Peer Review

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Learning Objectives

- ประวัติและวิวัฒนาการของ Peer Review
- ชนิดของ Peer Review
- คุณค่าของ Peer Review ต่อการตีพิมพ์และการขอทุน
- ประเด็นจริยธรรมที่เกี่ยวข้องกับ Peer Review
- ความรับผิดชอบของการทำหน้าที่ Peer Review

Definition

Peer review - พิชญพิจารณ์

(ศัพท์บัญญัติ จาก พจนานุกรมศัพท์ศึกษาศาสตร์ ราชบัณฑิตยสถาน)

การตรวจและพิจารณาผลงานทางวิชาการโดยผู้รู้ในวงวิชาการเดียวกัน เพื่อประเมินคุณภาพก่อนตีพิมพ์ในวารสารวิชาการ ผู้ตรวจบทความบทความวิจัยหรือผลงานอื่น ต้องมีคุณวุฒิ ความรู้ ประสบการณ์เท่ากันหรือสูงกว่าผู้ส่งผลงาน อยู่ในวงวิชาการเดียวกับผู้ส่งผลงาน และต้องมีความเชี่ยวชาญในสาขาวิชาของผลงานนั้น

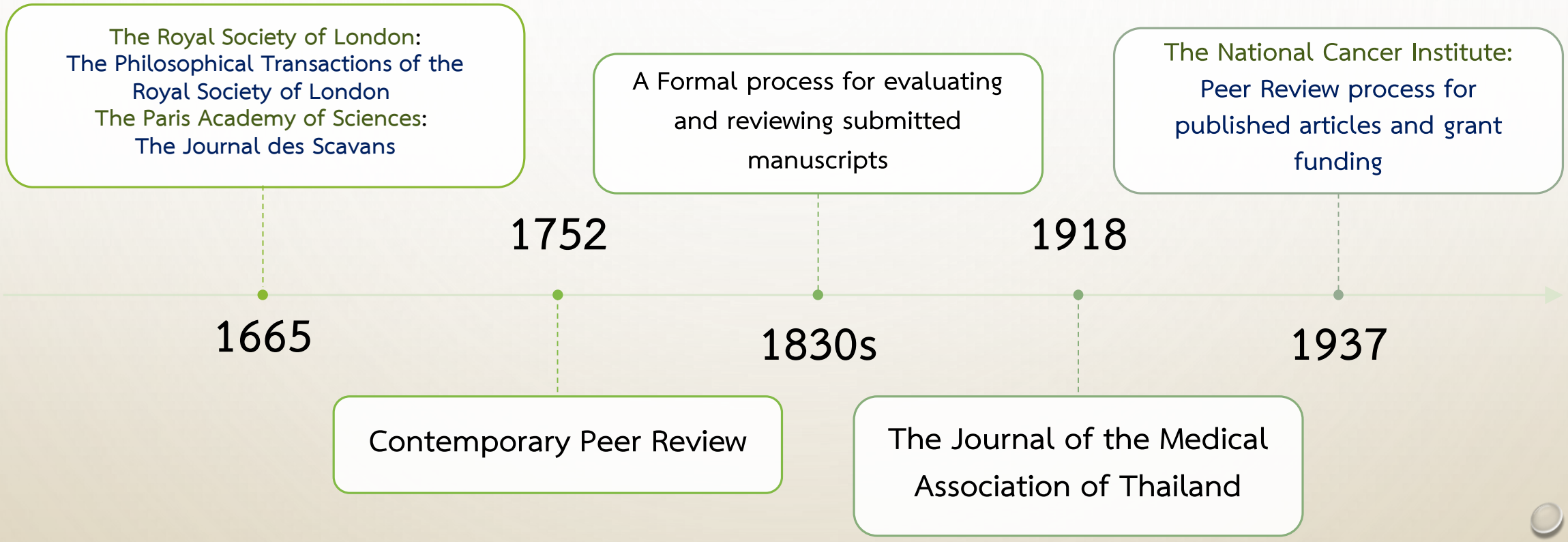
Peer Review

- Informal Review:
  - Networking, conferences

- Formal Review:
  - Editorial process: Reviewer, Referee

  - Review Committees
  - Institutional Review Boards (IRB), Ethical Review Committee (EC)

ประวัติและวิวัฒนาการของ Peer Review



ชนิดของ Peer Review

- Single blind review

- Double-blind review

- Triple-blind review
- Open review

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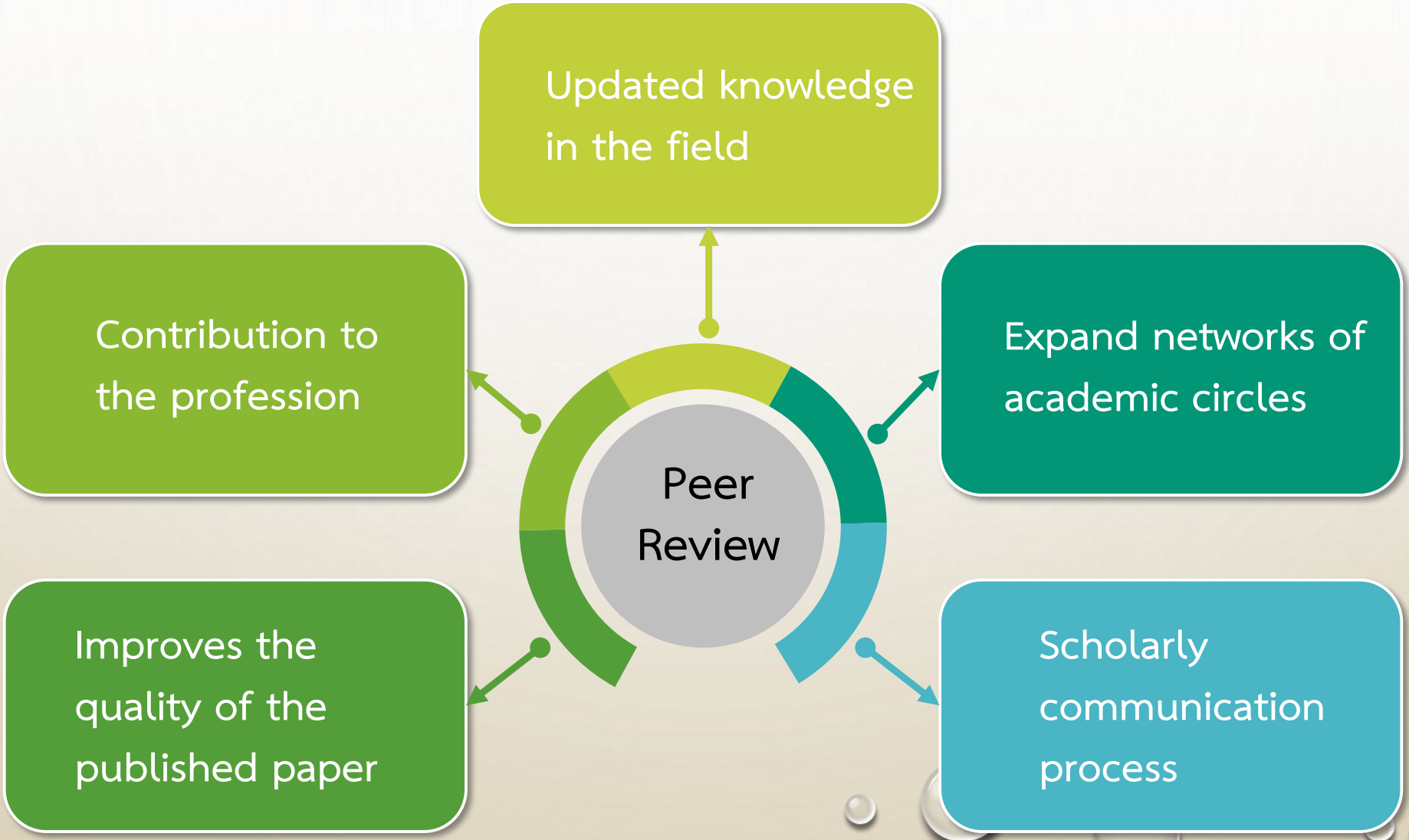
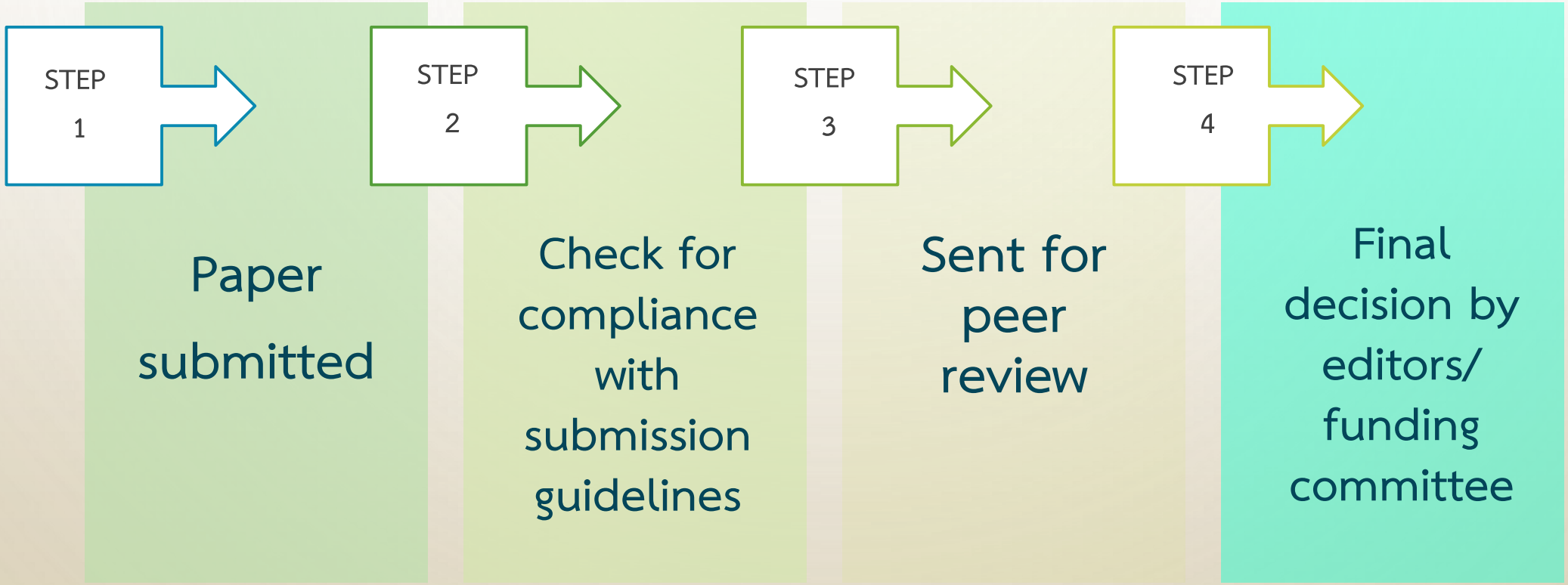
คุณค่าของ Peer Review



กระบวนการ Peer Review



Journal publication

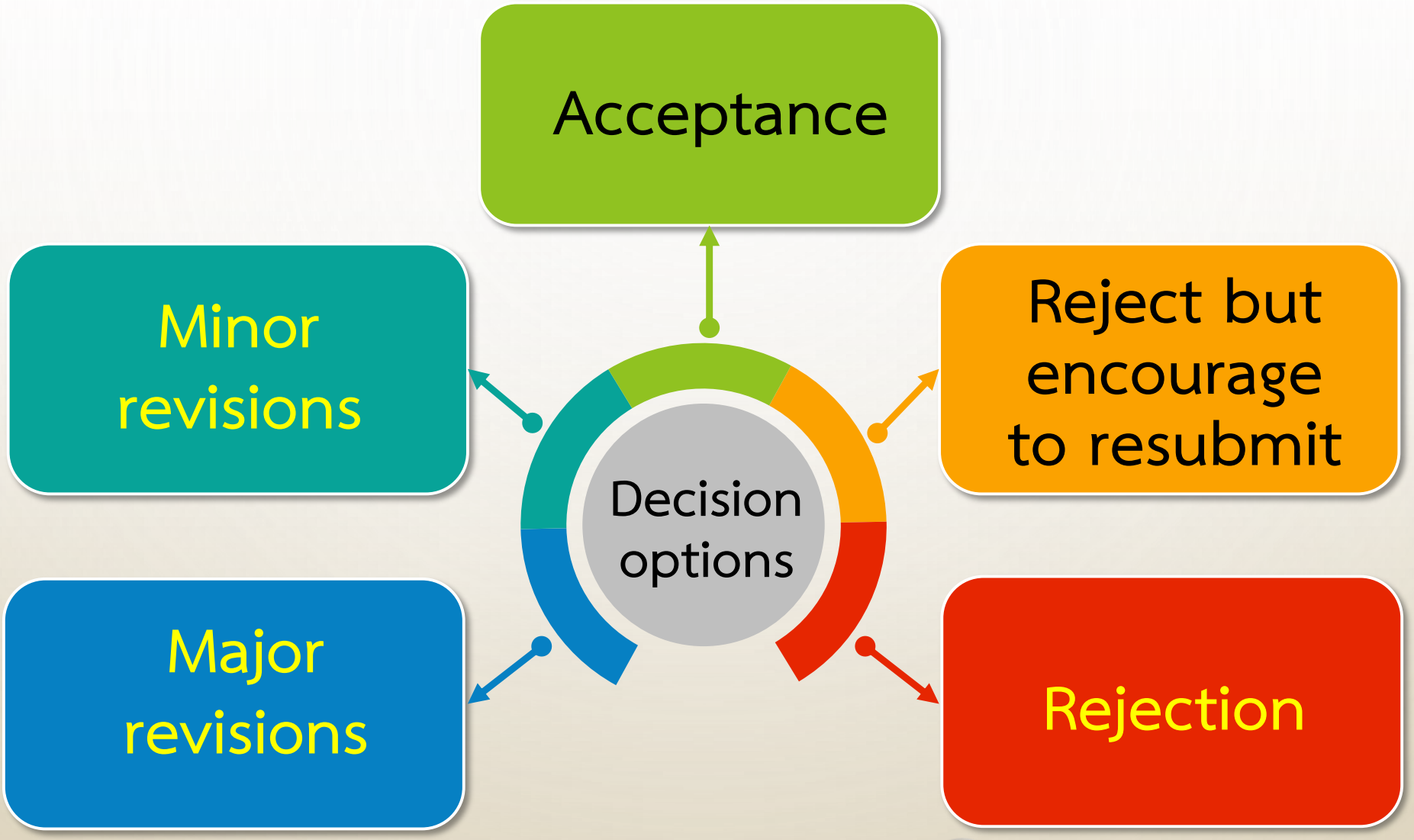
01 Appropriateness of the subject as it relates to the journal's focus

02 Originality and significance of the findings

03 Validity of the methodology

04 Strength of the results and conclusion

05 Quality of the writing


Acceptance
Minor revisions
Reject but encourage to resubmit
Decision options
Major revisions
Rejection

Grant funding

01 Scholarly significance

02 Methodology

03 Qualifications of the researchers

04 Preliminary data supporting the proposal

05 Appropriateness of the budget requested

06 Potential societal impact of the proposal

Research Ethics Committees

01 Scientific design and conduct of the study

02 Risks and potential benefits

03 Selection of study population and recruitment of research participants

04 Inducements, financial benefits, and financial costs

05 Protection of privacy and confidentiality

06 Informed consent process

07 Community considerations

ประเด็นจริยธรรมใน Peer Review

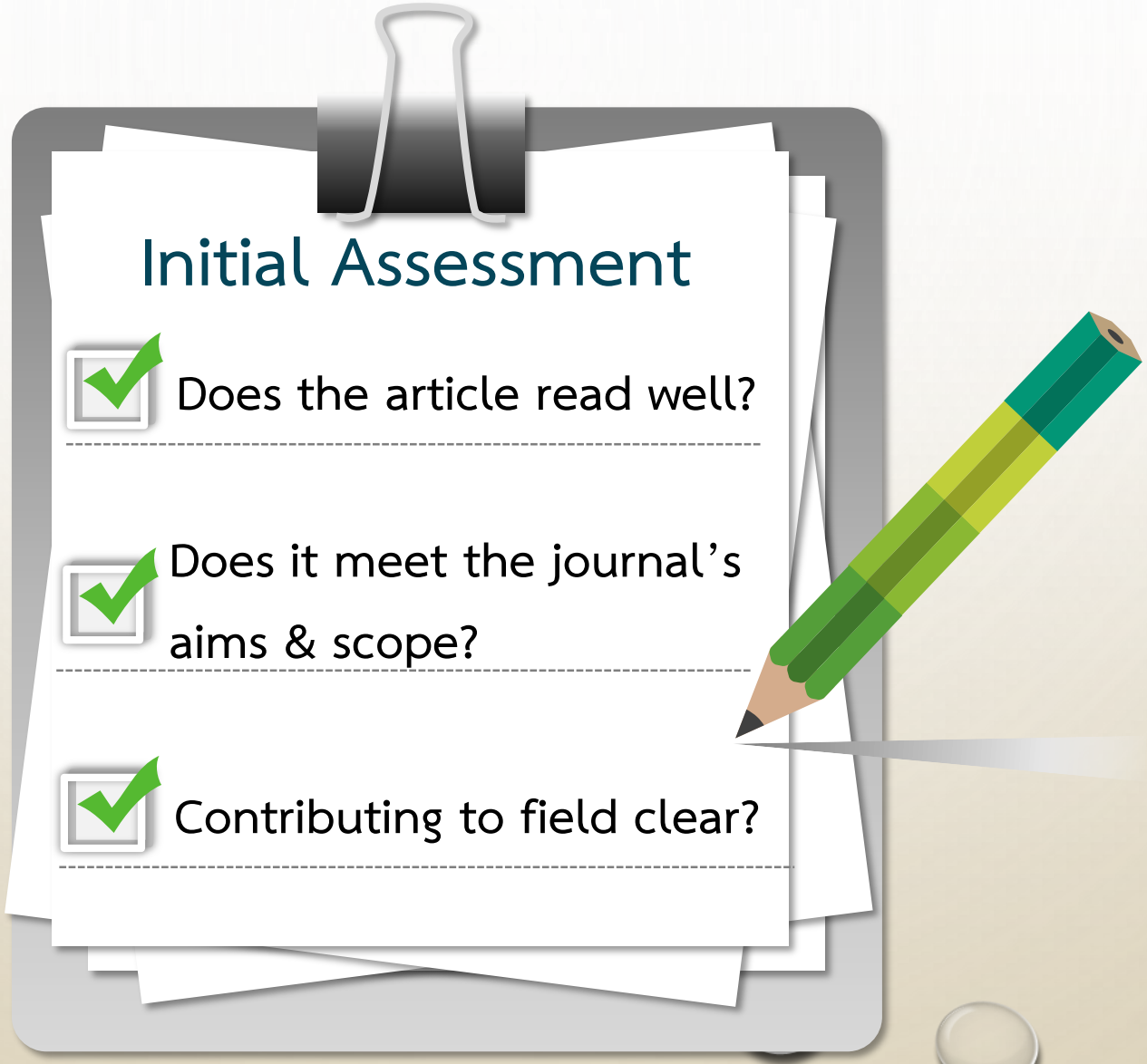
Reviewer Ethics

- ความชำนาญในเรื่องของบทความนั้น
- ความตรงต่อเวลา
- การมีส่วนได้เสียส่วนตัวกับงานวิจัยหรือผู้เขียน
- การรู้ตัวตนผู้เขียนในกรณี Double-blind
- การรักษาความลับ

Evaluation Criteria

- Give topic-specific expertise
- Indicate strengths and weaknesses
- Assess validity of study
- Bias-free, inclusive language
- Academic writing style
- Language quality
- Cohesiveness
- Provide information for an appropriate decision
- Protect against author misconduct

Evaluation steps



In-Depth Review

Title

Abstract

Keywords

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ABSTRACT

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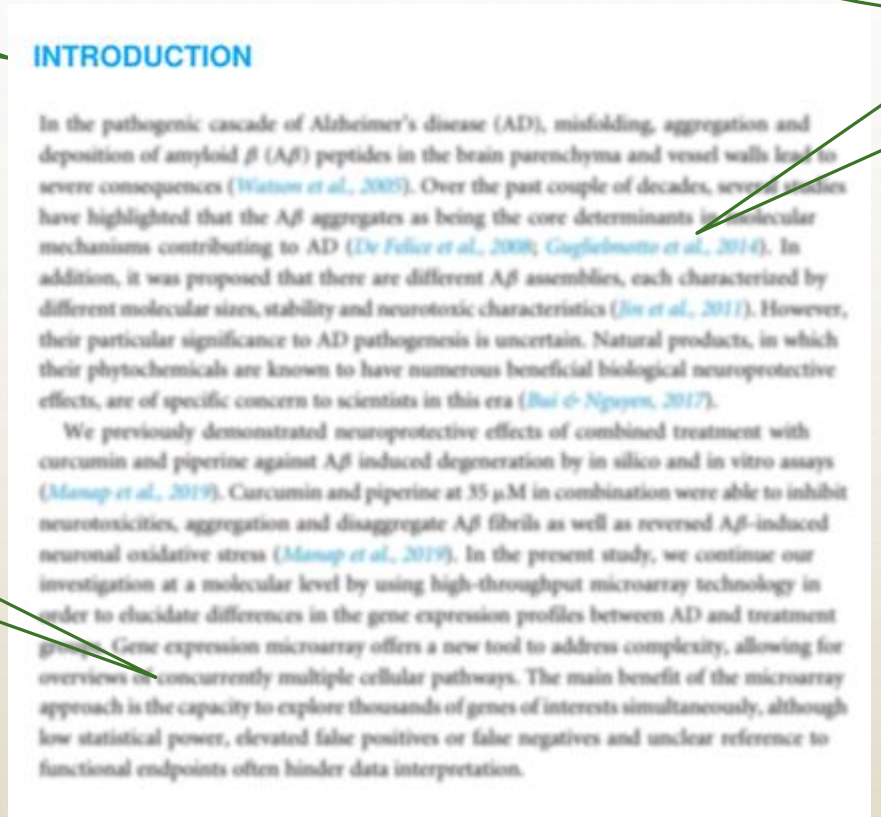
Keywords : Keyword, Keyword, Keyword, Keyword,

In-Depth Review

Introduction

Reference citations

Aims



INTRODUCTION

In the pathogenic cascade of Alzheimer's disease (AD), misfolding, aggregation and deposition of amyloid β (Aβ) peptides in the brain parenchyma and vessel walls lead to severe consequences (*Watson et al., 2005*). Over the past couple of decades, several studies have highlighted that the Aβ aggregates as being the core determinants in molecular mechanisms contributing to AD (*De Felice et al., 2008*; *Guglielmotto et al., 2014*). In addition, it was proposed that there are different Aβ assemblies, each characterized by different molecular sizes, stability and neurotoxic characteristics (*Jin et al., 2011*). However, their particular significance to AD pathogenesis is uncertain. Natural products, in which their phytochemicals are known to have numerous beneficial biological neuroprotective effects, are of specific concern to scientists in this era (*Bai & Nguyen, 2017*).

We previously demonstrated neuroprotective effects of combined treatment with curcumin and piperine against Aβ induced degeneration by in silico and in vitro assays (*Manap et al., 2019*). Curcumin and piperine at 35 μM in combination were able to inhibit neurotoxicities, aggregation and disaggregate Aβ fibrils as well as reversed Aβ-induced neuronal oxidative stress (*Manap et al., 2019*). In the present study, we continue our investigation at a molecular level by using high-throughput microarray technology in order to elucidate differences in the gene expression profiles between AD and treatment groups. Gene expression microarray offers a new tool to address complexity, allowing for overviews of concurrently multiple cellular pathways. The main benefit of the microarray approach is the capacity to explore thousands of genes of interests simultaneously, although low statistical power, elevated false positives or false negatives and unclear reference to functional endpoints often hinder data interpretation.

In-Depth Review

Materials & methods

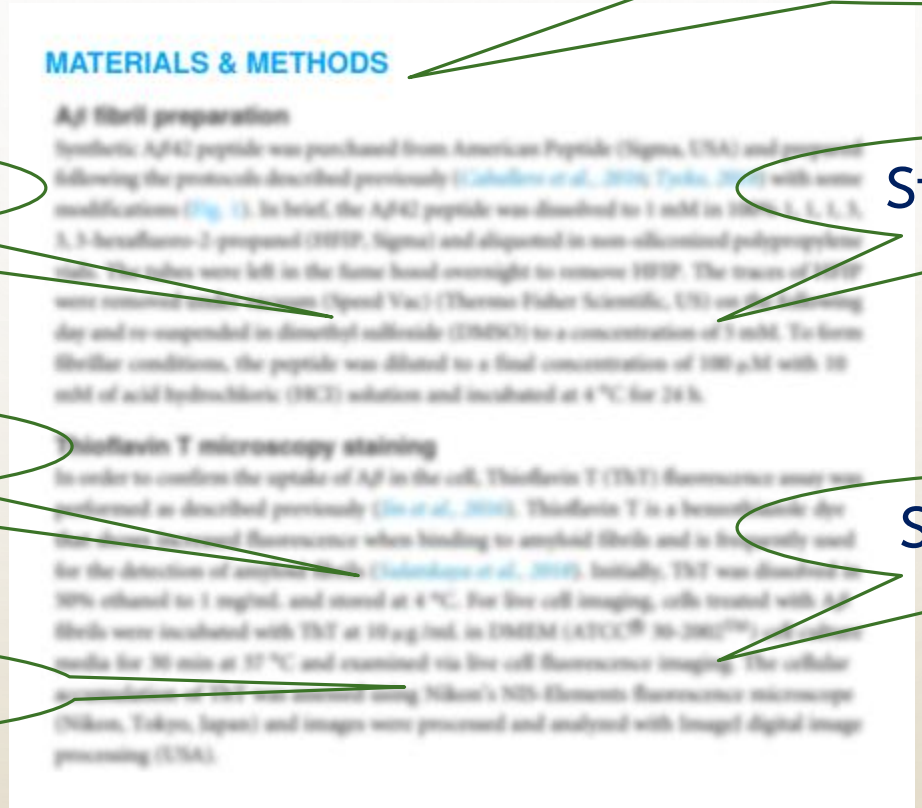
Equipment & materials

Study populations

Analytic methods

Statistic methods

Software used



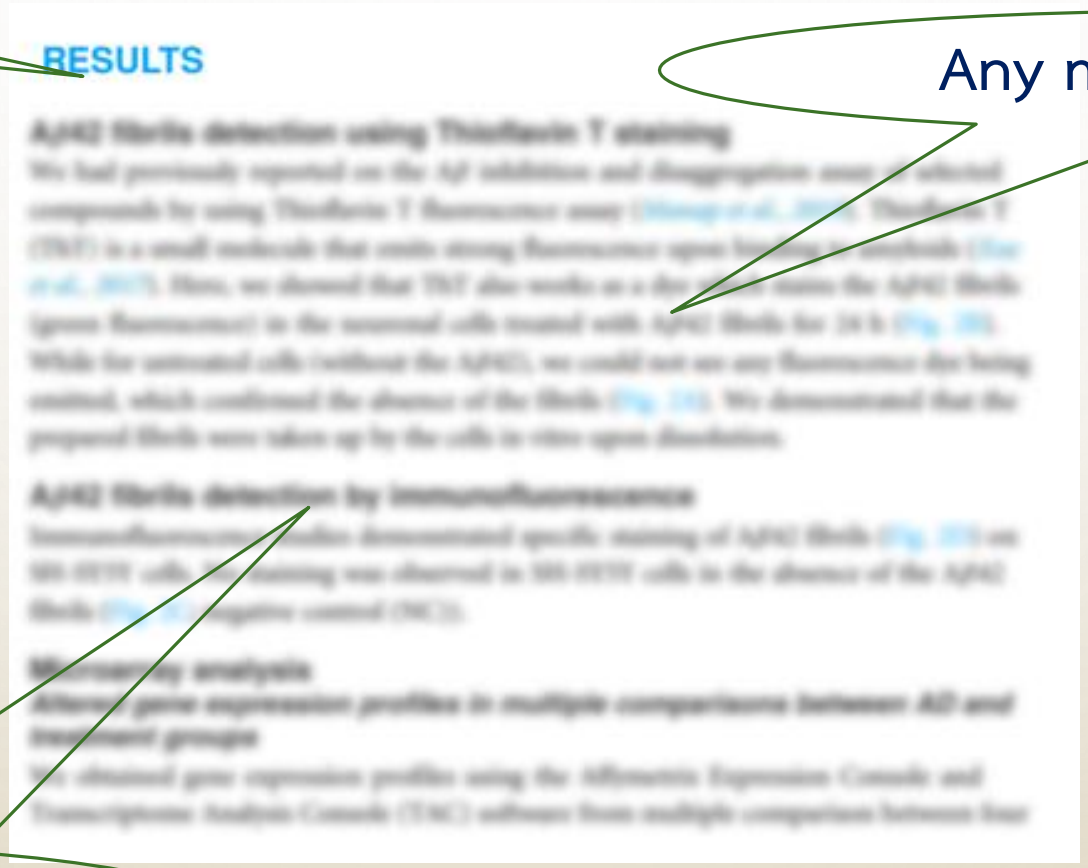
MATERIALS & METHODS

Aβ fibril preparation

In-Depth Review

Results

Any missing results



RESULTS

Aβ42 fibrils detection using Thioflavin T staining

Aβ42 fibrils detection by immunofluorescence

Microarray analysis

Altered gene expression profiles in multiple comparisons between AD and treatment groups

Consistent with tables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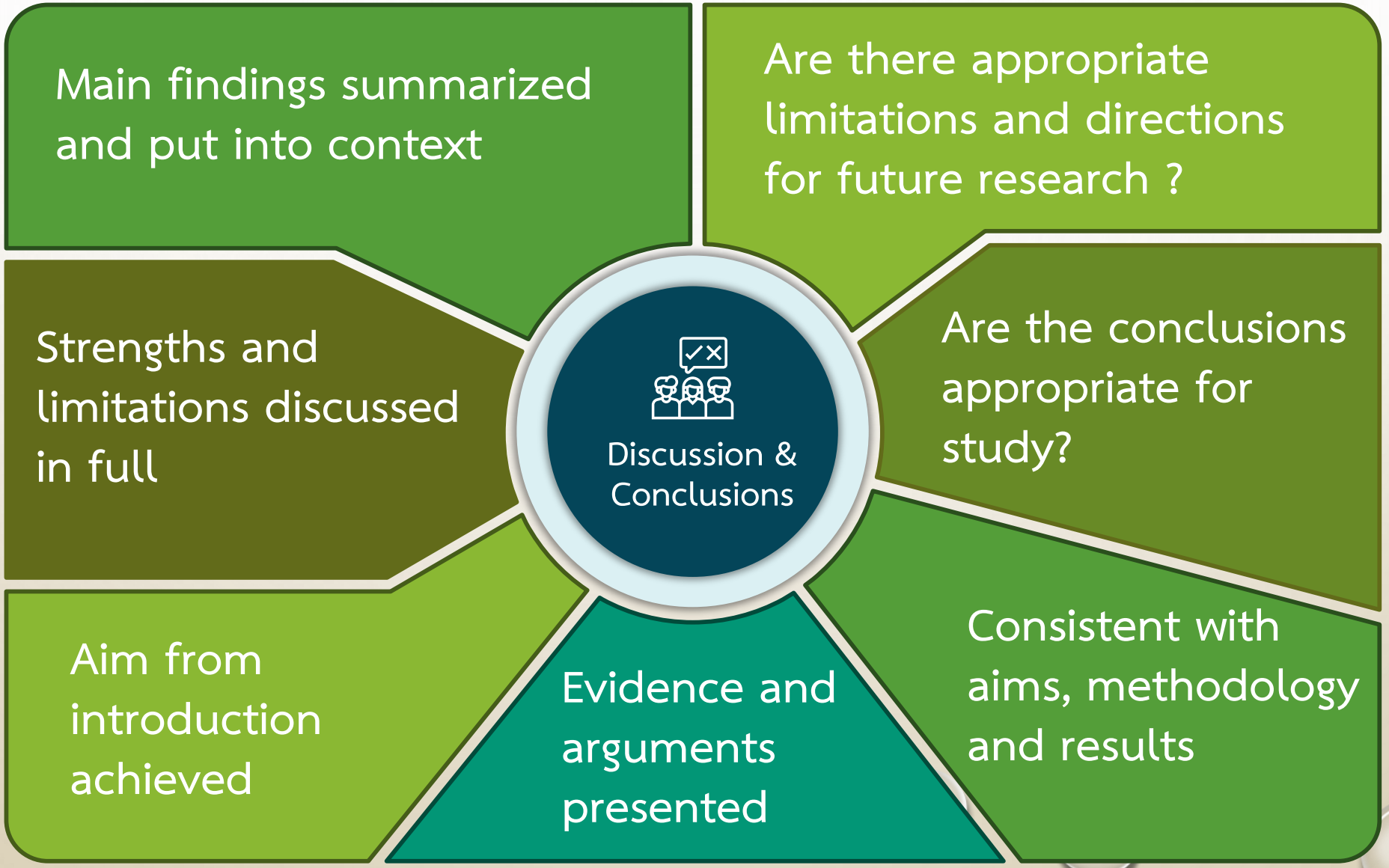
REM IPSUM
51
68
12

Discussion & Conclusions



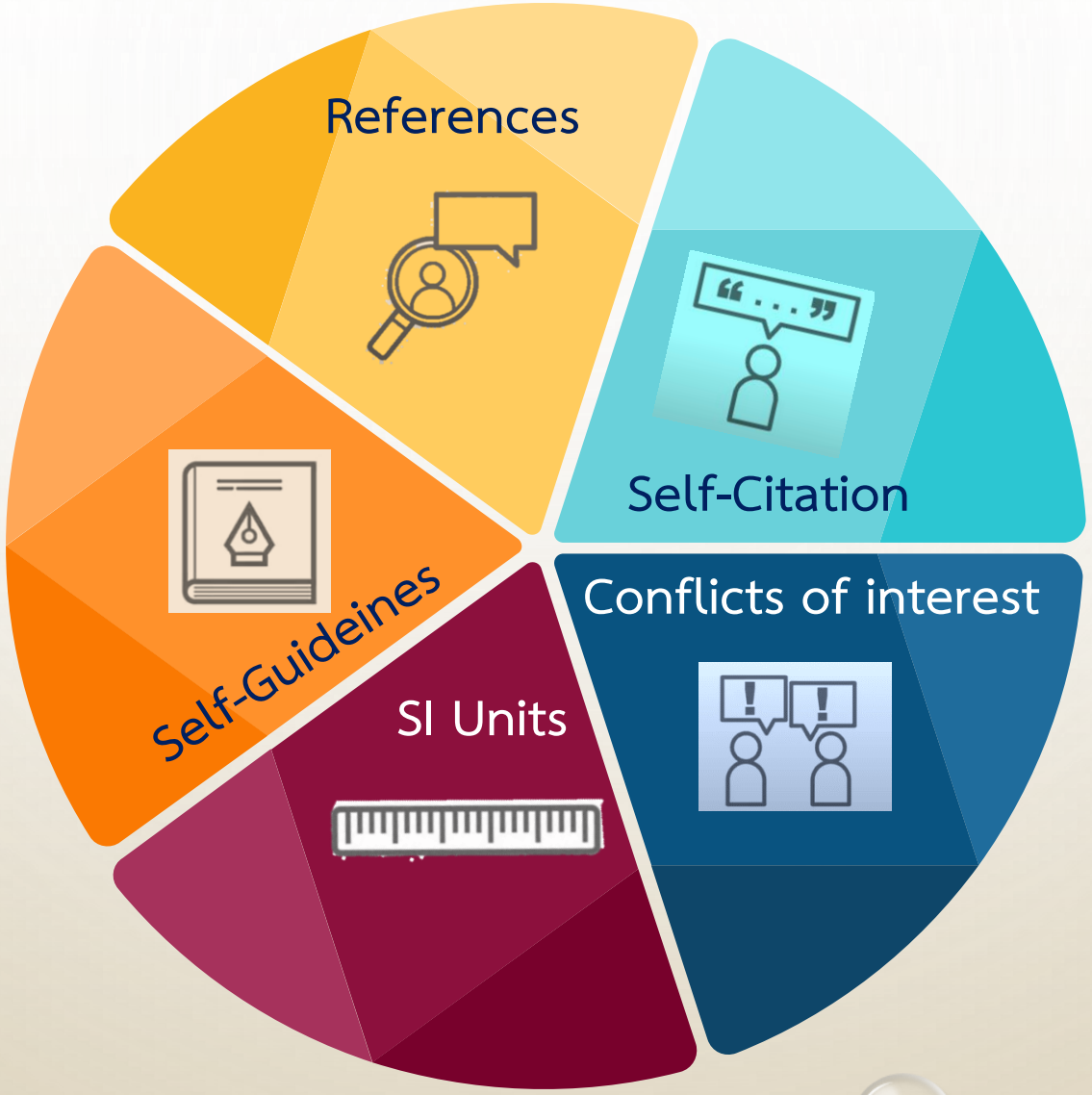
No signs of data or image manipulation

Informed consent from study participants

Ethical issues

Ethical approval obtained if necessary

Anonymization


References
Self-Citation
Conflicts of interest
SI Units
Self-Guideines

Providing Feedback

- Fit the aims and scope of the journal?
- comment on novelty or solely on soundness of science
- Give clear comments to editor and author
- Be objective, specific and constructive
- Be ready to make recommendations
- Be clear about what needs to be added, removed or revised
- Flag any areas you were unable to comment on

Peer review resources

- https://www.humanrelationsjournal.org/journal/guidance-for-reviewers/
- How to review articles (PDF guide and videos)
- COPE Ethical Guidelines: https://publicationethics.org/guidance/Guidelines
- https://publons.com/journal/329211/academy-review/
- Open Peer Review and preprint comments: https://subjectguides.york.ac.uk/openresearch/preprints_publication
- Web of Science Academy: https://webofscienceacademy.clarivate.com/learn
- PLOS Peer Review Center (https://plos.org/resources/for-reviewers/)

Summary

- International and essential process for academic advance
- Improve quality of research studies and publications
- Necessity of ethical considerations
- Reliability, fairness and professionalism

Peer Review

- Respect the intellectual property of the authors
- Strictly maintained confidentiality
- Clear and efficient working standards
- Responsibility of all researcher

References

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- https://violentmetaphors.com/2013/12/13/how-to-become-good-at-peer-review-a-guide-for-young-scientists/
- World Health Organization. (2011). Standards and operational guidance for ethics review of health-related research with human participants. World Health Organization. https://apps.who.int/iris/handle/10665/44783
- COPE: **Ethical guidelines for peer reviewers**