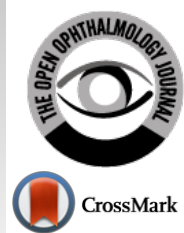




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Supplementary Material



A Bibliometric Analysis of Ophthalmology, Medicine, and Surgery Journals: Comparing Citation Metrics and International Collaboration

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Supplemental Table 1a. Rank of top ophthalmology journals with variables provided by SCImago. Data gathered in May of 2020.

Rank	Journal	SJR	H Index	Total Docs. (2018)	Total Docs. (3years)	Total Refs. (2018)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2018)	Country
1	<i>Prog Retin Eye Res</i>	5.488	131	61	118	14056	1483	117	11.64	230.43	United Kingdom
2	<i>Ocul Surf</i>	4.498	53	72	148	3658	1072	116	10.03	50.81	United States
3	<i>Ophthalmology</i>	4.198	217	423	1549	8843	6427	934	6.94	20.91	Netherlands
4	<i>Am J Ophthalmol</i>	2.854	171	383	1213	9809	3917	833	4.54	25.61	Netherlands
5	<i>JAMA Ophthalmol</i>	2.385	180	418	1233	5938	3011	650	4.91	14.21	United States
6	<i>Retina</i>	2.326	105	312	1371	5015	3695	1028	3.08	16.07	United States
7	<i>Invest Ophthalmol Vis Sci</i>	1.933	196	740	2742	28339	8813	2475	3.61	38.3	United States
8	<i>Br J Ophthalmol</i>	1.872	137	423	1006	10041	3297	934	3.7	23.74	United Kingdom
9	<i>Surv Ophthalmol</i>	1.721	120	79	200	8145	716	180	3.87	103.1	Netherlands
10	<i>J Vis</i>	1.561	99	214	810	10645	1620	787	1.83	49.74	United States
11	<i>J Refract Surg</i>	1.52	89	141	446	2887	1057	355	2.82	20.48	United States
12	<i>Acta Ophthalmol</i>	1.51	77	419	936	13396	2067	652	3.06	31.97	United States
13	<i>Cornea</i>	1.444	108	363	1092	1973	2190	949	2	5.44	United States
14	<i>Exp Eye Res</i>	1.33	112	271	659	13137	2037	643	2.91	48.48	United States
15	<i>Doc Ophthalmol</i>	1.328	49	46	141	1172	326	138	1.68	25.48	Netherlands
16	<i>Vision Res</i>	1.314	149	135	534	5612	1292	508	2.3	41.57	United Kingdom
17	<i>Curr Opin Ophthalmol</i>	1.299	79	92	278	2435	795	265	2.94	26.47	United States
18	<i>J Cataract Refract Surg</i>	1.272	129	385	1371	5834	2134	795	2.33	15.15	Netherlands
19	<i>Ophthalmic Epidemiol</i>	1.263	56	89	192	2737	480	173	2.78	30.75	United Kingdom
20	<i>Clin Exp Ophthalmol</i>	1.18	67	242	518	5379	759	247	3.03	22.23	United Kingdom

*Data gathered from the SCImago database May of 2020.

Supplemental Table 1b. Rank of top medicine journals with variables provided by SCImago. Data gathered in May of 2020.

Rank	Journal	SJR	H Index	Total Docs. (2018)	Total Docs. (3years)	Total Refs. (2018)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2018)	Country
1	<i>CA Cancer J Clin</i>	72.58	144	45	127	3078	20088	103	206.85	68.4	United States
2	<i>MMWR Morb Mortal Wkly Rep</i>	48.89	134	3	12	559	1043	12	86	186.33	United States
3	<i>Nat Rev Genet</i>	30.43	320	110	387	7954	6395	153	43.13	72.31	United Kingdom
4	<i>Nat Rev Cancer</i>	28.06	396	115	361	8240	8367	180	47.81	71.65	United Kingdom
5	<i>Nat Rev Immunol</i>	26.21	351	152	434	8185	7777	176	41.65	53.85	United Kingdom

*Data gathered from the SCImago database May of 2020.

Supplemental Table 1c. Rank of top surgery journals with variables provided by SCImago. Data gathered in May of 2020.

Rank	Journal	SJR	H Index	Total Docs. (2018)	Total Docs. (3years)	Total Refs. (2018)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2018)	Country
1	<i>J Heart Lung Transplant</i>	4.07	122	238	704	5417	3749	461	8	22.76	Netherlands
2	<i>Ann Surg</i>	3.96	284	517	1732	8657	8420	986	7.98	16.74	United States
3	<i>JAMA Surgery</i>	3.46	162	396	1067	6085	3735	491	7.58	15.37	United States
4	<i>J Neurol Neurosurg Psychiatry</i>	3.21	188	287	712	7211	3835	521	7.52	25.13	United Kingdom
5	<i>Am J Surg Pathol</i>	2.79	193	206	625	6994	3780	580	6.59	33.95	United States

*Data gathered from the SCImago database May of 2020.

Supplemental Table 2. Results from univariate regression analyses of top 20 ophthalmology journals within SCImago.

Supplemental Table 2. Univariate regression analyses of the top 20 ophthalmology journals within SCImago.																			
	Prog Reti	Oncol Surj	Ophthalm Am J Opl	JAMA Ophthalmol	Invest Op Br J Ophth	Surv Oph J Vis	J Refract	Acta Ophth	Cornea	Exp Eye Res	Doc Ophth	Vision Res	Curr Opin Ophthalmol	Clin Exp					
SJR																			
r-square	0.9044	0.5382	0.8609	0.6610	0.1326	0.7592	0.3461	0.7405	0.2531	0.5688	0.0042	0.8689	0.4503	0.8019	0.6082	0.5253	0.6576	0.0343	0.1944
year estimate	0.1885	0.1665	0.1438	0.0906	0.0177	0.0970	0.0487	0.0433	0.0282	0.0896	0.0029	0.0613	0.0230	0.6304	0.0602	-0.0259	0.0668	0.0055	0.0235
standard error	0.0144	0.0428	0.0136	0.0153	0.0107	0.0129	0.0158	0.0060	0.0114	0.0201	0.0105	0.0056	0.0060	0.0362	0.0114	0.0058	0.0114	0.0069	0.0113
p-value	<.0001	<.0001	<.0001	<.0001	0.1145	<.0001	0.0064	<.0001	0.0238	0.0005	0.7851	<.0001	0.0012	<.0001	<.0001	0.0003	<.0001	0.4344	0.0517
Citations / Document (3 years)																			
r-square	0.8593	0.7195	0.9174	0.8323	0.7037	0.7971	0.2387	0.8124	0.5648	0.4898	0.5361	0.9388	0.7357	0.7185	0.6311	0.0371	0.7812	0.5754	0.4381
year estimate	0.4474	0.4248	0.2796	0.1769	0.0922	0.1753	0.0833	0.0889	0.0983	0.1543	0.0832	0.1418	0.0564	0.0621	0.0934	0.0088	0.1648	0.0639	0.0488
standard error	0.0427	0.0736	0.0198	0.0187	0.0141	0.0208	0.0351	0.0101	0.0203	0.0406	0.0182	0.0085	0.0080	0.0092	0.0168	0.0105	0.0206	0.0129	0.0130
p-value	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.0288	<.0001	0.0001	0.0018	0.0002	<.0001	<.0001	<.0001	<.0001	0.4161	<.0001	<.0001	0.0015
International Collaboration																			
r-square	0.6918	0.2686	0.7817	0.6557	0.7406	0.8758	0.5021	0.7478	0.6603	0.2195	0.8679	0.8342	0.5107	0.4528	0.3346	0.3466	0.8104	0.0812	0.7168
year estimate	1.5461	1.3867	0.8928	0.7638	0.6214	1.0029	1.0569	1.1146	1.1997	0.6540	1.9780	1.0902	0.5295	0.4829	0.7435	0.4774	0.8815	0.2532	2.5247
standard error	0.2432	0.6116	0.1112	0.1305	0.0867	0.0890	0.2481	0.1526	0.2028	0.3083	0.1819	0.1146	0.1222	0.1251	0.2471	0.1545	0.1005	0.2008	0.3740
p-value	<.0001	0.0397	<.0001	<.0001	<.0001	<.0001	0.0005	<.0001	<.0001	0.0499	<.0001	<.0001	0.0004	0.0011	0.0075	0.0063	<.0001	0.2234	<.0001
External Citations / Document																			
r-square	0.8447	0.7270	0.9266	0.8489	0.7143	0.8261	0.2922	0.8444	0.5625	0.4872	0.4579	0.9412	0.8063	0.7453	0.6053	0.4180	0.7821	0.7747	0.3238
year estimate	0.4267	0.3912	0.2684	0.1702	0.0900	0.1530	0.0785	0.0953	0.0988	0.1265	0.0669	0.1210	0.0531	0.0629	0.0784	0.0366	0.1630	0.0334	0.1376
standard error	0.0431	0.0665	0.0178	0.0169	0.0134	0.0166	0.0288	0.0096	0.0205	0.0335	0.0172	0.0071	0.0061	0.0087	0.0149	0.0102	0.0203	0.0098	0.0114
p-value	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.0139	<.0001	0.0001	0.0018	0.0011	<.0001	<.0001	<.0001	<.0001	0.0021	<.0001	<.0001	0.0088
Self-Citations																			
r-square	0.5084	0.4063	0.4750	0.0626	0.0341	0.7128	0.3491	0.2006	0.0858	0.3825	0.5195	0.8558	0.5023	0.2481	0.5226	0.8789	0.2033	0.2011	0.1769
year estimate	2.6850	4.2000	12.2301	2.3872	-0.6955	24.7947	42.0135	-3.1218	-0.3669	23.0172	7.1383	15.5977	12.4451	2.5218	1.9511	-31.8459	0.5060	-14.8895	3.2571
standard error	0.6223	1.4080	3.0305	2.1767	0.8719	3.7096	13.5216	1.4687	0.2824	7.5514	1.6180	1.5094	2.9197	1.0347	0.4396	2.7862	0.2361	6.9950	0.5123
p-value	0.0004	0.0106	0.0008	0.2872	0.4354	<.0001	0.0061	0.0476	0.2102	0.0081	0.0003	<.0001	0.0005	0.0254	0.0003	<.0001	0.0460	0.0474	0.0312
Total Citations																			
r-square	0.9196	0.5897	0.8709	0.5646	0.1996	0.9597	0.7215	0.8072	0.1071	0.5503	0.7460	0.9309	0.9198	0.8333	0.5141	0.5174	0.8792	0.2097	0.7975
year estimate	56.5241	44.6071	293.9549	110.8353	30.2383	210.8248	402.2451	111.8774	5.4850	133.7623	37.9180	110.0594	110.2286	73.4068	12.0699	-54.6105	42.6466	44.4534	16.3602
standard error	3.9388	10.3205	26.6745	22.9430	14.2735	10.1850	58.9088	12.8870	3.7330	31.2238	5.2147	7.0661	7.6702	7.7400	2.7658	12.4324	3.7253	20.3436	1.9432
p-value	<.0001	0.0008	<.0001	0.0001	0.0483	<.0001	<.0001	<.0001	0.1590	0.0007	<.0001	<.0001	<.0001	<.0001	0.0004	0.0004	<.0001	0.0423	<.0001
Cited / Cited + Uncited Documents																			
r-square	0.5255	0.8340	0.0299	0.5400	0.0000	0.8673	0.1832	0.9133	0.6175	0.5885	0.6162	0.9294	0.7102	0.5779	0.5732	0.0001	0.7874	0.2220	0.2633
year estimate	0.0057	0.0257	0.0007	0.0037	0.0000	0.0131	0.0145	0.0123	0.0070	0.0447	0.0087	0.0142	0.0064	0.0047	0.0189	-0.0001	0.0259	-0.0028	0.0077
standard error	0.0013	0.0032	0.0010	0.0008	0.0015	0.0012	0.0072	0.0009	0.0013	0.0096	0.0016	0.0009	0.0010	0.0009	0.0038	0.0013	0.0032	0.0012	0.0030
p-value	0.0003	<.0001	0.4659	0.0002	0.9980	<.0001	0.0597	<.0001	<.0001	0.0003	<.0001	<.0001	<.0001	<.0001	0.0001	0.9608	<.0001	0.0360	0.0207
External Citations / Total Citations																			
r-square	0.0133	0.2474	0.6039	0.4667	0.3594	0.1126	0.3238	0.8667	0.1777	0.0002	0.0020	0.0243	0.1934	0.4511	0.0215	0.8791	0.4996	0.8665	0.0664
year estimate	-0.0003	0.0076	0.0022	0.0015	0.0009	-0.0018	0.0025	0.0041	0.0007	0.0001	-0.0003	-0.0009	0.0026	0.0020	-0.0009	0.0126	0.0038	0.0108	-0.0034
standard error	0.0006	0.0037	0.0004	0.0004	0.0003	0.0012	0.0008	0.0004	0.0004	0.0021	0.0018	0.0014	0.0012	0.0005	0.0014	0.0011	0.0009	0.0010	0.0030
p-value	0.6288	0.0593	<.0001	0.0009	0.0052	0.1480	0.0088	<.0001	0.0642	0.9535	0.8506	0.5116	0.0524	0.0012	0.5371	<.0001	0.0005	<.0001	0.2727
Self-Citations / Total Citations																			
r-square	0.0129	0.2474	0.6039	0.4670	0.3633	0.1135	0.3263	0.8673	0.1798	0.0006	0.0020	0.0242	0.1941	0.4518	0.0204	0.8792	0.5057	0.8666	0.0673
year estimate	0.0003	-0.0076	-0.0022	-0.0015	-0.0009	0.0018	-0.0025	-0.0041	-0.0007	-0.0002	0.0003	-0.0009	-0.0026	-0.0020	-0.0009	-0.0126	-0.0038	-0.0108	0.0034
standard error	0.0006	0.0037	0.0004	0.0004	0.0003	0.0012	0.0008	0.0004	0.0004	0.0021	0.0018	0.0014	0.0012	0.0005	0.0014	0.0011	0.0009	0.0010	0.0030
p-value	0.6331	0.0592	<.0001	0.0009	0.0049	0.1464	0.0085	<.0001	0.0625	0.9267	0.8523	0.5125	0.0519	0.0012	0.5484	<.0001	0.0004	<.0001	0.2693

Supplemental Table 3. Results from univariate regression analyses of the top 5 medical and top 5 surgical journals within SCImago.

Supplemental Table 3. Univariate regression analyses of the top 5 medical and top 5 surgical journals within SCImago.										
	CA Cancer J Clin	MMWR Morb M	Nat Rev Genet	Nat Rev Cancer	Nat Rev Immunol	J Heart Lung Tra	Ann Surg	JAMA Surgery	J Neurol Neurosu	Am J Surg Pathol
SJR										
r-square	0.88012	0.547576	0.846543	0.727912	0.758028	0.906402	0.608213	0.874304	0.951125	0.830057
year estimate	2.9331489	1.3121526	1.865096	1.1305907	1.3750098	0.1915098	0.0677248	0.1085481	0.1183887	0.0639842
standard error	0.255153	0.281125	0.198523	0.178474	0.200586	0.014505	0.012812	0.009701	0.006326	0.006824
p-value	<.0001	0.0002	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
Citations / Document (3 years)										
r-square	0.78495	0.572217	0.85448	0.729589	0.795665	0.88108	0.434258	0.789141	0.962449	0.787096
year estimate	7.6417233	2.3250008	2.558775	1.9930588	2.2993039	0.3194541	0.0936263	0.2053301	0.2474444	0.1307805
standard error	0.942767	0.473825	0.263987	0.313291	0.300855	0.027662	0.025188	0.025017	0.01152	0.016032
p-value	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.0016	<.0001	<.0001	<.0001
International Collaboration										
r-square	0.41058	0.032054	0.631917	0.605727	0.742109	0.738897	0.620653	0.476381	0.862196	0.612191
year estimate	0.5363383	0.0563684	0.4779649	0.4377606	0.6410836	0.8193609	0.5731203	0.2482331	1.6158647	1.1559774
standard error	0.151466	0.073011	0.088474	0.088295	0.09448	0.114803	0.10561	0.061341	0.152264	0.21686
p-value	0.0023	0.4501	<.0001	0.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
External Citations / Document										
r-square	0.78446	0.569576	0.855316	0.734573	0.800053	0.849753	0.417791	0.799506	0.966807	0.801302
year estimate	7.6305451	2.3167835	2.5397265	2.002299	2.3009387	0.2942699	0.086106	0.1984842	0.2430511	0.1312308
standard error	0.942754	0.474703	0.26114	0.310769	0.297001	0.029165	0.023958	0.023428	0.010615	0.015403
p-value	<.0001	0.0001	<.0001	<.0001	<.0001	<.0001	0.0021	<.0001	<.0001	<.0001
Self-Citations										
r-square	0.642398	0.326744	0.000245	0.095826	0.052532	0.214509	0.634985	0.206905	0.009187	0.107993
year estimate	1.5353383	0.1473684	-0.1	-1.931373	-0.985294	10.333835	14.222556	2.0706767	-0.42782	1.5654135
standard error	0.270001	0.04986	1.548888	1.531808	1.080419	4.660935	2.541647	0.955548	1.047208	1.060422
p-value	<.0001	0.0085	0.9493	0.2266	0.3762	0.0397	<.0001	0.0439	0.6877	0.1572
Total Citations										
r-square	0.809624	0.099928	0.59542	0.33504	0.43953	0.961365	0.955196	0.533948	0.552612	0.776609
year estimate	861.96015	-17.45564	397.61713	282.16176	304.33578	151.10301	275.83083	65.92406	70.334586	103.84361
standard error	98.51801	12.34793	81.93997	102.6365	88.73394	7.13979	14.0805	14.51694	14.91643	13.12727
p-value	<.0001	0.1745	0.0002	0.0149	0.0037	<.0001	<.0001	0.0003	0.0002	<.0001
Cited / Cited + Uncited Documents										
r-square	0.245221	0.167483	0.127138	0.133745	0.113135	0.569237	0.630533	0.379047	0.923246	0.823715
year estimate	0.0058478	0.002873	0.0040665	0.0065923	0.0027524	0.004287	-0.012704	-0.009027	0.0114767	0.0082724
standard error	0.002418	0.00151	0.002664	0.004332	0.00199	0.000879	0.002292	0.002723	0.00078	0.000902
p-value	0.0264	0.0732	0.1464	0.1489	0.1868	0.0001	<.0001	0.0039	<.0001	<.0001
External Citations / Total Citations										
r-square	0.271421	0.32121	0.667639	0.328835	0.344703	0.046576	0.077314	0.017659	0.269143	0.633438
year estimate	0.0002226	-0.000221	0.0011411	0.0022871	0.0022209	0.0018276	-0.000405	0.0001485	0.0007322	0.0018423
standard error	0.000086	7.56E-05	0.000201	0.000844	0.000791	0.001949	0.00033	0.000261	0.000284	0.00033
p-value	0.0185	0.0092	<.0001	0.0161	0.0132	0.3608	0.2352	0.5765	0.0191	<.0001
Self-Citations / Total Citations										
r-square	0.272669	0.321081	0.257263	0.32874	0.344985	0.083279	0.076446	0.018369	0.271615	0.634321
year estimate	-0.000223	0.0002209	-0.00601	-0.002286	-0.002219	-0.002387	0.0004028	-0.000152	-0.000738	-0.00184
standard error	0.000086	7.57E-05	0.002553	0.000844	0.000789	0.001867	0.00033	0.000261	0.000285	0.000329
p-value	0.0182	0.0092	0.0317	0.0161	0.0132	0.2172	0.238	0.5689	0.0185	<.0001