Editorial

Data Integrity

I write to alert the organic chemistry community to a serious problem related to the integrity of data being submitted for review and publication by *Organic Letters* and to outline steps that the Journal is taking to address this concern. Recently, with the addition of a Data Analyst to our staff, *Organic Letters* has begun checking the submitted Supporting Information more closely. As a result of this increased scrutiny, we have discovered several instances where reported spectra had been edited to remove evidence of impurities.

Such acts of data manipulation are unacceptable. Even if the experimental yields and conclusions of a study are not affected, ANY manipulation of research data casts doubts on the overall integrity and validity of the work reported.

The ACS, like many other organizations, has guidelines on the ethical practice of research (http://pubs.acs.org/page/policy/ethics/index.html). The ACS guidelines clearly state: "An author's central obligation is to present an accurate and complete account of the research performed, absolutely avoiding deception, including the data collected or used, as well as an objective discussion of the significance of the research. Data are defined as information collected or used in generating research conclusions." It is important to note that all authors who publish in ACS journals must acknowledge their adherence to these guidelines as part of undertaking the submission of their work for consideration by an ACS journal.

The Associate Editors and I give notice to the community that *Organic Letters* will enforce these guidelines and will assess significant penalties for infractions that entail data manipulation.

In some of the cases that we have investigated further, the Corresponding Author asserted that a student had edited the spectra without the Corresponding Author's knowledge. This is not an acceptable excuse! The Corresponding Author (who is typically also the research supervisor of the work performed) is ultimately responsible for warranting the integrity of the content of the submitted manuscript. As Noyori and Richmond stated recently, "Senior scientists have an obligation to instill strong ethical and moral values in their progeny" (Ethical Conduct in Chemical Research and Publishing, *Adv. Synth. Catal.* **2013**, *355*, 3–9). *Organic Letters* applauds that sentiment.

The responsibility to foster a research environment where all involved can confidently present their results, even if they are not optimal, resides with each research supervisor and Corresponding Author. At times, the inherent power of a research advisor's position can create an atmosphere that leads some to embellish results. In this vein, I echo the recommendation of the IAP-IAC Committee on Research Integrity (*Responsible Conduct in the Global Research Enterprise: A Policy Report*, InterAcademy Council / IAP — the global network of science academies, 2012, http://www.interacademies.net/File.aspx?id = 19789): "Research institutions need to establish clear, well communicated rules that define irresponsible conduct and ensure that all researchers, research staff, and students are carefully trained in the application of these rules of research.

Research institutions also need to create an environment that fosters research integrity through education, training, and mentoring and by embracing incentives that deter irresponsible actions." (boldface added for emphasis).

To be sure, the good news is that these ethical violations comprise only a small fraction of the data submitted to the Journal. Nonetheless, we will continue to examine closely the data submitted by our authors and, as warranted, will enact sanctions on the Corresponding Author, as the responsible person, for any falsification in the reporting of data that originates from that individual's laboratory.

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Editor-in-Chief

Views expressed in this editorial are those of the author and not necessarily the views of the ACS.

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