



**انسیه جنابی - دکترای بهداشت باروری**

# Research Misconduct: Outline

What is research misconduct?

Types of research misconduct?

Dealing with research Misconduct

Publication ethics?

What is salami publication?

How to detect salami publications?

Dealing with salami publication

# Scientific/Research misconduct

- ▶ Research misconduct is defined as **fabrication, falsification, or plagiarism** in proposing, performing, or reviewing research, or in reporting research results.

# ..Scientific misconduct

- ▶ Scientific misconduct includes but is not necessarily limited to
  - Data fabrication;
  - Data falsification including deceptive manipulation of images
  - Plagiarism

<http://www.icmje.org>

# ..Scientific misconduct

- ▶ **Fabrication:** Making up data or results and recording or reporting them.
- ▶ **Falsification:** Manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- ▶ **Plagiarism:** The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

# *Plagiarism*

- ▶ **Plagiarism of authorship**
- ▶ **Plagiarism of copying**
- ▶ **Patch work[Paraphrase]**
- ▶ **Paraphrasing Plagiarism**
  - Do not paraphrase poorly
- ▶ **Unintentional Plagiarism**
  - Paraphrasing poorly
  - Quoting poorly
  - Citing poorly
- ▶ **Self plagiarism**

# *Primary control: Tools*

- ▶ **Plagiarism Detector: Online WebPages**
- ▶ **eTBLAST**: a text-similarity based search engine
- ▶ **Google is excellent; Do search**
  - Consider bold words
- ▶ **Plagtracker.com**
- ▶ **Plagscan.com/seesources**
- ▶ **iThenticate**

# ..Primary control: Tools

The screenshot shows the Dupli Checker website interface. At the top, there is a browser address bar with the URL [www.duplichecker.com/index.php](http://www.duplichecker.com/index.php). The website header features the Dupli Checker logo, a navigation menu with links for Home, Free Tools, About Us, Testimonials, FAQs, Blog, and Contact Us, and a search bar. A banner for a 'Please leave a message...' service is visible, along with statistics for 'Pages Searched' (1346024) and 'Visitors Counter' (2416835). The main content area prompts the user to 'Please Enter Your Text Below And Press Search:' and includes a large text input field. Below the input field, it states 'Maximum 1500 words limit per search.' and 'Total Words: 0'. There is also an option to 'Or Browse a Docx Or Text File:' with a 'Browse...' button. At the bottom, there are 'Search' and 'Clear' buttons. The footer contains the text 'Free Online Plagiarism Checker' and a paragraph describing the service as free plagiarism detection software.

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4 Ren, Weirong, Xingshun Qi, Zhiping Yang, Guohong Han, and Daiming Fan. "Prevalence and risk factors of hepatocellular carcinoma in Budd–Chiari syndrome : a systematic review", European Journal of Gastroenterology & Hepatology, 2013.

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5 Sheiner, E., I. Shoham-Vardi, M. Hallak, A. Hadar, L. Gortzak-Uzan, M. Katz, and M. Mazor. "Placental abruption in term pregnancies: clinical significance and obstetric risk factors", The Journal of Maternal-Fetal & Neonatal Medicine, 2003.

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# Similarity Vs. Plagiarism

**Similarity is different from  
copy/paste and patch working!**

# Dealing with possible misconduct

- ▶ 11.1. Editors have a duty to act if they suspect misconduct or if an allegation of misconduct is brought to them.
  - This duty extends to **both published and unpublished** papers.
- ▶ 11.2. Editors should not simply reject papers that raise concerns about possible misconduct. They are ethically obliged to pursue alleged cases.
- ▶ 11.3. Editors should **follow the COPE flowcharts** where applicable.

# ..Dealing with possible misconduct

- ▶ 11.4. Editors should first seek a response from those suspected of misconduct.
  - If they are not satisfied with the response, they should ask the relevant employers, or institution, or some appropriate body (perhaps a regulatory body or national research integrity organization) to investigate.
- ▶ 11.5. Editors should make all reasonable efforts to ensure that a proper investigation into alleged misconduct is conducted; if this does not happen, editors should make all reasonable attempts to persist in obtaining a resolution to the problem. This is an onerous but important duty.



# Publication ethics



# Criteria of Authorship

The ICMJE recommendation lists four criteria of authorship:

- ▶ Substantial contributions to the conception of design of the work, **or** the acquisition, analysis **or** interpretation of data for the work
- ▶ Drafting the work **or** revising it critically for important intellectual content
- ▶ Final approval of the version to be published
- ▶ Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

# ..Authorship

- ▶ **Ghost Author**
  - May meet authorship criteria or not
  
- ▶ **Guest or Gift Author**
  - Without authorship criteria

# Ghost authors

- ▶ **Professional writers** (often paid by commercial sponsors) whose role is not acknowledged.
  - potential conflict of interest
- ▶ People who made a significant contribution to a research project (and fulfill the ICMJE criteria) but are not listed as authors.

# Gift authors

People who are listed as authors

- ▶ but who did not make a significant contribution to the research and therefore do not fulfill the ICMJE criteria.
  - **senior figures** (e.g. heads of department)

## ..Gift authors

- ▶ Another type of gift author is a colleague whose name is added on the understanding that s/he will do the same for you, regardless of your contribution

**to swell your publication lists**

# آیین نامه نشر آثار علمی و پژوهشی دانشگاه

بسمه تعالی



دانشگاه علوم پزشکی و خدمات بهداشتی درمانی همدان

معاونت تحقیقات و فناوری

## گزیده آیین نامه نشر آثار علمی و پژوهشی دانشگاه

نظر به اهمیت رعایت اخلاق نشر در انتشار مقالات و سایر بروندهای منتج از طرح های تحقیقاتی دانشگاه شامل طرح های تحقیقاتی هیئت علمی، HSR، پایان نامه ها و تحقیقات دانشجویی؛ این آیین نامه به صورت خلاصه با بهره گیری از آیین نامه های ابلاغی وزارت متبوع، مطالب کمیته بین المللی اخلاق نشر (COPE) و کمیته بین المللی سردبیران علوم پزشکی تدوین شده است.

ماده ۱) شرایط نویسندگی (Authorship):

ماده ۱-۱) شخصی نویسنده (یا یکی از نویسندگان) مقاله محسوب می شود که یکی از ۴ معیار مشارکت قابل توجه در ارائه ایده اولیه پژوهشی یا طراحی مطالعه یا جمع آوری داده ها یا آنالیز داده ها و یا تفسیر داده ها را داشته باشد؛ و

# Duplicate Submission

- ▶ Authors should not submit the same manuscript, in the same or different languages, simultaneously to more than one journal.
- ▶ The rationale for this standard is the potential for **disagreement when two (or more) journals claim the right to publish a manuscript** that has been submitted simultaneously to more than one journal, and the possibility that two or more journals will unknowingly and unnecessarily undertake the work of peer review, edit the same manuscript, and publish the same article.

<http://www.icmje.org>



# Duplicate AND Redundant publication

- ▶ Duplicate publication is publication of a paper that overlaps substantially with one already published, without clear, visible reference to the previous publication.

<http://www.icmje.org>

## TABLE 1. Criteria for Redundant Publication\*

---

- a) Similar hypothesis
  - b) Similar sample size
  - c) Identical or almost identical methodology
  - d) Similar results
  - e) At least 1 author in common in both manuscripts
  - f) No new information or new information of little relevance
- 

\*Adapted from the Editors of Cardiothoracic Journals.<sup>14</sup>

# Salami

- ▶ Salami is a type of cured sausage consisting of fermented and air-dried meat, typically beef or pork. Historically, salami was popular among southern and central European peasants because it stores at room temperature for up to 40 days once cut, supplementing a potentially meager or inconsistent supply of fresh meat.



# Salami

sa·la·mi

[sə'lämē] 

## NOUN

1. a type of highly seasoned sausage, originally from Italy, usually eaten cold in slices.
2. **baseball** **informal**  
a grand slam home run.

# Salami publication

- ▶ **Salami publication** or **segmented publication** is a distinct form of redundant publication which is usually characterized **by similarity of hypothesis, methodology or results but not text similarity.**
- ▶ These aspects of publications are not objectively detected by software applications and therefore present a serious threat to publication ethics.

# Salami publication

- ▶ Slicing of data from a single research process into different pieces creating individual manuscripts from each piece to artificially increase the publication volume.

<http://www.icmje.org>

# How to detect salami publication?

- ▶ There is **no software** application or algorithm for detection of salami publication.
  - Identifying this type of publication misconduct is complex because salami publications **do not often include text plagiarism**.
- ▶ Salami publications often report on identical or similar sample size, hypothesis, research methodology and results, and very often have the same authors.

# Some situations when salami publication or redundant publication is allowed

- ▶ Manuscripts based on the same or similar patient sample can be published in more than one journal for a **different population of readers**, for example from an epidemiologist's or clinical chemist's point of view.
- ▶ Publication of professional guidelines in **two or more different languages** is also not considered to be salami or duplicate publication when it is done with the authors' or publishers' consent.



## تبصره ۷ راهنمای کشوری اخلاق در انتشار آثار پژوهشی:

▶ چاپ یک مقاله به دو یا چند زبان مختلف در صورتی مجاز است که سر دبیران همه مجلات ذی نفع از روند مربوطه آگاهی و رضایت داشته باشند و به علاوه در مقاله دوم و بعد از آن به خوانندگان اعلام شود که مقاله قبلا یک یا چند بار به زبان یا زبانهای دیگری منتشر شده است.

# ..Some situations when salami publication or redundant publication is allowed

- ▶ **Follow up investigations** can be published using parts of already published results
- when the new manuscript largely contributes new scientific knowledge.

# .. Some situations when salami publication is allowed

- ▶ In case of large epidemiological studies or randomized controlled trials when a large amount of data is collected, it is almost impossible to present all results in a single manuscript.
  - Framingham cohort study which began in 1948 with 5209 subjects
  - The Nurses' Health Study which started in 1976 with the data on 122,000 nurses

# Salami publication is unethical!

- ▶ Influence on overall knowledge which is the basis for clinical decision making, guidelines, professional recommendations and so on.
  - distort evidence-based medicine by double-counting of data when inadvertently included in meta-analyses.
- ▶ Such misconduct abuses the editor's, reviewer's and reader's time and valuable publishable space at the expense of another truly original article.

# How to avoid salami publication?

- ▶ Every research project has to be defined as clearly as possible from its very beginning.
- ▶ All aspects of the research process,
  - from hypothesis,
  - data collection,
  - researcher's assignments and authorship criteria to manuscript submissionhave to be planned in advance.

# ..How to avoid salami publication?

## Recommendations

- ▶ One conducted study should be reported in one article.
- ▶ Never use the same control group for more than one study.
- ▶ Each control group must be representative to the tested group of a single study.

# ..How to avoid salami publication?

## Recommendations

- ▶ A second manuscript based on already published data should:
  - properly **reference** the previously published article;
  - besides citing the original article, clearly declare that it is **part of an already published study**;

# ..How to avoid salami publication?

## Recommendations

- emphasize all **new knowledge** added in the second manuscript;
- not repeat any of the data presented **in the previous article**;
- give a detailed explanation to the **journal's editor** on all above mentioned points because transparency is crucial.

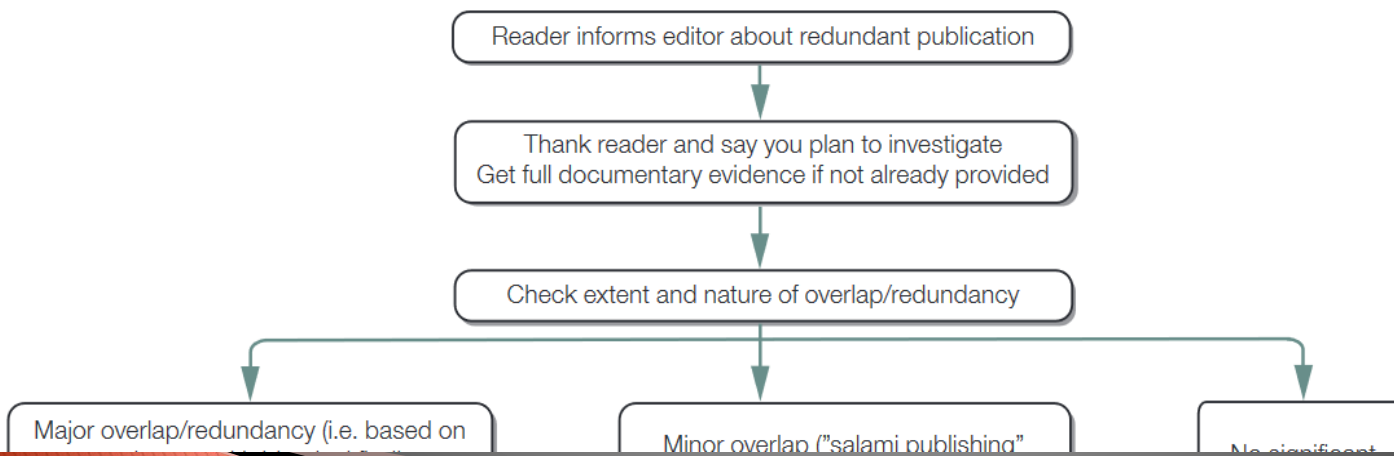


C O P E

COMMITTEE ON PUBLICATION ETHICS

## What to do if you suspect redundant (duplicate) publication

### (b) Suspected redundant publication in a published manuscript



#### Notes

- The instructions to authors should state the journal's policy on redundant publication.
- Asking authors to sign a statement or tick a box may be helpful in subsequent investigations.

Thank you all!

Focus on quality  NOT quantity of publications

The pitfall of salami

# References

- ▶ <http://www.icmje.org>
- ▶ *Smolčić VŠ. Salami publication: definitions and examples. Biochemia Medica. 2013;23(3):237-241. doi:10.11613/BM.2013.030.*
- ▶ Yip C, Han N-LR, Sng BL. Legal and ethical issues in research. *Indian Journal of Anaesthesia. 2016;60(9):684-688. doi:10.4103/0019-5049.190627.*

**Thank you**