Faculty of Pharmacy

Cluster 2

Bibliometric analysis

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1. Introduction

Bibliometrics is extensively being used as a supporting technique in the process of research assessment worldwide. **Centre for Scientometric Support and Evaluation (CSSE)** offers a bibliometric service to assist the Masaryk University community in utilizing quantitative methods for various purposes (individual portfolios, multidimensional analysis of research performance of a certain unit, analysis, and recommendations for improving publishing strategies and others).

This report is a supporting material for the **Internal Research Evaluation of Masaryk University (IRE)**. Although bibliometrics serves as quantitative support for evaluation purposes, we must consider the limitations of bibliometrics. With respect to international good practice, indicators should never be used as the sole criteria for making final decisions, especially if the decision can influence individual promotion and rewarding.[1] Quantitative data should always be used in combination with other forms of evaluation, such as peer review, to provide critical insight. Indicators must not substitute for informed judgment. Best practice also uses multiple indicators to provide a robust and pluralistic picture.

This report consists of:

1. The data from institutional CRIS (Masaryk University Information System).
    - Applicable typically in SSH disciplines.
2. Automated report from InCites (analytical tool for Web of Science data).
    - The report uses a dataset prepared for each unit individually on the verified list of employees and their publications (MyOrganization tool).
    - The structure and design of the report cannot be changed due to the data provider's conditions.
3. Description of indicators used.

[1] HICKS, D, et al. Bibliometrics: The Leiden Manifesto for research metrics. Nature. 2015, vol. 520, 7548, 429–431. doi: http://dx.doi.org/10.1038/520429a. Dostupné z: http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351; San Francisco Declaration on Research Assessment (DORA), Dostupné z: http://www.ascb.org/dora/.

2. Information about the analysis of the Evaluated Unit

Departments involved

Department of Chemical Drugs, Faculty of Pharmacy

Department of Natural Drugs, Faculty of Pharmacy

Dataset definition

Sources	Web of Science, InCites, MU Information System
Publication Window	2020–2021*
Citation Window	Not defined
Data retrieved	April 2022

* Data for 2021 may not be complete due to indexation delays.

3. Publication output (MU Information System)

This part of the bibliometric analysis shows contextual publication activity data from MU Information System. For social sciences and humanities this analysis extends the bibliometric information as these disciplines are limited in their coverage in Web of Science and Scopus. We show counts of peer-reviewed publication types recognized in the national CRIS (RIV – Rejstřík informací o výsledcích; Information Register of R&D results):

- J – journal article (in Czech: článek v odborném periodiku)
- C – book chapter (in Czech: kapitola v oborné knize)
- B – monograph (in Czech: odborná kniha)
- D – proceedings paper (in Czech: stať ve sborníku)

Other outcomes are not counted. Inclusion criteria for peer-reviewed publication types are defined in the RIV documentation (www.isvavai.cz). The category J-journal article consists all peer-reviewed articles regardless of their presence in international databases (e.g. Web of Science and Scopus).

MU Information System data structure and reporting workflow limit the accuracy of the data and analytical possibilities.

Scholarly outputs (MU Information System)

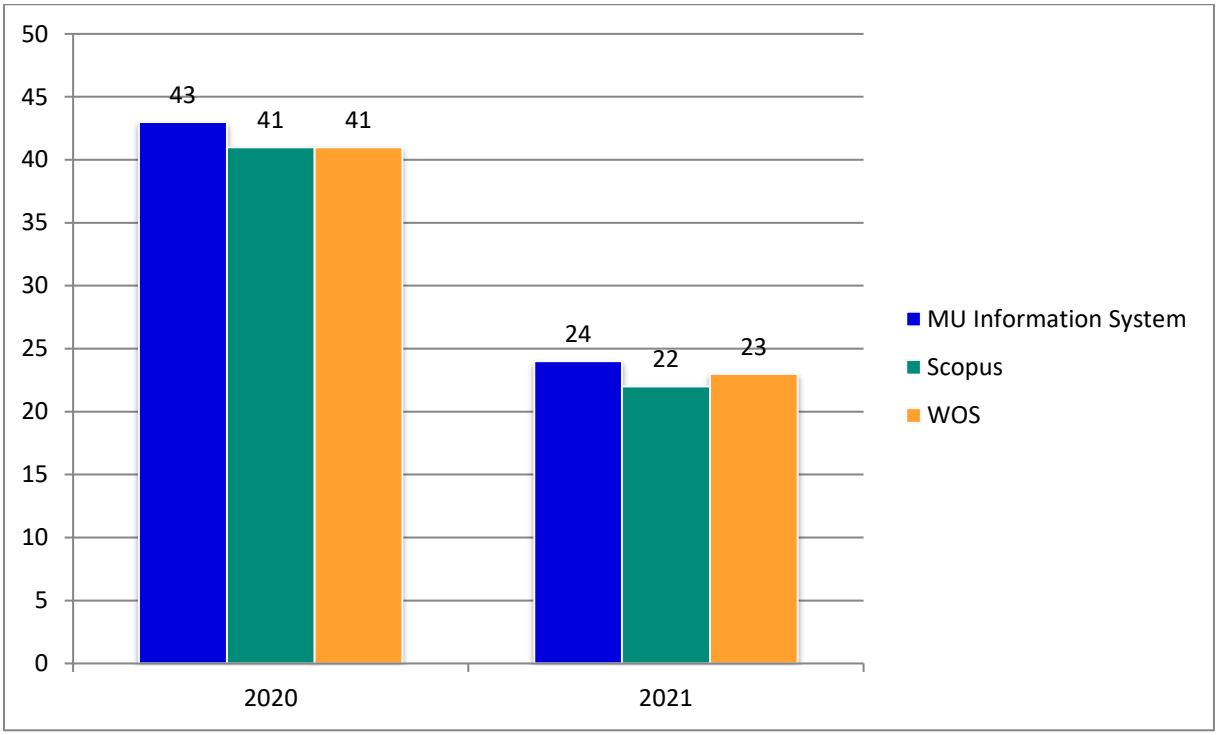
N = 67

Scholary output	Total	% share	2020	2021
J – journal article	66	98,5%	43	23
C – book chapter	0			
B – monograph	0			
D – proceedings paper	1	1,5%		1
Total	**67**	**100%**	**43**	**24**

Coverage

This graph shows the coverage of peer-reviewed publication types (J, C, B, D) published by Evaluated Unit in two major international bibliographic databases Web of Science and Scopus.

N = 67



Publication languages

This tab shows the number of peer-reviewed publications (J, C, B, D) published in different languages.

Publication year	cze	eng	sla	N/A	Total
2020	1	42	0	0	43
2021	0	22	1	1	24
Total	**1**	**64**	**1**	**1**	**67**

Journals

This tab shows the list of journals used in the Evaluation Unit's publication activity sorted by the number of articles. Both indexed and non-indexed journals are listed. Only comprehensive records are listed.

N = 66

Journal	Number	ISSN	Publisher	Country	ERIH	WoS	Scopus
Bioorganic Chemistry	6	0045-2068	ACADEMIC PRESS INC ELSEVIER SCIENCE	USA	N	Y	Y
Molecules	6	1420-3049	Mayer und Muller	Switzerland	N	Y	Y
International Journal of Molecular Sciences	5	1422-0067	Molecular Diversity Preservation International	Switzerland	N	Y	Y
British Journal of Haematology	3	0007-1048	HarperCollins	USA	N	Y	Y
Mini-reviews in medicinal chemistry	3	1389-5575	Winter	United Arab Emirates	N	Y	Y
JOURNAL OF ETHNOPHARMACOLOGY	2	0378-8741	ELSEVIER IRELAND LTD	Ireland	N	Y	Y
Environmental Science and Pollution Research	2	0944-1344	Springer	Germany	N	Y	Y
Česká a slovenská farmacie	2	1210-7816	Česká lékařská společnost J.E. Purkyně	Czech Republic	N	Y	N
Cancers	2	2072-6694	MDPI	Switzerland	N	Y	Y
Biochemical Pharmacology	1	0006-2952	Elsevier	UK	N	Y	Y
Chemické listy	1	0009-2770	Česká společnost chemická	Czech Republic	N	Y	Y
Electrochimica Acta	1	0013-4686	Elsevier	UK	N	Y	Y
The Journal of Biological Chemistry	1	0021-9258	American Society for Biochemistry and Molecular Biology	USA	N	Y	Y
Protoplasma	1	0033-183X	Springer-Verlag	Austria	N	Y	N
Chemosphere	1	0045-6535	Elsevier Science	UK	N	Y	Y
Environmental and Experimental Botany	1	0098-8472	Elsevier	UK	N	Y	Y
International journal of biological macromolecules	1	0141-8130	Elsevier	Netherlands	N	Y	Y
Ecotoxicology and Environmental Safety	1	0147-6513	Academic Press	Slovenia	N	Y	Y

Journal	Number	ISSN	Publisher	Country	ERIH	WoS	Scopus
Journal of cancer research and clinical oncology	1	0171-5216	Springer-Verlag	USA	N	Y	Y
Journal of Hazardous Materials	1	0304-3894	Elsevier Science BV.	Netherlands	N	Y	Y
Toxicology Letters	1	0378-4274	Elsevier	Ireland	N	Y	Y
European Neuropsychopharmacology	1	0924-977X	Elsevier	Netherlands	N	Y	N
Plant Physiol Biochem	1	0981-9428	Elsevier Science	France	N	Y	Y
Molecules	1	1079-9796	MDPI	Switzerland	N	Y	Y
TURKISH JOURNAL OF PHARMACEUTICAL SCIENCES	1	1304-530X	TURKISH PHARMACISTS ASSOC	Turkey	N	Y	N
Phytochemistry reviews	1	1568-7767	Springer	Netherlands	N	Y	Y
Current organic synthesis	1	1570-1794	Bentham Science Publ Ltd	United Arab Emirates	N	Y	Y
Journal of Electroanalytical Chemistry	1	1572-6657	Elsevier	Netherlands	N	Y	Y
Clinical and Experimental Medicine	1	1591-8890	SPRINGER-VERLAG ITALIA SRL	Italy	N	Y	Y
ADVANCED SYNTHESIS & CATALYSIS	1	1615-4150	WILEY-V C H VERLAG GMBH	Germany	N	Y	Y
PHYTOCHEMISTRY LETTERS	1	1874-3900	ELSEVIER	Netherlands	N	Y	Y
EPMA JOURNAL	1	1878-5077	SPRINGER INTERNATIONAL PUBLISHING AG	Switzerland	N	Y	Y
Natural Product Communications	1	1934-578X	SAGE PUBLICATIONS INC	USA	N	Y	N
Viruses-Basel	1	1999-4915	MDPI AG	Switzerland	N	Y	Y
RSC Advances	1	2046-2069	Royal Society of Chemistry	UK	N	Y	Y
Journal for ImmunoTherapy of Cancer	1	2051-1426	Springer International Publishing AG	UK	N	Y	Y
Nutrients	1	2072-6643	MDPI	Switzerland	N	Y	Y
Nanomaterials	1	2079-4991	MDPI	Switzerland	N	N	Y
Antibiotics	1	2079-6382	MDPI	Switzerland	N	Y	Y
Therapeutic Innovation & Regulatory Science	1	2168-4790	Springer Nature	Germany	N	Y	Y
Biomolecules	1	2218-273X	MDPI	Switzerland	N	N	N
Biomedicines	1	2227-9059	MDPI	Switzerland	N	N	Y

Journal	Number	ISSN	Publisher	Country	ERIH	WoS	Scopus
FOODS	1	2304-8158	MDPI	Switzerland	N	Y	Y
ACS Omega	1	2470-1343	American Chemical Society	USA	N	N	Y

4. Web of Science report

This report is generated from InCites Benchmarking & Analytics. The dataset for this report is based on the authorized list of researchers affiliated to departments and their publications in the MU Information System. The publication counts may differ from the previous section of this report (MU Information System) due to WoS matching algorithm.

Department Report

Visualize research, collaboration, and most cited documents across a Department.

Department name: Ustav chemickych leciv, Ustav prirodnich leciv | Date range: 2020 - 2021 | Include ESCI documents

Research Output

Overview

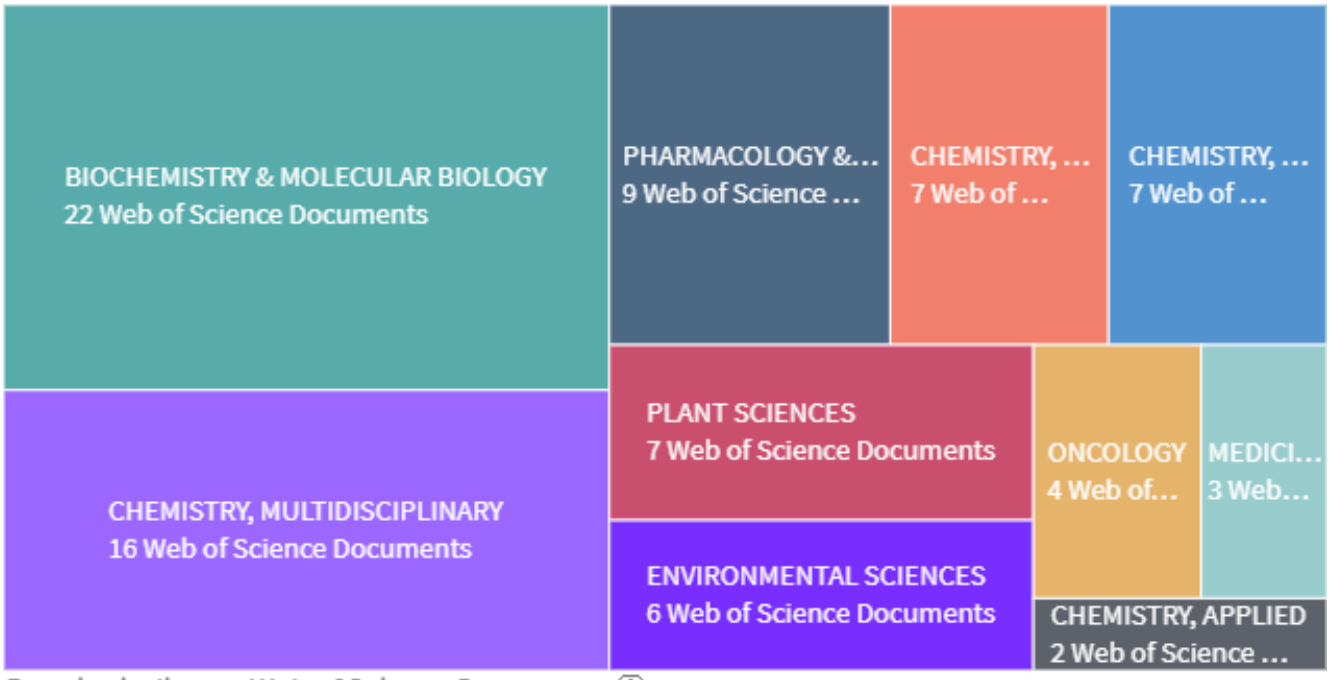
H-Index = **10**

Documents Published = **63**

Times Cited = **327**

% Documents in top 10% = **12.70**

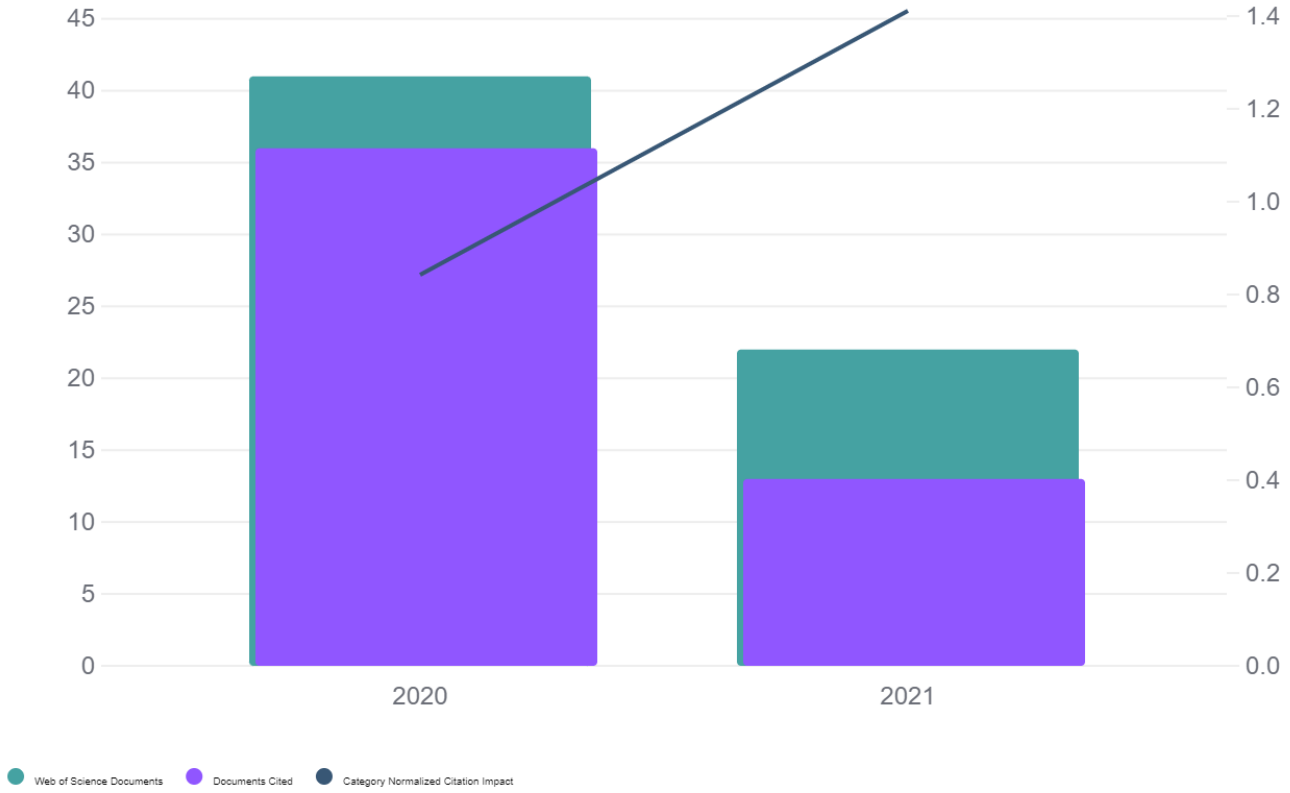
Documents Published by WOS Categories In which categories are authors publishing most?



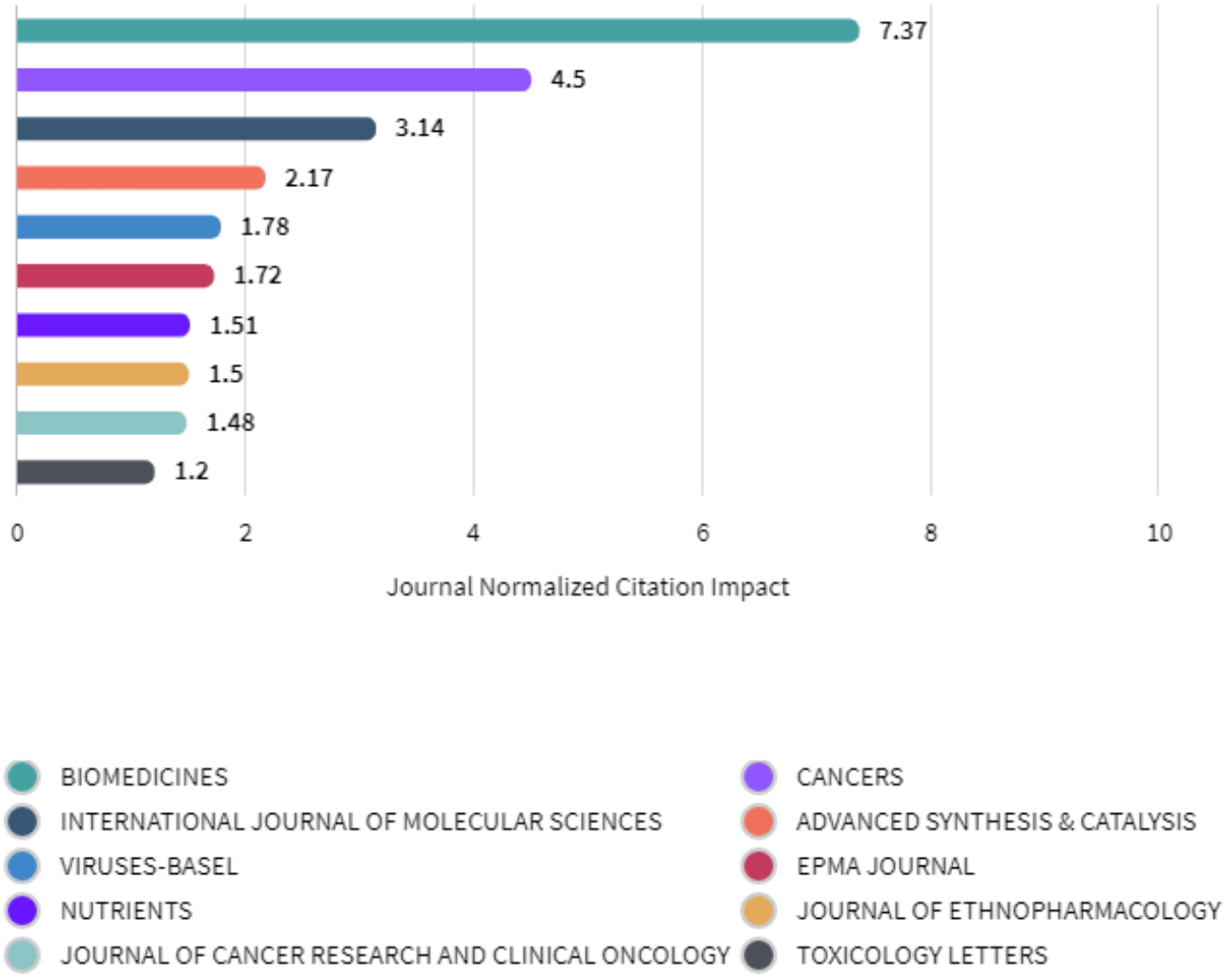
Box size indicates Web of Science Documents ⓘ

Production

Documents Published and Citations per Year How many citations compared to documents published?

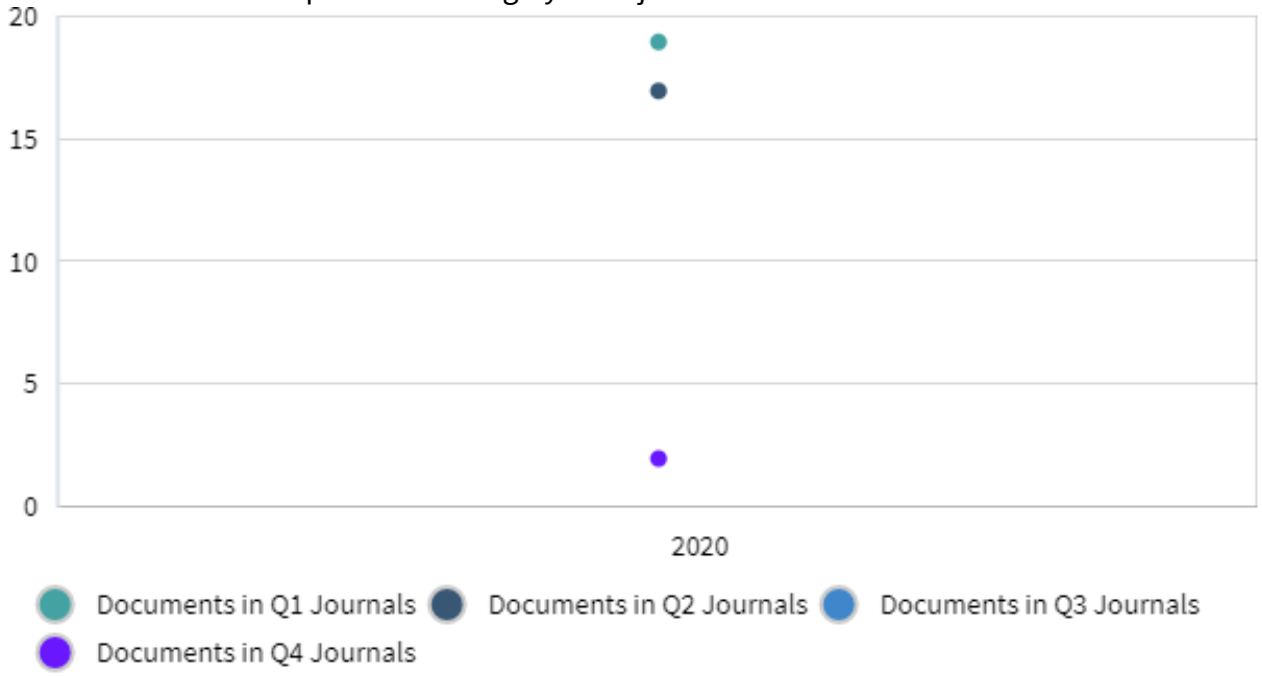


Journal Normalized Citation Impact by Journal In which high impact journals are the authors' publishing their work?



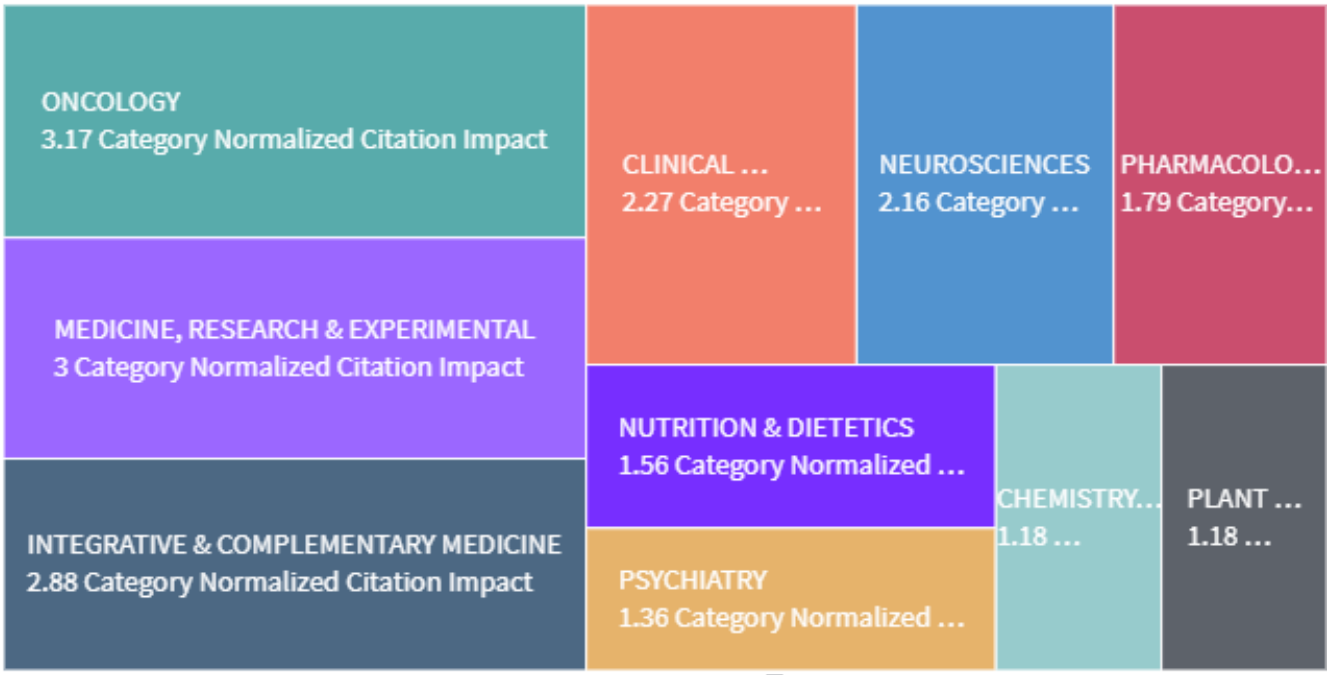
Performance

Documents Published by JIF Quartile per Year corresponding to their Publication year How many documents have authors published in highly cited journals?



% Documents Published by JIF Quartile corresponding to their Publication year What percentage of documents have authors published in highly cited journals?

Citation Impact by WOS Categories In which categories are authors having the most citation impact?



Box size indicates Category Normalized Citation Impact ⓘ

Collaboration

Overview

International Collaborations = **39**

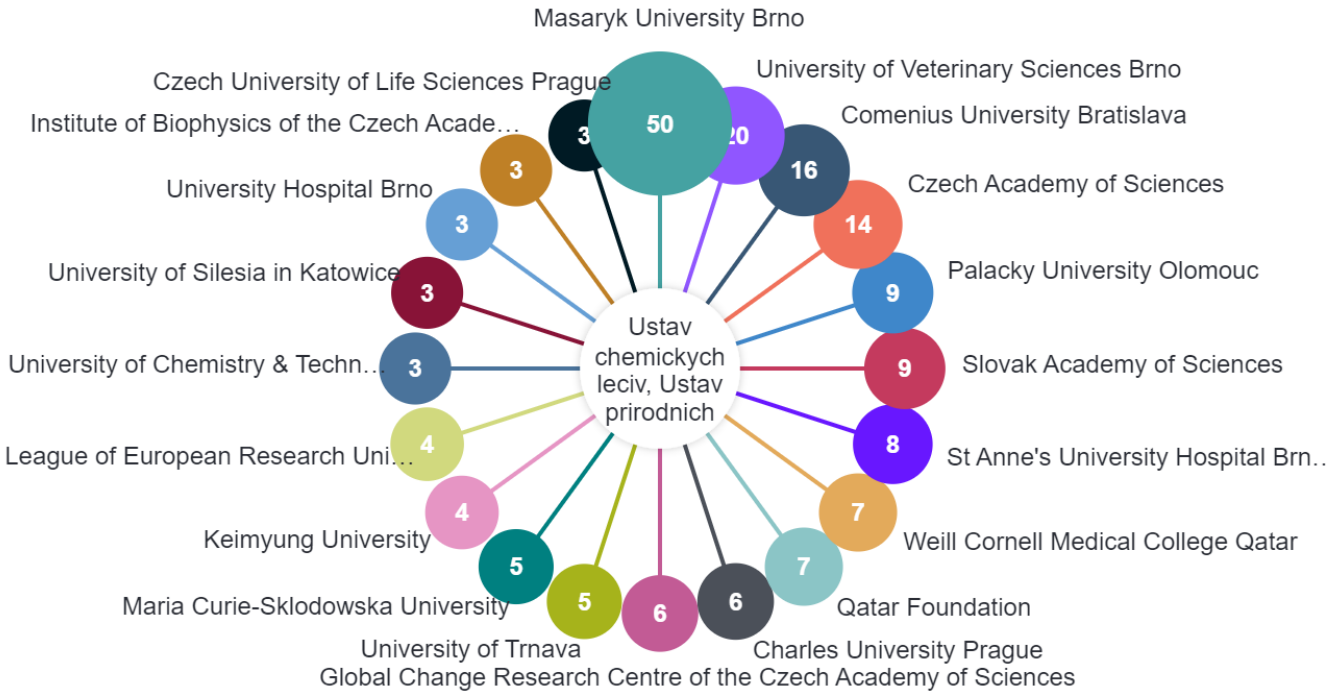
% International Collaborations = **61.90**

Industry Collaborations = **2**

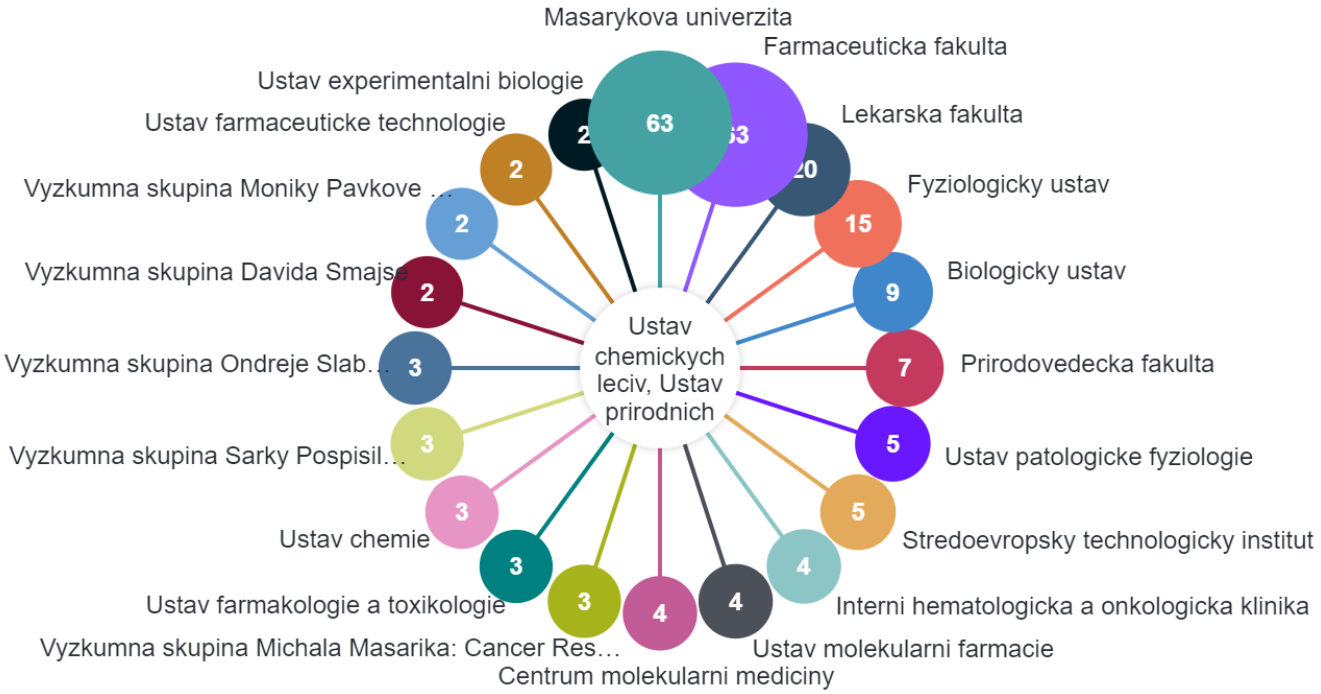
% Industry Collaborations = **3.17**

Collaborating Institutions

Collaborating Organizations Which collaborating institutions are publishing the most?



Collaborating Departments Ustav chemickych leciv, Ustav prirodnich leciv



Most Cited Documents

Most Cited Web of Science Documents

Article Title	Times Cited
Flavonoids in Cancer Metastasis CANCERS 2020	46
Genoprotective activities of plant natural substances in cancer and chemopreventive strategies in the context of 3P medicine EPMA JOURNAL 2020	28
Natural Products-Derived Chemicals: Breaking Barriers to Novel Anti-HSV Drug Development VIRUSES-BASEL 2020	22
Chemopreventive and Therapeutic Efficacy of Cinnamomum zeylanicum L. Bark in Experimental Breast Carcinoma: Mechanistic In Vivo and In Vitro Analyses MOLECULES 2020	16
Multiple In vitro biological effects of phenolic compounds from Morus alba root bark JOURNAL OF ETHNOPHARMACOLOGY 2020	15
Flavonoids Targeting HIF-1: Implications on Cancer Metabolism CANCERS 2021	13
Implications of flavonoids as potential modulators of cancer neovascularity JOURNAL OF CANCER RESEARCH AND CLINICAL ONCOLOGY 2020	13
Rhus coriaria L. (Sumac) Demonstrates Oncostatic Activity in the Therapeutic and Preventive Model of Breast Carcinoma INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES 2021	12
Dietary phytochemicals as the potential protectors against carcinogenesis and their role in cancer chemoprevention CLINICAL AND EXPERIMENTAL MEDICINE 2020	12
Natural compounds with dual antimicrobial and anti-inflammatory effects PHYTOCHEMISTRY REVIEWS 2020	10

5. Indicators

Journal Impact Factor (JIF) – is defined as all citations to the journal in the current JCR year to items published in the previous two years, divided by the total number of scholarly items published in the journal in the previous two years. The Journal Impact Factor Percentile transforms the rank in a category by Journal Impact Factor into a percentile value, allowing more meaningful cross-category comparison.

Category Normalized Citation Impact (CNCI) – determines the citation impact of the article relative to the average number of citations of all articles of the same type in the same field and in the same publication year as the article under review. A value greater than 1 indicates that the number of citations is greater than the average of the field.

Journal Normalized Citation Impact – a similar indicator to the Normalized Citation Impact, but instead of normalizing per subject area or field, it normalizes the citation rate for the journal in which the document is publishing.

Percentiles (% Documents in top 10%) – The percentile in which the paper ranks in its category and database year, based on total citations received by the paper. The higher the number of citations, comparing to other articles in the discipline, the higher is the percentile number. The average percentile is the mean of the percentiles for articles in the set.

JIF Quartile (Q1–Q4) – The number of documents that appear in a journal in a particular Journal Impact Factor Quartile in a given year. Quartiles are derived for each journal in each of its subject categories according to which quartile of the IF distribution the journal occupies for that subject category. Q1 denotes the top 25% of the IF distribution, Q2 between top 50% and top 25%, Q3 top 75% to top 50%, and Q4 bottom 25% of the IF distribution. In this report, quartile corresponds to the Publication year. InCites uses the best quartile for journals that appear in multiple Web of Science Research Areas. When a research area is specified, the quartile for that particular journal and research area is used.

h-index – A researcher has an h-index if they have at least h publications for which they received at least h citations. For example, Researcher A has an h-index of 13 if they published at least 13 documents for which they received at least 13 citations.