Scientific yellow journalism

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Today, more than ever before, the importance of conducting responsible research is vital. New mass media technologies, allowing for the rapid distribution of news, enable researchers across the world to publicize their latest discoveries to a vast audience. The problem arises when inconclusive research is disseminated, with results that are exaggerated, misinterpreted or even fabricated. We, as scientists, have a responsibility to be brutally critical towards our own research, as well as that of our colleagues. Unfortunately, due to the system of publishing fast, often and in high-impact factor journals, scientists are under greater pressure to produce quantity, at the expense of research quality.

This problem of exaggerating results is especially evident in the field of environmental toxicology, where reports about chemicals, often incorporated in plastics used for food packaging, beauty products, children's toys and baby products are broadcast on a daily basis to an audience that is unfamiliar with the actual studies behind these reports and the "traditions in toxicological research" of overdosing animals to extreme levels in order to obtain an effect. We certainly cannot claim that chemicals are not dangerous—many of them are—but scaring the public with continuous press releases based on dubious results is not only irresponsible but, similar to the boy who cried wolf, it can only serve to obstruct the entire field when the public grows weary of the never ending alarms, later rescinded because more responsible research is finally carried out.

Therefore, it is critical that responsible research is performed, studies are thoroughly executed using various model systems—with a critical approach and doses that are more representative of environmental exposures—and we are sure of our results before going public.