

### **FAQs**

### How many scientific papers get retracted each year?

Although the total number of retractions worldwide is over 40,000 papers, that represents less than 1% of the total scientific output. Comparatively, Australia has around 400 retracted papers a year. However, the rate at which retractions are occurring is increasing.

One of the reasons for this is that researchers are under extreme pressure to publish articles, have them cited and gain grants.

#### Why is NeuRA involved in Retractions Australia?

One of NeuRA's core values is integrity and this means adhering to a high standard of scientific output. We want to be part of the solution by ensuring scientific standards are as high as possible.

Retractions Australia is just one initiative that is aimed at increasing transparency in scientific research. Another is the launch of the QuOCCA (Quality Output Checklist and Content Assessment).

QuOCCA is a simple checklist that will assist researchers to ensure their research quality is of the highest standard. It is available for free on the NeuRA website: <a href="https://www.neura.edu.au/about/research-quality">www.neura.edu.au/about/research-quality</a>

### What does NeuRA hope to achieve?

In the long-run, we believe both Retractions Australia and the QuoCCA tool will help to foster a culture of openness, reproducibility, and continuous improvement in scientific research – both internally at NeuRA and more broadly in the field of medical research.

# Is Retractions Australia harming the reputation of the researchers/institutions named?

It is important to note that Retractions Australia aggregates information that is already publicly available via Retraction Watch (US).

Secondly, not all retractions involve questionable scientific practices. There are instances where exposure of an analysis, machine or human error has helpfully corrected the scientific literature. Unfortunately, studies that have been retracted can still be quoted and this is a continuing problem. This reinforces the importance of Retractions Australia as these records stay live.

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Reaction Watch (US) has led to much a greater awareness of retractions and of the behaviours that lead to a retraction. Their influence has been beneficial.

<u>Key takeaway:</u> Ultimately, it is hoped that Retractions Australia improves, rather than harms, the field of scientific research by being a constructive force in upholding scientific standards and public values of integrity and transparency.

## Do a high number of retractions from a university mean that institution is unreliable?

Not at all. The presence of an institution in the 'Top 10 Institutions' table is not an indicator of the integrity of any institution that appears. It simply indicates that articles published by a researcher affiliated with that institution have been retracted following publication. An institution may appear on this top 10 list because it is vigilant in detection and taking action on papers that require retraction.

### What is needed to create systemic change?

Change is needed throughout the whole system of how science is performed and reported. Junior scientists need to learn about high quality practices all the way up to journals and publishers knowing how to check publications in a much more rigorous way than they do now. We all have a role in this - institutions need to have ways to train and openly offer feedback to researchers. This reiterates the importance of research quality committees and accessible tools like the QuOCCA.

