



Workshop Penulisan Manuskrip:

Introduction

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Introduction: What is the problem?

- One of the more difficult portions of the manuscript to write.

11 steps to organize your manuscript:

Figures & Tables – Methods – Results – Discussion – Conclusion –
Introduction – Abstract – Title – Keywords – Acknowledgements –
References

- Past studies are used to set the stage or provide the reader with information regarding the necessity of the represented project.
- Research question should be **clear, concise, and worthy of study.**



Introduction

- **Function:**

1. Establish the context of the work being reported.
2. State of purpose of the work in the form of the hypothesis, question, or problem you investigated.
3. Briefly explain your rationale and approach and, whenever possible, the possible outcomes your study can reveal.



Introduction

- Answer these **questions**:
 1. What was I studying?
 2. Why was it an important question?
 3. What did we know about it before I did this study?
 4. How will this study advance our knowledge?



Introduction

- A competent introduction should include at least 4 **key concepts**:
 1. Significance of the topic (**CONTEXT**)
What was I studying?
 2. The information gap in the available literature associated with the topic (**NEED**)
Why was it an important question?
 3. A literature review in support of the key questions (**TASK**)
What did we know about it before I did this study?
 4. Subsequently developed purposes/objectives and hypotheses (**OBJECT**)
How will this study advance our knowledge?



Introduction

CONTEXT	As recently ... In the past 10 years ... Since the early 1990s ...
NEED	But ... However ... Unfortunately ...
TASK	To confirm this assumption, we studied the effects of a range of inhibitors of connexin channels ... on ... To assess whether such multiple-coil sensors perform better than single-signal ones, we tested two of them in a field where ... Verbs: apply, assess, calculate, compare, compute, derive, design, determine, develop, evaluate, explore, implement, investigate, measure, model
OBJECT	This paper clarifies the role of CxHc on calcium transients ... This paper presents the flow effects induced by increasing ... Verbs: clarify, describe, detail, discuss, explain, offer, present, proposes, provide, report, summarize



Context		With approximately 243 million cases and 863 000 attributed deaths reported globally in 2009, malaria is one of the most severe infectious diseases, primarily affecting the world's most disadvantaged populations. Of the four typically recognized <i>Plasmodium</i> species causing disease in humans, <i>Plasmodium falciparum</i> causes most mortality, mainly in children below the age of 5, and <i>Plasmodium vivax</i> most morbidity, additionally representing a reservoir of latent infection that hampers current control and future elimination efforts.
Need	what we have	No new class of antimalarials has been introduced into clinical practice since 1996, because of the intrinsic difficulties in discovering and developing new antimicrobials, as well as a relative lack of public and private resource commitment towards antimalarial research. Today, the last class of widely efficacious drugs, the artemisinins, is being compromised by the rise of <i>P. falciparum</i> strains with reduced clinical response to artemisinin-containing drug combinations. The genomics revolution has not yet led to new antimalarial medicines and target-based lead discovery has produced disappointing results, generally for lack of whole-cell activity as documented for antibacterials.
	what we want	To secure this property in all chemical starting points for new antimalarial leads,
Task		we have tested the approximately two-million-compound library used for high-throughput screening at GlaxoSmithKline (GSK) for inhibitors of <i>P. falciparum</i> 's intraerythrocytic cycle, the parasite's growth phase responsible for disease symptoms, which is amenable to <i>in vitro</i> culture.
Object of the document		This paper describes 13 533 compounds confirmed to inhibit parasite growth by more than 80% at 2 mM concentration, 82% of which were proprietary and thus unknown to the general research community.



Introduction

- Review of the literature:
 - Be attentive to “sticking” or “staying true” to your topic at hand.
 - **Don’t include too broad of a literature review**, e.g. do not include extraneous information about performance or prevention if your research does not actually address those things.
GENERAL REVIEW.. not the specific one!
 - Remind yourself that a paper, existing evidence, or results of a paper cannot draw conclusions, demonstrate, describe, or make judgments, only PEOPLE (authors) can.
 - “The evidence demonstrates that”
 - “Smith and Jones, demonstrated that....”
 - Focus your efforts on the **primary research journals** or review articles.
 - References should be selected from updated publication with a higher impact factor.



Introduction

- Conclude your introduction with a solid statement of your purpose(s) and your hypothesis(es), as appropriate. Avoid mysterious and confounding expressions.
- The purpose and objectives should clearly relate to the information gap associated with the given manuscript topic discussed earlier in the introduction section.



Introduction

Table 1. *Examples of well-stated purposes by submission type.*

Type of Submission	Example purpose
Original Research	Therefore, the purpose of this study was to describe the volume of pitching for pitchers from multiple college teams at the Division I level.
Systematic Review of the Literature	Therefore, the purpose of this systematic review was to investigate the association between training characteristics and running related injuries.
Clinical Commentary/Current Concepts Report	The purpose of this clinical commentary is to examine the risk factors contributing to the high recurrence rate of hamstring injuries, and propose a unique rehabilitation strategy addressing these factors in order to decrease the rate of reinjury.
Case Report	The purpose of this case report is to describe the non-surgical management of a professional athlete with the characteristic signs and symptoms of a sports hernia.
Clinical Suggestion	The purpose of this clinical commentary is to review types of integumentary wounds that may occur in sport, and their acute management.



Introduction

- **Style:**
 - Use the active voice as much as possible.
 - Some use of first person is okay, but do not overdo it.
- **Grammar:**
 - In general, simple present tense.
- **Structure:**
 - Inverted triangle:
 - TOP** = the most general information
 - BOTTOM** = the specific problem you studied

TIPS:

Sketch out the Introduction backwards!



Introduction

- **TIPS:**

- Be concise and to-the-point! Don't make it into a history lesson.
- We all know that you are keen to present your data. But don't forget that you need to give the whole picture at first.
- The introduction must be organized from the global to the particular point of view, guiding the readers to your objectives when writing the paper.
- State the purpose of the paper and research strategy adopted to answer the question, but do not mix it with results, discussion, and conclusion.
- Hypothesis and objectives must be clearly remarked at the end of the introduction.
- Expressions such as “novel”, “first time”, “first ever”, and “paradigm-changing” are not preferred. Use them sparingly.



Conclusion

- **Flow:**

- Identify the subject area of interest → use KEYWORDS from Title!
- Establish the context → review of the literature.
- State the purpose and/or hypothesis that you investigated.
- Provide a clear statement of the rationale for your approach to the problem studied (e.g., you studied oxidative respiration pathways in isolated mitochondria of cauliflower).

“A bad beginning makes a bad ending”



References

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- Scientific papers. *Nature*.
- Armagan A. (2013) How to write an introduction section of a scientific article. *Turk J Urol*.
- Hoogenboom B. J. & Manske R. C. (2012) How to write a scientific article. *IJSPT*.



Thank you..