

WHERE ARE ROMANIAN BIOMEDICAL JOURNALS NOW AND WHAT DOES THE FUTURE HOLD FOR THEM? A SCIENTOMETRIC ANALYSIS

DAN L. DUMITRASCU

Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca, Romania

Abstract

Background and aim. *There is a competition between scientific journals in order to achieve leadership in their scientific field. There are several Romanian biomedical journals which are published in English and a smaller number in Romanian. We need a periodical analysis of their visibility and ranking according to scientometric measures.*

Methods. *We searched all biomedical journals indexed on international data bases: Web of Science, PubMed, Scopus, Embase, Google Scholar. We analyzed their evaluation factors.*

Results. *Several journals from Romania in the biomedical field are indexed in international databases. Their scientometric indexes are not high. The best journal was acquired by an international publisher and is no longer listed for Romania.*

Conclusions. *There are several Romanian biomedical journals indexed in international databases that deserve periodical analysis. There is a need to improve their ranking.*

Keywords: biomedical journals, Romania, scientometrics

Introduction

There is a large and increasing number of biomedical journals published worldwide. Publishing is a mandatory action of any scientist and is very important for the progress of the humanity. Academics and investigators working in the field of health sciences need to get impact, visibility, authority and recognition thanks to their papers. Therefore scientometry emerged as a science to evaluate the importance of scientific publications (1). Romania is an emerging country trying to increase the impact of its research including the biomedical field. In this country there are a number of biomedical journals, accredited by the Ministry of Education and Research (2). Therefore national scientific publications need to be periodically evaluated in order to assess the place and impact of biomedical research of that nation and to formulate perspective of progress.

The aim of this paper was to evaluate the current state of the Romanian biomedical journals and to assess the future perspectives.

Methods

We looked for the Romanian biomedical journals indexed in the main international databases: Web of Science, PubMed, Scopus, Embase, Google Scholar.

We assessed and compared there rankings, analyzing the factors responsible for the present scientometric factors. The analysis was carried out in October 2017.

Results

There are several biomedical journals indexed on Web of Science (WoS) by ISI, formerly under as Thomson Reuters and now Clarivate Analytics. They are displayed on table I.

Unfortunately they do not have high impact factors (IF).

A large number of journals are indexed on PubMed. They are listed in Table II.

Among these 15 biomedical journals, the majority have been included in Index Medicus before 1990 and are in PubMed via Medline. The newer ones have been included via PubMed Central.

Scopus, the other large database that provides

science indicators, indexes the following biomedical journals from Romania (Table III).

As it may be seen, SCOPUS indexes a higher number of Romanian biomedical journal, increasing their visibility on this data base.

EMBASE is also accommodating a large number of biomedical journals from Romania (see Table IV).

There is a large array of fields covered by EMBASE, Romanian medical journal being quite well represented in

this database.

One can see that our journal, Clujul Medical, although not in Web of Science (yet?), is included in several important databases for health sciences. Its coverage is shown in table V.

Google Scholar has also in its database a large number of biomedical journals. Given the easier access to indexation on Google Scholar, we did not analyze their impact on this data base.

Table I. Romanian biomedical journals indexed on WoS.

Rank	Full Journal Title	Total Cites	Journal Impact Factor /2016
1	Journal of Gastrointestinal and Liver Diseases	1.193	1.891
5	Medical Ultrasonography	371	1.167
6	FARMACIA	644	1.162
10	Romanian Journal of Morphology and Embryology	872	0.811
11	Digest Journal of Nanomaterials and Biostructures	1.192	0.756
28	Notulae Botanicae Horti Agrobotanici Cluj-Napoca	465	0.451
32	Optoelectronics and Advanced Materials-Rapid Communications	827	0.412
34	JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS	2.107	0.383
36	Romanian Biotechnological Letters	452	0.381
44	REVUE ROUMAINE DE CHIMIE	685	0.25
45	Acta Endocrinologica-Bucharest	81	0.235
49	Studia Universitatis Babes-Bolyai Chemia	103	0.148
50	Romanian Journal of Legal Medicine	68	0.144
51	Revista Romana de Medicina de Laborator	42	0.143

Table II. Romanian biomedical journals indexed on PubMed.

1.	Bacteriologia, virusologia, parazitologia, epidemiologia (Bucharest, Romania: 1990)	MEDLINE
2.	Chirurgia (Bucharest, Romania: 1990)	MEDLINE
3.	Clujul Medical (1957) (Cluj, Romania)	Not MEDLINE
4.	Current health sciences journal (Craiova 2013)	Not MEDLINE
5.	Europe's Journal of Psychology (Bucharest)	Not MEDLINE
6.	Germes (National Institute of Infectious Diseases Matei Bals)	Not MEDLINE
7.	Journal of Gastrointestinal and Liver Diseases (Romanian Society of Gastroenterology and Hepatology)	MEDLINE
8.	Journal of medicine and life (Universitatea de Medicină și Farmacie "Carol Davila"—București)	MEDLINE
9.	Medical Ultrasonography (Romanian Society of Ultrasonography in Medicine and Biologie)	MEDLINE
10.	Mădica (Romanian Physician College)	Not MEDLINE
11.	Pneumologia (Romanian Society of Pneumology)	MEDLINE
12.	Revista Medico-Chirurgicala a Societății de Medici și Naturaliști din Iași	MEDLINE
13.	Romanian Journal of Morphology and Embryology	MEDLINE
14.	Romanian Journal of Ophthalmology (Romanian Society of Ophthalmology)	MEDLIN.
15.	Roumanian Archives of Microbiology and Immunology (Institute Ion Cantacuzino)	MEDLINE

Table III. Romanian biomedical journals indexed in Scopus.

TITLE	SJR / SCIMAGO JOURNAL RANK
Journal of Gastrointestinal and Liver Diseases	0.522
GERMS	0.414
Medical Ultrasonography	0.379
Journal of medicine and life	0.284
Romanian Journal of Morphology and Embryology	0.276
Farmacia	0.261
Romanian journal of internal medicine = Revue roumaine de medecine interne	0.244
Chirurgia	0.230
AACL Bioflux	0.228
Revista Medico-Chirurgicala a Societatii de Medici si Naturalisti din Iasi	0.198
Clujul Medical	0.190
Studia Universitatis Vasile Goldis Arad, Seria Stiintele Vietii	0.179
Romanian Journal of Legal Medicine	0.167
Roumanian Archives of Microbiology and Immunology	0.166
Bihorean Biologist	0.147
Gineco.eu	0.145
Pneumologia	0.145
Revista Romana de Medicina de Laborator	0.143
Acta Endocrinologica	0.127
Romanian Journal of Neurology/ Revista Romana de Neurologie	0.124
Otorinolaringologia	0.121
Romanian journal of ophthalmology	0.116
Romanian Journal of Anaesthesia and Intensive Care	0.114
Human and Veterinary Medicine	0.112
Annals of the Romanian Society for Cell Biology	0.105
Journal of Translational Medicine and Research	0.105
Revista Romana de Bioetica	0.105
Therapeutics, Pharmacology and Clinical Toxicology	0.101
Analele Universitatii din Oradea, Fascicula Biologie	-

Table IV. Romanian biomedical journals indexed in EMBASE.

ACTIVE EMBASE JOURNAL TITLES (MAY 2017)	PUBLISHER
Archives of the Balkan Medical Union	Celsius Publishing House
Chirurgia (Romania)	Editura Celsius
Clujul Medical	Universitatea de Medicina si Farmacie Iuliu Hatieganu
Farmacia	Romanian Society for Pharmaceutical Sciences
GERMS	European Academy of HIV/AIDS and Infectious Diseases
Gineco.eu	Versa Puls media Network
Journal of Gastrointestinal and Liver Diseases	Romanian Society of Gastroenterology
Medical Ultrasonography	Societatea Romana de Ultrasonografie in Medicina si Biologie
Obstetrica si Ginecologie	Romanian Society of Obstetrics and Gynecology
Pneumologia	Romanian Society of Pneumology
Romanian Journal of Anaesthesia and Intensive Care	Editura Clasiu
Romanian Journal of Internal Medicine	Editura Academiei Romane
Romanian Journal of Legal Medicine	Romanian Legal Medicine Society
Romanian Journal of Morphology and Embryology	Editura Academiei Romane
Romanian Journal of Neurology/ Revista Romana de Neurologie	Editura Medicala
Therapeutics, Pharmacology and Clinical Toxicology	Romanian Society of Pharmacology, Therapeutics and Clinical Toxicology
Timisoara Medical Journal	Victor Babes University of Medicine and Pharmacy

Table V. Databases indexing Clujul Medical.

Database	Date of first indexing	Covered interval
EBSCO	2008	1/2009 - present
SCOPUS	2014	1/2014 – present 1973 – 1990
PubMed	2015	1/2013 - present
EMBASE*	2016	1/2016 – present 1957 – 1990
Web of Science* All Databases	2016	1/2013 - present
CAB Abstracts / Global Health	2017	1/2017 - present
Google Scholar	-	2010 - present

Discussion

There is an important number of biomedical journals published in Romania. They are mainly issued by medical universities or by research institutes or scientific societies. All the indexed journals from international databases are in English. They are almost all open access. Most of them publish for free, other have low publication fees, making the submission of papers to these journals attractive. Several international authors submit and publish in Romanian journals.

On the other hand, Romanian authors do not publish only in Romania, but publish in other, often highly ranked international journals, given the need of recognition of visibility of any scientist.

There are also some Romanian biomedical journals published in Romanian (almost all with English abstracts) but given their national circulation, they were not analyzed in this paper. One can observe that most of the biomedical publications of his country have low Impact Factor according to WoS. The explanation is given by the fact that most of the journals are rather “young”, with recent presence on the internet and have therefore inherited a low visibility. But the visibility tends to increase in recent years.

The best Romanian medical journal, Journal of

Cellular and Molecular Medicine, has been acquired by an international publisher; therefore it is no longer listed as a Romanian journal. Many other Romanian journals receive offers to be purchased by international publishers and it is to expect that in the future other WoS indexed journals will lose the national character.

Three WoS journals have lost their indexation in the last five years because of loss of scientific interest or because of high rates of self citations.

Journals of medical universities have difficulties in improving their ranking because one of their remits is to publish a number of articles of local importance, which deserve however to be published, and because of the lack of a precise profile. Such journals accept largely papers from their own universities, thus having lower diversity. They also publish epidemiological data or single center studies with local importance. The journals of the scientific societies do better in the perspective of improving their ranking.

Conclusions

There is a substantial number of biomedical journals in Romania that are open access, frequently without publication fee and indexed in the main international data bases. However their impact has to be improved.

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References

1. Thonon F, Boulkedid R, Delory T, Rousseau S, Saghatchian M, van Harten W, et al. Measuring the outcome of biomedical research: a systematic literature review. PLoS One. 2015 2;10(4):e0122239. doi: 10.1371/journal.pone.0122239.
2. Unit for Higher Education Financing and Research. Evaluation of scientific journal. Available from: <https://uefiscdi.ro/scientometrie-reviste>