How to write a good English manuscript?

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Research Focus:

Airway Inflammation & Lung Cancer

Over 60 Publications Cited more than 1800 times

Molecular Mechanisms

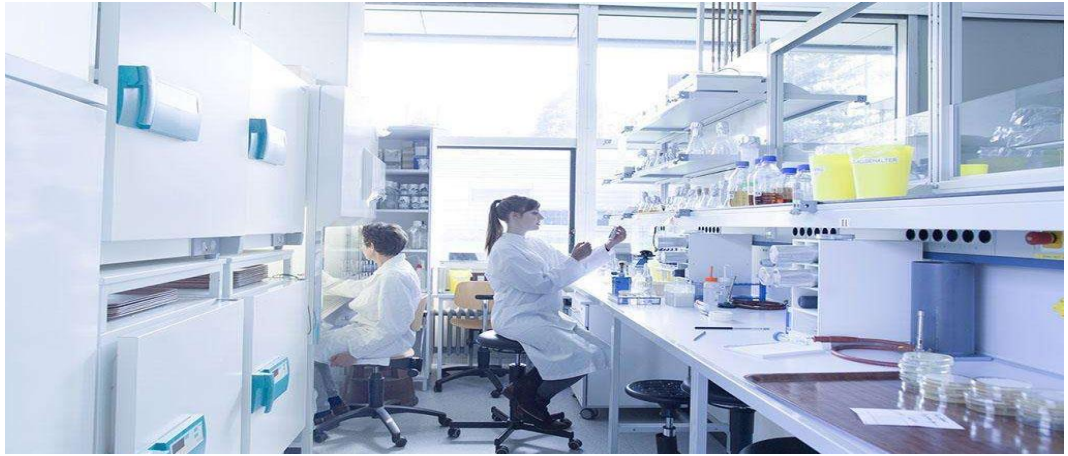
- Nature. 2015 **(IF:41.577)**
- Nat Cell Biol. 2013 **(IF:19.064)**
- Nucleic Acids Res.2009 **(IF:11.561)**
- Cell Res. 2018 **(IF:15.393)**
- Aging. 2017 **(IF:5.179)**

Disease Relevance

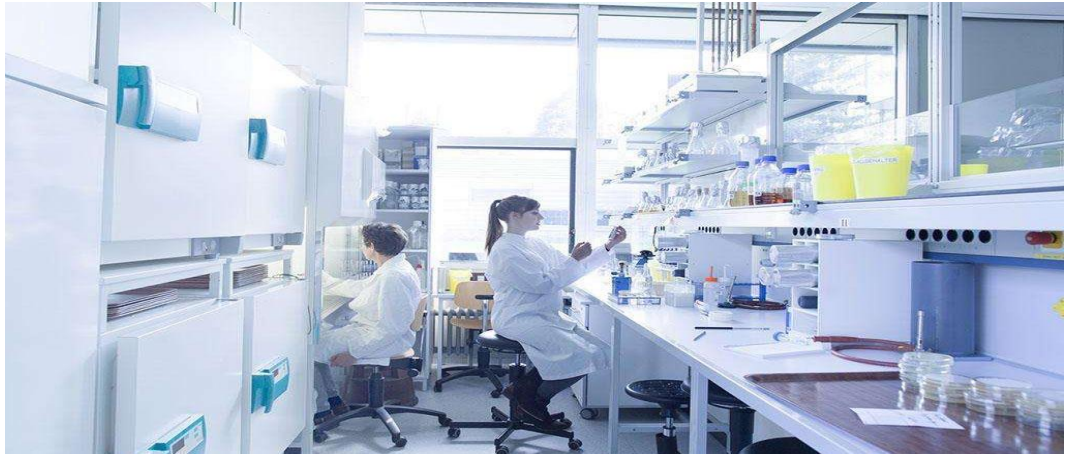
- Gastroenterology. 2017 **(IF:20.773)**
- EMBO Rep. 2018 **(IF:8.749)**
- Int J Cancer. 2014 **(IF:7.36)**
- J Infect Dis. 2008 **(IF:5.186)**
- Carcinogenesis. 2013 **(IF:5.072)**

Therapeutic Target

- JACI. 2016 **(IF:13.258)**
- Cancer Res. 2016 **(IF:9.13)**
- Cancer Res. 2012 **(IF:9.13)**
- Biomaterials. 2018 **(IF:8.806)**
- Aging. 2018 **(IF:5.179)**

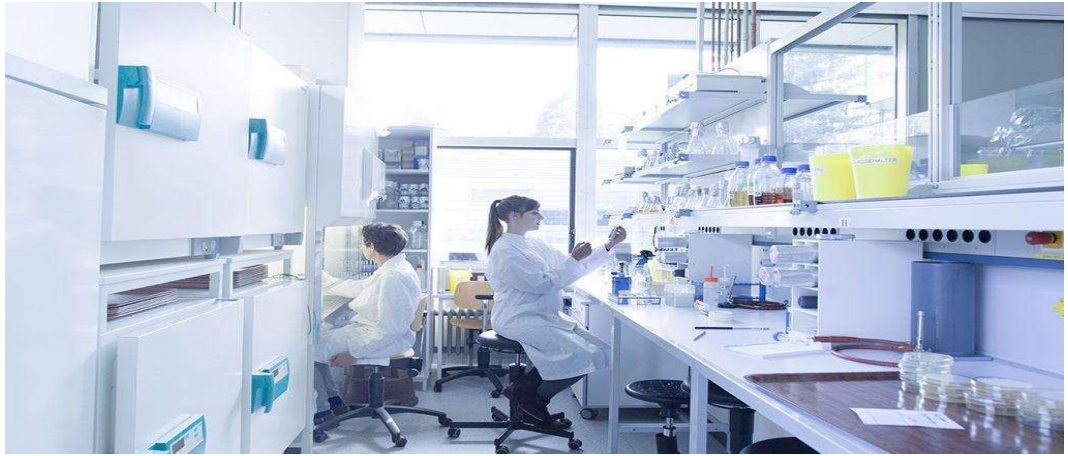


Other people think



Other people think

Indeed what we are doing



卖家秀

Other people think

买家秀

Indeed what we are doing

写 **paper** 之**前**

写 **paper** 之**后**

主要体会

始于创新，成于意义，佐以机制

Novelty Significance Mechanism

A) General rules; The four elements

1. Logic and order. e. g., Introduction part
2. Completion. To cover all the relevant areas
3. Grammar, expression, spelling
4. Format. Every journal is different

Throughout the preparation, submission, and revision

B) Pre-preparation and where to start

Start from data organization, to be very familiar with your data

Think about the central theme

Try to logically arrange the figures

To generate an structured outline! Introduction-M&M-results-discussion; To include as many as possible the major —points‖ ; This is especially important for starters

C) Common structure of a research paper

Title--the conclusion or theme of your study.

Often not a complete sentence, without a verb.

Can be divided, e.g., Epigentic regulation of regulation of Syn-1, implication for preeclampsia

Abstract– a concentrated statement of the theme

Conventional and structured (background, methods, results

Introduction (background)– information on why you chose to

study it; What is the current situation, what is known andunknown; How the previous findings lead to your ownquestion; Why this is a significant question to answer

Materials and Methods

Use standard unit/abbreviation: 1 ml, not 1ml; 1 μl not 1ul;

Statistic methods are absolutely required! Standard deviation/error bars

Logical arrangement of experimental methods, sample collection —mRNA levels—protein levels—functional studies—animal models —confirmatory—pathway investigation

Including in M&M or Results the special points on the technical improvements, quality control, how did you manage to increase specificity or sensitivity—mention your difficulty or failure

For example, evaluation of antibody specificity; Real-time PCR specificity; Can be included as supplemental data

Results

Logical arrangement of data presentation

Sequential description

Organize the data as groups (Figure 1A, 1B, 1C…)

each group to support a major point.

Figure legends: Major experimental parameters (reagents, time,dose, statistical results, but not conclusion/summary)

Transition between paragraphs—why you proceed to the nextexperiment—often ignored, leaving gaps between paragraphs

Not only data presentation, summary/conclusion/illustration of pathway/flow chart can help readers to better understand

Mention in the text that supplemental data as further support;
Supplemental text is short description covering major methods, results, and conclusive remarks

Discussion

This is the most challenging part!

Also most flexible part!

Make extensive connections, anything relevant and reasonable consideration is allowed

Use the outline, to know exactly what you want to say in a paragraph

Take advantage of paragraph, to give yourself and readers a break

Implication for reading papers: concentrate on results, discussion part can be —far-fetched‖, be cautious !

Ideas for discussion:

1) You can start with a brief summary on your findings

2) Compare to others' results: if consistent, what does it mayimply; If contradictory, what could be the reason

3) Comments on the significance. In basic science—how ithelps our understanding; clinical application, even potential ones are OK

4) Comments on methodology, the limitations

5) Unsolved questions, future studies

6) A concluding remarks

Potential Points for Discussion

1) Impact or novelty of your finding, in diagnosis, prognosis, treatment, prevention, or answering a long standing —enigma‖

2) First is very attractive, but be careful to claim

3) Physiological or pathological mechanisms, can be diverged

4) Specific tissue, intra-cellular distribution, localization, spatial and temporal changes, indication of function

5) Does, time curves following treatment, connecting to physiological/pharmaceutical situation

6) Potential pathways, regulation network, positive and negative feedback point out the low possibility of linear connection: A to B to C, but no better ways to investigate

7) Limitations: Do not try to cover up! Technical disadvantage/shortage of design; small patient number; imperfections in the use of control—show your expertise

8) Tissue heterogeneity, individual variations

Potential Points for Discussion--continued

9) Statistical significance verses trend

change of magnitude—put in physiological context

10) endocrine, paracrine, and autocrine mechanisms

11) Different regulation levels.

mRNA level: splicing;

transcription verse mRNA stability;

Protein translation verse turnover;

protein modification: affect stability, P-P interaction, and translocation

12) For clinical research, specificity verses sensitivity; false positive verses negative

13) Toxicity and side effects

14) Genetic verses epigenetic, familial verses sporadic, germline verses somatic

15) The studies underway, do not worry, usually difficult to replicate

Acknowledgement

Often ignored by Chinese authors

Who helped, but not enough or qualified to be a co-author

technical support

Secretary support

The funding sources

Other support you received, e.g, who helped you to collect samples

Reference:

Many papers are rejected by improper citation of references !

Number, not too many, concentrate on the newest

Format varies with each journal, needs to comply

All authors should be listed, unless the journal has special requirement

Citation is conceptual, never to completely copy

Plagiarism

New trend: more and more strict
definition: more than half a sentence
Consequence: serious
Solution: From beginning not to copy

What tense to use? Past or present ?

Either one can be used. Also, mixed usage is often applied bymany authors.

Description of a specific procedure or result, past tense can be used.

General statement of some proven or well recognized theory or phenomenon, present tense is used.

Following (after) the drug treatment, PCNA mRNA levels are significantly increased, indicating the alteration of cell proliferation.

Regarding negative results

Are negative results valuable ? YES! As valuable as positive! Why it is rarely accepted for publication?

--by technical concerns! Any technical failure could lead to negative outcome. To prove negativity is always difficult

Therefore, negative results can only be published when more strict criteria are applied, and all the technical loopholes are readily dealt with.

D）How to prepare cover letter

Dear editor,

The manuscript —(title)‖ by —(authors)‖ is submitted for publication in —(journal)‖.

In this manuscript, we describe—your findings, stress on the novelty, significance, implication

It is our hope that you will find the manuscript is acceptable forpublication. We would like to express our gratitude for the editor and reviewers' time and efforts in evaluation of the manuscript. Please feel free to contact ---

E) How is a paper reviewed

manuscript submitted, PDF approved, you are told it is underreview, congratulations!!!

The manuscript is sent to two or three reviewers for evaluation.

Accepted as it is – rare

Minor revision – you are very lucky! Need to carefully address the minor critiques

Major revision – often requires additional experiments.

Rejection – do not fell sad. On the average, three rejections for each published paper.

Rejection, submit as new paper.

F) How to address the reviewers' critiques

you never hammer the reviewer‖ – Something learned from my mentor.

Reviewers are human beings, usually appreciate your sincerity –

some experiments you tried, but failed, or it is difficult to perform, just tell the truth, hope for the best to happen.

Address the reviewers' critiques point-by-point

G) Words/expression study

Frequently misused/abused words/expression

Unfamiliar, but often used in biomedical literature

By Chinese writers

The following are used too many times in some manuscripts. Be more specific and creative in expression!

Play an important role – contribute to , mediate, lead to, essential, key

be involved in -- participate, take a part in, exert an activity in

Associated with -- related to, coupled to

To our knowledge, this is the first report -- be careful to claim this is the first

Main, major, important – replace with more specific expression:

essential, central, perquisite, dominate, predominant, fundamental, profound

Then, next–subsequently, accordingly

After–following, prior to, proceed

often/usually– frequently, routinely

prove, show – demonstrate, indicate, point to

Study– investigate, delineate, interrogate, explore, examine,

At the same time– simultaneous, in parallel, accompanying, coupled to,

Also– In addition, additionally, moreover/further more,

These words are frequently used in biomedical literature, but not confidently applied by Chinese-written papers

impede, aggravate, reveal, corroborate, facilitate, converge, emerge,
recover, rescue, delineate, compromise, extrapolate,
overestimate, oversimplify, undergo, engage in, promote,
enhance, revert, conduct, substantiate, deliver, penetrate, depict,
dictate, complement, pause, spike, alternate, assume-resume,
attempt contemplate, manipulate

Detrimental, adversary, reciprocal, complicate, confounding,
stringent, inequitable, equivalent, dynamic, divergent, intriguing,
adjacent, restricted, comprehensive, underlying, inverse-reverse,
substantial, mosaic, alternative, concomitant, indicative,
intuitive, genuine, assumptive, desirable, precautious, distinct-distinctive

vicinity, stringency, limitation, constraint, revelation, proposition,
comprehension, alteration, implication, validation, evaluation,
scheme, strategy, enigma, efficacy, deportation, heterogeneity,

Paradoxically, presumably, correspondently, subsequently, consequently, apparently, unexpectedly, evidently, conceivably, simultaneously, alternatively, thereby, seemingly, likely-unlikely, approximately,

Because of, due to, as a result, as a result of, resulting in, as a consequence, leading to

To be reminiscent of, it is noteworthy

It is safe to say, it is important to point out

It is a surprise to observe (surprisingly)

It is paramount to, shed new light, provide insights/insightful information, in support of

On the other hand, on the other side, in contrary， In spite of (despite)

Pave the road for, build a foundation for, open a new research avenue, provide a basis for, add a new dimension to

预祝各位成功！