

## Happy Birthday *JCI*

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### Editorial

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# Happy Birthday JCI

**On the occasion of the ninetieth anniversary of the JCI, I am again humbled by the remarkable insight and passion of our pioneering founders when they created the *Journal of Clinical Investigation* in 1924.**

While a lot of changes have taken place in the *JCI* since its launch, our core mission has remained: to provide a platform for communicating the discoveries that provide insight into the mechanisms of disease. We have largely stayed true to our mission. It is obvious that medical research and scientific publishing have been remarkably transformed over the past ninety years with the proliferation of journals, online publishing, globalization of research, and technology allowing investigators to perform almost any experiment they (or the reviewers) can imagine. However, what has not changed is our desire to publish the best scientific discoveries in biomedicine.

In his inaugural editorial in 1924, Alfred Cohn laid out the rationale for starting the *Journal* (1). Cohn's thoughts were strongly influenced by the brilliant French physiologist Claude Bernard, who wrote, among many other aspects of experimental medicine, about the spirit of the great scientist who is stimulated by a "thirst for penetrating into the unknown" (2). In the 1920s, medicine was changing rapidly with hospitals providing clinicians with laboratories to pursue clinical investigation into the mechanisms of disease. Cohn believed that the purpose of the *Journal of Clinical Investigation* was to provide a way for clinician scientists to contribute to an increase in knowledge by giving expression to their scientific spirit. In 1974, on the occasion of the fiftieth anniversary of the *Journal of Clinical Investigation*, Jean Wilson, the Editor in Chief at the time, expanded on this concept for the *JCI* by stating that future Editorial Boards and Editors need to continue "to set high standards of scholarship

and excellence in medical science" and "... of equal importance, to chart a course that will allow the *Journal* to reflect the adventure of science" (3).

Now, ninety years later, it is worth some time to reflect on who and what we are. In 1924, the *JCI* published just 32 papers. By 1927, the number of publications was up to 57, with an acceptance rate of 71%. In the past 12 months, we received ~4,500 manuscripts and published 389, with an acceptance rate of 8%. Yes, a lot has changed! However, I would like to comment on four core aspects of the *JCI*: the kind of science we publish; peer review; our constituents; and data integrity.

We continue to strive to publish scientific discoveries that fundamentally help us understand disease mechanisms, which is consistent with our reputation of publishing comprehensive stories that span the gamut of in vitro and in vivo experimentation. In the mid-1800s, Claude Bernard famously noted that proof that a condition is the immediate cause of a phenomenon can only be established when the condition is removed and the phenomenon no longer appears. Amazingly, he recognized the extraordinary value of the loss-of-function experiment in determining causation. It is no wonder, then, that the overwhelming number of papers published in the *JCI* feature mouse genetic knockouts in their experiments. However, true to our early roots, we are also trying to bring back the "Clinical" to the *Journal of Clinical Investigation*. With our new article category called *Clinical Medicine*, introduced in December 2012, we are publishing human clinical trials that test the effectiveness of new therapies or procedures that have the potential to change the practice of medicine.

Peer review began at the *Journal* in 1942 when the Editor, James Gamble, established the policy of sending papers to outside experts for evaluation (5). Since that time, peer review has become a staple of our editorial adjudicative process. Over time, though, requests by reviewers for the addition of many experiments has markedly increased the time to publication, often without appreciably affecting the central message of the paper. To reverse this trend, I charged our current Editorial Board to intervene if they believe reviewers are requesting excessive additional experimentation (6). Only time will tell how this policy will affect the review process, but I am hopeful it will have a positive effect for the scientific community.

We have been listening to our constituents, many of whom are members of the American Society for Clinical Investigation, who sought a benefit beyond the honor and prestige of election to the ASCI. In response, in February 2014, we initiated a policy of allowing ASCI members in good standing a guaranteed external review for one submitted paper per year. We are tracking the success of these papers, and in early 2015, I will report the data on their performance in review and eventual publication, since they met the standard of excellence that we apply to all manuscripts.

As I mentioned in a previous editorial, one of the saddest parts of my job as Editor is to investigate issues related to data integrity. Many incidents — some involving data quality, others involving data integrity — are identified during the review process by our eagle-eyed reviewers and Editorial Board, in part because of our policy requesting original immunoblot data. However, other cases are brought to our attention after publication by other scientists or anonymous whistleblowers who troll the vast scientific literature. Investigating each allegation is an enormous effort, but as Editor, I believe it is my responsibility to ensure that the scientific record we publish is correct. While many inconsistencies are innocent errors that are easily remedied, a considerable number are not. My hope, however, is that we as scientists pay greater attention to how

data are generated in our laboratories and thoroughly review all primary data prior to publication; mentor our trainees in setting the highest standards of data integrity and record keeping; and remain vigilant for potential misconduct.

So, I often ask myself, how do we maintain the level of excellence at the *JCI* that the many past Editors have worked so hard to achieve? In a series of terrific books, the author and business consultant James C. Collins III has explored the factors that were associated with companies being able to transition to greatness, while their peers in similar competitive environments faded away (7, 8). He and his research team found that, remarkably, discipline and staying focused on their core mission

typified the companies that were able to succeed and remain great. After ninety years of existence, twenty-three Editors, eighteen Editorial Boards, and hundreds of thousands of papers later, I believe we have remained true to our mission, as articulated by Alfred Cohn: “It is this spirit [thirst for discovery] to which the *Journal of Clinical Investigation* desires to give expression. It is a spirit which the *Journal* wishes to foster and of which it hopes to be worthy” (1). Happy Birthday!

**Howard A. Rockman,  
Editor in Chief**

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