Faculty of Pharmacy

Cluster 1

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 Applied Pharmacy, Faculty of Pharmacy
Department of Pharmaceutical Technology, Faculty of Pharmacy
Department of Pharmacology and Toxicology, Faculty of Pharmacy
Department of Molecular Pharmacy, 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 = 148

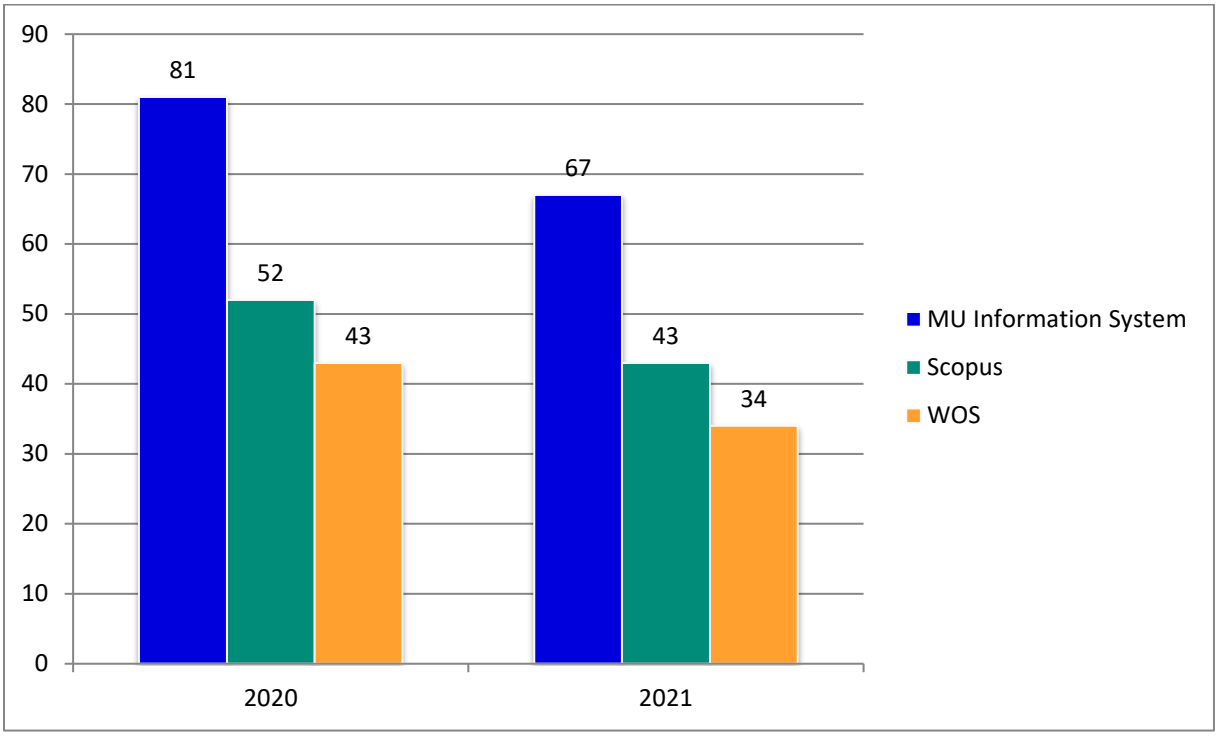
Scholary output	Total	% share	2020	2021
J – journal article	132	89,2%	77	55
C – book chapter	9	6,1%	1	8
B – monograph	5	3,4%	1	4
D – proceedings paper	2	1,4%	2	

Scholary output	Total	% share	2020	2021
Total	**148**	**100%**	**81**	**67**

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 = 148



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	39	39	1	2	81
2021	19	38	5	5	67
Total	**58**	**77**	**6**	**7**	**148**

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 = 124

Journal	Number	ISSN	Publisher	Country	ERIH	WoS	Scopus
Česká a slovenská farmacie	9	1210-7816	Česká lékařská společnost J.E. Purkyně	Czech Republic	N	Y	N
Chemické listy	8	0009-2770	Česká společnost chemická	Czech Republic	N	Y	Y
Remedia	5	0862-8947	Remedia s.r.o.	Czech Republic	N	N	N
Pharmaceutics	5	1999-4923	MDPI	Switzerland	N	Y	Y
Science ot the Total Environment	3	0048-9697	Elsevier	Netherlands	N	Y	Y
International Journal of Pharmaceutics	3	0378-5173	Elsevier Science	Netherlands	N	Y	Y
Česká a slovenská psychiatrie	3	1212-0383	Galén	Czech Republic	N	Y	N
Pediatrie pro praxi	3	1213-0494	Solen s.r.o.	Czech Republic	N	Y	N
Psychiatrie pro praxi	3	1213-0508	Solen s.r.o.	Czech Republic	N	N	N
Praktické lekárnictvo	3	1338-3132	SOLEN, s. r. o.	Slovakia	N	N	N
Journal of Sexual Medicine	2	0010-8650	Blackwell	Czech Republic	N	Y	Y
Bioorganic Chemistry	2	0045-2068	ACADEMIC PRESS INC ELSEVIER SCIENCE	USA	N	Y	Y
European Journal of Pharmaceutics and Biopharmaceutics	2	0939-6411	Elsevier	Switzerland	N	Y	Y
Psychiatrie	2	1211-7579	Tigis s.r.o.	Czech Republic	N	Y	N
Urologie pro praxi	2	1213-1768	Solen s.r.o.	Czech Republic	N	N	N
Neurologie v praxi	2	1213-1814	Solen s.r.o.	Czech Republic	N	N	N
Medicína pro praxi	2	1214-8687	Solen s.r.o.	Czech Republic	N	N	N

Journal	Number	ISSN	Publisher	Country	ERIH	WoS	Scopus
International Immunopharmacology	2	1567-5769	Elsevier	Netherlands	N	Y	Y
Praktické lékárenství	2	1801-2434	Solen s.r.o.	Czech Republic	N	N	N
Onkologie	2	1802-4475	Solen s.r.o.	Czech Republic	N	Y	N
Hypertenze & kardiovaskulární prevence	2	1805-4129	Target MD s.r.o.	Czech Republic	N	N	N
Polymers	2	2073-4360	MDPI	Switzerland	N	Y	Y
ANIMALS	2	2076-2615	MDPI	Switzerland	N	Y	Y
Processes	2	2227-9717	MDPI	Switzerland	N	Y	Y
Farmakoterapeutická revue	2	2533-6878	Current media s.r.o.	Czech Republic	N	N	N
Chemico-Biological Interaction	1	0009-2797	Elsevier	Ireland	N	Y	Y
Farmaceutický obzor	1	0014-8172		Slovakia	N	Y	N
FARMACIA	1	0014-8237	SOC STIINTE FARMACEUTICE ROMANIA	Romania	N	Y	Y
Toxicology and applied pharmacology	1	0041-008X	ACADEMIC PRESS INC ELSEVIER SCIENCE	USA	N	Y	N
Xenobiotica	1	0049-8254	Taylor & Francis Group	UK	N	Y	Y
International journal of biological macromolecules	1	0141-8130	Elsevier	Netherlands	N	Y	Y
Carbohydrate Polymers	1	0144-8617	Elsevier Science Ltd.	UK	N	Y	Y
THERAPEUTIC DRUG MONITORING	1	0163-4356	LIPPINCOTT WILLIAMS & WILKINS	USA	N	Y	Y
JOURNAL OF CONTROLLED RELEASE	1	0168-3659	Elsevier	Netherlands	N	Y	Y
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY	1	0268-2575	WILEY	USA	N	Y	Y
Progres in Psychopharmacology Biological Psychiatry"	1	0278-5846	Pergamon Press	UK	N	Y	Y
Lékař a technika	1	0301-5491	Fakulta biomedicínského inženýrství ČVUT	Czech Republic	N	Y	N
JOURNAL OF ETHNOPHARMACOLOGY	1	0378-8741	ELSEVIER IRELAND LTD	Ireland	N	Y	Y
JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS	1	0731-7085	Elsevier Science	Netherlands	N	Y	Y
Physiological Research	1	0862-8408	AV ČR, Institute of Physiology	Czech Republic	N	Y	Y

Journal	Number	ISSN	Publisher	Country	ERIH	WoS	Scopus
Free Radical Biology and Medicine	1	0891-5849	ELSEVIER SCIENCE INC	USA	N	Y	Y
Molecular Neurobiology	1	0893-7648	Springer	USA	N	Y	Y
GENETIC RESOURCES AND CROP EVOLUTION	1	0925-9864	SPRINGER	Netherlands	N	Y	Y
Current Medicinal Chemistry	1	0929-8673	Betham Science Publishers	United Arab Emirates	N	Y	Y
Journal of Biological Inorganic Chemistry	1	0949-8257	SPRINGER	USA	N	Y	Y
European Journal of Internal Medicine	1	0953-6205	Elsevier Science	Netherlands	N	Y	Y
ANIMAL WELFARE	1	0962-7286	UNIV FEDERATION ANIMAL WELFARE	UK	N	Y	Y
Cellulose	1	0969-0239	SPRINGER	Netherlands	N	Y	Y
CRITICAL REVIEWS IN FOOD SCIENCE AND NUTRITION	1	1040-8398	TAYLOR & FRANCIS INC	USA	N	Y	Y
Molecules	1	1079-9796	MDPI	Switzerland	N	Y	Y
Czech Journal of Animal Science	1	1212-1819	Institute of Agricultural and Food Information	Czech Republic	N	Y	Y
Kardiologická revue	1	1212-4540	Ambit Media a.s.	Czech Republic	N	Y	N
Psychiatry and Clinical Neurosciences	1	1323-1316	Wiley	USA	N	Y	Y
Via pract.	1	1336-4790	Solen, s.r.o.	Slovakia	N	N	N
International Journal of Psychiatry in Clinical Practice	1	1365-1501	Routledge, Taylor & Francis	UK	N	Y	Y
Molecules	1	1420-3049	Mayer und Muller	Switzerland	N	Y	Y
International Journal of Molecular Sciences	1	1422-0067	Molecular Diversity Preservation International	Switzerland	N	Y	Y
BMC GERIATRICS	1	1471-2318	BMC	UK	N	Y	Y
AAPS PHARMSCITECH	1	1530-9932	SPRINGER	USA	N	Y	Y
Frontiers in Psychiatry	1	1664-0640	Frontiers	Switzerland	N	Y	Y
Journal of Nanomaterials	1	1687-4110	HINDAWI LTD	Switzerland	N	Y	Y
Pharmacological Reports	1	1734-1140	Springer	Germany	N	Y	Y
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY	1	1773-2247	ELSEVIER	Netherlands	N	Y	Y
Acta medicinae	1	1805-398X	ERA Média s.r.o.	Czech Republic	N	N	N

Journal	Number	ISSN	Publisher	Country	ERIH	WoS	Scopus
Geriatrie a gerontologie	1	1805-4684	Česká lékařská společnost J.E. Purkyně	Czech Republic	N	N	N
Oxidative Medicine and Cellular Longevity	1	1942-0900	HINDAWI LTD	Czech Republic	N	Y	Y
Materials	1	1996-1944	MDPI	Switzerland	N	Y	Y
Viruses-Basel	1	1999-4915	MDPI AG	Switzerland	N	Y	Y
Food & Function	1	2042-6496	Royal Society of Chemistry	UK	N	N	Y
Scientific Reports	1	2045-2322	NATURE PUBLISHING GROUP	Germany	N	Y	Y
ESC Heart Failure	1	2055-5822	Wiley Periodicals	USA	N	N	Y
CELLS	1	2073-4409	Academic Press	Switzerland	N	N	Y
Antibiotics	1	2079-6382	MDPI	Switzerland	N	Y	Y
Chemosensors	1	2227-9040	MDPI AG	Switzerland	N	Y	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 farmaceuticke technologie, Ustav farmakologie a toxikologie, Ustav molekularni farmacie, Ustav aplikovane farmacie | Date range: 2020 - 2021 | Include ESCI documents

Research Output

Overview

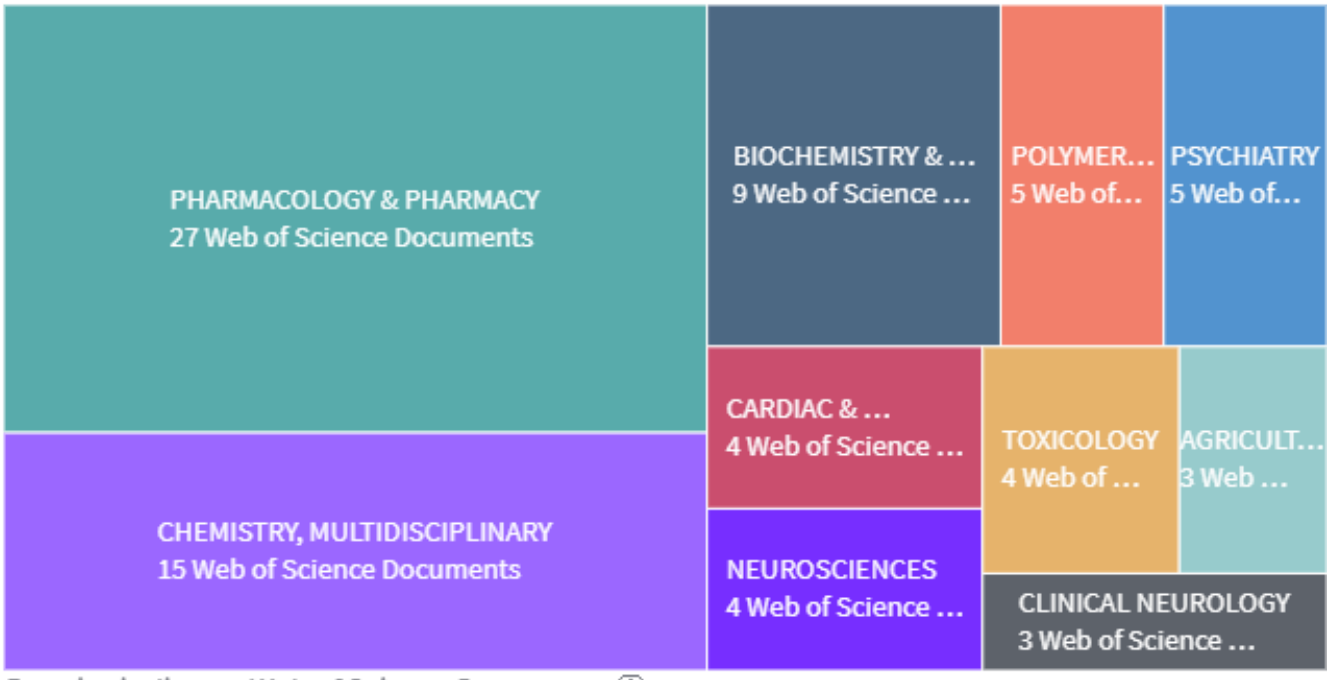
H-Index = **10**

Documents Published = **75**

Times Cited = **398**

% Documents in top 10% = **17.33**

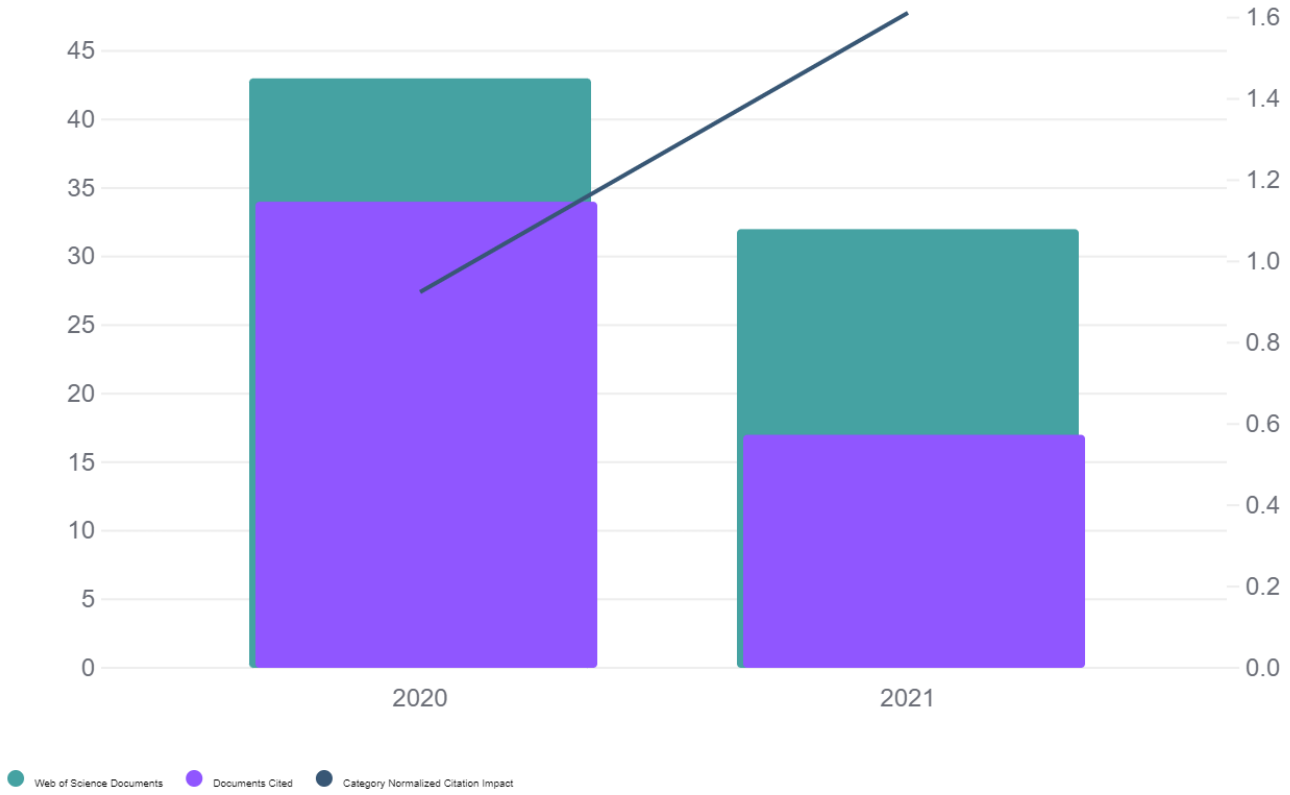
Documents Published by WOS Categories In which categories are authors publishing most?



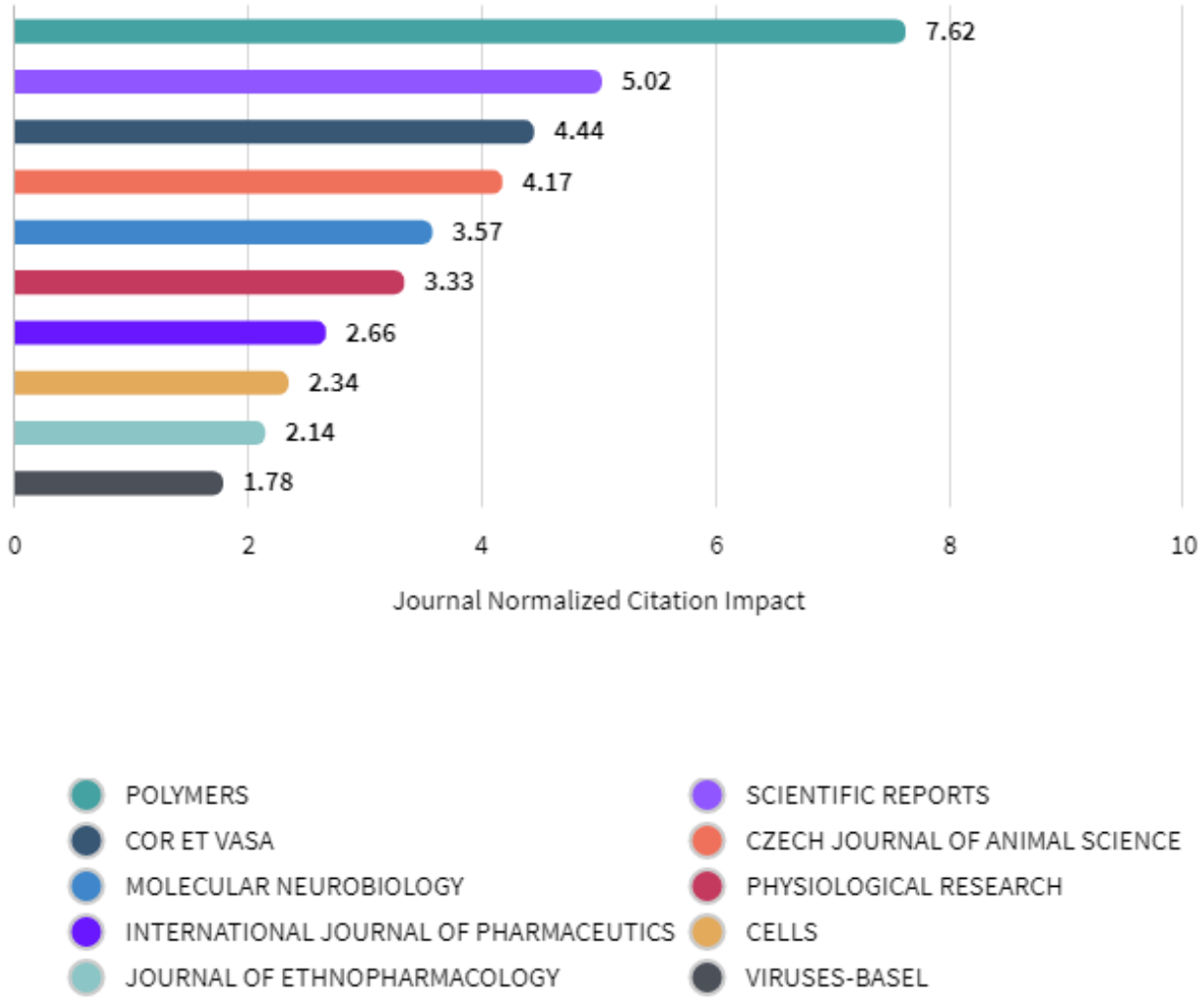
Box size indicates Web of Science Documents ⓘ

Production

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

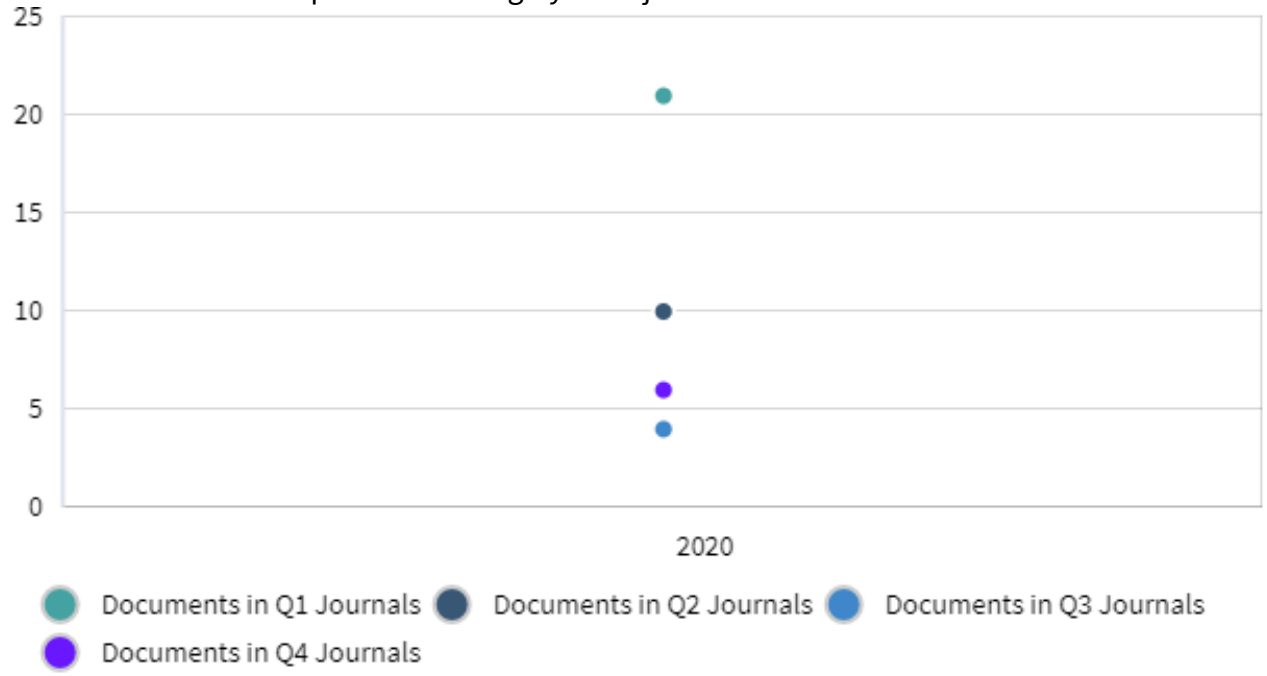


Journal Normalized Citation Impact by Journal In which high impact journals are the authors' publishing their work?



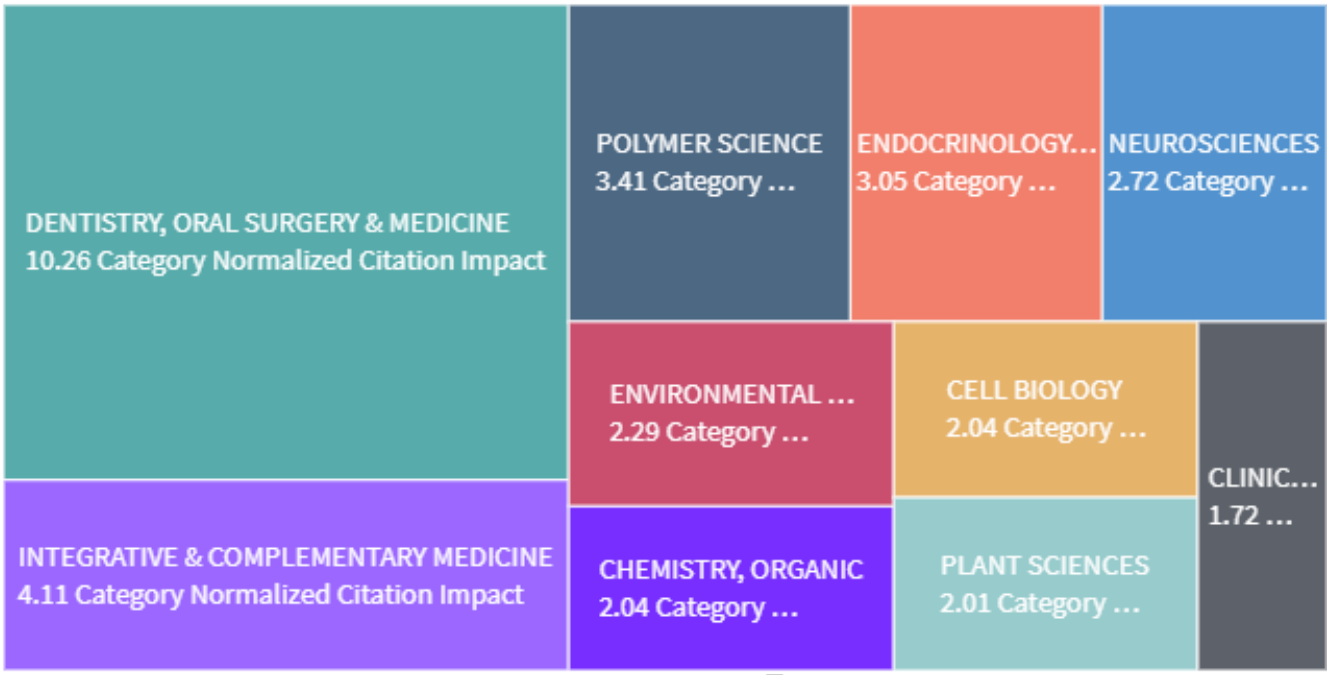
Performance

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 = **32**

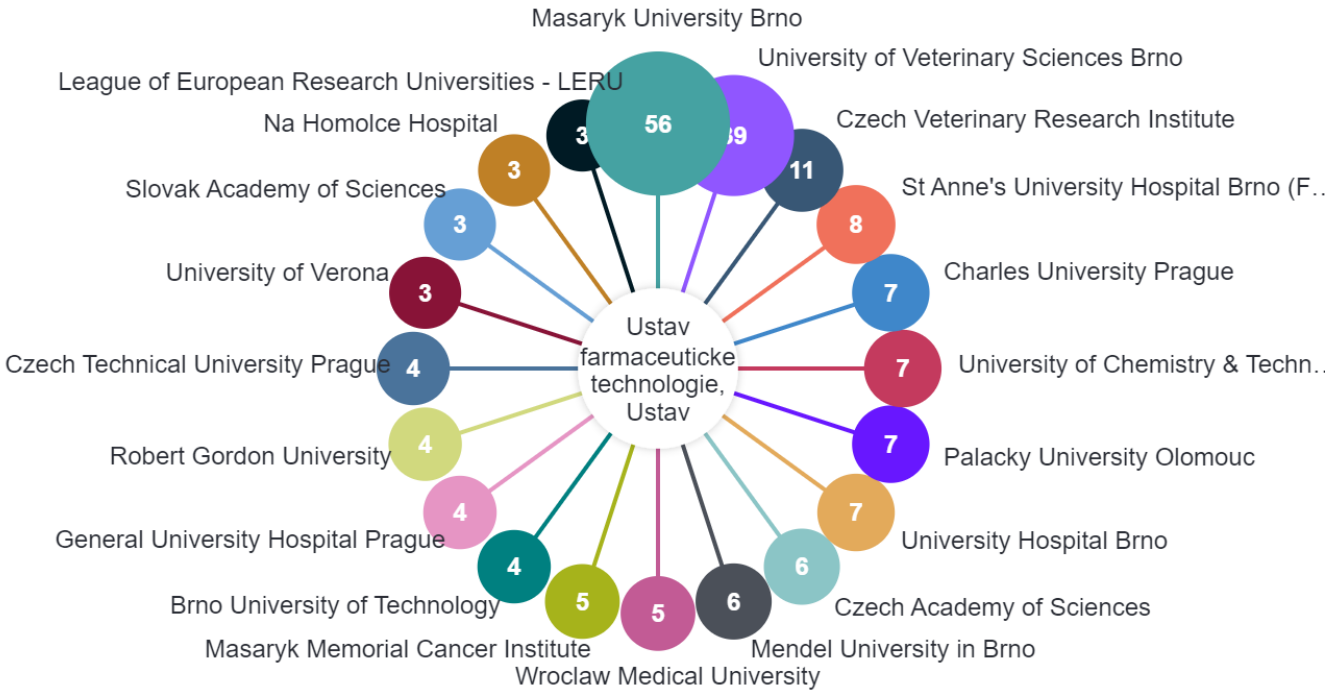
% International Collaborations = **42.67**

Industry Collaborations = **2**

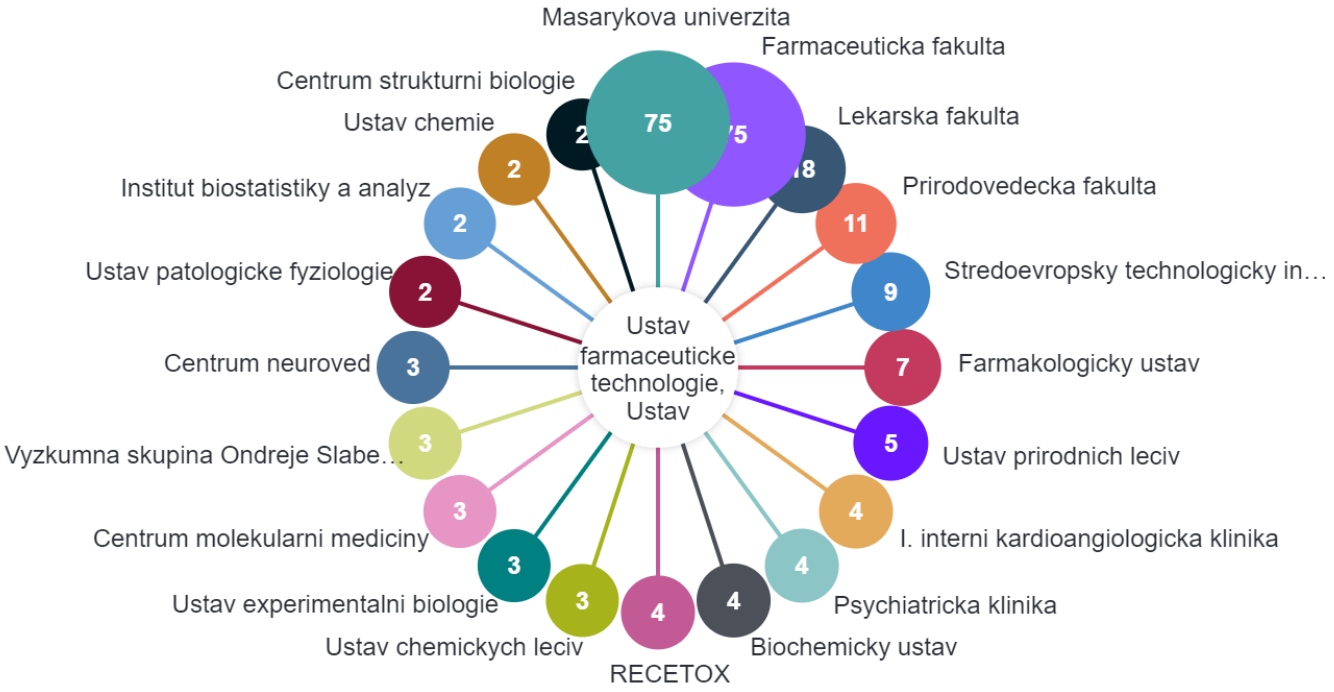
% Industry Collaborations = **2.67**

Collaborating Institutions

Collaborating Organizations Which collaborating institutions are publishing the most?



Collaborating Departments Ustav farmaceuticke technologie, Ustav farmakologie a toxikologie, Ustav molekularni farmacie, Ustav aplikovane farmacie



Most Cited Documents

Most Cited Web of Science Documents

Article Title	Times Cited
Oxidative Stress in Autism Spectrum Disorder MOLECULAR NEUROBIOLOGY 2020	55
Recent Advances in Metabolic Pathways of Sulfate Reduction in Intestinal Bacteria CELLS 2020	32
The role of glutathione redox imbalance in autism spectrum disorder: A review FREE RADICAL BIOLOGY AND MEDICINE 2020	30
Hypromellose - A traditional pharmaceutical excipient with modern applications in oral and oromucosal drug delivery JOURNAL OF CONTROLLED RELEASE 2020	29
3D printing of multilayered orodispersible films with in-process drying INTERNATIONAL JOURNAL OF PHARMACEUTICS 2020	25
Edible Films from Carrageenan/Orange Essential Oil/Trehalose-Structure, Optical Properties, and Antimicrobial Activity POLYMERS 2021	23
Silver Nanomaterials for Wound Dressing Applications PHARMACEUTICS 2020	23
Natural Products-Derived Chemicals: Breaking Barriers to Novel Anti-HSV Drug Development VIRUSES-BASEL 2020	22
Multiple In vitro biological effects of phenolic compounds from Morus alba root bark JOURNAL OF ETHNOPHARMACOLOGY 2020	15
The effect of foodborne sertraline on rainbow trout (Oncorhynchus mykiss) SCIENCE OF THE TOTAL ENVIRONMENT 2020	14

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.