problem), How (methods), What (findings), and So What (implications)?

2. **Concise** → Contains no filler words or unnecessary jargon.

   Can you delete a sentence without losing the core meaning? Can you replace a long phrase with a single, precise word?

3. **Clear** → Easily readable by someone outside your immediate sub-field.

   Are you using acronyms without defining them? Is the language overly dense?

4. **Cohesive** → Flows logically from the problem to the solution.

   Use transitional words (e.g., "However," "Consequently," "In contrast") to show the relationship between your ideas.

Abstract categories

Basic Research

Includes research involving animal experiments, cell studies, biochemical, genetic and psychological concerns, as well as studies of the characteristics of medications and materials with potential uses in biomedical field. It also includes bioengineering and bioinformatic research.

Introduction

Insert text here

Materials and Methods

Insert text here

Results

Insert text here

Conclusion

Insert text here

(total of words inserted into the abstract body MUST NOT exceed 300 words)

Keywords:

Keyword 1; Keyword 2; Keyword 3; Keyword 4; Keyword 5

(Insert 5 keywords verified on MeSH online database here)

Basic Research: Introduction

This section provides concise scientific background, and identifies the exact knowledge gap your study intends to fill.

- **What** is the research question?
- **Why** are you investigating this question?
- **What** is your hypothesis?

Multiple sclerosis (MS) results in significant white matter degradation. While exercise is neuroprotective, the specific impact of high-intensity interval training (HIIT) on serum brain-derived neurotrophic factor (BDNF) levels remains poorly quantified in clinical populations.

Ness, J. K., et al. (2021)

Basic Research: Materials and Methods

A technical summary of your experimental design, including population size, specific neuroimaging or molecular tools used, and the statistical framework.

- **Who** were the subjects?
- **What** was measured and by which method?
- **What** statistical tests were used?

Thirty patients with MS (n=30) were randomized into a 12-week HIIT program or a moderate-intensity continuous training (MICT) group. Serum BDNF was measured at baseline and post-intervention using enzyme-linked immunosorbent assays, and walking capacity was assessed via the 6-Minute Walk Test.

Ness, J. K., et al. (2021)

Basic Research: Results

This section reports the most significant quantitative or qualitative findings - directly answering the research question.

- **What** did the study find?

The HIIT group showed a 25% greater increase in serum BDNF compared to the MICT group (p<0.05). Furthermore, increased BDNF levels significantly correlated with improvements in 6-minute walk distance (r=0.68), suggesting that higher exercise intensity more effectively stimulates neurotrophic signaling in MS patients.

Ness, J. K., et al. (2021)

Basic Research: Conclusion

Interprets the principal findings in light of the original objective, explains their scientific or clinical significance, and may briefly indicate broader implications or future directions.

- **What** do the findings mean?
- **What** are the limitations?
- **What** are some logical next steps for future research?

HIIT is a superior stimulus for neuroplastic markers in MS. These findings support the integration of high-intensity protocols into neurological rehabilitation to promote functional recovery.

Ness, J. K., et al. (2021)

Abstract categories

Clinical Research

Consists of both experimental and observational studies. Any research involving patients is included.

Introduction

Insert text here

Case Report

Insert text here

Conclusion

Insert text here

(total of words inserted into the abstract body MUST NOT exceed 300 words)

Keywords:

Keyword 1; Keyword 2; Keyword 3; Keyword 4; Keyword 5

(Insert 5 keywords verified on MeSH online database here)

Clinical Research: Introduction

A brief orientation that highlights why this specific case is unusual enough to merit a publication (e.g., a rare mutation or a standard disease with an atypical presentation).

- **Why** is this case important?
- **How** common or rare is this condition in the general population?

Sporadic Creutzfeldt-Jakob Disease (sCJD) is a rapidly progressive prion disease. While cognitive decline is common, presenting with isolated, intractable insomnia mimics Fatal Familial Insomnia, complicating the initial diagnosis.

Zhen, J., et al. (2023)

Clinical Research: Case report

A chronological narrative of the patient's journey, from initial symptoms and neurological examination to diagnostic testing and the eventual treatment outcome.

- **What** were the key symptoms or findings?
- **Which** diagnostic tools led to the diagnosis?
- **How** did the patient respond to the chosen intervention or therapy?

A 58-year-old male presented with a six-month history of severe insomnia, progressive ataxia, and autonomic instability. Initial polysomnography showed a near-total loss of REM sleep architecture. While brain MRI (DWI sequence) was initially inconclusive, a later lumbar puncture revealed elevated 14-3-3 protein levels. Genetic testing for the PRNP gene mutation was negative, but the patient rapidly declined into an akinetic mutic state. Post-mortem brain biopsy confirmed the presence of protease-resistant prion protein (PrPSc), establishing a diagnosis of the sporadic "thalamic" variant of CJD.

Zhen, J., et al. (2023)

Clinical Research: Conclusion

The educational "takeaway" that summarizes the lesson learned from this specific patient's experience.

- **What** should clinicians learn from this case?
- **Should** diagnostic protocols or treatment be reconsidered?

This case highlights that sCJD should remain a differential diagnosis for rapidly progressive insomnia. Early CSF protein markers are essential when neuroimaging fails to show classic cortical ribboning.

Zhen, J., et al. (2023)

Abstract categories

Literature Research

Includes literature reviews, systematic reviews, and meta-analyses.

Introduction

Insert text here

Materials and Methods

Insert text here

Literature Review

Insert text here

Conclusion

Insert text here

(total of words inserted into the abstract body MUST NOT exceed 300 words)

Keywords:

Keyword 1; Keyword 2; Keyword 3; Keyword 4; Keyword 5

(Insert 5 keywords verified on MeSH online database here)

Literature Research: Introduction

Defines the scope of the review, explains the importance of the topic, and identifies inconsistencies, controversies, or gaps in the existing literature that warrant synthesis.

- **Why** is this review necessary?
- **What** is the scope of literature being discussed?

Treatment-resistant depression (TRD) poses a significant burden on global health. Deep Brain Stimulation (DBS) has emerged as a promising neurosurgical intervention, yet there is a lack of consensus regarding the optimal neuroanatomical target for electrode placement.

Sun, Y., et al. (2023)

Literature Research: Materials and Methods

A brief explanation of how you curated the papers, ensuring the reader that the review is systematic and unbiased.

- **What** databases were searched?
- **What** were the inclusion and exclusion criteria?

We conducted a systematic search of PubMed, Embase, and Cochrane Library (January 2010 – December 2023). We included randomized controlled trials and open-label studies involving DBS in patients with TRD.

Sun, Y., et al. (2023)

Literature Research: Literature Review

The core analysis where you group existing research into themes, highlighting areas of consensus and major points of disagreement among experts.

- **What** are the major themes or trends identified in the current literature?
- **Where** do current studies disagree?
- **What** are recurring gaps in the methodology of the reviewed studies?

The review identified 22 studies targeting either the subcallosal cingulate (SCC) or the ventral capsule/ventral striatum (VC/VS). Data synthesis indicates that SCC stimulation provides more consistent long-term remission rates (up to 50% at 2 years), whereas VC/VS targeting shows faster initial response times but higher rates of mood fluctuations. Emerging literature suggests that "tractography-guided" placement significantly improves outcomes compared to traditional anatomical landmarks. However, heterogeneity in stimulation parameters remains a significant barrier to meta-analysis.

Sun, Y., et al. (2023)

Literature Research: Conclusion

A final assessment of the reviewed evidence, identifying unresolved questions, and outlining priorities for future research or clinical application.

- **What** is the "consensus" based on your review?
- **What** are the most pressing unanswered questions?
- **How** will this field likely evolve?

DBS is effective for TRD, but precision targeting via fiber-tracking is the future of the field. Standardized reporting of stimulation settings is urgently needed to refine clinical protocols and improve patient outcomes.

Sun, Y., et al. (2023)

MeSH keyword format

MeSH (Medical Subject Headings): specialized, controlled vocabulary thesaurus created by the National Library of Medicine (NLM) to index journal articles in MEDLINE/PubMed.

Examples:

For "stroke," MeSH uses "Stroke"[MeSH] to include subtypes like ischemic or hemorrhagic via hierarchy explosion, unlike vague keyword "stroke" missing indexed variants.

"Alzheimer Disease"[MeSH] standardizes dementia searches, pulling related terms (e.g., "Neurodegenerative Diseases") that are critical to comprehensive literature review.

Key Advantages

- **Precision**: MeSH avoids broad keyword noise, e.g., "neuroses" floods results while "Neurotic Disorders"[MeSH] focuses.

- **Comprehensiveness**: Explosion includes narrower terms like "Parkinson Disease" under "Parkinsonian Disorders."

- **Consistency**: Ideal for non-native speakers or complex neurology topics, yielding 2.6 more relevant hits per systematic review despite extra screening.

DISCLAIMERS

- Your abstract will undergo multiple thorough review rounds, final decision-making takes time.
- Upon acceptance, Scientific Committee makes decides whether your abstract will be presented as a poster or oral presentation, you will be notified in time.

Best of luck,

NeuRi team