

# Key points for KAKENHI proposal writing

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# About me

- Ph.D in Biophysics
- Posdoc at Yale University
- Research fellow at NHLBI in NIH (National Institutes of Health), USA
- Assist. Prof. at iCeMS, Kyoto University
- Assist. Prof. at University Research Administration (URA) office, Nagoya Institute of Technology
- 17 Publications (Nature Cell Biol., PNAS, etc. Collaboration works are published in Science, Cell etc.)

## One of my Work is;

- Grant writing supports
  - KAKENHI Kiban-C and Wakate B proposals in 2015 : 5 approval in 6 total.
  - Research funding proposal in 2015-2016 : 13 approval in 18 total.

# Top 30% is good enough

Do not need to be NO.1!

However, your proposal must be categorized as “great”

**Find your KAKENHI research area (i.e. right market)**

Research target

(find the best match by analyzing  
previously approved titles)

# of proposal / area

(your proposal may be reviewed  
more carefully at categories having  
only 100 proposals)

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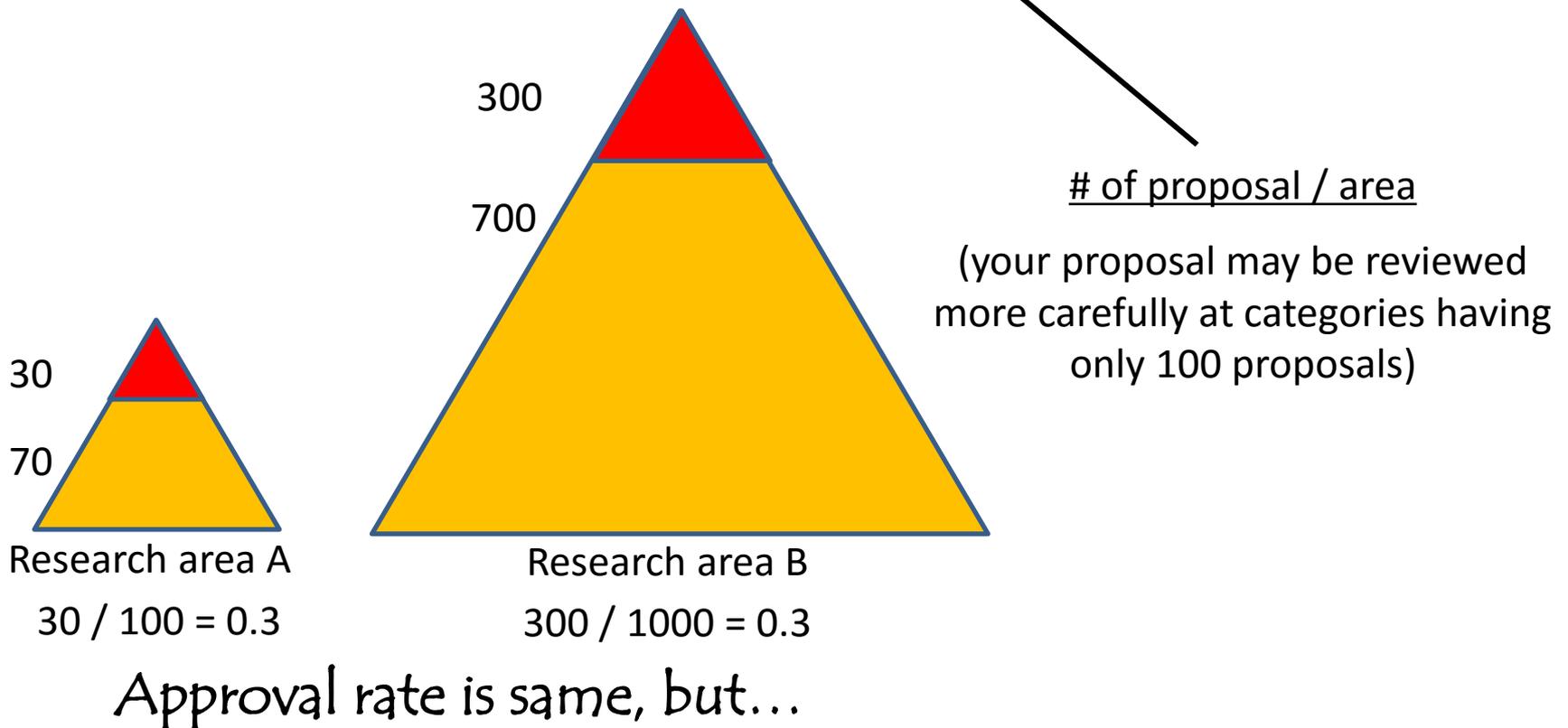


# Top 30% is good enough

Do not need to be NO.1!

However, your proposal must be categorized as “great”

Find your KAKENHI research area (i.e. right market)



# Think about “readers” - Reviewers are busy! -

In 2015, each reviewer checked about 70 proposals within 40 days (For Kiban A/B/C, Wakate A/B).

引用元: [http://www.rprc.hirosaki-u.ac.jp/~gakunai/suishin/kaken/setumeikai/h24/240723\\_03.pdf](http://www.rprc.hirosaki-u.ac.jp/~gakunai/suishin/kaken/setumeikai/h24/240723_03.pdf)

○ 第1段審査	
・審査委員数	5, 500名
・審査期間	40日間
・1人当審査件数	<u>平均約70件</u> (最高149件)



## Comments from reviewers

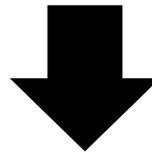
- Clear and short statements helped to understand points in a limited time
- Describing differences with similar research help to compare assessments
- First impression is important because I sort proposals into 3 categories (good, ok, poor) by brief reading, while I read repeatedly for more fine screening.

# To be reviewed as “Excellent”, consider **Evaluation Criteria**

Applied for Kiban A, B and C, and Wakate A and B for 1<sup>st</sup> peer review

1. Academic importance and adequacy of the research project
2. Adequacy of research plan and methods
3. Originality and innovativeness of the research project
4. Ripple effects and generality of the research project
5. Ability to conduct research and appropriateness of the research environment
6. Relationship between research plans and research themes undergoing progress evaluation

*Ref: [https://www.jsps.go.jp/j-grantsinaid/01\\_seido/03\\_shinsa/data/h26/h26\\_tebiki01\\_dai1.pdf](https://www.jsps.go.jp/j-grantsinaid/01_seido/03_shinsa/data/h26/h26_tebiki01_dai1.pdf)*



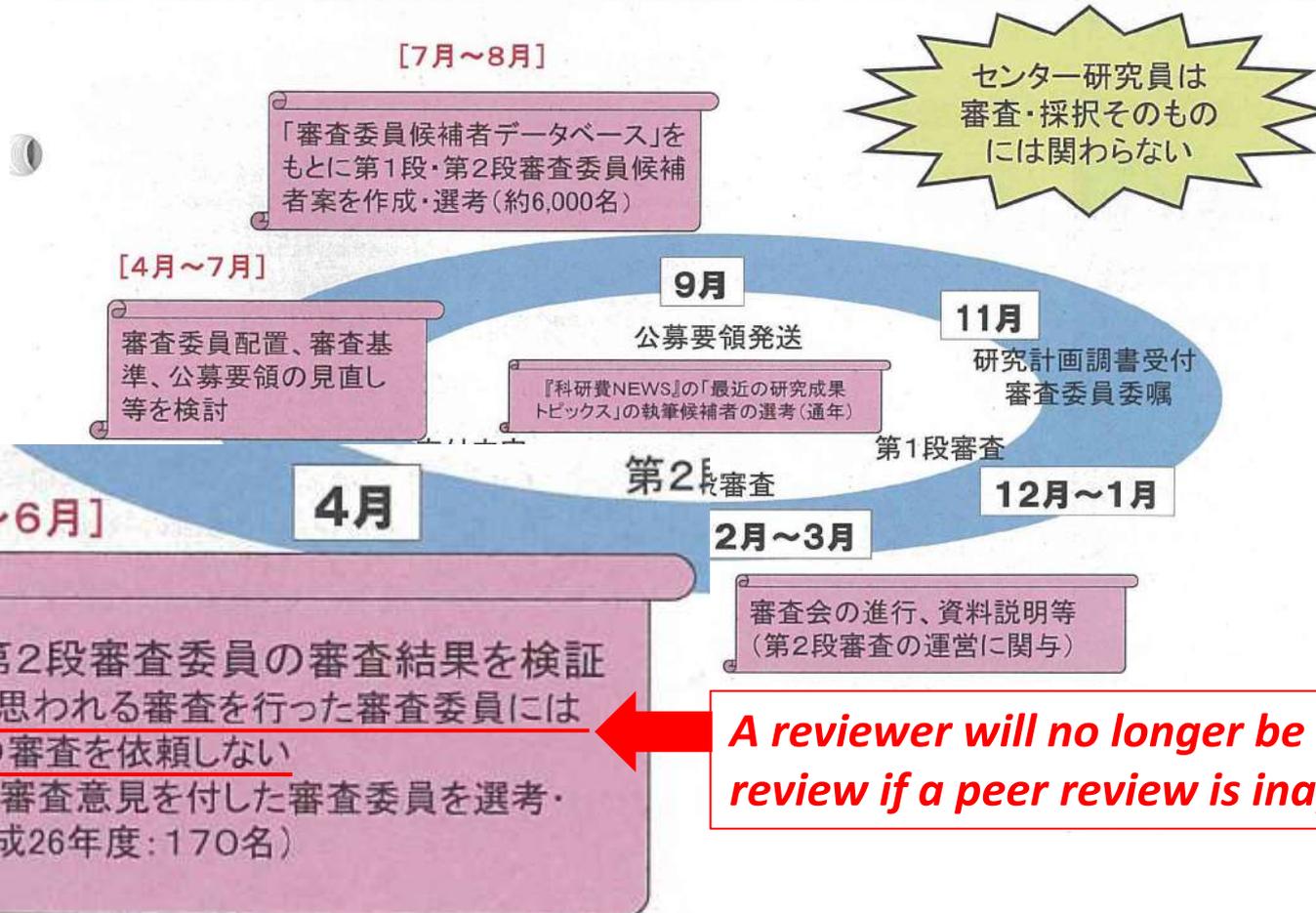
*Based on these criteria, think below*

1. Clear research vision = What do you decipher?
2. Research keywords = Impact to the society and/or field
3. Significance of your research = Position of your research in the field

**Keep in your  
mind!**

# Reviewers are also judged!

## 学術システム研究センターの科研費に関する主な役割



**Your proposal must give confidence to reviewers such as “I was right to pick this proposal”.**

# What should we do to get a high score by making reviewers confident?

*Utilize certain keywords in your proposal*

*Keywords = support reviewer's decision*

**KAKENHI proposals are screened based on how reviewers feel.**

(FYI)

Grants-in-Aid for Scientific Research are intended to significantly develop all scientific research (**research based on the free ideas** of the researcher), from basic to applied research in all fields, ranging from the humanities and the social sciences to the natural sciences. The grants provide financial support for **creative and pioneering research** projects that will **become the foundation of social development**.

(Ref: MEXT [http://www.mext.go.jp/b\\_menu/shingi/gijyutu/gijyutu4/toushin/attach/1337880.htm](http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu4/toushin/attach/1337880.htm))



Key is “Academic research statement **+impact**”

Tips to give confidence

# What are the impact words in titles?

S1: Creating a Building Code for Medical Device Software Security

S2: Vibration-based Secure Side Channels for Implantable and Wearable Medical Devices

S3: Investigating the Mechanics of Cell Division with A Side-View Atomic Force Microscopy

**Add meaningful words to make reviewers excited and discernable**

Easy to guess your research

+

government strategies, obvious necessity and next-generation etc.

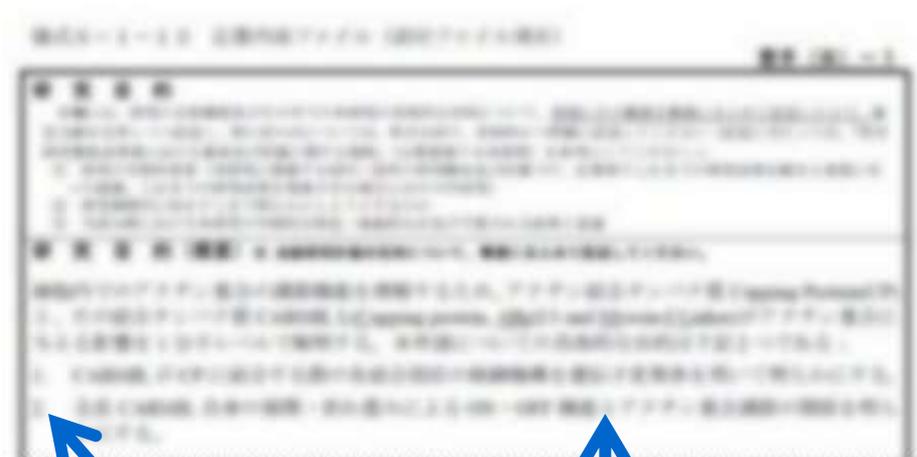
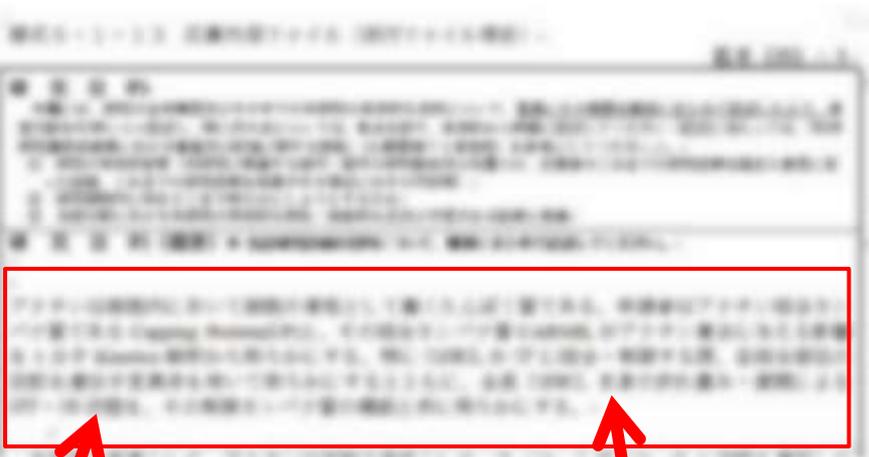
+

Name of proteins, samples approaches

# Purpose of the research (Outline)

**Before**

**After**



This is like a memo...

Too much explanation of scientific words. Where is the point?

Itemize your each purpose  
( Note: Short statement is better)

Not explain scientific words. Deliver minimum and sufficient message (i.e. your goal, keywords, methods etc)

**This section is for the brief message to reviewers.**

(Includes points to decipher, importance and so on. Do not go too deep, because not all reviewers are from exactly same research fields.)

# Purpose of the research (Main)

# Before

Figure 1-1-10: A page from a Japanese textbook with dense text and small diagrams at the bottom.

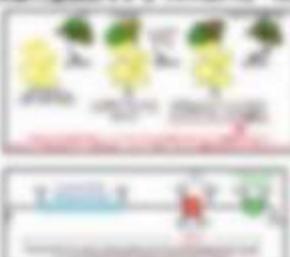
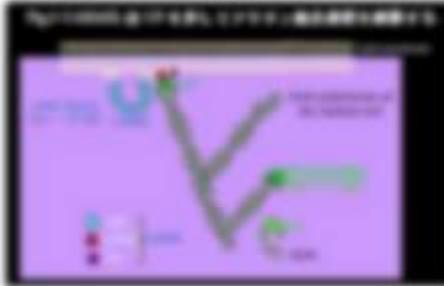


Figure 1-1-11: A page from a Japanese textbook with dense text and a large diagram on the right side.



# Purpose of the research (Main)

# Before

Figure 1-1-10: A page from a Japanese research paper with a red box highlighting the main purpose of the study. The highlighted text describes the research objectives and the experimental setup, including the use of a specific model and the measurement of various parameters. Below the text, there are two small diagrams: one showing a plant with leaves and a diagram of a system with a red arrow and a green box.

Figure 1-1-11: A page from a Japanese research paper with a red box highlighting the main purpose of the study. The highlighted text describes the research objectives and the experimental setup, including the use of a specific model and the measurement of various parameters. Below the text, there is a diagram showing a branching structure with nodes and arrows, representing a flow or process.

# Purpose of the research (Main)

# Before



# Purpose of the research

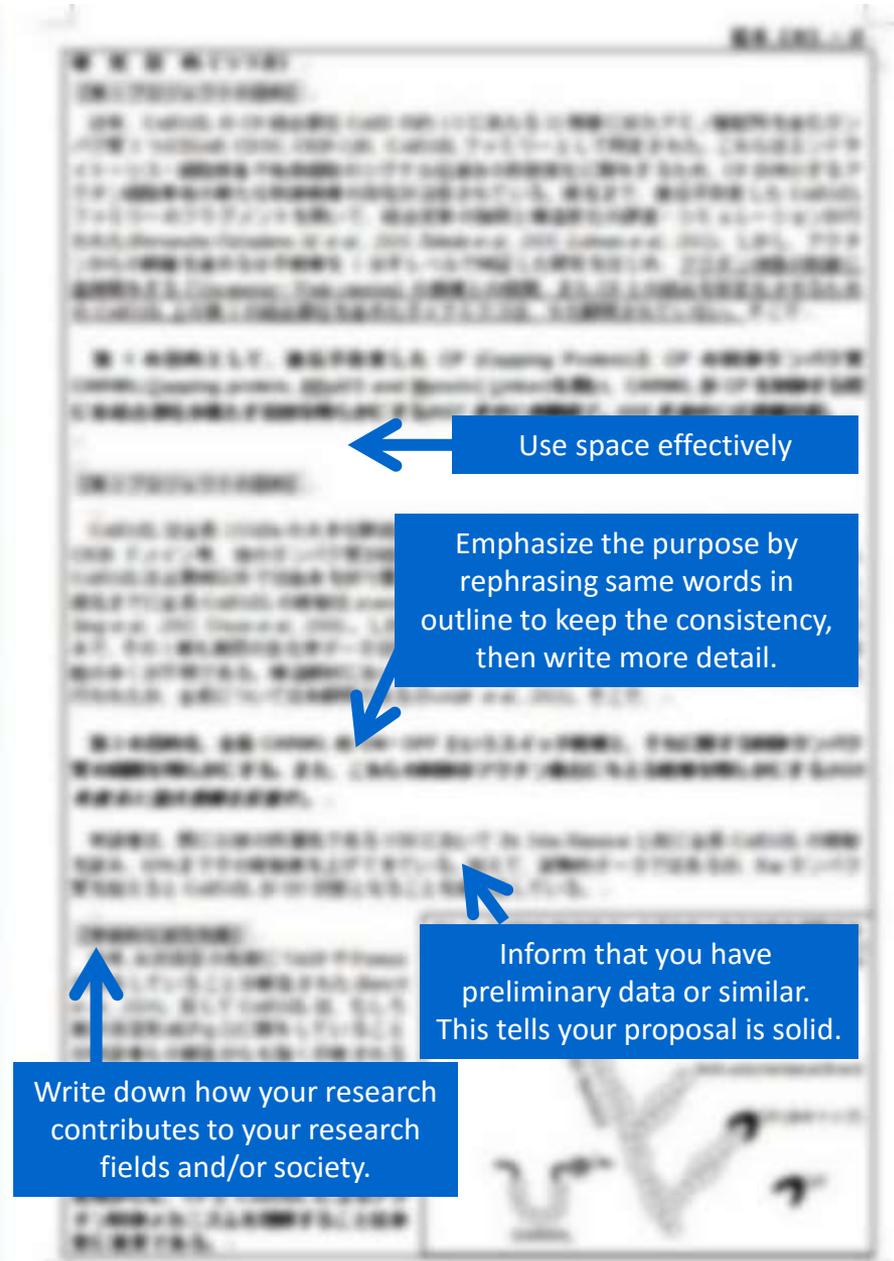
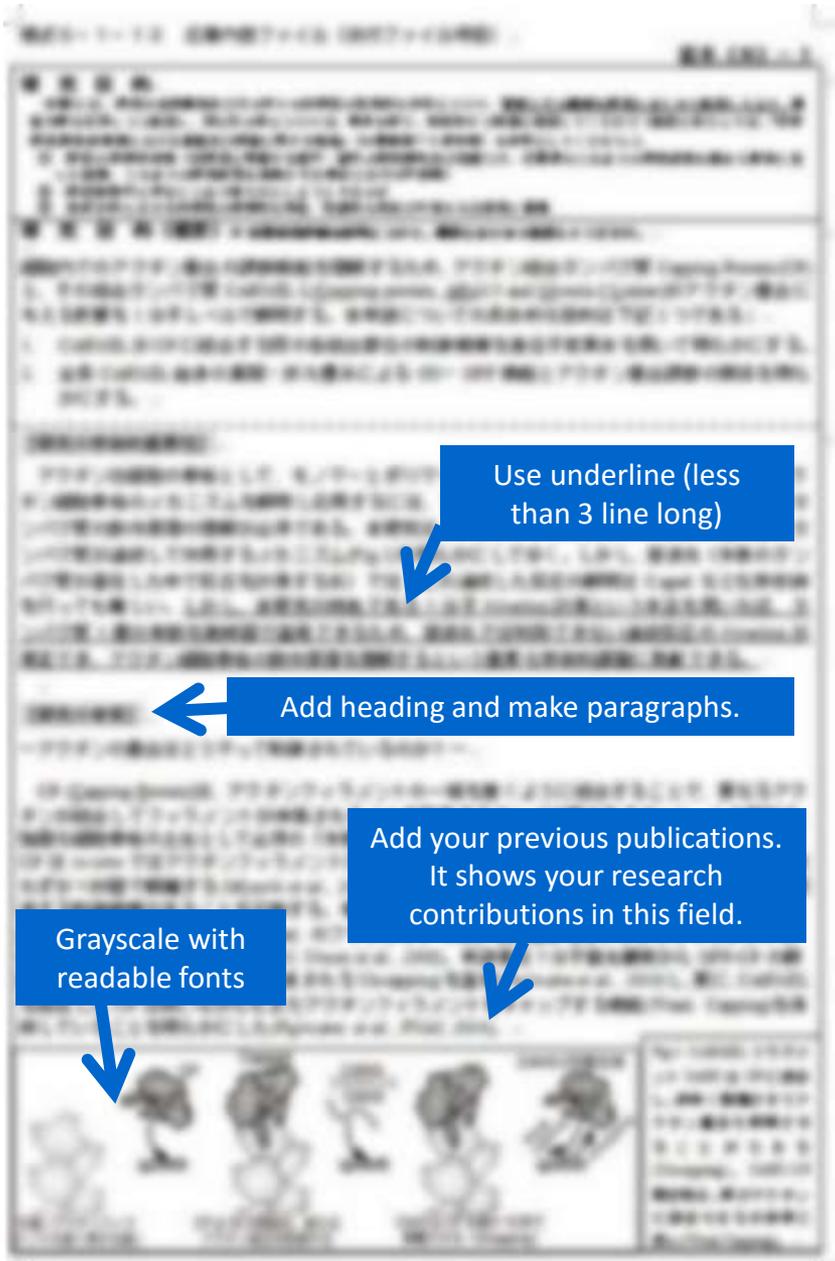
# After

Figure 1: A page from a research paper with dense, illegible text. At the bottom, there is a diagram showing a sequence of five stages of a biological process, likely related to plant growth or development. The diagram consists of five small illustrations of a plant-like structure, each showing a different stage of its growth or a different part of its structure.

Figure 2: A page from a research paper with dense, illegible text. At the bottom, there is a diagram labeled 'Fig. 2' showing a large, branching structure, possibly a tree or a complex biological network. The diagram has several main branches and many smaller sub-branches, with some nodes or points of interest highlighted.

# Purpose of the research

# After

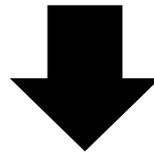


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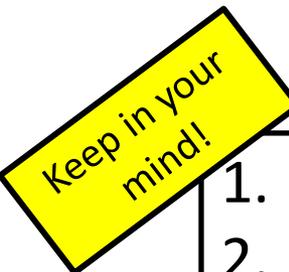
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- 
- 
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  3. Originality and innovativeness of the research project
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*Based on these criteria, think below*

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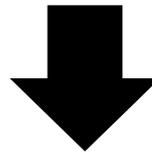


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Keep in your  
mind!

# Research plan and method

After

Itemize your plans so readers easily understand.

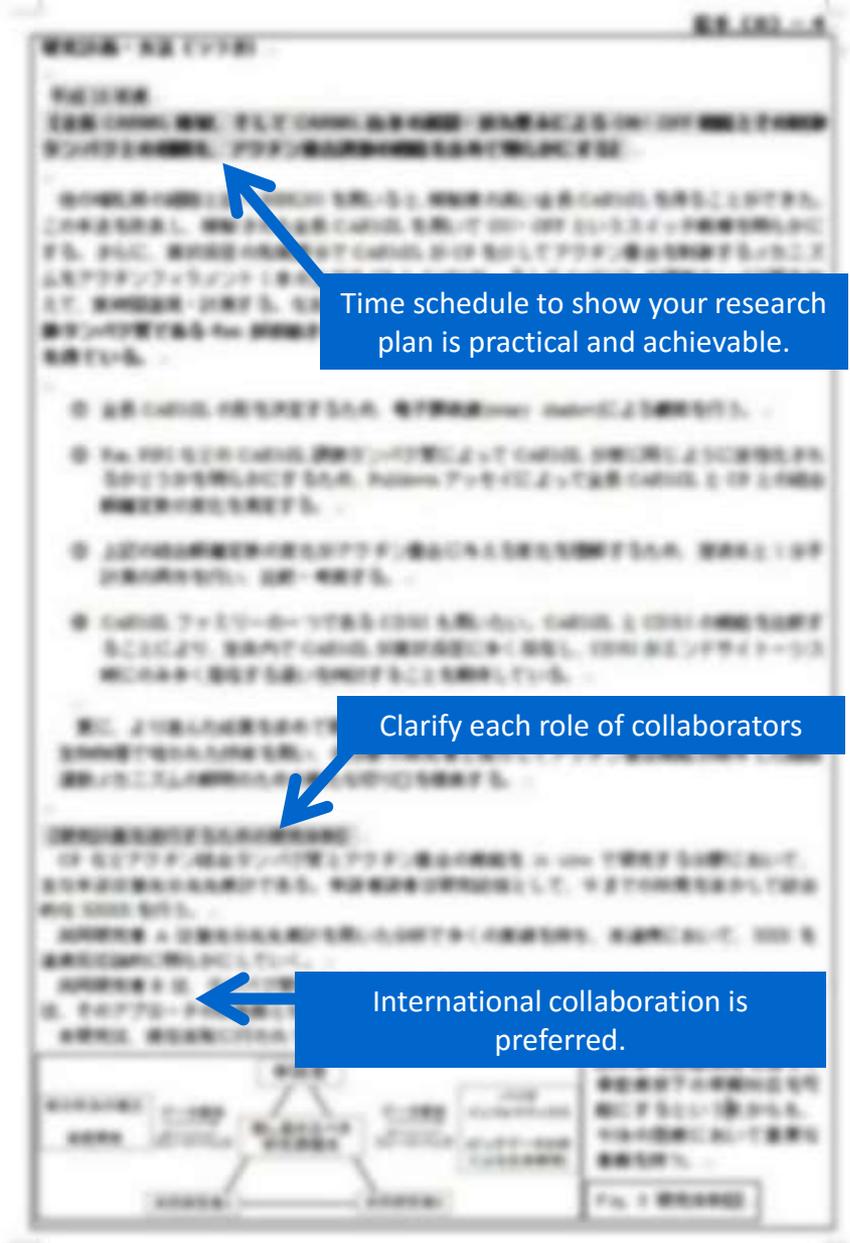
Briefly mention methods and each goal.

Describe how your collaborator contributes

Time schedule to show your research plan is practical and achievable.

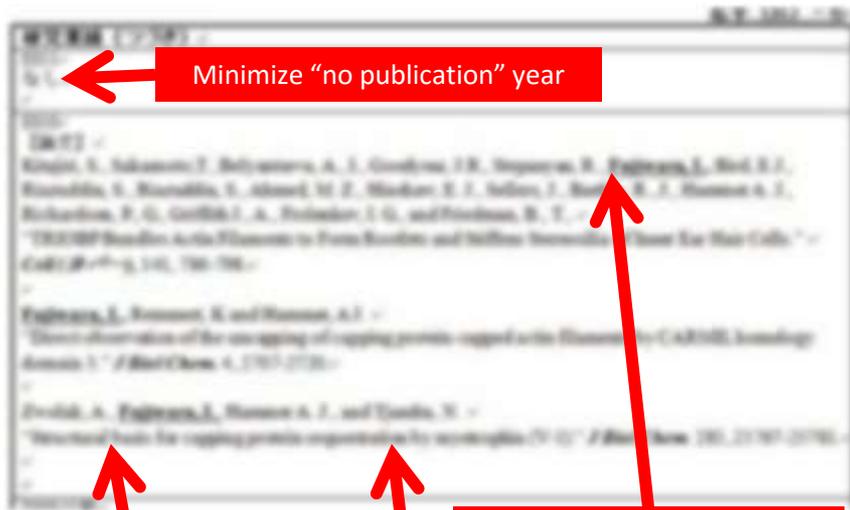
Clarify each role of collaborators

International collaboration is preferred.



# Research Activities

**Before**



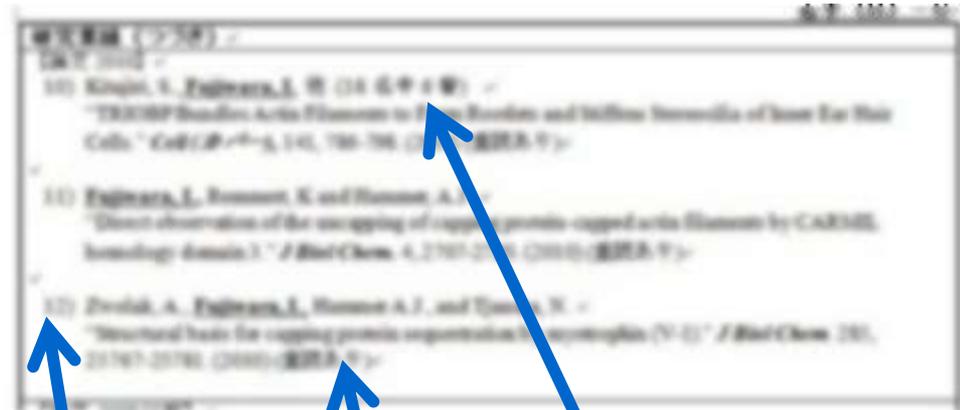
Minimize "no publication" year

Do not just copy/paste your publication list

Too many authors confuses your contribution

Unclear if it is peer reviewed

**After**



Add numbers on each publication (follow instruction)

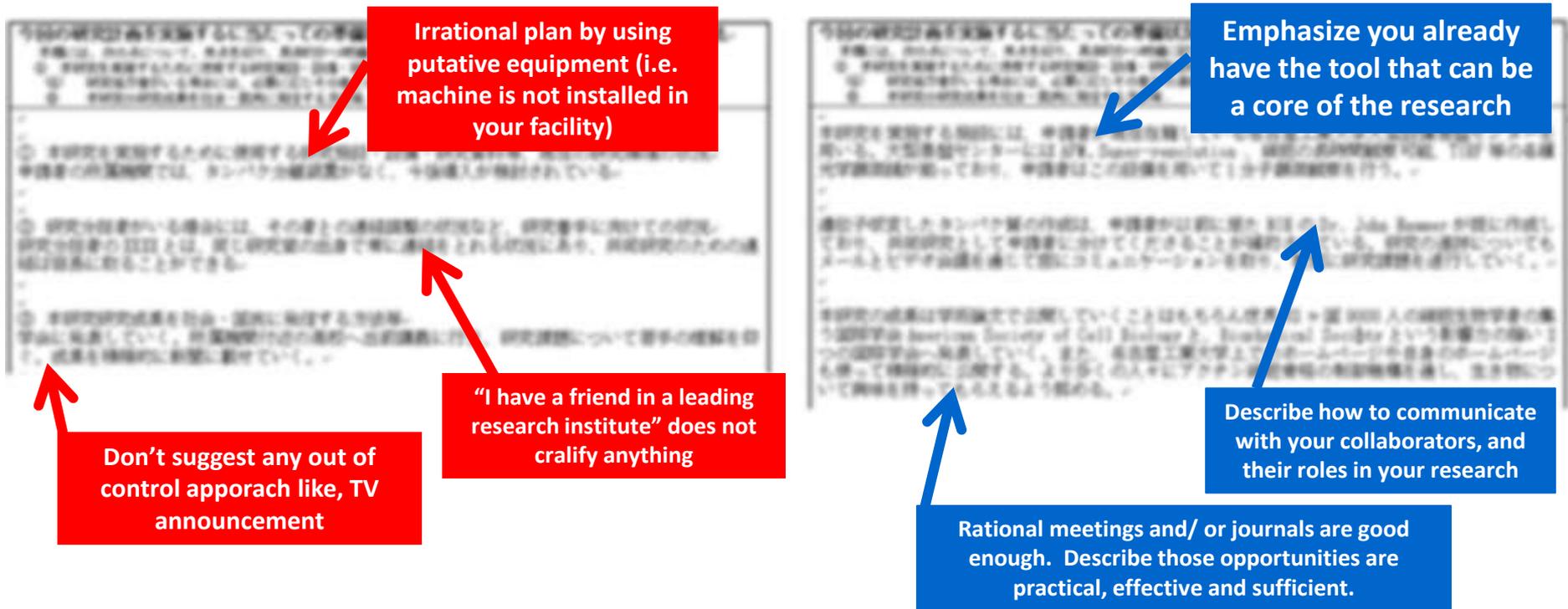
Write "Peer reviewed", if so

Summarize authors (total number of authors and your author numbers)

# State of Preparations for the Research Plan and Methods to Disseminate the Research Results to Society and Citizens

## Before

## After



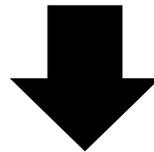
Keep your proposal in “SMART & Intelligent”

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# Get additional score from the budget planning

BUDGET PLAN		BUDGET PLAN		
NO.	DESCRIPTION	UNIT	AMOUNT	
2.7	RESEARCHER SALARY	1	RESEARCHER SALARY (12 MONTHS)	120,000
			RESEARCHER SALARY (6 MONTHS)	60,000
			RESEARCHER SALARY (3 MONTHS)	30,000
			RESEARCHER SALARY (1 MONTH)	10,000
			RESEARCHER SALARY (0.5 MONTH)	5,000
				225,000
2.8	RESEARCHER SALARY	1	RESEARCHER SALARY (12 MONTHS)	120,000
			RESEARCHER SALARY (6 MONTHS)	60,000
			RESEARCHER SALARY (3 MONTHS)	30,000
			RESEARCHER SALARY (1 MONTH)	10,000
			RESEARCHER SALARY (0.5 MONTH)	5,000
				225,000

Practical budget planning shows your technical ability to run your research

“Chemicals”, “instruments” and “Others” are not sufficient to show how well you can manage your project.

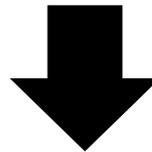
**A good shopping list can convince reviewers of a viable project.**

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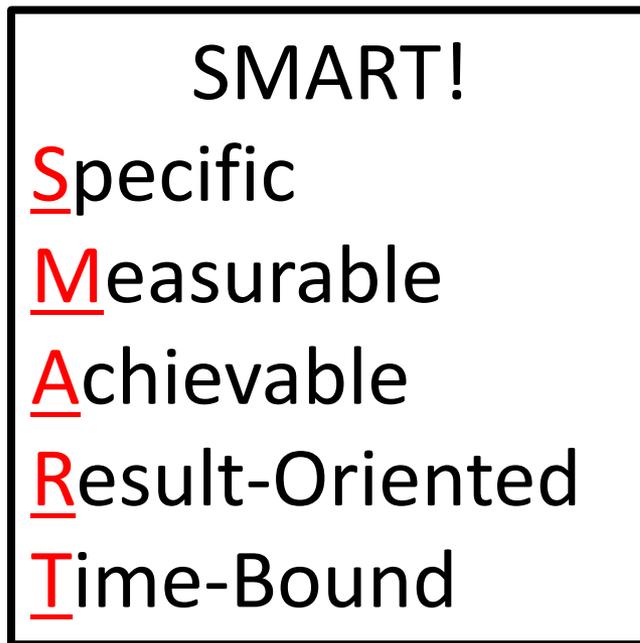
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# “SMART” proposal

Keep clear milestones in your research proposals



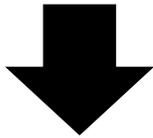
+  
Intelligent

(Ref)「起きていることはすべて正しい、運を戦略的につかむ、勝間式4つの技術」(勝間和代著、ダイヤモンド社 他)  
「研究資金獲得法～研究者・技術者・ベンチャー起業家～」(塩満典子・室伏きみ子著、丸善出版社)

# Try first!

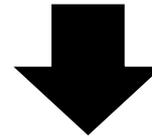
Otherwise your proposal will never get a chance to be approved.

Make a “hot” look



Ask your friend to take a look for 3 min, then get their feedback.

Make “hot” contents



- Check trends from recent KAKENHI proposals
- Think of readers (Keep in your mind the peer review systems)
- Find your guru (Get tips from a PI who had reviewed KAKENHI before)

**Do not give up!**

KAKENHI is one of the best financial supports to your research in Japan.

# Acknowledgement

- Taketo Tsugehara, Kyoto University
- Noriko Shiomitsu, Nishina Center for Accelerator-Based Science
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