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1781 - Appearances can be deceptive: why animal research is underrepresented in the comments section?

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Introduction: The letters to the editor are one of the ways to contribute to scientific validation. Despite being an important tool, it is a process that is far from perfect, as it is slow and expensive. On the other hand, there are comments repositories in the less regulated and non-profit platforms, like PubPeer. These communications are poorly valued and spread in scientific society though. Although these interactions are beneficial to the scientific community, this practice does not seem to be diffuse equally among different types of research. **Objective:** To quantify the proportion of comments/letters to the editor in clinical and pre-clinical research. **Methods:** Data were extracted from PubMed, framing only 4 subfields (cardiology, nephrology, pulmonology, and oncology) in a time interval of 30 years (1990 to 2019). In addition, the administrators of PubPeer were contacted to provide a sample of 5,000 randomly selected comments. Data were analyzed in order to categorize research in humans or animals. **Results:** In PubMed, a total of 2,964,571 original articles with humans and 891,815 with animals were found, in which only 7,414 letters addressed animal studies and 113,561 letters addressed human studies. When the result was corrected for the total number of articles in each category (humans or animals) an average of 5 times more letters were found associated with clinical studies than in fundamental counterparts. Regarding PubPeer data, after categorizing the studies as human, animal, or both, we noticed that 34.6% of the comments were about exclusive clinical studies, while 23.2% of the comments were about exclusive pre-clinical studies. This is only 1.5 times in favor of clinical studies with no correction for the total number of articles in each field. **Conclusion:** We conclude that fundamental science is underrepresented in the letters to the editor section in the traditional publishing format journals. Data from PubPeer indicates that fundamental science researchers do comment when there are no policy or editor barriers. Current policies should be changed to incentivize the valuable participation of those who dedicate their time to promote post-publication appraisal and scientific self-cleanliness, mainly for the pre-clinical scientists.