# Corrections to journal articles supported by European and US research grants: a cross-sectional study, 2014-2022

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# Objective

• To assess the number and content of corrections to publications supported by two EU and two US funding agencies.

- EU H2020 programmes:
  - MSCA
  - ERC
- US funding agencies:
  - NSF
  - NIH



## Methods



Retrieve information on the articles:

Publication year: 2014-2022

Publication stage: final stage

Funding agency: ERC, MSCA, NIH, NSF

Document type: erratum

#### Variables:

Temporal changes in the number of corrections; differences between the two indexing databases and the four funding sources

Manually collect the errata notices from the obtained articles

"Erratum is a report of an error, correction or retraction of a previously published paper" (from Scopus)

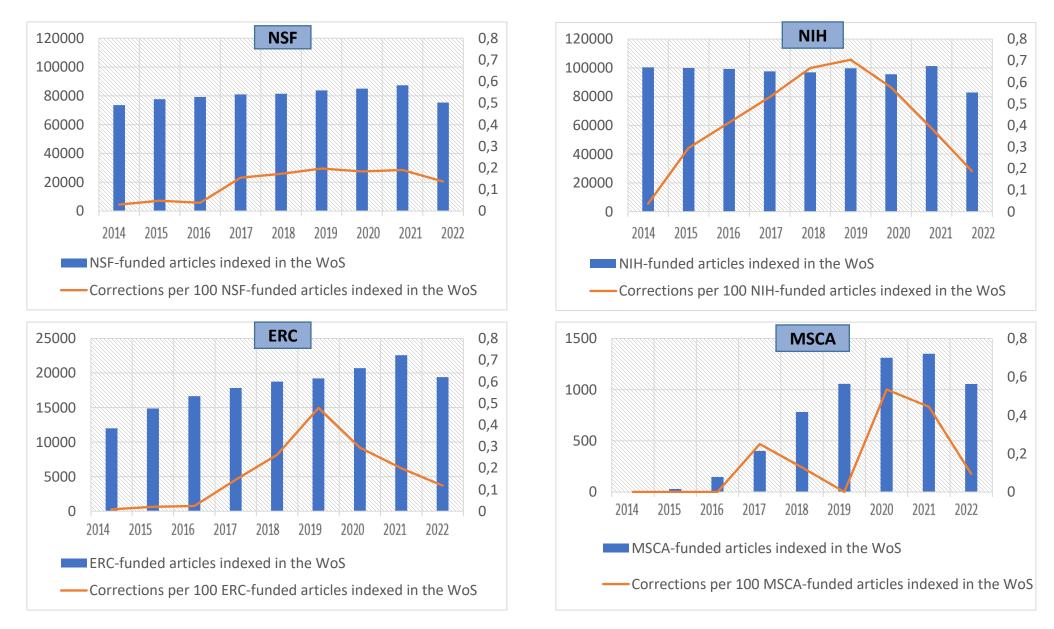
#### Variables:

The type of corrections and their differences across the four funding sources

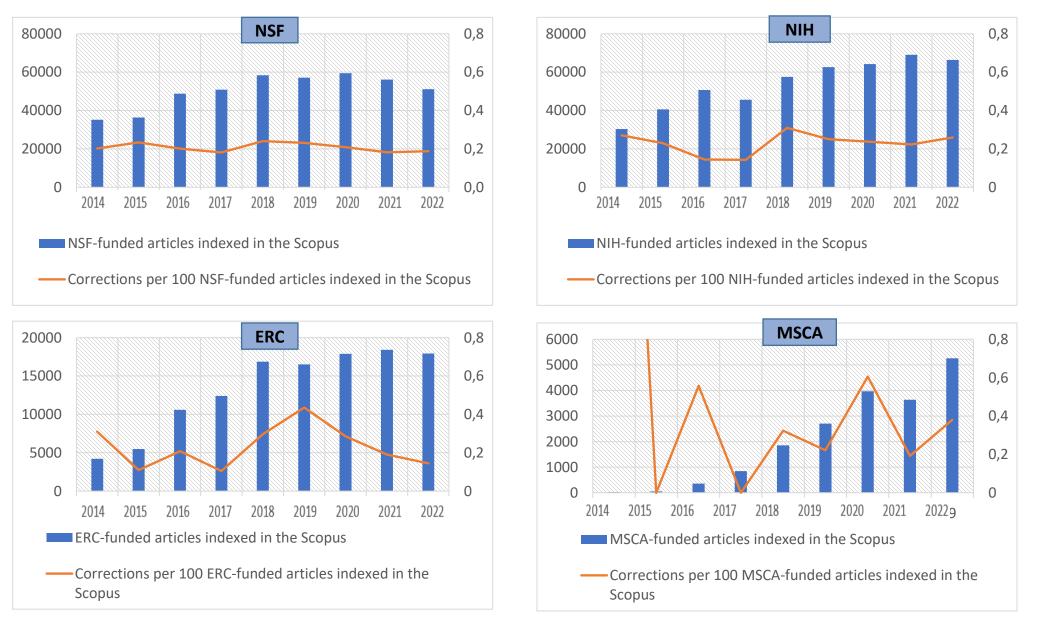
# Results

**Table 1.** The number (percentage) of corrected articles and total number of indexed articles funded by the four major funding agencies, across the two databases

	MSCA		ERC		NIH		NSF	
	Number of	Total	Number of	Total	Number of	Total	Number of	Total
	errata	number of	errata	number of	errata	number of	errata	number of
		articles		articles		articles		articles
WoS	16	6 132	304	162 047	3 700	872 587	944	724 406
	(0.26%)		(0.19%)		(0.42%)		(0.13%)	
Scopus	66 ( <b>0.35%</b> )	18 698	288 ( <b>0.24%</b> )	120 275	1 126 ( <b>0.23%</b> )	486 862	940 ( <b>0.21%</b> )	453 279
	,		,		,		,	



**Figure 1.** Percentage of corrected articles and total number of WoS-indexed articles funded by the four major funding agencies, 2014-2022.



**Figure 2.** Percentage of corrected articles and total number of Scopus-indexed articles funded by the four major funding agencies, 2014-2022.

## **Funding**



Missing declaration; Omission of a funder or grant number;
Misspelled funder or grant number

#### **Authors list**



Incomplete list of authors; Missing, misspelled, or incorrect author's name, affiliation or title

#### Article errors



Mislabeled tables and figures; Typos and errors in the article's text, formulas, or code; Missing references; Statistical errors

## **Publication**



Changed copyright or license; Republished in a special issue; Production error

## Misconduct



Image manipulation; Data fabrication; Taking credits

#### COI



Missing conflict of interest (COI) statement; Error or omission in the COI statement

- 2 286 notices in total:
  - EU: 329 (14.4%)
  - US: 1939 (84.8%)
  - Both EU and US: 18 (0.8%)

#### EU:

- ERC: 265 (12.24%)
- MSCA: 58 (2.7%)

#### USA:

- NIH: 1019 (46.8%)
- NSF: 835 (38.4%)

**Table 2.** The number (%) of corrected articles by reason of correction, between US and EU-awarded research grants

Reason for correction	Total	EU	US	EU+US funder	P (χ <sup>2</sup> )
Funding	1473 (64.4%)	268 (81.5%)	1193 (61.5%)	12 (66.7%)	<.001
Author list	147 (6.4%)	9 (2.7%)	137 (7.1%)	1 (5.6%)	.012
Article error	662 (29.0%)	54 (16.4%)	604 (31.2%)	4 (22.2%)	<.001
Publication	15 (0.7%)	2 (0.6%)	13 (0.7%)	0 (0%)	.934
Misconduct	2 (0.1%)	0 (0%)	2 (0.1%)	0 (0%)	.836
COI	19 (0.8%)	0 (0%)	18 (0.9%)	1 (5.6%)	.020

**Table 3.** The number (%) of corrected articles by reason of correction, across the four major funding agencies

Reason of	Total	ERC	MSCA	NIH	NSF	P (χ <sup>2</sup> )
correction						
Funding	1389 (63.8%)	208 (78.4%)	52 (89.7%)	695 (68.2%)	434 (52.0%)	<.001
Author list	136 (6.2%)	9 (3.4%)	0 (0%)	74 (7.3%)	53 (6.3%)	.025
Article error	644 (29.6%)	46 (17.4%)	7 (12.1%)	246 (24.1%)	345 (41.3%)	<.001
Publication	15 (0.7%)	2 (0.8%)	0 (0%)	7 (0.7%)	6 (0.7%)	.934
Misconduct	2 (0.1%)	0 (0%)	0 (0%)	1 (0.1%)	1 (0.1%)	.946
COI	18 (0.8%)	0 (0%)	0 (0%)	15 (1.5%)	3 (0.4%)	.018

## Conclusions

- Funding is the major reason for article correction, followed by errors in article text.
- EU- funded articles were more often corrected due to funding related issues, compared to US-funded articles.
- US-funded articles were more often corrected due to article errors, compared to EU-funded articles.
- The number of corrections is low compared to the volume of publications funded by major global funding agencies.
- However, the differences among the indexing databases create problems in identifying corrected literature.
- This may have adverse effect on the integrity and trustworthiness of literature sources.

