

Editorial

Giuseppe Lippi, Philippe Gillery, Steven Kazmierczak, Karl J. Lackner, Bohuslav Melichar, Gérard Siest, John B. Whitfield, Heike Jahnke and Mario Plebani

***Clinical Chemistry and Laboratory Medicine:* progress and new challenges for our 50-year-old journal**

A half century celebration offers a formidable opportunity to ‘look back for moving forward’. First of all, it is a great honor and a privilege to take part in this celebration as the history of this journal reflects the advancement and evolution of laboratory medicine over time. After changing its name from *European Journal of Clinical Chemistry and Laboratory Medicine* (*Eur J Clin Chem Lab Med*) to *Clinical Chemistry and Laboratory Medicine* (here referred to as *CCLM* or the *Journal*), the *Journal* has impressively increased its popularity and success [1]. The creation of the *CCLM* website (available at: <http://www.degruyter.com/view/j/CCLM>) in 1998, last updated in late 2011, has contributed to ease of access to the articles and improving the services provided to authors and readers. The website is directly linked with important biomedical research platforms such as PubMed and Google Scholar, which helps to find articles published in *CCLM* rapidly [2]. Articles published online only and no longer in the printed edition – as Letters to the Editor and congress abstracts will be from 2013 – will still be indexed in PubMed or the Thomson databases. In addition to the increasing focus on online publication, *CCLM* has provided a convenient and easily accessible online submission and peer review platform since 2004.

Besides its prominent role as a high level journal in the field of laboratory medicine, *CCLM* has been chosen by the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) and by the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) to be the official journal for publication of their recommendations. In this regard, *CCLM* has published key documents dealing with major areas of laboratory medicine (e.g., reference values, enzymology, metabolic markers) that confer on the journal a reference position in the international literature.

The scientific ‘impact’ of *CCLM* has two components. First, in editing a journal for those who work in laboratory medicine, we aim to provide information and a resource

which will improve the practice of our subject and therefore improve healthcare. The quality of our scientific content is reflected by the number of citations and the Impact Factor [3, 4]. *CCLM*’s scientific impact has been increasing since the name change in 1998. Between 1998 and 2011, the mean number of citations per year was 2200, and the number has increased across this period reaching 4770 in 2011. It is noteworthy that this positive trend has only been modestly influenced by self-citations, which accounted for <10% of the overall number of citations of the *Journal*. As expected from the increasing citation rate, the impact factor of *CCLM* has increased between 1998 and 2011. In 1999 – the year when the *Journal*’s name was altered in the Thomson databases – *Eur J Clin Chem Lab Med* left an impact factor of 1.489. *CCLM* has reached 2.150 in 2011, for an absolute and relative increase of 0.661 and 44%, respectively (Figure 1). This has been even more pronounced in the past 5 years, increasing from 1.741 in 2007 to 2.150 in 2011 (i.e., +24%).

In this context, we highlight a number of valuable articles published in *CCLM* which have substantially contributed to increasing the popularity of the *Journal* and the relative impact factor, through the high number of citations these papers have received in recent years. Overall, the most cited *CCLM* article in the Thomson database (226 citations from 1998 to 2012, 309 citations in Google Scholar in the same period) is ‘Developments in quantitative PCR’ by Orlando et al. [5]. Among the articles published in the past 2 years, the most cited is a clinical article dealing with the Risk of Ovarian Malignancy Algorithm (ROMA) for estimating the risk of epithelial ovarian cancer [6], followed by a collective paper about preanalytical variability [7] – a topic broadly targeted by this *Journal* – and an opinion paper by Samama and Guinet that discusses the leading issues in the assessment of novel anticoagulants [8].

To underline the importance of the impact factor in general and for *CCLM* in particular, the editors of this *Journal* and de Gruyter publisher established the “*CCLM*

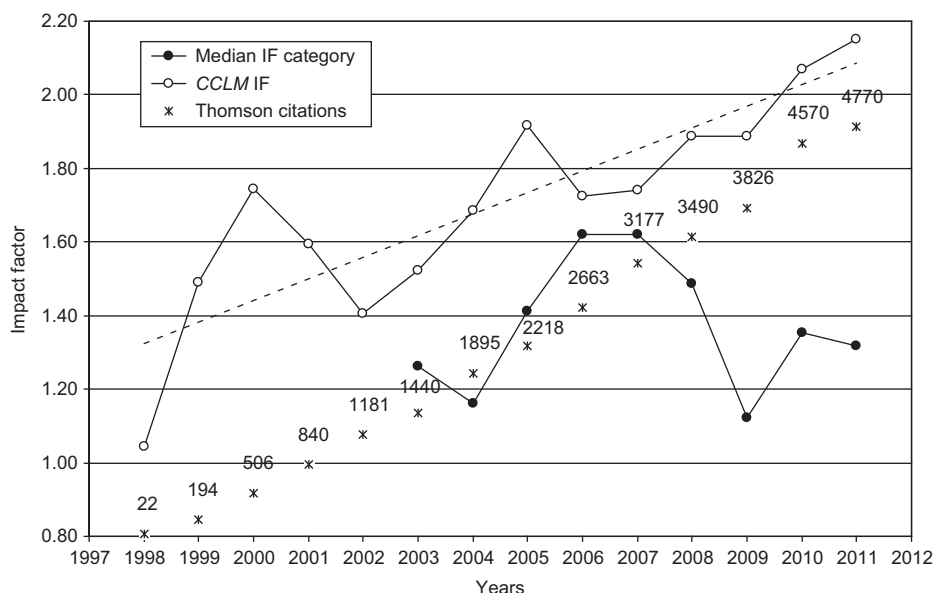


Figure 1 Evolution of impact factor (IF) of *Clinical Chemistry and Laboratory Medicine* (CCLM; o), median IF of journals listed in the Medical Laboratory Technology of the Thomson database (●) and the overall number of citations of CCLM (x). The dotted line expresses the linear regression between the IF of CCLM and the years from 1998 through 2011.

Award for The Most Cited Paper Recently Published” in 2008. The Award is presented every 3 years at the IFCC WorldLab congresses. The Award honors the most cited original research articles published in the past 3 years before the congress to show appreciation for authors who publish with CCLM. The next Award will be given out at the IFCC WorldLab Congress in Istanbul in June 2014 for the three most cited articles published between 2011 and 2013.

Despite the positive progress of CCLM, new challenges (which tend to affect all scientific journals) have appeared. Our efforts as editors have been focused not only on improving the quality of the published articles, along with success and popularity of the *Journal*, through increasing the expert contributions of the referees but also on adding other methods for assessment of submitted papers.

Due to competition in scientific research, presumably driven by funding pressures and the quest for fame, promotion or celebrity, journals are encountering a number of overlapping issues such as plagiarism, duplicate publication, or inadequate description of statistics and methodology [9, 10]. Some cases and claimed cases have recently affected CCLM, as well as other journals. Unfortunately, the online software applications currently available for detecting plagiarism are often in need of improvement since they ‘flag parts’ of manuscripts which are inevitably similar such as the description of methods. However, for authors who publish several articles using the same methodology it would be hard to use dozens of different

ways to describe it. Moreover, while most of the scientific literature is published in English, most of the authors of articles in CCLM are not native speakers of English. During their careers, scientists tend to publish repeatedly on different aspects of the same topic and their statements may sound quite similar, partly as a result of limited vocabulary. The possible solution for this problem, writing assistance (or ghost writing), may be regarded by many as worse than reading similar phrases from the same author on a given topic again and again. In fact, literary science uses similarities between texts to determine authorship, and it would be absurd if the same principle would be used to deprive someone of the benefits of the authorship. Thus, the effort to maintain the integrity of scientific literature must not degenerate into a witch hunt. Although plagiarism detection software may be quite helpful for ‘screening’, it is no substitute for the judgment of a referee or editor.

Our publisher, De Gruyter, uses highly efficient software for plagiarism checking, that has already allowed us to discover a number of unacceptable manuscripts submitted to CCLM. In addition, the authors officially confirm the standard conditions that the manuscript or parts of the manuscript has been submitted solely to CCLM and is not published, in press, or submitted elsewhere, and that all authors have accepted responsibility for the entire content of the submitted manuscript and approved submission. De Gruyter, like other publishers, requires a copyright

transfer form that must be approved by the submitting author during submission. With this form, the authors accept legal responsibility for the contents of their article. If it becomes apparent that the statement given was not true (plagiarism, faked data, etc.) the publisher retracts the article and – in the worst case – the authors' names will be posted online. Thus, plagiarism is becoming much more dangerous for authors than for the publisher, who would simply retract an offending article. Scientific publishing is becoming more demanding both because of the challenging competition with new media such as open-access journals, the Internet and social media technologies, and because of the increasing pressures affecting the scientific community that, in turn, may provide incentives for unethical habits. However, the basic principles of science and medicine remain honesty, accuracy, and

the desire to work for improving current knowledge and quality.

Navigating many obstacles, the journal *CCLM* will adapt to changing environments in order to safeguard its mission which is to provide reliable information and updates to our readers. This will be the only way to celebrate our 100th anniversary in the future.

Conflict of interest statement

Authors' conflict of interest disclosure: The authors stated that there are no conflicts of interest regarding the publication of this article.

Research funding: None declared.

Employment or leadership: None declared.

Honorarium: None declared.

References

1. Plebani M. Thank you, indeed! *Clin Chem Lab Med* 2011;49:1759–60.
2. Lippi G, Favaloro EJ, Simundic AM. Biomedical research platforms and their influence on article submissions and journal rankings: an update. *Biochem Med (Zagreb)* 2012;22:7–14.
3. Plebani M. The journal impact factor: navigating between Scylla and Charybdis. *Clin Chem Lab Med* 2009;47:1315–6.
4. Favaloro EJ. The Journal Impact Factor: don't expect its demise any time soon. *Clin Chem Lab Med* 2009;47:1319–24.
5. Orlando C, Pinzani P, Pazzagli M. Developments in quantitative PCR. *Clin Chem Lab Med* 1998;36:255–69.
6. Montagnana M, Danese E, Ruzzenente O, Bresciani V, Nuzzo T, Gelati M, et al. The ROMA (Risk of Ovarian Malignancy Algorithm) for estimating the risk of epithelial ovarian cancer in women presenting with pelvic mass: is it really useful? *Clin Chem Lab Med* 2011;49:521–5.
7. Lippi G, Chance JJ, Church S, Dazzi P, Fontana R, Giavarina D, et al. Preanalytical quality improvement: from dream to reality. *Clin Chem Lab Med* 2011;49:1113–26.
8. Samama MM, Guinet C. Laboratory assessment of new anticoagulants. *Clin Chem Lab Med* 2011;49:761–72.
9. Lippi G, Favaloro EJ. Detection of duplicates and redundancies. A major responsibility of peer-reviewers? *Clin Chem Lab Med* 2008;46:1796–7.
10. Rifai N, Annesley TM, Berg JP, Brugnara C, Delvin E, Lamb EJ, et al. An appeal to medical journal editors: the need for a full description of laboratory methods and specimen handling in clinical study reports. *Clin Chem Lab Med* 2012;50:411–3.

***Corresponding author: Prof. Giuseppe Lippi**, U.O. Diagnostica Ematochimica, Azienda Ospedaliero-Universitaria di Parma, Via Gramsci 14, 43126 Parma, Italy, Phone: +39 0521 703050, +39 0521 703791, E-mail: glippi@ao.pr.it
Giuseppe Lippi, Philippe Gillery, Steven Kazmierczak, Karl J. Lackner, Bohuslav Melichar, Gérard Siest and John B. Whitfield: Associate Editors, *Clinical Chemistry and Laboratory Medicine*
Heike Jahnke: Managing Editor, *Clinical Chemistry and Laboratory Medicine*
Mario Plebani: Editor-in-Chief, *Clinical Chemistry and Laboratory Medicine*