

## Title:

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Authors:

Jiao Jiang, Muhan Lü, Xiaowei Tang

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Analysis of retracted articles in the field of gastroenterology

Jiao Jiang<sup>1,2</sup>, Muhan Lü<sup>1,2</sup>, and Xiaowei Tang<sup>1,2</sup>

<sup>1</sup>Department of Gastroenterology. The Affiliated Hospital of Southwest Medical

University. Luzhou, China. <sup>2</sup>Nuclear Medicine and Molecular Imaging Key Laboratory

of Sichuan Province. Luzhou, China

Correspondence: Xiaowei Tang, Muhan Lü

e-mail: solitude5834@hotmail.com, lvmuhan@swmu.edu.cn

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**Keywords:** Retractions. Gastroenterology. Research misconduct. Retraction Watch.

Dear Editor,

Retrospection of retracted articles has important implications for research into the

ethics of academic publishing. A study reviewed all retracted articles in the field of

biomedical and life science research as of May 2012 and found that over two thirds

were retracted due to misconduct (1). Research in gastroenterology is an important

component of the biomedical literature. This study aimed to describe the

characteristics of retracted papers in the field of gastroenterology by searching the

special database, Retraction Watch. Retractions originally published from January

1980 to July 2021 were included.

A total of 583 retracted articles were included for analysis; 76 % of all retractions

were retracted since 2015. Over half were focused on digestive system neoplasms,



especially colorectal cancer, gastric cancer and hepatocellular carcinoma, whereas the other half were based on non-neoplastic disorders. Given that there is a broad spectrum of diseases of the digestive system, we roughly classified the retractions according to the organs involved (Table 1). The nomenclature developed by Retraction Watch to record the reasons for retraction is elaborate. Hence, the exact reasons provided by Retraction Watch were divided into a number of major types. Issue of reliability was the reason behind 37.7 % of all retractions. Duplication and self-plagiarism accounted for 27.4 % of retractions (Table 1).

A rise in the number of retractions in recent years was observed in our study. It could be partly attributed to the increasing number of publications and a higher rate of the detection of flawed studies due to more stringent regulations by the academic community and governors.

The time lag between publication and retraction should be also considered (2). Malignancies mentioned above are major public health problems and leading causes of cancer-related death (3,4). Considering the resultant efforts to address these challenges, we deduced that the large number of retractions was due to many publications centering on these topics.

With regard to the reasons for retraction, conflict of interest is an important issue of concern (5), although only three papers were retracted for improperly declaring the conflicts of interest. Since a paper could be retracted for committing different types of misconduct simultaneously, it is not reasonable to add up the percentages to determine the degree of misconduct by authors. However, the fact that only about a quarter were due to errors indirectly reflected that a considerable proportion of these publications were retracted due to misconduct.

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Table 1. Distribution of fields and reasons for retraction of articles

Characteristics	Number of retractions, n (%)
Field	
Digestive system neoplasms	297 (50.9)
Colorectal cancer	79 (13.6)
Gastric cancer	71 (12.2)
Hepatocellular carcinoma	68 (11.7)
Other types of neoplasms	79 (13.6)
Non-neoplastic disorders	286 (49.1)
Gastrointestinal tract	124 (21.3)
Liver	71 (12.2)
Biliary tract	17 (2.9)
Gut microbiota	16 (2.7)
Pancreas	10 (1.7)
Other	48 (8.2)
Reasons for retraction*	
Reliability <sup>†</sup>	220 (37.7)
Investigation <sup>‡</sup>	186 (31.9)
Duplication/self-plagiarism§	160 (27.4)
Plagiarism	122 (20.9)
Error by author <sup>  </sup>	118 (20.2)
Limited information <sup>¶</sup>	97 (16.6)
Lack of approval or informed consent	78 (13.4)
Falsification/fabrication**	74 (12.7)
Compromised peer review	63 (10.8)
Paper mill	30 (5.1)
Error from journal/publisher	23 (3.9)
Other misbehavior by author <sup>††</sup>	164 (28.1)
Others	100 (17.2)

<sup>\*</sup>An article could be retracted for many reasons as defined by the Retraction Watch, and not all reasons were included in the table. †Concerns/issues about data, image,



results and referencing/attributions. Unreliable data, image and results and the results were not reproducible. <sup>‡</sup>Investigation by journal/publisher, company/institution, third party or United State Office of Research Integrity (ORI). §Duplication of image, article, text or data, and euphemisms for duplication. |Error in data, image, methods, analyses, text, materials, results and/or conclusions. Notice with limited or no information or unable to access via current resources, or lack of notice. Date of retraction/other unknown and upgrade/update of prior notice. \*\*Falsification/fabrication of data, image, or results and manipulation of image, or results. \*\*Other types of misconduct that do not fall into the classifications described above.