STANDARD AND CONSENSUS

Baishideng's *Reference Citation Analysis* database announces the first *Article Influence Index* of multidisciplinary scholars

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Abstract

After three rounds of rigorous evaluation of registered scholars conducted by the *Reference Citation Analysis* (*RCA*) editorial team of Baishideng Publishing Group (Baishideng), the *RCA* database of Baishideng officially released the 2022 *Article Influence Index* (2022 *AII*) of 632 scholars from 74 countries/territories in 98 research categories, for the first time. The list of 632 scholars can be found at: https://www.referencecitationanalysis.com/searchscholar. Among them, the highest 2022 *AII* is 348.211, the highest number of total citations is 42830, and the highest number of total articles is 901. The category with the largest number of *RCA* scholars is Gastroenterology & Hepatology, with a total of 100 (15.8%), and the second is Surgery, with a total of 46 (7.3%). This article summarizes the *RCA* scholars and describes the mission of *RCA,* the openness and transparency of *RCA* evaluation, the calculation method for the 2022 *AII*, and the evaluation process of *RCA* scholars. The *RCA* scholar list will effectively serve as a useful Find-a-Scholar tool. Any interested scholar is welcome to register and join this *RCA* scholar list.

Key Words: *Reference Citation Analysis*; *Article Influence Index*; Scholar list; Find a scholar; Announcement

Core Tip: The *Reference Citation Analysis* (*RCA*) database of Baishideng Publishing Group officially released the 2022 *Article Influence Index* (2022 *AII*) of 632 scholars from 74 countries/territories in 98 research categories, for the first time. This article summarizes the *RCA* scholars and describes the mission of *RCA*, the openness and transparency of *RCA* evaluation, the calculation method for the 2022 *AII*, and the evaluation process of *RCA* scholars. The *RCA* scholar list will effectively serve as a useful Find-a-Scholar tool. Any interested scholar is welcome to register and join this *RCA* scholar list.

INTRODUCTION

We are very pleased to announce that the *Reference Citation Analysis* (*RCA*) database[1] of Baishideng Publishing Group (Baishideng) has, for the first time, officially released the 2022 *Article Influence Index* (2022 *AII*) of 632 scholars from 74 countries/territories in 98 research categories, for the first time. The list of 632 scholars can be found at: https://www.referencecitationanalysis.com/searchscholar.

RCA is an AI technology-based open multidisciplinary citation analysis database. As such, *RCA* will lead the development of wisdom, knowledge innovation, and emerging disciplines. The functions of *RCA* include: Find an Article (55334324), Find a Category (254), Find a Journal (14077), Find a Scholar (632), and Find an Academic Assistant (18) (Data collection: August 15, 2022). *RCA* updates its list of journals daily, according to relevant data including total number of articles, total citations, and 2022 *Journal Article Influence Index* (2022 *JAII*). *RCA* acquires the newly released abstracts and references from Crossref and adds them to the *RCA* database weekly. *RCA* also acquires the abstracts and references released that year from Crossref and adds them to the *RCA* database monthly, and then updates the total number of articles, citations, and 2022 *JAII*[2]. Herein, we summarize the *RCA* scholars, describe the mission of *RCA* and the openness and transparency of *RCA* evaluation, and introduce the calculation method for the 2022 *AII* and the evaluation process of *RCA* scholars.
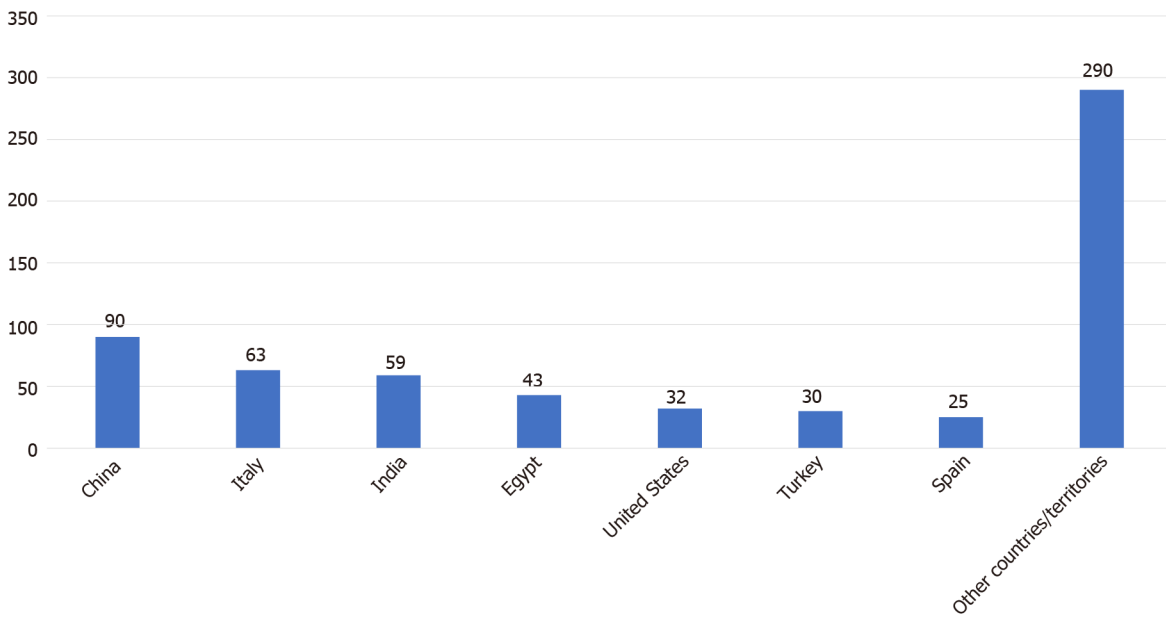
SUMMARY OF *RCA* SCHOLARS

We sent invitation letters to scholars of various research categories around the world through the F6Publishing highly influential scientists database. As of August 15, 2022, a total of 1228 scholars have registered in the *RCA*. After three rounds of rigorous evaluation by the *RCA* editorial team, 632 (51.5%) scholars were approved for inclusion in the *RCA* scholar list. These 632 *RCA* scholars are from 74 countries/territories, and are distributed in 98 research categories, including 90 (14.2%) from China, 63 (10.0%) from Italy, 59 (9.3%) from India, 43 (6.8%) from Egypt, 32 (5.1%) from the United States, 30 (4.7%) from Turkey, and 25 (4.0%) from Spain (Figure 1). The category with the largest number of *RCA* scholars is Gastroenterology & Hepatology, with a total of 100 (15.8%) scholars, and the second is Surgery, with a total of 46 (7.3%) scholars, followed by Biochemistry & Molecular Biology with 31 (4.9%) scholars and Oncology with 31 (4.9%) scholars (Figure 2).

Top 3 RCA scholars ranked by total articles, total citations, and 2022 AII
Among the 632 *RCA* scholars, the scholar with the largest number of total articles is Giuseppe Biondi-Zoccai, Associate Professor (*RCA* ID: 00000973) from Italy, who has published a total of 901 articles (Table 1). The scholar with the largest number of total citations is Kamarul Imran Musa, Associate Professor (*RCA* ID: 00000942) from Malaysia, with 42830 citations (Table 2), and has the highest 2022 *AII*, which is 348.211 (Table 3).

Top 3 RCA scholars in the field of Gastroenterology & Hepatology ranked by total articles, total citations, and 2022 AII
Among the 100 *RCA* scholars in the field of Gastroenterology & Hepatology, the scholar with the largest number of total articles is Kamran B Lankarani, Professor (*RCA* ID: 00001172) from Iran, who has published a total of 392 articles (Table 4). The scholar with the largest number of total citations is Andrzej S Tarnawski, Professor (*RCA* ID: 00000002) from the United States, with 8764 citations (Table 5). The scholar with the highest 2022 *AII* is Paul Henderson, Senior Lecturer (*RCA* ID: 00000799) from the United Kingdom, and his 2022 *AII* is 89.661 (Table 6).

Figure 1 Country sources and number of *Reference Citation Analysis* scholars.

- Gastroenterology & Hepatology
- Surgey
- Biochemistry & Molecular Biology
- Oncology
- Medicine, Research & Experimental
- Medicine, General & Internal
- Pharmacology & Pharmacy
- Cardiac & Cardiovascular Systems
- Endocrinology & Metabolism
- Orthopedics
- Pediatrics
- Radiology, Nuclear Medicine & Medical Imaging
- Anesthesiology
- Cell Biology
- Computer Science, Artificial Intelligence
- Neurosciences
- Pathology
- Public, Environmental & Occupational Health
- Immunology
- Other catagories

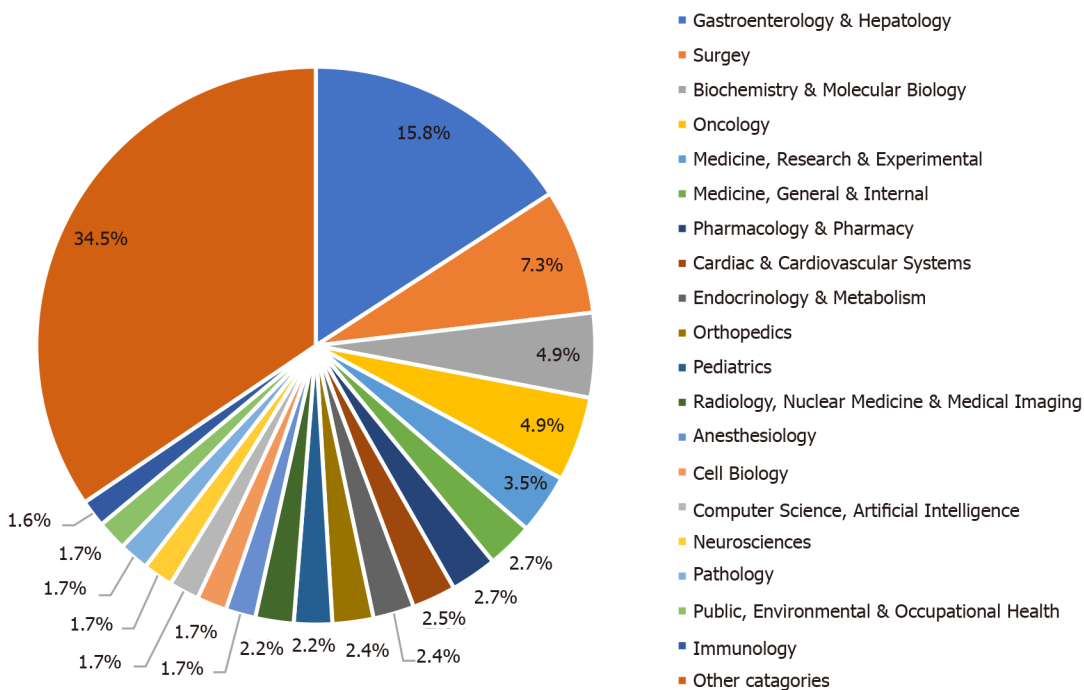**Figure 2 Category distribution of *Reference Citation Analysis* scholars.**

Top 3 RCA scholars in the field of Surgery ranked by total articles, total citations, and 2022 AII

Among the 46 *RCA* scholars in the field of Surgery, the scholar with the largest number of total articles is Bing Hu, Professor (*RCA* ID: 00000233) from China, who has published a total of 206 articles (Table 7). The scholar with the largest number of total citations is William C Dooley, Professor (*RCA* ID: 00000689) from the United States, with 3740 citations (Table 8), and has the highest 2022 *AII*, which is 45.060 (Table 9).

Top 3 RCA scholars in the field of Biochemistry & Molecular Biology ranked by total articles, total citations, and 2022 AII

Among the 31 *RCA* scholars in the field of Biochemistry & Molecular Biology, the scholar with the

Table 1 Top 3 *Reference Citation Analysis* scholars ranked by total articles

Rank	*RCA* ID	Name	Country	Total articles	Research category	Total citations	2022 *Article Influence Index*
1	00000973	Giuseppe Biondi-Zoccai	Italy	901	Cardiac & Cardiovascular Systems	26476	29.385
2	00000223	Michael Horowitz	Australia	725	Endocrinology & Metabolism	29432	40.596
3	00000650	Hafiz MN Iqbal	Mexico	465	Engineering, Environmental	13495	29.022

Table 2 Top 3 *Reference Citation Analysis* scholars ranked by total citations

Rank	*RCA* ID	Name	Country	Total citations	Research category	Total articles	2022 *Article Influence Index*
1	00000942	Kamarul Imran Musa	Malaysia	42830	Public, Environmental & Occupational Health	123	348.211
2	00000637	Furio Pacini	Italy	30373	Endocrinology & Metabolism	300	101.243
3	00000223	Michael Horowitz	Australia	29432	Endocrinology & Metabolism	725	40.596

Table 3 Top 3 *Reference Citation Analysis* scholars ranked by 2022 *Article Influence Index*

Rank	*RCA* ID	Name	Country	2022 *Article Influence Index*	Research category	Total articles	Total citations
1	00000942	Kamarul Imran Musa	Malaysia	348.211	Public, Environmental & Occupational Health	123	42830
2	00000664	Gani Bajraktari	Kosovo	260.303	Cardiac & Cardiovascular Systems	99	25770
3	00000245	Yasir Waheed	Pakistan	198.624	Infectious Diseases	141	28004

Table 4 Top 3 *Reference Citation Analysis* scholars in the field of Gastroenterology & Hepatology ranked by total articles

Rank	*RCA* ID	Name	Country	Total articles	Total citations	2022 *Article Influence Index*
1	00001172	Kamran B Lankarani	Iran	392	4100	10.459
2	00000002	Andrzej S Tarnawski	United States	365	8764	24.011
3	00000349	Xing-Shun Qi	China	311	4561	14.666

Table 5 Top 3 *Reference Citation Analysis* scholars in the field of Gastroenterology & Hepatology ranked by total citations

Rank	*RCA* ID	Name	Country	Total citations	Total articles	2022 *Article Influence Index*
1	00000002	Andrzej S Tarnawski	United States	8764	365	24.011
2	00000598	Bruno Annibale	Italy	7695	286	26.906
3	00000248	Francis Seow-Choen	Singapore	6960	225	30.933

largest number of total articles is Giuseppe Maurizio Campo, Professor (*RCA* ID: 00000278) from Italy, who has published a total of 183 articles (Table 10). The scholar with the largest number of total citations is Yoshiro Saito, Professor (*RCA* ID: 00001051) from Japan, with 5886 citations (Table 11). The scholar with the highest 2022 *AII* is Manoj Kumar Kashyap, Associate Professor (*RCA* ID: 00000155) from India, and his 2022 *AII* is 75.521 (Table 12).

Top 3 RCA scholars in the field of Oncology ranked by total articles, total citations, and 2022 AII

Among the 31 *RCA* scholars in the field of Oncology, the scholar with the largest number of total articles is Jing He, Research Associate (*RCA* ID: 00000057) from China, who has published a total of 206 articles (Table 13). The scholar with the largest number of total citations is Reza Alizadeh-Navaei, Adjunct

Table 6 Top 3 *Reference Citation Analysis* scholars in the field of Gastroenterology & Hepatology ranked by 2022 *Article Influence Index*

Rank	*RCA* ID	Name	Country	2022 *Article Influence Index*	Total articles	Total citations
1	00000799	Paul Henderson	United Kingdom	89.661	62	5559
2	00001068	Li Ma	United States	51.500	8	412
3	00000239	Dar-In Tai	Taiwan	50.385	96	4837

Table 7 Top 3 *Reference Citation Analysis* scholars in the field of Surgery ranked by total articles

Rank	*RCA* ID	Name	Country	Total articles	Total citations	2022 *Article Influence Index*
1	00000233	Bing Hu	China	206	1686	8.184
2	00000861	Tsutomu Namikawa	Japan	206	1559	7.568
3	00000889	Rafael Denadai	Brazil	198	1226	6.192

Table 8 Top 3 *Reference Citation Analysis* scholars in the field of Surgery ranked by total citations

Rank	*RCA* ID	Name	Country	Total citations	Total articles	2022 *Article Influence Index*
1	00000689	William C Dooley	United States	3740	83	45.060
2	00000803	Luca Morelli	Italy	2619	158	16.576
3	00001229	Trond Buanes	Norway	2618	131	19.985

Table 9 Top 3 *Reference Citation Analysis* scholars in the field of Surgery ranked by 2022 *Article Influence Index*

Rank	*RCA* ID	Name	Country	2022 *Article Influence Index*	Total articles	Total citations
1	00000689	William C Dooley	United States	45.060	83	3740
2	00001197	Nicolò Fabbri	Italy	33.229	35	1163
3	00001006	Zaza Demetrashvili	Georgia	30.373	59	1792

Table 10 Top 3 *Reference Citation Analysis* scholars in the field of Biochemistry & Molecular Biology ranked by total articles

Rank	*RCA* ID	Name	Country	Total articles	Total citations	2022 *Article Influence Index*
1	00000278	Giuseppe Maurizio Campo	Italy	183	4479	24.475
2	00001051	Yoshiro Saito	Japan	117	5886	50.308
3	00000168	Medine Cumhur Cüre	Turkey	116	891	7.681

Associate Professor (*RCA* ID: 00000754) from Iran, with 23735 citations (Table 14), and has the highest 2022 *AII*, which is 168.333 (Table 15).

RCA'S MISSION

The mission of *RCA* is to provide a high-quality academic article evaluation service platform for various categories. At present, there are many evaluation methods for academic articles, but their calculation methods are complicated. *RCA* is a new generation method of evaluating the quality of academic articles, which allows academic evaluation of journals, scholars, institutions, drugs, medical devices, and publishers based on the *JAII* of each article in the citation analysis database, thus greatly enriching the academic evaluation systems across different disciplines and guiding healthy development of the academic community[2].

Table 11 Top 3 *Reference Citation Analysis* scholars in the field of Biochemistry & Molecular Biology ranked by total citations

Rank	*RCA* ID	Name	Country	Total citations	Total articles	2022 *Article Influence Index*
1	00001051	Yoshiro Saito	Japan	5886	117	50.308
2	00000302	Guoxun Chen	United States	4576	71	64.451
2	00000278	Giuseppe Maurizio Campo	Italy	4479	183	24.475

Table 12 Top 3 *Reference Citation Analysis* scholars in the field of Biochemistry & Molecular Biology ranked by 2022 *Article Influence Index*

Rank	*RCA* ID	Name	Country	2022 *Article Influence Index*	Total articles	Total citations
1	00000155	Manoj Kumar Kashyap	India	75.521	48	3625
	00000302	Guo-Xun Chen	United States	64.451	71	4576
2	00001051	Yoshiro Saito	Japan	50.308	117	5886

Table 13 Top 3 *Reference Citation Analysis* scholars in the field of Oncology ranked by total articles

Rank	*RCA* ID	Name	Country	Total articles	Total citations	2022 *Article Influence Index*
1	00000057	Jing He	China	206	3489	16.937
2	00000659	Dario de Biase	Italy	161	2488	15.453
3	00000800	Cosimo Sperti	Italy	156	3467	22.224

Table 14 Top 3 *Reference Citation Analysis* scholars in the field of Oncology ranked by total citations

Rank	*RCA* ID	Name	Country	Total citations	Total articles	2022 *Article Influence Index*
1	00000754	Reza Alizadeh-Navaei	Iran	23735	141	168.333
2	00000380	José Carvalheira	Brazil	6059	119	50.916
2	00000768	Amit Dutt	India	6026	67	89.940

Table 15 Top 3 *Reference Citation Analysis* scholars in the field of Oncology ranked by 2022 *Article Influence Index*

Rank	*RCA* ID	Name	Country	2022 *Article Influence Index*	Total articles	Total citations
1	00000754	Reza Alizadeh-Navaei	Iran	168.333	141	23735
	00000768	Amit Dutt	India	89.940	67	6026
2	00000512	Nuri Faruk Aykan	Turkey	65.455	44	2880

OPENNESS AND TRANSPARENCY OF RCA EVALUATION

RCA is unique in its objective, impartial, fair, and transparent release of citation analysis data of important academic journals to authors and readers, including evaluation data, evaluation indices, evaluation methods, and evaluation results, in order to ensure the reliability of academic evaluation[2].

CALCULATION METHOD FOR 2022 *AII* AND DATA UPDATE

The 2022 *AII*, calculated as Total citations/Total articles, is not a 2-year or 5-year average of citations, but is an average of citations for all articles of a scholar. Article types are not only limited to original articles and review articles, but for all types of articles. In this way, it is a more objective, fair, and transparent calculation of the academic influence index of a scholar. The *RCA* updates the article data of scholars weekly, including total number of articles, total citations, and 2022 *AII*[2].

EVALUATION PROCESS OF *RCA* SCHOLARS

The scholars included in the *RCA* core scholars list need to undergo three rounds of strict evaluation. The evaluation process is as follows[2]:

First-round evaluation: The general information on the scholar is verified, including Name, Professional Designations(s), Job Title/Position, Research Domain, Research Keywords, Biography, Institution URL, Institution, Photo, Social Media URLs, and Academic Activity. Usually, *RCA* scholars must have an MD or PhD degree, and the job title/position must be at least Associate Professor, Associate Chief Physician or Associate Researcher, or above.

Second-round evaluation: The academic quality of the scholar's published articles is verified according to the list of articles imported by the *RCA* registration user, including whether the imported articles are published by the scholars themselves and whether the author information in the articles is correct. Following the evaluation, scholars will be notified to verify the correctness of the information in the article.

Third-round evaluation: Based on the reliability of the scholar's general information, the number of published articles by the scholar, the distribution of publications, the number of citations of articles, and *AII*, the *RCA* editorial team evaluates each scholar, makes the decision to accept or reject the scholar, and creates a list of core scholars by research category.

FUNCTION OF THE *RCA* SCHOLAR LIST

The function of the *RCA* scholar list is to: (1) Classify scholars according to categories and rank them according to various bibliometrics, including total view, *AII*, total citations, cited by in F6publishing, total articles, and number of years; and (2) Provide a website platform for each *RCA* scholar to display the scholar's name, *RCA* ID, personal *RCA* site address, research domain, research keywords, biography, total view, total journal(s), total articles, total citations, cited by in F6publishing, *AII*, institution URL, institution, scholar's citation analysis list, ranked by (impact index per article, cited by in Crossref, and cited by in F6publishing), results analysis (year published analysis, article type analysis, journal title analysis, category analysis, and citation analysis), year published, article type, journal title, and category[2].

CONCLUSION

RCA is a new impartial, fair, open, and transparent method for third-party quantitative and qualitative evaluation of the quality of academic articles by scholars based on the impact index of each article in the *RCA* database. The ultimate purpose of *RCA* is to provide scholars with a permanent *RCA* ID and personal network sharing website. The scholars' personal *RCA* site provides them with a platform for academic exchange that integrates social media and network sharing, thus helping to expand the global academic influence of scholars' articles and leading to the healthy development of the exchange of academic ideas.

FOOTNOTES

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