

Ending the tyranny of the impact factor

The San Francisco Declaration on Research Assessment (DORA), an initiative spearheaded by the American Society for Cell Biology, aims to reform research assessment.

The past year has seen several important developments within the cell biology community, most notably the award of the Nobel Prize in Physiology or Medicine in December 2013 to Drs Rothman, Schekman and Südhof, in recognition of their ground-breaking contributions to the field of cellular trafficking. We join many others in congratulating the winners, and we have no doubt that their work will inspire future generations of cell biologists.

Earlier in the year, an initiative led by the American Society for Cell Biology, with journal editors, publishers and other stakeholders, resulted in the San Francisco Declaration on Research Assessment (DORA; <http://www.ascb.org/dora/>). It was a pledge to move away from an over-reliance on journal impact factor and to seek new ways of assessing research output. To this end, DORA makes recommendations for various stakeholders, including funders, publishers, researchers and institutions.

Over the years, we and other Nature journals have published numerous Editorials highlighting the limitations of journal impact factors and bemoaning their misuse as a proxy for the quality of individual papers. We therefore welcome a shift to a more holistic model for research assessment that considers diverse measures of impact and multiple research outputs generated by researchers, and evaluates the merits of individual bodies of work. In fact, our editorial policies are broadly consistent with the spirit of DORA and, more specifically, with the principles outlined for publishers. For example, improving mechanisms for providing credit for authorship has been a priority for Nature Publishing Group (NPG) and, since 2009, Nature journals have required that published manuscripts include an 'Author Contributions' statement outlining the contributions of individual authors. More recently, in collaboration with Altmetric LLP, we started providing metrics on the online attention garnered by an article, including citations, page views, coverage in news outlets, blog posts and tweets (see, for example, <http://go.nature.com/7B1crW>). Metrics on online usage, however, are not without their own limitations; research papers in some highly active areas or of direct interest to the general public are more likely to gain greater online visibility. Since 2009, *Nature Cell Biology* has also increased its reference limits by 40%, now allowing up to 70 references for the Article format — and we strongly encourage authors to cite the primary literature as far as possible, certainly when discussing specific findings (*Nat. Cell Biol.* **11**, 1; 2009). Reference data for all articles published in Nature titles are also available for reuse through NPG's Linked Data Platform under the Creative Commons 0 waiver (http://www.nature.com/press_releases/ldp.html). Our policies

also extend to increasing visibility of and access to data sets by providing accession codes in a distinct tab display online, and linking out to the data sets from the paper (see, for example, <http://go.nature.com/I8wvg3>) — and, along the same vein, we plan to introduce data citations in 2014. In May 2014, NPG will also launch Scientific Data (<http://www.nature.com/scientificdata/>), an online-only, open-access publication dedicated to publishing 'data descriptors', a new content type intended to make data more discoverable and reusable.

Today, journal impact factor is all too often conflated with journal reputation, with ensuing frustrations for researchers and journal editors. We at *Nature Cell Biology* are not immune to these frustrations but, nevertheless, our abiding mandate remains to publish research papers of the highest quality across a broad swath of cell biology. Although journal impact factor is now a primary consideration when authors are deciding where to submit their papers, we also hear repeatedly from researchers that the reach of a journal in a particular discipline, the quality of the papers that the journal has published in specific subject areas, and the interactions that researchers have had with editors, continue to be important criteria, as they were in the years before the impact factor obsession.

Series on Genomic Instability

In this issue, we present the first Review in a series covering current knowledge of genomic surveillance mechanisms.

The maintenance of genomic stability is crucial to prevent human diseases such as cancer. This month, we are pleased to launch our Series on Genomic Instability featuring Reviews covering key aspects of mechanisms causing failure in genome duplication, segregation and repair. We begin in this issue with a Review by Zeman and Cimprich highlighting current knowledge of the causes and consequences of DNA replication stress. They discuss how aberrant DNA structures may form, how the cell responds to these challenges and how defects in the replication stress response can result in disease.

A subsequent Review, to be published in the coming months, will discuss mechanisms generating multipolar spindles, a feature linked to aneuploidy and cancer. It will be followed by a Review presenting recent insights into how stem cells cope with DNA damage to preserve genome integrity and stem cell function. The final Review will focus on how the genome is spatially reorganized and how translocations form as a consequence of DNA breaks. This series does not aim to provide a comprehensive overview of the field, but to highlight some interesting aspects that are currently under intense investigation. In the spring, the Reviews will be hosted on a dedicated section of the *Nature Cell Biology* website and will be accompanied by a collection of relevant articles published in *Nature Cell Biology* and other Nature journals. We thank our authors for their contributions and hope that our readers find the Reviews stimulating and enjoyable.