

# Polish scientists among the most influential scientific minds in 2015

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**FIGURE 1** Professor Roman Jaeschke

*Research is to see what everybody else has seen, and to think what nobody else has thought. (Albert von Szent-Gyorgy)*

*Scientific research is one of the most exciting and rewarding of occupations. (Frederick Sanger)*

Professor Roman Jaeschke (FIGURE 1), the Chair of the International Scientific Board of *Polish Archives of Internal Medicine* (*Pol Arch Med Wewn*) since 2008, and Professor Michał Tendra (FIGURE 2), the long-time member of the National Scientific Board, have been listed among the world's most influential scientific minds in a 2015 report that has been recently released by Thomson Reuters. Other Polish scientists whose names can be found on the list include Dr. Jan Brożek (FIGURE 3), Professor Andrzej Budaj (FIGURE 4), Professor Piotr Ponikowski (FIGURE 5), and Professor Zbigniew Wszolek (FIGURE 6). The names of the researchers along with a summary of their scientific achievements are presented in TABLE 1. The report's

category of Clinical Medicine includes also a few authors of our review papers, in particular, Professor Gregory Y.H. Lip from the University of Birmingham (United Kingdom).

In the words of Emmanuel Thiveaud, the Vice-President Head of Government Solutions & Research Analytics at Thomson Reuters IP & Science Business, the 2015 report is "an updated listing of the elite authors officially designated as Highly Cited Researchers, based on their respective output of top-cited papers in their fields. Covering an 11-year period ..., it features the scientists who have won acclaim and approval within a key population: their peers."<sup>1</sup> According to the report, there are about 9 million researchers in the world who publish more than 2 million reports each year. To identify the most influential scientists, Thomson Reuters analyzed citation data from their Web of Science and InCites platforms over a recent 11-year period (2003–2013) and identified those top researchers who authored the greatest number of the most-cited papers by their peers. They also identified hot researchers whose papers published in a recent 2-year period (2013–2014) were cited immediately after publication at an extraordinarily high rate. The result is a list containing 3000 names of researchers.<sup>1</sup>

The most-represented nations in the report in terms of producing highly cited researchers are United States, United Kingdom, Germany, China, and Australia. Nearly half of the researchers are affiliated with American institutions. The top 5 institutions listed are University of California System (160 most-cited researchers), followed by Harvard University, National Health Institutes, Stanford University, and finally, the first representative of European science, Max Planck Society from Germany. Twenty-one main specialty areas have been presented based on a preponderance of the specific journals in which their top papers appeared between the years 2003 and 2013. The largest numbers of top researchers (each belonging to only 1 specialty area) can be found in active life-sciences fields such as Clinical

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**FIGURE 2** Professor Michał Tendera



**FIGURE 3** Dr. Jan Brożek



**FIGURE 4** Professor Andrzej Budaj



**FIGURE 5** Professor Piotr Ponikowski



**FIGURE 6** Professor Zbigniew Wszolek

**TABLE 1** Polish scientists in the 2015 report by Thomson Reuters (in an alphabetic order)

| Name                   | Affiliation                                                                                         | Web of Science data <sup>a</sup> |                  |             | Category in the 2015 report |
|------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------|------------------|-------------|-----------------------------|
|                        |                                                                                                     | No. of articles                  | No. of citations | Hirsh index |                             |
| Dr. Jan Brożek         | Department of Clinical Epidemiology & Biostatistics, McMaster University, Hamilton, Ontario, Canada | 102                              | 10293            | 38          | Social Sciences, General    |
| Prof. Andrzej Budaj    | Department of Cardiology, Centre of Postgraduate Medical Education, Warsaw, Poland                  | 166                              | 27058            | 60          | Clinical Medicine           |
| Prof. Roman Jaeschke   | Department of Medicine, McMaster University, Hamilton, Ontario, Canada                              | 122                              | 16946            | 59          | Social Sciences, General    |
| Prof. Piotr Ponikowski | Department of Heart Diseases, Wrocław Medical University, Wrocław, Poland                           | 440                              | 29637            | 66          | Clinical Medicine           |
| Prof. Michał Tendera   | 3rd Department of Cardiology, Medical University of Silesia, Katowice, Poland                       | 330                              | 37566            | 68          | Clinical Medicine           |
| Prof. Zbigniew Wszolek | Mayo Clinic, Jacksonville, Florida, United States                                                   | 377                              | 11038            | 46          | Neuroscience & Behavior     |

<sup>a</sup> accessed on March 21, 2016

**TABLE 2** Medical education of Professor Roman Jaeschke

|      |                                                                                                                                     |
|------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1981 | Medical Degree (MD), Medical Academy, Kraków, Poland                                                                                |
| 1982 | Doctor of Medicine in Pharmacology, Heidelberg, Germany                                                                             |
| 1988 | Internal Medicine, McMaster University, Hamilton, Ontario, Canada                                                                   |
| 1989 | MSc in Design, Measurement & Evaluation, Department of Epidemiology & Biostatistics, McMaster University, Hamilton, Ontario, Canada |

**TABLE 3** Top 5 most-cited papers of Professor Roman Jaeschke<sup>3</sup>

| Paper                                                                                                                                                                                                                                                                               | Number of citations |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Dellinger RP, Levy MM, Carlet JM, et al. Surviving Sepsis Campaign: international guidelines for management of severe sepsis and septic shock: 2008. <i>Crit Care Med.</i> 2008; 36: 296-327.                                                                                       | 2701                |
| Guyatt GH, Oxman AD, Vist GE, et al; GRADE Working Group. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. <i>BMJ.</i> 2008; 336: 924-926.                                                                                               | 2257                |
| Atkins D, Best D, Briss PA, et al; GRADE Working Group. Grading quality of evidence and strength of recommendations. <i>BMJ.</i> 2004; 328: 1490-1494..                                                                                                                             | 1711                |
| Jaeschke R, Singer J, Guyatt GH. Measurement of health status. Ascertain the minimal clinically important difference. <i>Control Clin Trials.</i> 1989; 10: 407-415.                                                                                                                | 1707                |
| Jaeschke R, Guyatt GH, Sackett DL. Users' guides to the medical literature. III. How to use an article about a diagnostic test. B. What are the results and will they help me in caring for my patients? The Evidence-Based Medicine Working Group. <i>JAMA.</i> 1994; 271: 703-707 | 1525                |

Medicine, Biology & Biochemistry, and Molecular Biology & Genetics.<sup>1</sup>

The first on the list—the most influential scientific mind in the field of biomedicine in 2014 and 2015—is a female researcher, Dr. Stacey B. Gabriel of the Broad Institute of MIT and Harvard. Dr. Gabriel coauthored 25 top-cited papers, mainly from the Cancer Genome Atlas (TCGA) project, providing molecular characteristics of malignancies, in particular, the breast and lung cancers, as well as those of schizophrenia and Alzheimer disease.<sup>1</sup>

We are honored that our key contributor, Professor Roman Jaeschke, is on this year's roster of "the hottest" scientists according to the ranking by Thomson Reuters. Over the 20-year period of time, he has collaborated with the publisher of *Pol Arch Med Wewn*, *Medycyna Praktyczna*, and largely contributed to our current standing among internal medicine journals, evidenced by the 2014 impact factor of 2.12.

Professor Roman Jaeschke, MD, MSc (Epid), FRCPC, is a clinician–educator at McMaster University in Hamilton, Ontario, Canada. This is where he conducts his clinical practice in critical care and general internal medicine and where he regularly teaches at undergraduate and postgraduate levels on topics of critical care medicine and



**FIGURE 7** Professor Roman Jaeschke during a lecture at MIRCIM 2015, Kraków, Poland

evidence-based practice. He received formal medical education in Poland, Germany, and Canada (TABLE 2). His research interests include clinical epidemiology, methodology of practice guidelines, quality of life assessment, and various aspects of teaching concepts associated with evidence-based medicine. He also contributes to practice guideline development supported by international scientific societies, in particular, American Thoracic Society, American College of Chest Physicians, and Society of Critical Care Medicine.<sup>2</sup>

Till the beginning of 2016, Professor Jaeschke has authored or coauthored 122 papers in internal medicine, pharmacology/pharmacy, and critical care medicine that have been cited 16 946 times in a total of 13 476 publications. The average citations per item are 140.05, and his current Hirsh index is 59.<sup>3</sup> His 5 most cited publications are listed in TABLE 3. In our journal, we published a total of 21 papers authored or coauthored by Professor Jaeschke, including original articles, reviews, guidelines, and letters to the editor. All publications are listed in PubMed.<sup>4</sup>

An additional goal of Professor Jaeschke's professional activities is to teach and propagate evidence-based medicine and to apply principles of practice guideline development based on the GRADE system in clinical practice guidelines especially in his clinical field of critical care.<sup>2</sup> He is now actively involved in new educational initiatives including the McMaster Textbook of Internal Medicine, in collaboration with 500 top-rank contributors from Poland and Canada (<http://www.mcmastertextbook.com/>; the official launch in the spring of 2016), as well as the organization of

McMaster International Review Course in Internal Medicine, MIRCIM in Kraków, Poland (<http://empendium.mp.pl/mircim/>) (FIGURE 7).

In a highly competitive field of research, the support of distinguished Polish scientists listed among the Thomson Reuters Highly Cited Researchers for the *Pol Arch Med Wewn* is of key importance. We are happy to have them on the board, and we are looking into the future of our journal with hope.

## REFERENCES

- 1 The World's Most Influential Scientific Minds. Thomson Reuters. 2015. <http://stateofinnovation.thomsonreuters.com/worlds-most-influential-scientific-minds-report-2015>. Accessed March 10, 2016.
- 2 McMaster University. Department of Medicine. [http://fhs.mcmaster.ca/medicine/gim/faculty\\_member\\_jaeschke.htm](http://fhs.mcmaster.ca/medicine/gim/faculty_member_jaeschke.htm). Accessed March 10, 2016.
- 3 Thomson Reuters. Web of Science. [http://apps.webofknowledge.com/CitationReport.do?product=UA&search\\_mode=CitationReport&SID=V2kEqaCeMsYhpCgAft&page=1&cr\\_pqid=3&viewType=summary](http://apps.webofknowledge.com/CitationReport.do?product=UA&search_mode=CitationReport&SID=V2kEqaCeMsYhpCgAft&page=1&cr_pqid=3&viewType=summary). Accessed March 10, 2016.
- 4 U.S. National Library of Medicine. PubMed. <http://www.ncbi.nlm.nih.gov/pubmed/?term=jaeschke+pol+arch+med+wewn>. Accessed March 21, 2016.